

# **FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT 627**

## **John Wayne Airport General Aviation Improvement Program**

### **Responses to Comments Volume 2A—Responses to Comments**

**SCH No. 2017031072**

COUNTY OF ORANGE  
John Wayne Airport  
3160 Airway Avenue  
Costa Mesa, California 92626  
Contact: Lea Choum

April 2019



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**John Wayne Airport  
General Aviation Improvement Program  
(IP#16-432)  
SCH No. 2017031072**

**Responses to Comments  
Volume 2A—Responses to Comments**

**May 7, 2019**

***Prepared for:***

**COUNTY OF ORANGE  
John Wayne Airport  
3160 Airway Avenue  
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**TABLE OF CONTENTS  
VOLUME 1**

<b><u>Section</u></b>	<b><u>Page</u></b>
<b>Volume 1A</b>	
<b>1.0 Introduction and Summary .....</b>	<b>1-1</b>
1.1 Final Environmental Impact Report Requirements .....	1-1
1.2 CEQA Compliance and EIR Review Process .....	1-1
1.3 Contents of the Final EIR .....	1-3
<b>2.0 Organization of Comments .....</b>	<b>2-1</b>
2.1 Organization of Responses to Comments .....	2-1
2.2 List of Commenters .....	2-2
<b>3.0 Comments Received .....</b>	<b>3-1</b>
3.1 Introduction .....	3-1
3.2 State Agencies.....	3-2
3.3 Regional and Local Agencies.....	3-5
3.4 Organizations.....	3-47
3.5 Individuals and Businesses .....	3-105
<b>Volume 1B</b>	
3.6 Standardized Letter .....	3-265
3.7 Comments Made at the September 26, 2018 Public Meeting .....	3-1156
3.8 Comments Received After the Public Review Period .....	3-1186
3.9 Comments on the Environmental Impact Report Sent to Others.....	3-1267

**TABLES**

<b><u>Table</u></b>	<b><u>Page</u></b>
<b>1 List of Commenters .....</b>	<b>2-2</b>

**TABLE OF CONTENTS**  
**VOLUME 2**

<b><u>Section</u></b>	<b><u>Page</u></b>
<b>Volume 2A</b>	
<b>1.0 Introduction and Summary .....</b>	<b>1-1</b>
1.1 Final Environmental Impact Report Requirements .....	1-1
1.2 CEQA Compliance and EIR Review Process .....	1-1
1.3 Contents of the Final Program EIR.....	1-3
<b>2.0 Organization of Comments .....</b>	<b>2-1</b>
2.1 Organization of Responses to Comments .....	2-1
2.2 List of Commenters .....	2-2
<b>3.0 Responses to Comments .....</b>	<b>3-1</b>
3.1 Topical Responses .....	3-1
3.1.1 Aviation Forecast.....	3-1
3.1.2 Flight Path Procedures.....	3-7
3.1.3 General Aviation Noise Ordinance.....	3-8
3.1.4 Restrictions on General Aviation Operations.....	3-10
3.1.5 Regularly Scheduled Air Service and General Aviation Charter Operations .....	3-10
3.1.6 Health Risk Assessment.....	3-11
3.2 State Agencies.....	3-14
3.3 Regional and Local Agencies.....	3-16
3.4 Organizations.....	3-58
3.5 Individuals and Businesses .....	3-120
3.6 Standardized Letter .....	3-359
3.6.1 Standardized Letter Submitted.....	3-361
3.6.2 Responses to Standardized Letter.....	3-365
3.6.3 Responses to Supplemental Comments Submitted With Standardized Letter.....	3-393
3.7 Comments Made at the September 26, 2018 Public Meeting .....	3-422
3.7.1 Public Meeting Responses to Comments .....	3-422
3.8 Comments Received After the Public Review Period .....	3-447
3.9 Comments on the Environmental Impact Report Sent to Others.....	3-471
<b>4.0 Clarifications and Revisions as Part of the Final Program EIR.....</b>	<b>4-1</b>
4.1.1 Draft Program EIR.....	4-1
4.1.2 Technical Appendices .....	4-10

---

**TABLES**

<b><u>Table</u></b>	<b><u>Page</u></b>
1 List of Commenters .....	2-2
2 General Aviation Noise Ordinance Limits .....	3-9
3 GAIP-Specific Health Risk Assessment Results.....	3-13
4 Overlapping Daily Construction and Operational Emissions – Baseline and Baseline Plus Scenarios .....	3-52
5 General Aviation Fuel Usage.....	3-53
6 Comparison of General Aviation Design Aircraft.....	3-116
7 JWA Forecast Operations by Aircraft Engine Type Comparison of Alternatives.....	3-131
8 Facilities Comparison of Existing Conditions and the Proposed Project .....	3-311
9 JWA Forecast Operations by Aircraft Engine Type Comparison of Alternatives.....	3-341
10 Facilities Comparison of Existing Conditions and the Proposed Project .....	3-345
11 Comparison of Alternatives Capacity and Operation Forecasts by Aircraft Type .....	3-370
12 JWA Forecast Operations by Aircraft Engine Type Comparison of Alternatives.....	3-372
13 Facilities Comparison of Existing Conditions and the Proposed Project .....	3-377

**ATTACHMENTS****Volume 2A**

Attachment A: Health Risk Assessment

**Volume 2B**

**APPENDICES**  
**(To the Health Risk Assessment)**

**Appendix**

Appendix A: Aircraft Emissions

Appendix B: Air Dispersion Model Files (Electronic)

Appendix C: Speciated Chemicals of Potential Concern

Appendix D: HARP2 Model Files (Electronic)

Appendix E: Health Risk Assessment Results

# 1.0 INTRODUCTION AND SUMMARY

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## 1.1 FINAL ENVIRONMENTAL IMPACT REPORT REQUIREMENTS

Before approving a Project, the California Environmental Quality Act (“CEQA” or *California Public Resources Code*, Sections 21000 et seq.) requires the Lead Agency (here, the County of Orange [“County”], in its capacity as the proprietor of John Wayne Airport [“JWA” or “Airport”]) to prepare an environmental document that assesses the potential environmental effects of the Project. For the John Wayne Airport General Aviation Improvement Program (“GAIP” or “Project”), the County has prepared a Program Environmental Impact Report (“Program EIR”) pursuant to CEQA and the State CEQA Guidelines (California Code of Regulations [“CCR”], Title 14, Chapter 3, Sections 15000, et seq.). This document and the documents referenced below represent the Final Program EIR for the GAIP. This Final Program EIR has been prepared in accordance with Section 15132 of the State CEQA Guidelines, and consists of the following:

- The Draft Program EIR or a revision of the draft.
- Comments and recommendations received on the Draft EIR either verbatim or in summary.
- A list of persons, organizations, and public agencies commenting on the Draft EIR.
- The responses of the Lead Agency to significant environmental points raised in the review and consultation process.
- Any other information added by the Lead Agency.

## 1.2 CEQA COMPLIANCE AND EIR REVIEW PROCESS

In accordance with Section 15063 of the State CEQA Guidelines, the County prepared an Initial Study/Environmental Checklist for the GAIP and distributed it along with the Notice of Preparation (“NOP”) to responsible and interested agencies and key interest groups. The NOP was distributed to 75 individuals and agencies for a 30-day review period beginning on March 30, 2017. In addition, email notices regarding the availability of the NOP on the JWA website were sent to all the lessees at the Airport, and the NOP was posted on the JWA website.

A Scoping Meeting was held on April 12, 2017, from 6:00 to 8:00 PM at the JWA Administrative Office in the Airport Commission Meeting Room to facilitate agency and public review and comment on the NOP. Approximately 30 people attended the Scoping Meeting (28 people signed the sign-in sheet). A total of 13 comment letters were received during the 30-day NOP review period. The NOP, distribution list, and all comments received on the NOP have been included in Appendix A of the Draft Program EIR.

In compliance with Section 15087 of the State CEQA Guidelines, the County of Orange circulated a Notice of Completion and copies of Draft Program EIR 627 (State Clearinghouse No. 2017031072) to the State Clearinghouse, responsible and trustee agencies, local agencies, and any other interested parties for a 45-day public review period. The public review period began on September 20, 2018, and was noticed as ending November 6, 2018.

A Notice of Availability of the Draft Program EIR and for the September 26, 2018 public meeting was published in The Orange County Register, on September 20, 2018, as well as posted on the

John Wayne Airport website. Notices were also sent (via U.S. mail or email, dependent on the contact information provided) to attendees of the public scoping meeting or parties that had requested the Airport add their contact information to the mailing list. A total of 756 notices were sent to various agencies, elected officials, organizations, businesses, and individuals.

Copies of the Draft Program EIR, supporting technical appendices, and cited or referenced studies or reports were made available for review at the JWA Administrative Offices located at 3160 Airway Avenue in Costa Mesa, California 92626. The Draft Program EIR and technical appendices were also available online at [www.ocair.com/DEIR627](http://www.ocair.com/DEIR627) and at the following libraries:

Costa Mesa/Donald Dungan 1855 Park Avenue Costa Mesa, California 92627	Costa Mesa/Mesa Verde 2969 Mesa Verde Drive Costa Mesa, California 92626	El Modena 380 South Hewes Street Orange, California 92869
Irvine/Heritage Park 14361 Yale Avenue Irvine, California 92604	Irvine/University Park 4512 Sandburg Way Irvine, California 92612	Laguna Beach 363 Glenneyre Street Laguna Beach, California 92651
Newport Beach 1000 Avocado Avenue Newport Beach, California 92660	Orange 407 East Chapman Avenue Orange, California 92866	Santa Ana 26 Civic Center Plaza Santa Ana, California 92701
Tustin 345 East Main Street Tustin, California 92780	University of California, Irvine Langson Library UCI Building 102 Irvine, CA 92623	

A public meeting was held on September 26, 2018 at the JWA Administrative Offices in Costa Mesa. The presentation at the public meeting provided an overview of the GAIP and the findings of the Draft Program EIR. The public was also given an opportunity to provide input on the Draft Program EIR and to ask questions about the Project. Eight individuals provided public comments at the meeting during the public comment period of the meeting; however, additional comments were made during the public presentation portion of the meeting. A transcript of the September 26, 2018 public meeting was prepared and is included as part of the Final Program EIR (see Volume 1B, of the Responses to Comments).

Prior to the end of the public review period, the County received requests for a time extension. The County extended the review period until November 21, 2018, resulting in a 60-day public review period.<sup>1</sup> A total of 288 comment letters/cards/e-mails were received during the 60-day review period. Of these, 150 letters were a standardized form letter. Additionally, a number of the commenters submitted the same set of comments more than once or in multiple formats (i.e., electronically and hard copy). In these cases, each version has been included and has been logged as a separate comment letter; however, the responses reference back to the initial submittal. In addition, 28 comment letters/cards/e-mails were received after the end of the public review period, 10 of which are the standardized form letter. Although the County is not required to respond to late comments, written responses to these comments have been prepared and are provided in Section 3.8 of this Response to Comments document, which will become part

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<sup>1</sup> The County of Orange sent letters on November 1, 2018 to all the original recipients of the Draft Program EIR and the Notice of Availability to inform them of the time extension. In addition, a notice of time extension was published in the Orange County Register. The notice was also posted on the JWA website.

of the Final Program EIR. An additional letter commenting on the Draft Program EIR was sent during the public review period to Supervisor Bartlett rather than submitted to the Airport. The Supervisor forwarded this letter to the Airport for inclusion in the Final Program EIR. The comments in the letter have been responded to in Section 3.9 of these Responses to Comments.

As required by Section 15132(d) of the CEQA Guidelines, this Final Program EIR responds to comments regarding “significant environmental points raised in the review and consultation process.” Many of the comments received do not identify any environmental issues or questions on the adequacy of the Draft Program EIR; therefore, pursuant to CEQA, no response is required. However, as part of these Responses to Comments, information is provided to enhance the commenters’ understanding of the GAIP. The majority of this information is contained in the Draft Program EIR. The page numbers or section numbers have been included in a number of the responses should the reader desire additional detail on the topics.

This Response to Comments document, contained in two electronic volumes, provides revisions and clarifications to the Draft Program EIR, as appropriate. In keeping with the requirements of Section 21092.5 of CEQA, which requires the Lead Agency to provide a copy of the written response to each public agency that commented on the Draft Program EIR, the County of Orange provided an electronic copy of the Responses to Comments to the public agencies that commented. In addition, the County sent a notification of the availability of the Responses to Comments to all parties that commented on the Draft Program EIR. The notice, also provided detail on the hearing dates before the Orange County Airport Commission and the Board of Supervisors. The notices were sent at least ten days prior to the Board of Supervisors certifying the Final Program EIR.

## **1.3 CONTENTS OF THE FINAL PROGRAM EIR**

The Final Program EIR, which has been prepared electronically, consists of three folders. This includes (1) the Draft Program EIR; (2) the Technical Appendices (Appendices A through I); and (3) the Responses to Comments document, which contains two volumes. Volume 1 of the Responses to Comments document contains copies of all the comments received, including the transcript of the September 26, 2018 public meeting. Due to the size of Volume 1, it is provided in two electronic files—Volume 1A and Volume 1B.<sup>2</sup> This is to facilitate file downloading from the Internet. Volume 2 provides the responses to comments. Volume 2 is also divided into two electronic files. Volume 2A includes all the Responses to Comments and Attachment A (Health Risk Assessment [“HRA”]). Volume 2B provides the technical appendices to the HRA. The HRA appendices are included in a separate file due to the large file size.

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<sup>2</sup> Volume 1A includes all the comments from (1) State Agencies; (2) Local and Regional Agencies; (3) Organizations; and (4) Individuals and Businesses, less those that submitted the standardized letter. Volume 1B includes (1) the bracketed standardized letter; (2) the copies of the standardized letter that were received, including those with supplemental comments; (3) the transcript of the Public Meeting (4) Comments Received After the Public Review Period; and (5) Comments Submitted to Others.



Volume 2A of the Responses to Comments is organized in the following five sections:

- **Section 1.0 (Introduction):** This section provides a brief introduction to the Final Program EIR and its contents.
- **Section 2.0 (Organization of Comments):** This section includes a list of commenters on the Draft Program EIR, including a table with the page number where the responses to each comment letter can be found.
- **Section 3.0 (Responses to Comments):** This section provides the responses to the comments submitted by both public agencies and interested parties. Each response briefly summarizes the comment received and is cross referenced to the bracketed comment in Volume 1.
- **Section 4.0 (Clarifications and Revisions As Part of the Final Program EIR):** This section consists of text changes made to the Draft Program EIR as a result of comments raised during the public review process. These changes do not result in significant new information that could require recirculation of the Draft Program EIR (see Section 15088.5 of the State CEQA Guidelines). The changes to the Draft Program EIR are shown in *red italics* text and deletions are shown in ~~red-strikethrough~~ text.
- **Attachment A (Health Risk Assessment Technical Report, John Wayne Airport):** In response to comments made on the Draft Program EIR, a health risk assessment was prepared. The text, including tables and figures, of the report are included as Attachment A in this volume (2A) of the Responses to Comments.

As noted above, Volume 2B are the technical appendices for the Health Risk Assessment.

## **2.0 ORGANIZATION OF COMMENTS**

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### **2.1 ORGANIZATION OF RESPONSES TO COMMENTS**

The Draft Program Environmental Impact Report (“EIR”) public review period for the John Wayne Airport General Aviation Improvement Program (“GAIP”) began on Thursday, September 20, 2018, and ended on Tuesday, November 21, 2018. During the 60-day public review period, the County of Orange received a total of 288 comment letters/cards/e-mails from State, regional and local agencies, organizations, and individuals on the Draft Program EIR. Of these, 150 letters were a standardized form letter. An additional 28 comment letters were received after the public review period was closed, of which 10 were the standardized letter. It should be noted, a number of the commenters submitted the same set of comments more than once or in multiple formats (i.e., electronically and hard copy). In these cases, each version has been included and has been logged as a separate comment letter; however, the responses reference back to the initial submittal.

Consistent with Section 15088 of the State CEQA Guidelines, the County has prepared responses to the comments received. The responses are provided in Section 3.0, below. The comments in each letter are bracketed and designated with a letter and number identifier (bracketed comment letters are located in Response to Comments Volume 1). The responses correspond to the bracketing on the letter. A number of comments received during the public review process addressed the same topical issues. To avoid repetitiveness in the responses to these comments, “Topical Responses” have been prepared to address these common concerns. Topical responses are provided below in Section 3.1. Where applicable to a comment, the response provides references the appropriate topical response.

Sections 3.2 through 3.6 of this volume (Volume 2A) contain responses to the comments received during the formal 60-day public review period. Only one comment letter was received from a State agency. The response is provided in Section 3.2. Responses to regional and local agencies are provided in Section 3.3; responses to organizations are provided in Section 3.4; and responses to individuals and businesses, other than the standardized form letter, are provided in Section 3.5. Within each category, the comment letters are organized in alphabetical order by the name of the commenter. For individuals, the last name was used.

A substantial component of the comments submitted are in the form of a standardized or form letter. To avoid undue repetition, the standardized letter and the responses have been included in Sections 3.6.1 and 3.6.2, respectively. For those individuals that submitted additional comments as part of their submittal of the standardized letter, the additional comments have been bracketed (Volume 1B, Section 3.6) and responded to in this Volume 2A, Section 3.6.3.

The comments received at the September 26, 2018 public meeting are responded to in Section 3.7.1 of this Responses to Comments volume. The transcript of the public meeting has been bracketed to identify each of the public meeting comments and is provided in Volume 1B.

Section 3.8 includes responses to comments received after the close of the 60-day public review period. These comments are also organized in alphabetical order by last name of the commenter. The responses to the standardized letters submitted after the review period refers the reader back to Section 3.6 of this volume (Volume 2A).

Although not a requirement of CEQA, Section 3.9 includes a comment letter and responses to a comment letter on the Draft Program EIR that was submitted to a member of the Board of Supervisor's rather than to the Airport.

## 2.2 LIST OF COMMENTERS

In accordance with the State CEQA Guidelines Section 15132, Table 1 below includes the list of persons, organizations, and public agencies that submitted written comments on the Draft Program EIR 627. The comments included letters, e-mail correspondence, and comment cards, which are contained in electronic Volume 1 (files for Volume 1A and Volume 1B) of the Responses to Comments.<sup>3</sup> Each letter is numbered for easy reference. For those commenters that submitted more than one comment or submitted the same comment multiple times, a number is placed after the persons' name to indicate it is a subsequent submittal. As noted above, the corresponding responses are contained in Section 3.0 of this document (Volume 2).

**TABLE 1**  
**LIST OF COMMENTERS**

<b>Letter No.</b>	<b>Commenter</b>	<b>Date of Correspondence/ Date Received</b>	<b>Response Page Number</b>
<b><i>State Agencies</i></b>			
1.	Office of Planning and Research (State Clearinghouse)	November 26, 2018	3-15
<b><i>Local and Regional Agencies</i></b>			
2.	City of Costa Mesa	November 21, 2018	3-17
3.	City of Costa Mesa	November 21, 2018	3-22
4.	City of Fullerton	November 9, 2018	3-23
5.	City of Irvine	October 11, 2018	3-24
6.	City of Irvine	October 11, 2018	3-31
7.	City of La Habra	October 16, 2018	3-32
8.	City of Newport Beach, submitted by Remy Moose Manley	November 16, 2018	3-33
9.	City of Newport Beach, submitted by Councilmember Scott Peotter	November 21, 2018	3-49
10.	South Coast Air Quality Management District	November 6, 2018	3-50
11.	South Coast Air Quality Management District	November 6, 2018	3-57
<b><i>Organizations</i></b>			
12.	Aircraft Owners and Pilots Association, submitted by Adam Williams	November 21, 2018	3-59
13.	AirFair, submitted by Melinda Seely	October 24, 2018	3-64
14.	Airport Working Group, submitted by Mel Beale	November 21, 2018	3-67

<sup>3</sup> As previously noted, Volume 1 has been provided as two files—Volume 1A and Volume 1B to facilitate downloading of the files. Volume 1A includes all the comments from (1) State Agencies; (2) Local and Regional Agencies; (3) Organizations; and (4) Individuals and Businesses, less those that submitted the standardized letter. Volume 1B includes (1) the bracketed standardized letter; (2) the copies of the standardized letter that were received, including those with supplemental comments; (3) the transcript of the Public Meeting (4) Comments Received After the Public Review Period; and (5) Comments Submitted to Others.

**TABLE 1**  
**LIST OF COMMENTERS**

<b>Letter No.</b>	<b>Commenter</b>	<b>Date of Correspondence/ Date Received</b>	<b>Response Page Number</b>
15.	Airport Working Group, submitted by Mel Beale	November 21, 2018	3-85
16.	Airport Working Group, submitted by Mel Beale	November 21, 2018	3-86
17.	California Cultural Resource Preservation Alliance, submitted by Patricia Martz, PhD	November 1, 2018	3-87
18.	Citizens Against Airport Noise and Pollution, submitted by Beverly Blais Moosmann	November 19, 2018	3-88
19.	Corona del Mar Residents Assn, submitted by Debbie Stevens	November 21, 2018	3-89
20.	Corona del Mar Residents Assn, submitted by Debbie Stevens	November 21, 2018	3-96
21.	Irvine Terrace Community Association, submitted by Brian Jones	November 20, 2018	3-97
22.	Juaneño Band of Mission Indians, Acjachemen Nation, submitted by Joyce Perry	November 15, 2018	3-98
23.	Southern California Pilots Association, submitted by Joe Finnell	November 7, 2018	3-100
24.	Southern California Pilots Association, submitted by Pat Prentiss	November 8, 2018	3-103
25.	Southern California Pilots Association, submitted by Fred Fourcher	November 21, 2018	3-104
26.	SPON and AirFair	November 21, 2018	3-111
<b>Individuals and Businesses</b>			
27.	ACI Jet	October 25, 2018	3-122
28.	ACI Jet	October 29, 2018	3-124
29.	Deirdre Adams	November 21, 2018	3-125
30.	Joan Allison	November 20, 2018	3-127
31.	Nancy Alston (1)	November 20, 2018	3-128
32.	Nancy Alston (2)	November 21, 2018	3-143
33.	American Aircraft Maintenance, submitted by Lina Shi	November 6, 2018	3-144
34.	American Aircraft Maintenance, submitted by Lina Shi	November 6, 2018	3-145
35.	American Aircraft Maintenance, submitted by Lina Shi	November 6, 2018	3-146
36.	Melinda Atkin	November 21, 2018	3-147
37.	Brent and Carla Anderson	November 21, 2018	3-148
38.	Lewis and Terry Becker	November 20, 2018	3-150
39.	David Benvenuti, MD	November 21, 2018	3-151
40.	Leann Benvenuti	November 21, 2018	3-153
41.	Carol Berg	November 20, 2018	3-154
42.	Marvin Blum	November 11, 2018	3-155
43.	Brandt Group, submitted by Robert B. Lange	November 5, 2018	3-156
44.	Michael Brant-Zawadzki	November 20, 2018	3-159

**TABLE 1  
LIST OF COMMENTERS**

<b>Letter No.</b>	<b>Commenter</b>	<b>Date of Correspondence/ Date Received</b>	<b>Response Page Number</b>
45.	Bob and Diana Brookes	November 21, 2018	3-160
46.	Delores and Wayne Browning	November 20, 2018	3-163
47.	Sarah Catz (1)	September 26, 2018	3-164
48.	Sarah Catz (2)	September 27, 2018	3-165
49.	Sarah Catz (3)	September 28, 2018	3-166
50.	Clay Lacy Aviation, submitted by Scott Cutshall	November 21, 2018	3-167
51.	Antoinette Cole	November 21, 2018	3-171
52.	Paul Columbus	October 17, 2018	3-172
53.	W. David Cook	November 19, 2018	3-173
54.	Todd Corbitt	November 5, 2018	3-176
55.	Andy Couch	November 21, 2018	3-178
56.	CPF Airways prepared by Matthew C. Henderson with Miller Starr Regalia (1)	October 25, 2018	3-182
57.	CPF Airways prepared by Matthew C. Henderson with Miller Starr Regalia (2)	October 29, 2018	3-187
58.	CPF Airways, prepared by Matthew C. Henderson with Miller Starr Regalia (3)	November 20, 2018	3-188
59.	CPF Airways, prepared by Matthew C. Henderson with Miller Starr Regalia (4)	November 21, 2018	3-189
60.	Linda Crum	November 20, 2018	3-190
61.	Christy Dambrosio	November 20, 2018	3-193
62.	Patrick Davern	November 5, 2018	3-194
63.	Cindy Dillion	November 5, 2018	3-196
64.	Jeff Dvorak	November 21, 2018	3-198
65.	Jeff Dvorak (2)	November 21, 2018	3-211
66.	Maris J. Ensing	November 8, 2018	3-223
67.	Jeanne Fobes	November 21, 2018	3-225
68.	Frederick Fong	November 21, 2018	3-228
69.	Daniel Freedman	October 25, 2018	3-234
70.	Susan Gaunt	November 19, 2018	3-235
71.	Pam and Bill Goode	November 21, 2018	3-236
72.	Peter Grant	November 13, 2018	3-237
73.	Grant Thornton, submitted by Alan Herrmann	November 5, 2018	3-238
74.	Fred Greensite	November 13, 2018	3-240
75.	Joel Hackney	November 5, 2018	3-241
76.	Kathy Harbour	November 21, 2018	3-243
77.	Bill and Cherie Hart	November 20, 2018	3-244
78.	Sandi Hill	November 21, 2018	3-245
79.	Fred Howser	November 20, 2018	3-246

**TABLE 1  
LIST OF COMMENTERS**

<b>Letter No.</b>	<b>Commenter</b>	<b>Date of Correspondence/ Date Received</b>	<b>Response Page Number</b>
80.	Libby Huyck (1)	November 20, 2018	3-247
81.	Libby Huyck (2)	November 20, 2018	3-248
82.	Libby Huyck (3)	November 20, 2018	3-249
83.	Benjamin Imai	November 20, 2018	3-250
84.	Daniel Jensen	November 5, 2018	3-252
85.	Johnson & Associates, submitted by Randal Johnson	November 6, 2018	3-254
86.	Jeanne Johnson	November 21, 2018	3-257
87.	Carol Jung	November 21, 2018	3-258
88.	Franz Kallao	November 21, 2018	3-259
89.	Nancy Kirksey	November 21, 2018	3-260
90.	Carolyn and Bill Klein	November 20, 2018	3-261
91.	Sheila Koff	November 21, 2018	3-262
92.	Wayne Lindholm	November 5, 2018	3-263
93.	Andrea Lingle	November 20, 2018	3-265
94.	Randall Lipton	November 5, 2018	3-266
95.	Stephen Livingston	October 19, 2018	3-267
96.	Thomas Logan	November 5, 2018	3-270
97.	Karen Love	November 20, 2018	3-271
98.	Peter Macdonald	November 12, 2018	3-272
99.	Bonnie McClellan	November 21, 2018	3-275
100.	Meyer Properties, submitted by James Hasty (1)	November 20, 2018	3-276
101.	Meyer Properties, submitted by James Hasty (2)	November 20, 2018	3-281
102.	Shannon and Jeff Miehe	November 21, 2018	3-282
103.	Lesley Miller	November 20, 2018	3-285
104.	Diane Myers	September 24, 2018	3-286
105.	John Nord	November 20, 2018	3-287
106.	Oceanfront Jobs submitted by Steve Bunch	November 7, 2018	3-288
107.	Brigid O'Connor	November 20, 2018	3-290
108.	William J. O'Connor	November 20, 2018	3-294
109.	Lee Pearl	November 21, 2018	3-295
110.	Sally Petersen	October 22, 2018	3-297
111.	Sandra Petty-Weeks	November 21, 2018	3-303
112.	Doug Pham	October 15, 2018	3-306
113.	Doug Pham	November 6, 2018	3-308
114.	Doug Robinett	undated	3-309
115.	Alice Rosellini	November 21, 2018	3-310
116.	Law Offices of Gary L. Schank	undated	3-311
117.	Gary Schank	September 27, 2018	3-313

**TABLE 1  
LIST OF COMMENTERS**

<b>Letter No.</b>	<b>Commenter</b>	<b>Date of Correspondence/ Date Received</b>	<b>Response Page Number</b>
118.	Law Offices of Gary L. Schank, submitted by Gary Schank	November 16, 2018	3-314
119.	Schock Boats, submitted by Steven Schock	November 5, 2018	3-319
120.	Signature Flight Support, submitted by Julie Broderick	November 6, 2018	3-321
121.	Frank Singer	November 7, 2018	3-323
122.	Susan Skinner	November 21, 2018	3-325
123.	Michael C. Smith	November 20, 2018	3-326
124.	Pauline L. Smith	November 20, 2018	3-327
125.	Triad Investment Management, submitted by David Hutchison	November 21, 2018	3-328
126.	Martha Unickel	November 21, 2018	3-329
127.	U.S. Fasteners, submitted by Kevin Halliburton	November 5, 2018	3-330
128.	Polly and David Verfaillie	November 21, 2018	3-332
129.	Dan Vogt	November 20, 2018	3-333
130.	Peggy Vombaur	November 20, 2018	3-334
131.	Grant Whitcher	November 21, 2018	3-335
132.	Christina and Alan White	November 20, 2018	3-336
133.	Dana White	November 21, 2018	3-337
134.	Karol Wilson	November 20, 2018	3-338
135.	Simone Wilson	November 20, 2018	3-339
136.	Mike Wolf	October 7, 2018	3-356
137.	Kenneth A. Wong	November 21, 2018	3-357
138.	Allen Yourman	November 6, 2018	3-358
<b>Standardized Letter</b>			
139.	Brian Alters and Kim BeDell	November 20, 2018	3-365
140.	Ashwill and Associates, submitted by Greg Ashwill	November 21, 2018	3-365
141.	Marc Atkin	November 21, 2018	3-365
142.	Marj Austin	November 21, 2018	3-365
143.	Alan Ayria	November 20, 2018	3-365
144.	Lu Baker	November 20, 2018	3-365
145.	Thomas Baker	November 20, 2018	3-365
146.	Balboa Financial, submitted by Scott Duntley	November 20, 2018	3-394
147.	Liz and Bob Barman	November 20, 2018	3-365
148.	Martha Beauchamp	November 20, 2018	3-365
149.	Robert and Linda Boyd	November 21, 2018	3-395
150.	Cynthia and David Bright	November 20, 2018	3-365
151.	Edwina Broderick	November 20, 2018	3-365
152.	Anita Brown	November 21, 2018	3-398
153.	Nancy Brown	November 21, 2018	3-365

**TABLE 1  
LIST OF COMMENTERS**

<b>Letter No.</b>	<b>Commenter</b>	<b>Date of Correspondence/ Date Received</b>	<b>Response Page Number</b>
154.	Sean and Monica Burke	November 20, 2018	3-365
155.	J. Robert Egan and Kimberly Burrows-Egan	November 20, 2018	3-365
156.	Nicolas Burtnyk	November 20, 2018	3-365
157.	Heather Carlino	November 21, 2018	3-365
158.	Astrid Carlson	November 20, 2018	3-365
159.	Kim James Charney, MD (1)	November 20, 2018	3-365
160.	Kim James Charney, MD (2)	November 21, 2018	3-365
161.	Min Chu (1)	November 21, 2018	3-365
162.	Min Chu (2)	November 21, 2018	3-365
163.	Min Chu (3)	November 21, 2018	3-365
164.	Min Chu (4)	November 21, 2018	3-365
165.	Mary Citrano	November 21, 2018	3-365
166.	Daniel Clark	November 21, 2018	3-365
167.	Jean G. Clark	November 21, 2018	3-365
168.	Teryn Clarke, MD	November 20, 2018	3-365
169.	Paul Cohen	November 21, 2018	3-365
170.	Terri Cohen	November 21, 2018	3-365
171.	Judy Cooper	November 20, 2018	3-365
172.	John Cotton	November 21, 2018	3-365
173.	Carol and Gary Crane	November 20, 2018	3-365
174.	Victoria Cubeiro	November 20, 2018	3-365
175.	Tamara and Jeff Current	November 20, 2018	3-365
176.	Chris and Ed Danoff	November 21, 2018	3-365
177.	Mary Allyn Dexter	November 21, 2018	3-365
178.	Mary Jane Edalatpour	November 20, 2018	3-365
179.	Julia Edwards	November 20, 2018	3-365
180.	Marilyn Elmer	November 20, 2018	3-365
181.	Ronda Fay	November 20, 2018	3-365
182.	Marsha Ferrall	November 20, 2018	3-365
183.	Mary Finlay	November 20, 2018	3-365
184.	Robert Finlay	November 20, 2018	3-365
185.	Rebecca and Jason Finney	November 21, 2018	3-365
186.	Barbara Foley	November 21, 2018	3-365
187.	Dan Foley	November 21, 2018	3-365
188.	J.D. Fox	November 21, 2018	3-365
189.	Shirley Fox and Charles C, Deandorff	November 20,2018	3-365
190.	Alistair and Fiona Fraser	November 20, 2018	3-365
191.	Adrienne Frederiksen	November 20, 2018	3-401



**TABLE 1  
LIST OF COMMENTERS**

<b>Letter No.</b>	<b>Commenter</b>	<b>Date of Correspondence/ Date Received</b>	<b>Response Page Number</b>
192.	Torben Frederiksen	November 20, 2018	3-402
193.	Carlita and Win Fuller	November 21, 2018	3-365
194.	Stacie Fults	November 20, 2018	3-365
195.	Matt Galt	November 20, 2018	3-365
196.	Annette Giermann	November 20, 2018	3-365
197.	Annette Giermann	November 20, 2018	3-365
198.	Kenny and Nyna Goldberg	November 20, 2018	3-404
199.	Patrick Gormley	November 20, 2018	3-365
200.	Barbara Griffith	November 21, 2018	3-365
201.	Nancy Halvorsen	November 20, 2018	3-365
202.	Walter Harriman	November 21, 2018	3-365
203.	Kathy Harrison	November 21, 2018	3-405
204.	Tabitha May Hasin	November 20, 2018	3-365
205.	George Hauser	November 20, 2018	3-365
206.	William W. Hughes Jr.	November 21, 2018	3-365
207.	Carolyn G. Johnson	November 21, 2018	3-365
208.	Julie Johnson	November 20, 2018	3-365
209.	Clifton and Gail Jones	November 21, 2018	3-365
210.	James Jordan	November 19, 2018	3-365
211.	Marsha and Pat Kendall	November 20, 2018	3-365
212.	Ray and Elizabeth Kennedy	November 20, 2018	3-365
213.	Linda Geller Kensey	November 20, 2018	3-365
214.	Mark Knaeps	November 20, 2018	3-407
215.	Stacy Kramer and Nathanael Singer	November 21, 2018	3-365
216.	Michele Lovenduski	November 19, 2018	3-365
217.	Linda J. Martin	November 20, 2018	3-365
218.	Nicole D. Martin	November 20, 2018	3-365
219.	James E. and Alison L. McCormick III	November 20, 2018	3-365
220.	McMonigle Group submitted by Manal Bozarth	November 20, 2018	3-408
221.	John Meindl	November 21, 2018	3-365
222.	Susan Menning	November 20, 2018	3-409
223.	Whitney Moad	November 20, 2018	3-365
224.	Beverly Blais Moosmann	November 19, 2018	3-365
225.	Bob Moosmann	November 20, 2018	3-365
226.	Robert Murphy	November 20, 2018	3-365
227.	Nautical Luxuries, submitted by Daisy Cathcart	November 20, 2018	3-365
228.	David and Jan New	November 21, 2018	3-365
229.	Randall and Carol Nunnelly	November 20, 2018	3-365

**TABLE 1**  
**LIST OF COMMENTERS**

<b>Letter No.</b>	<b>Commenter</b>	<b>Date of Correspondence/ Date Received</b>	<b>Response Page Number</b>
230.	Carey L. O'Bryan IV, MD	November 20, 2018	3-365
231.	Margo O'Connor	November 20, 2018	3-411
232.	Ann O'Neil	November 21, 2018	3-365
233.	Bonnie and Dan O'Neil	November 20, 2018	3-365
234.	Firooz R. Oskooi, MD	November 21, 2018	3-365
235.	Peggy and Michael Palmer	November 20, 2018	3-412
236.	Jon B. Patton	November 20, 2018	3-365
237.	William R. Patton (1)	November 21, 2018	3-365
238.	William R. Patton (2)	November 21, 2018	3-365
239.	Lorian K. Petry	November 20, 2018	3-365
240.	Darcy Post	November 20, 2018	3-365
241.	Edward T. Post	November 20, 2018	3-413
242.	Nrapendra Prasad	November 20, 2018	3-365
243.	Janet H. Probst	November 20, 2018	3-414
244.	Stephanie, Steve, Lauren, and Chase Rados	November 20, 2018	3-365
245.	Dale Ransom	November 21, 2018	3-365
246.	Drs. Gail and Sorel Reisman	November 20, 2018	3-365
247.	Nicole F. Reynolds	November 20, 2018	3-365
248.	Catherine Richards	November 20, 2018	3-365
249.	Janni Richardson	November 20, 2018	3-365
250.	Ginny Riley	November 20, 2018	3-365
251.	Vicki and Don Ronaldson	November 21, 2018	3-365
252.	Paul Root	November 21, 2018	3-365
253.	John C. and Kristin H. Rowe	November 20, 2018	3-416
254.	Elisabeth and Andrew Schutz	November 21, 2018	3-365
255.	Christina Schwindt	November 20, 2018	3-419
256.	Mr. and Mrs. John M. Sciarra	November 20, 2018	3-365
257.	Matthew Shaw	November 20, 2018	3-365
258.	Terry P. Shea	November 20, 2018	3-365
259.	Terry A. Sheward	November 21, 2018	3-365
260.	Carrie Slayback	November 21, 2018	3-365
261.	Brad Smith	November 20, 2018	3-365
262.	Gregory and Joyce Smith	November 21, 2018	3-365
263.	Marion Smith	November 20, 2018	3-420
264.	Dr. F. Soulati and Mrs. G. Soulati	November 21, 2018	3-365
265.	Tracy Specter	November 21, 2018	3-365
266.*	Lisa Stanton	November 20, 2018	3-365
267.	Joani Stavale	November 20, 2018	3-365

**TABLE 1  
LIST OF COMMENTERS**

<b>Letter No.</b>	<b>Commenter</b>	<b>Date of Correspondence/ Date Received</b>	<b>Response Page Number</b>
268.	Louis J. Stavale	November 20, 2018	3-365
269.	Julie Stephenson	November 21, 2018	3-365
270.	Rick Strack (1)	November 20, 2018	3-365
271.	Rick Strack (2)	November 20, 2018	3-365
272.	Louise J. Stuart and Craig S. Davis	November 19, 2018	3-365
273.	Vikki Swanson	November 21, 2018	3-421
274.	Shannon Tarnutzer	November 20, 2018	3-365
275.	Karen Taylor	November 21, 2018	3-365
276.	Elizabeth Thamer	November 21, 2018	3-365
277.	Laura Thomson	November 20, 2018	3-365
278.	Shelly Trainor (1)	November 21, 2018	3-365
279.	Shelly Trainor (2)	November 21, 2018	3-365
280.	Fini Van Natta	November 20, 2018	3-365
281.	Earl Votolato	November 21, 2018	3-365
282.	Kimberly Votolato	November 21, 2018	3-365
283.	Ronnie and Cathy Weinstein	November 20, 2018	3-365
284.	Portia Weiss	November 20, 2018	3-365
285.	Richard Weiss	November 21, 2018	3-365
286.	Thomas and Laura White	November 21, 2018	3-365
287.	Kammi and Steve Wilson	November 21, 2018	3-365
288.	Steve and Kammi Wilson	November 21, 2018	3-365
<b><i>Testimony at the September 26, 2018 Public Meeting<sup>a</sup></i></b>			
	Daniel Freedman	September 26, 2018	3-430
	Gary Schank	September 26, 2018	3-432
	Fred Fourcher, Orange County Pilots Association	September 26, 2018	3-433
	Kreg Groat, representing CPF Airway Associates	September 26, 2018	3-434
	Joe Daicheidt, ACI Jet	September 26, 2018	3-436
	Joe Finnell, Southern California Pilots Association	September 26, 2018	3-438
	Jim Mosher	September 26, 2018	3-439
	Bob Lange	September 26, 2018	3-443
<b><i>Comments Received After the Public Review Period</i></b>			
289.	Kathryn Anderson	November 23, 2018	3-365
290.	Susan and Sam Anderson	November 22, 2018	3-448
291.	Camille and Matthew Beehler	November 29, 2018	3-450
292.	Matthew Christensen	November 26, 2018	3-452
293.	CPF Airways, prepared by Matthew C. Henderson with Miller Starr Regalia (5)	February 27, 2019	3-453

**TABLE 1  
LIST OF COMMENTERS**

<b>Letter No.</b>	<b>Commenter</b>	<b>Date of Correspondence/ Date Received</b>	<b>Response Page Number</b>
294.	CPF Airways, prepared by Matthew C. Henderson with Miller Starr Regalia (6)	February 27, 2019	3-455
295.	Scott Fischer	November 23, 2018	3-365
296.	Marilynn Henry	November 24, 2018	3-456
297.	Roger Hughes	December 6, 2018	3-365
298.	Janssen	December 5, 2018	3-365
299.	Julie Johnson (2)	January 29, 2019	3-457
300.	Julie Johnson (3)	January 30, 2019	3-458
301.	Julie Johnson (4)	February 4, 2019	3-460
302.	Julie Johnson (5)	February 5, 2019	3-461
303.	Julie Johnson (6)	February 5, 2019	3-462
304.	Julie Johnson (7)	February 7, 2019	3-463
305.	Julie Johnson (8)	February 27, 2019	3-464
306.	Julie Johnson (9)	February 27, 2019	3-465
307.	Holly Kincaid	November 24, 2018	3-365
308.	David and Cathy Lichodziejewski	November 25, 2018	3-466
309.	Beverly Blais Moosmann	December 5, 2018	3-467
310.	Beverly Blais Moosmann	December 7, 2018	3-468
311.	Christine Northridge	November 22, 2018	3-365
312.	Bonnie and Dan O'Neil	December 13, 2018	3-365
313.	City of Santa Ana	December 3, 2018	3-469
314.	SCL Equipment Finance submitted by Barbara Griffith	November 26, 2018	3-365
315.	Myriam Shapiro	November 23, 2018	3-470
316.	Veronica Sheward	November 29, 2018	3-365
<b><i>Comments on the Draft Program EIR Submitted during the Public Review Period to Others</i></b>			
317.	Andy Couch	November 21, 2018	3-472
<sup>a</sup> Additionally comments were made during the public presentation portion of the public meeting. However, since these individuals did not provide their names, the responses to the comments are not attributable to a specific person. However, all comments from the public meeting have been responded to in Section 3.7.1 of this document (Volume 2).			

## 3.0 RESPONSES TO COMMENTS

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Consistent with Section 15088 of the State CEQA Guidelines, the County's responses to comments received are provided in this document (Volume 2) below. As noted above, the responses to comments are organized by:

- Topical Responses (Section 3.1)
- Responses to State Agencies (Section 3.2)
- Responses to Regional and Local Agencies (Section 3.3)
- Responses to Organization (Section 3.4)
- Responses to Individuals and Businesses (other than the standardized letter)(Section 3.5)
- Responses to Standardized Letter (Section 3.6)
- Responses to Comments Made at the Public Meeting (Section 3.7)
- Responses to Comments Received After the Public Review Period (Section 3.8)
- Responses to Comments on the Draft Program EIR Sent to Others (Section 3.9)

### 3.1 TOPICAL RESPONSES

A number of comments received during the public review process addressed the same topical issues. To avoid repetitiveness in the responses to these comments, "Topical Responses" have been prepared to address these topical issues. Where applicable, a response references the appropriate topical response. Below is the list of topical responses:

- Aviation Forecast
- Flight Path Procedures
- General Aviation Noise Ordinance ("GANO")
- Restrictions on General Aviation Operations
- Regularly Scheduled Air Service and General Aviation Charter Operations
- Health Risk Assessment

#### 3.1.1 AVIATION FORECAST

This topical response has been prepared in response to comments that requested additional information on the aviation forecasts that were developed to inform the planning process for general aviation activity at John Wayne Airport. In response to those comments, this topical response summarizes the approach used to develop the general aviation forecasts, and explains how charter, transient and international operations are accounted for in the forecasts.

##### **Forecasting Methodology**

The aviation forecasts developed in conjunction with the General Aviation Improvement Program ("GAIP") were prepared in accordance with the guidelines and methodologies set forth in the Federal Aviation Administration's ("FAA") Advisory Circular ("AC") 150/5070-6B, *Airport Master Plans*, and a report prepared by the FAA's Office of Aviation Policy and

Plans (APO-110), *Forecasting Aviation Activity by Airport*, dated July 2001. The aviation forecasts are designed to assist with airport planning by facilitating the efforts of airport owners/operators to identify the need for new or enhanced facilities. The paragraphs below provide further information about the aviation forecasts for general aviation activity at John Wayne Airport (“JWA”).

The GAIP forecast elements include: 1) annual operation totals for local general aviation, itinerant general aviation and air taxi operations; and 2) information on general aviation aircraft, including based aircraft, the mix of aircraft (fleet mix), and the critical design aircraft. Specifically, annual breakdowns by aircraft engine type were used (single-engine piston, multi-engine piston, turboprop, turbojet, piston helicopter, turbine helicopter, and other). In addition to these required forecast elements, the GAIP forecast also included annual operations for international general aviation. These forecast elements are further explained in the *General Aviation Forecasting and Analysis Technical Report* and the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts*, which have been included in the Draft Program Environmental Impact Report (“EIR”) as Appendices C and D, respectively. The forecasting was summarized in the Draft Program EIR in Section 3.5. Sections 3.6.2 and 3.6.3 of the Draft Program EIR also provided the constrained aviation forecasts for the Proposed Project and Alternative 1, respectively.

The GAIP forecasting analysis utilized a baseline year of 2016. This was the most recent full year of data available at the time JWA issued the Notice of Preparation (March 2017) for the GAIP’s EIR. Additionally, because the GAIP is expected to be substantially completed by 2026, forecasts for 2026 were prepared.

The general aviation forecasts that informed the GAIP considered the factors recommended by the FAA in AC 150/5070-6B, including socioeconomic data, demographics, geographic attributes, aviation-related factors, and external factors (such as fuel costs). Socioeconomic characteristics considered include national, statewide (California), and regional (Orange County) economy. Demographic characteristics considered include pilot populations, total populations, per capita income, non-farm employment, and high income group employment in the information and professional industries (described in Section 4 of Appendix C of the Draft Program EIR). The GAIP forecast also considered the geographic location of the Airport and other airports in the Southern California region, the location of the based aircraft owners, and the distribution of the private and student pilot populations in the five-county area in the vicinity of the Airport (described in Sections 2 and 3 of Appendix C of the Draft Program EIR). Specific aviation-related factors include changes in aviation industry trends (historical and future industry trends for general aviation were described in Sections 5 and 6 of Appendix C of the Draft Program EIR, respectively), changes in the general aviation aircraft shipments (described in Section 3 of Appendix C of the Draft Program EIR), information gathered from stakeholder interviews and aircraft owner surveys (described in Sections 5 and 6 of Appendix C), and consideration of the constrained condition because of the limited space available at the Airport (described in Appendix D of the Draft program EIR).

The following general steps below, which also are set forth in Section 704 of AC 150/5070-6B, are described to provide a better understanding of the forecasting process that was used for the GAIP:

1. Identification of Aviation Activity Measures: The aviation activity measures that planners need to forecast are the level and type of activities that are likely to affect facility needs. Plans for airports that service general aviation require forecasts of aircraft operations and based aircraft. The forecast elements required for the GAIP are listed above and included in Appendices C and D of the Draft Program EIR.
2. Review of Previous Airport Forecasts: The forecasts for the GAIP were compared with the FAA Terminal Area Forecasts ("TAF") as shown in Figures 19 and 26, and Tables 13, 14, and 16 in Appendix C of the Draft Program EIR.
3. Data Gathering: The data gathering component includes, but is not limited to, socioeconomic data collected, historical general aviation activities and trends, stakeholder interviews and aircraft owner surveys. For the GAIP, surveys were conducted in November 2016 to collect additional information to benchmark the characteristics of the Airport with the national statistics. The relevant data collected from the survey were described in Section 6.2 of Appendix C of the Draft Program EIR.
4. Forecast Methodology Selection: The GAIP forecast methodology adopts the forecasting techniques recommended by the FAA's AC 150/5070-6B. The based aircraft forecasts for the GAIP used a distribution model, and trend analysis using industry trends predicted by the FAA Aerospace Forecast, the FAA TAF, the General Aviation Manufacturers Association ("GAMA"), and historical trends at the Airport, as described in Section 6.1 of Appendix C of the Draft Program EIR. The annual operations forecasts included a combination of survey techniques, cohort analysis (operations by different aircraft, i.e., fleet mix), and share analysis (transient and based aircraft operations) as described in Section 6.2 of Appendix C of the Draft Program EIR. The FAA report emphasizes that when forecasting general aviation for an airport plan, speculation is inappropriate. Statements that a new activity or business is expected must be backed by significant evidence.
5. Application of Forecast Methodology and Evaluation of Results: The FAA's AC 150/5070-6B recommends that a useful procedure in evaluating the forecasts is to prepare a time line showing both forecast results and historical trends. Similarly, one might compare the history and forecast for the airport with the FAA national history and forecast for the same activity parameter. The forecasts for the GAIP were compared with the Airport's historical trends and the FAA TAF as shown in Figures 19 and 26, and Tables 13, 14, and 16 in Appendix C of the Draft Program EIR.

The FAA's AC 150/5070-6B also notes that if there are constraints at the airport that could affect the forecasts, it is useful to evaluate both constrained and unconstrained forecasts. Since the planning process for the GAIP developed different alternatives based on the limited space available at the Airport, the forecast analysis was then updated to include the constrained condition. The based aircraft storage capacity is

constrained in the different alternatives because of the limited space available. Hence, the growth of based aircraft is constrained to the estimated maximum number of based aircraft that the storage facility can accommodate. Transient aircraft have shorter dwell time at the Airport than based aircraft, and they are typically parked at the transient aprons, which are not going to constrain the growth of transient activities. This constrained factor for based aircraft is incorporated in the forecast model to develop the constrained forecast. As previously noted, the unconstrained and constrained forecasts are included in Appendices C and D of the Draft Program EIR, respectively.

Most forecasts include a sensitivity analysis to measure likely variations in activity if there are factors influencing activity change. It is often useful to provide a range of activity forecasts, that is, to forecast a high level of activity as well as a lower level. Having a range of forecast activity allows airport planners to develop flexibility in facilities to accommodate different activity levels. As described in Sections 6.1 and 6.2 of Appendix C of the Draft Program EIR, a range of activity forecasts (High, Baseline, and Low Scenarios) were developed for the GAIP.

### **General Aviation Charter Operations**

General aviation charter operations are included in the forecasts prepared for the GAIP as a category of air taxi operations. Air taxi operators are air carriers that transport persons, property, and mail using small aircraft under 30 seats or a maximum payload capacity of 7,500 lbs. Section 3.1 of Appendix C to the Draft Program EIR describes the composition of general aviation, including air taxi activity.

Air taxi operators typically hold Federal Aviation Regulation (“FAR”) Part 135 certification and provide on-demand services (for compensation or hire). However, if a general aviation charter operation falls within the definition of a “Regularly Scheduled Air Service” and/or a “Regularly Scheduled Commercial User,” the operator and operation need to comply with the provisions of the JWA Phase 2 Commercial Airline Access Plan and Regulation (“Access Plan”), including the limitation on the number of passengers serviced by JWA in each calendar year (i.e., the million annual passenger cap in the 2014 Settlement Agreement Amendment). The County cannot put additional limitations on the types of general aviation operations at the Airport because doing so would be in violation of the County’s airport sponsor assurances to the FAA, which require that the County make the airport available for public use on reasonable terms and without unjust discrimination to all types, kinds and classes of aeronautical activities.

General aviation charter aircraft operations are accounted for in the general aviation and air taxi forecast methodology utilized in the Draft Program EIR. More specifically, the forecasts for air taxi operations for each of the alternatives evaluated in the Draft Program EIR are shown in Table 5-2 of the Draft Program EIR, which is provided below. As shown, for the Proposed Project the number of air taxi operations is projected to increase from 15,400 annual operations to 19,100 annual operations, an increase of approximately 24 percent. Alternative 1 is projected to have a slightly more than 23 percent increase in air taxi operations, increasing from 15,400 annual operations in 2016 to 19,000 annual operations in 2026. However, it should be noted, using the constrained forecast even the No Project



Alternative is projected to have a nearly 21 percent increase in air taxi operations, increasing from 15,400 annual operations in 2016 to 18,600 annual operations in 2026.

**TABLE 5-2**  
**COMPARISON OF ALTERNATIVES**  
**JWA GENERAL AVIATION AND AIR TAXI OPERATIONS FORECAST**

Year	Air Taxi	General Aviation		Total Operations <sup>a</sup>
		Itinerant	Local	
Existing Conditions				
2016	15,400	90,900	86,500	192,800
Unconstrained Baseline Scenario				
2026	20,200	96,100	91,500	207,800
Proposed Project				
2026	19,100	87,500	61,300	167,900
Alternative 1				
2026	19,000	87,700	61,900	168,600
Alternative 2				
2026	18,600	88,000	62,800	169,400
Alternative 3				
2026	18,000	94,400	85,200	197,600
No Project (constrained)				
2026	18,600	95,000	87,400	201,000
Note: Numbers may not add up due to rounding.				
<sup>a</sup> An operation is defined as either a takeoff or landing, each counting as one operation.				
Source: AECOM 2018b (Appendix D to this Program EIR)				

## **Transient Operations**

General aviation aircraft that are not based at JWA would still be permitted to use the Airport. These aircraft, which are identified as transient aircraft, would be accommodated at the Fixed Based Operators (“FBOs”). Transient operations are associated with aircraft that are not based at JWA and just visit and/or pick up passengers at JWA. The forecast analysis followed the FAA guidelines (see discussion above) with respect to transient operations. A detailed discussion regarding transient operations is provided in Section 6.2 of Appendix C to the Draft Program EIR.

As noted above, under “Forecasting Methodology,” the forecast model considered multiple factors affecting aviation activity, such as socioeconomic data, and information gathered from stakeholder interviews and aircraft owner surveys, etc. Transient aircraft have shorter dwell times at the Airport than based aircraft, and they are typically parked at the transient aprons, which can generally accommodate the growth of transient activities. Both the full service and limited service FBOs have maintained and will continue to maintain transient aprons to accommodate visiting aircraft operations.

Transient operations, including those associated with general aviation jets, are included in the forecast analysis. More specifically, the forecast transient operations are included in Table 18 of Appendix C of the Draft Program EIR. As shown in Table 18, the transient operations are projected to increase from 76,500 annual operations in 2016 to 83,600 annual operations in 2026—an approximately 9 percent increase. As stated above, this would be applicable to all the alternatives evaluated in the Draft Program EIR.

### **International Operations**

The GAIP provides an opportunity for developing an optional General Aviation Facility (“GAF”), which would permit international arrivals and the processing of international passengers in accordance with federal guidelines. As described on page 3-11 of the Draft Program EIR, GAFs normally are located at small, low volume airports and provide U.S. Customs and Border Protection (“CBP”) with the ability to process up to 20 passengers and their baggage at one time.

The *General Aviation Forecasting and Analysis Technical Report* (Appendix C to the Draft Program EIR) has estimated potential international general aviation departures/arrivals at JWA. And, Section 6.4 of the *General Aviation Forecasting and Analysis Technical Report* (Appendix C) describes the forecast international operations. The long-term projected growth rates used for JWA’s international general aviation forecasts are comparable to the growth rates forecast for the global economy and represent a reasonable range of potential international activity growth. The Baseline (2016) estimates identify there are 447 annual general aviation international departures from JWA. The forecast projected an increase to approximately 490 annual international departures by 2026.

As explained above, under “Forecasting Methodology,” the forecast analysis followed the FAA guidelines and considered multiple factors affecting aviation activity, including socioeconomic data, demographics, geographic attributes, and external factors such as fuel costs. International operations are driven by demands for aviation services from individuals or group passengers, charter flights or flights for other purposes that have international origins or destinations. The forecast analysis did not predict the growth (or decline) in aviation activities for a single aviation activity factor alone. Rather, multiple alternative assumptions were adopted and resulted in a range of forecasts. The based aircraft forecasts were used to estimate a range of annual general aviation operations, including the addition of international operations. The range of international general aviation operations is included as a proportion of the range of annual total general aviation operations. Latin America, especially Mexico, is anticipated to remain the most popular international destination for JWA.

Although the Airport does not currently provide general aviation CBP services, flights with international origins and destinations currently use the Airport following receipt of CBP clearance at an airport that offers general aviation CBP services prior to landing at JWA. While the GAIP’s GAF would accommodate direct international travel through JWA, it is not anticipated to attract or “induce” a significant level of international flights where their intended destination is not JWA (i.e., flights that would stop and clear customs at JWA and then immediately continue on to a different airport). CBP regulations govern landing

requirements and procedures for private aircraft arriving in the U.S. As defined by those regulations (19 Code of Federal Regulations (CFR) Subpart C §122.21-122.30), CBP has the authority to limit the locations where private aircraft entering the U.S. from a foreign area may land. Even if JWA provides the optional GAF with CBP inspection service for general aviation aircraft, private aircraft entering the US from south of the Mexican border or Pacific, Gulf of Mexico, or Atlantic coastlines must comply with special CBP reporting requirements. Specifically, they must land at designated airports for CBP inspection and processing unless the aircraft has been exempted from this requirement. The designated airports nearest to JWA are Brown Field (SDM), and Callexico International Airport (CXL) in California.

If CBP inspection is available for general aviation aircraft at JWA, based aircraft departing from JWA to an international destination would likely return to JWA for customs clearance. CBP may grant exemptions to aircraft based at JWA. However, flights not destined for JWA would reasonably continue to clear customs at the first designated GAF in their respective flight paths.

### **3.1.2 FLIGHT PATH PROCEDURES**

A number of comments pertained to flight patterns, both the current patterns used at John Wayne Airport ("JWA") and flight patterns associated with general aviation jets. In addition, the Orange County Board of Supervisors and JWA remain committed to operating in compliance with the 1985 Settlement Agreement which govern the JWA curfew, noise limits, and passenger capacity limits.

In 2003, Congress directed the development of a "Next Generation Air Transportation System" ("NextGen"). NextGen was intended to improve aviation safety and efficiency through the use of ground-based and, increasingly, space-based technology. An important part of the NextGen initiative is the development of new airspace and air traffic procedures.

The Federal Aviation Administration's ("FAA") approach to the mandate from Congress was to divide the United States into 21 "metroplexes." JWA, along with Burbank, Long Beach, Ontario, Los Angeles and a number of other airports comprise the "Southern California Metroplex." The Southern California Metroplex Project is the FAA's proposal to improve the efficiency and safety of air traffic into and out of the Southern California area. A key feature of the Southern California Metroplex Project is to create more repeatable and predictable flight paths, both vertically and laterally.

The County's concern regarding the inadequacy of the FAA's environmental review of the Southern California Metroplex Project led the Board of Supervisors to file a lawsuit challenging FAA's "Finding of No Significant Impact" and "Record of Decision." The cities of Laguna Beach and Newport Beach filed lawsuits on similar grounds.

On January 29, 2018, the FAA, the Department of Transportation ("DOT") and the U.S Department of Justice ("DOJ") approved a settlement agreement with the City of Newport Beach and the County of Orange defining flight paths from JWA. Under the settlement agreement, the FAA agreed that the Metroplex flight paths will remain between the existing JWA noise monitors. FAA agreed to monitor and provide reports to the County and City that show the flight tracks and any aircraft deviations, along with aircraft altitude information along departure locations from JWA.

Additional protections were secured against excessive “early offshore turns” that, if allowed, would bring certain departures closer to Corona del Mar and Newport Coast. These flight paths are currently being flown by commercial operators, as well as some general aviation operators, equipped with the required navigational equipment to execute these procedures. With the forecasted increase in general aviation jet operations, there would be an increase in the number of operations following the Metroplex flight procedures. It should also be noted, departure procedures are under the jurisdiction of the FAA and are not within the jurisdiction of the County. FAA and the pilot in command of each aircraft have sole jurisdiction and responsibility for flight paths, and only the FAA has enforcement capability over issues related to flight paths. The County of Orange, as the proprietor of JWA, has no authority or control over aircraft flight paths.

Importantly, the GAIP will not result in any modification to these flight paths at the Airport. The settlement agreement with FAA ensures a more thorough, transparent and inclusive process that requires full separate environmental review for any future proposed changes to flight paths at the Airport. Consistent with the terms of the settlement agreement, any modifications to the standard instrument departures PIGGN, HHERO, FINZZ, HAWWC, HOBOW, MIKAA, PLZZA and the standard terminal arrivals DSNEE, OHSEA, ROOBY, TILLT, as well as any other new proposed procedures and required navigation performance Z Approaches for Runways 02L and 20R, would require separate environmental review under the National Environmental Policy Act (“NEPA”).<sup>4</sup> The FAA must follow all required processes in the FAA Air Traffic Organization Community Involvement Plan and Manual, and to meet with the County and City on an as needed basis to discuss, provide input, review and comment on existing, and any proposed modifications, of flight paths that fly over Newport Beach.

### **3.1.3 GENERAL AVIATION NOISE ORDINANCE**

A number of the comments raised the issue of whether the General Aviation Improvement Program (“GAIP”) would increase the number of nighttime jet operations. Although general aviation operations at JWA are permitted 24 hours a day, they are subject to daytime and nighttime noise limits. The County’s General Aviation Noise Ordinance (“GANO”),<sup>5</sup> which has been adopted by the County of Orange to regulate the hours of operation for commercial carriers and the maximum permitted nighttime noise levels associated with general aviation operations. The GANO also establishes limitations on the maximum single event noise levels, which are applicable to both commercial and general aviation operations.

The Airport maintains 10 permanent noise monitoring stations (“NMS”) located to the north and south of the Airport. The GANO specifies noise limits at each NMS that vary by time of day. Compliance with the GANO is mandatory unless deviations are made necessary by air traffic control instructions, weather, a medical or in-flight emergency, or other safety considerations.

Section 2.6.4 of the Draft Program Environmental Impact Report (“EIR”) provides a more detailed discussion of the County’s GANO. The principal policy objective of the GANO as it pertains to general aviation aircraft is restrictions from nighttime operations that generate noise levels

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<sup>4</sup> Standard Instrument Departure (“SID”) and Standard Terminal Arrival Route (“STAR”) procedures are coded to simplify clearance procedures. Air traffic control clearance must be received prior to flying a SID or STAR. These procedures are defined to ensure safety and expedite handling of departing traffic and, when possible, to minimize the amount of noise over inhabited areas such as cities.

<sup>5</sup> Orange County Municipal Code Article 3 Section 2-1-30.

greater than the noise levels permitted for aircraft used by commercial air carriers. Generally, general aviation operations are permitted 24 hours a day, subject to daytime and nighttime noise limits. However, the GANO prohibits general aviation operations exceeding specified Single Event Noise Exposure Level ("SENEL") from taking off between the hours of 10:00 PM and 7:00 AM (8:00 AM on Sundays) and from landing between 11:00 PM and 7:00 AM (8:00 AM on Sundays). The noise limits under the GANO are provided in Table 2, at the end of this Topical Response. The locations of the various Noise Monitoring Stations ("NMS") are shown on Exhibit 4.7-7 of Draft Program EIR 627.

In the event an aircraft exceeds the GANO noise limits at one or more locations, a "Notice of Violation" will be issued to the registered owner of the aircraft. The Notice of Violation applies to the aircraft owner, the aircraft operator, and the aircraft. Notices of Violation remain in effect for three years after the violation date. If three GANO violations occur within a three-year period, the aircraft owner, the aircraft operator and the aircraft are subject to denial of use of the Airport for a period of three years.

The GAIP would not change any provisions of the GANO.

**TABLE 2  
GENERAL AVIATION NOISE ORDINANCE LIMITS**

Daytime Hours		Nighttime Hours	
NMS 1S = 102.5 dB SENEL		NMS 1S = 87.5 dB SENEL	
NMS 2S = 101.8 dB SENEL		NMS 2S = 87.6 dB SENEL	
NMS 3S = 101.1 dB SENEL		NMS 3S = 86.7 dB SENEL	
		NMS 4S = 86.7 dB SENEL	
		NMS 5S = 86.7 dB SENEL	
		NMS 6S = 86.7 dB SENEL	
		NMS 7S = 86.7 dB SENEL	
		NMS 8N = 86.9 dB SENEL	
		NMS 9N = 86.9 dB SENEL	
		NMS 10N = 86.9 dB SENEL	
Daytime hours are (local time) <sup>a</sup>			
		Departures	Arrivals
Monday - Saturday		0700 to 2200	0700 to 2300
Sunday		0800 to 2200	0800 to 2300
NMS=Noise Monitoring Station; dB=decibel; SENEL=Single Event Noise Exposure Level <sup>a</sup> Hours are shown using a 24-hour clock All other hours are considered nighttime hours. Compliance is determined by the clock at each NMS. Source: <a href="https://www.ocair.com/GeneralAviation/noise/">https://www.ocair.com/GeneralAviation/noise/</a>			

### **3.1.4 RESTRICTIONS ON GENERAL AVIATION OPERATIONS**

A number of comments requested the GAIP address additional restrictions on general aviation operations. The common topical issues include requesting the County to strengthen the curfew hours to include general aviation jets and place a cap or a maximum number of general aviation jet aircraft departures allowable during a 24-hour period. The County, as the Airport proprietor is not allowed to place a cap on the number of general aviation operations at the Airport. As discussed in Section 2.6.2 of the Draft Program EIR, a key federal regulation governing the operation of airports is the *Airport Noise and Capacity Act of 1990* (“ANCA;” 49 U.S.C. Section 47521 et seq.). ANCA is a federal law enacted by Congress in 1990 to establish a national aviation noise policy. The purpose of this law is to constrain, at the federal level, the ability of local airport operators to restrict the use of their airports due to noise concerns. Operational restrictions like those established in the JWA 1985 Settlement Agreement and enforced through the JWA Phase 2 Commercial Airline Access Plan and Regulation and the General Aviation Noise Ordinance are permitted only when an airport proprietor meets six specific and extremely difficult statutory criteria and receives approval from the Secretary of Transportation. Since the implementation of ANCA, no airport has successfully completed this review and approval process. However, the operational parameters in place at JWA were “grandfathered” under ANCA and were permitted to remain in effect, because they were adopted prior to 1990. If the County wanted to impose additional and/or more stringent restrictions than those currently in place at JWA, including strengthening the curfew restrictions or placing a cap on the number of general aviation jet operations, such amendments would be subject to ANCA.

However, as noted above, the County is able to enforce the GANO, which restricts the operation of aircraft exceeding the established noise thresholds.<sup>6</sup>

The FAA reviewed the 2003 and 2014 amendments to the 1985 Settlement Agreement, and concluded that the amendments are exempt from ANCA because they would not further reduce or limit aircraft operations.

### **3.1.5 REGULARLY SCHEDULED AIR SERVICE AND GENERAL AVIATION CHARTER OPERATIONS**

The County’s Phase 2 Commercial Airline Access Plan and Regulation (“Access Plan”), provides definitions that must be used to determine whether an operation and/or operator at the Airport is “Regularly Scheduled Air Service” and/or a “Regularly Scheduled Commercial User” (see, Access Plan, Sections 2.39 and 2.40, respectively).

Section 2.39 defines “Regularly Scheduled Air Service” to include “... all operations conducted by a Regularly Scheduled Commercial User at JWA.” Operations which qualify under these definitional terms must comply with the regulations set forth in the Access Plan, including, but not limited to, the Million Annual Passenger (“MAP”) limitation at the Airport, which is provided in Section 2.26 of the Access Plan.

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<sup>6</sup> ANCA’s limitations do not apply to JWA’s existing curfew, limitations on the number of commercial carrier annual passengers and number of average daily departures because the 1985 Settlement Agreement, as amended, is “an intergovernmental agreement including an airport noise or access restriction in effect on November 5, 1990” (49 U.S.C. Section 47524(d)(3)).

Section 2.40 defines “Regularly Scheduled Commercial User” as “...any person conducting aircraft operations at JWA for the purpose of carrying passengers, freight, or cargo where such operations: (i) are operated in support of, advertised, or otherwise made available to members of the public by any means for commercial air transportation purposes, and members of the public may travel or ship Commercial Cargo on the flights; (ii) the flights are scheduled to occur, or are represented as occurring (or available) at specified times and days; and (iii) the person conducts, or proposes to operate, departures at JWA at a frequency greater than two (2) times per week during any consecutive three (3) week period.”

General aviation operations, which do not fall within the definitional provisions of a “Regularly Scheduled Commercial User” or “Regularly Scheduled Air Service” set forth in Section 2.39 or 2.40 of the Access Plan must adhere to the regulations set forth in the General Aviation Noise Ordinance (“GANO”). There are no operational limitations placed on general aviation operations or general aviation passenger totals at the Airport. To the extent that general aviation charter operations fall within the definition of Section 2.39, they would need to comply with the provisions of the Access Plan, including the limitation on the number of passengers (i.e., the million annual passenger cap in the 2014 Settlement Agreement Amendment).

### **3.1.6 HEALTH RISK ASSESSMENT**

The County of Orange, as the proprietor of John Wayne Airport (“JWA”), received public comments that expressed concern about the potential health risk impacts to nearby populations from toxic air contaminants (“TACs”) resulting from the proposed General Aviation Improvement Program (“GAIP” or “Project”).

As stated in Section 4.2, Air Quality (page 4.2-24 through page 4.2-29) of Draft Program EIR 627, the health risk assessment (“HRA”) prepared for the approved 2014 Settlement Agreement Amendment project’s certified EIR 617 was used to assess the potential health impacts from the GAIP. More specifically, a methodological approach that involved comparatively assessing the incremental increase in emissions from the 2014 Settlement Agreement Amendment project (EIR 617) with those emissions attributable to the GAIP (EIR 627) was used. In that analysis, the GAIP’s potential change in emissions was accounted for, as well as the general potential impact of the Project on off-site sensitive and worker receptors. Because the GAIP would result in substantially smaller incremental emission increases than the 2014 Settlement Agreement Amendment project, Draft Program EIR 627 concluded that the health risk impacts of the GAIP would be less than significant. This approach to assessing the GAIP’s TAC-related health risk impacts is allowed by the California Environmental Quality Act (“CEQA”), which does not mandate the preparation of project-specific HRAs. Instead, under CEQA, lead agencies are authorized to exercise their discretion when selecting methodological approaches for evaluating impacts, provided such decisions are supported by substantial evidence. In this case, substantial evidence, such as the similarities in project location and activity types, supports using certified EIR 617’s HRA to comparatively evaluate the magnitude of likely impacts under the GAIP.

Nevertheless, in response to public interest in the TAC-related health effects of the GAIP, the County retained Ramboll, a qualified expert in the field of health risk analysis, to prepare a HRA (“*Health Risk Assessment Technical Report, John Wayne Airport*”) specific to the GAIP. The results of the Project-specific HRA affirm the impact conclusion presented in Draft Program EIR 627; specifically, the Proposed Project and Alternative 1 would not expose sensitive receptors to

substantial pollutant concentrations – impacts would be less than significant. A copy of Ramboll's HRA is included as Attachment A to these Responses to Comments.

As described further in Attachment A to these Responses to Comments, the Project-Specific HRA identifies and assesses the potential health risk impacts that would result from operational TAC emissions associated with the Proposed Project and Alternative 1. Consistent with CEQA, the HRA analyzes the incremental health risk impacts of the Proposed Project and Alternative 1 when measured against the Existing (2016 Baseline) Conditions.

The Project-specific HRA considers the general aviation aircraft operations and fleet mix attributes developed for JWA in the constrained aviation forecasts presented in Draft Program EIR 627 (see Appendix D therein). This includes an expected increase in business jet, helicopter and commuter propeller (commuter prop) aircraft operations, and a decrease in general aviation piston aircraft operations for the Proposed Project and Alternative 1. Thus, the emission sources evaluated in the HRA include aircraft operations (including jet engine startup emissions), auxiliary power unit ("APU") usage, and ground support equipment ("GSE") usage. In addition, the Project includes a new aviation gas (avgas) storage tank; emissions from storage tank usage are included in the HRA.

Emissions from volatile organic compounds ("VOCs") and particulate matter smaller than 2.5 microns in diameter ("PM<sub>2.5</sub>") from the above sources were further speciated into corresponding TACs based on published speciation profiles. This includes emissions of lead from the combustion of avgas fuel in general aviation piston aircraft. Diesel particulate matter from diesel GSE were also accounted for. (See Table 4.1-1 and Table 4.1-2 in Attachment A.)

The Project-specific HRA uses the American Meteorological Society/Environmental Protection Agency Regulatory Model Improvement Committee Model ("AERMOD") to estimate dispersion factors (i.e., TAC concentrations) resulting from emissions from aircraft, APU, GSE, and the avgas storage tank at nearby receptors. Emission sources were placed at ground locations where equipment would operate (i.e., hangars, aprons, taxiways, and runways), as well as at the airborne portions of the flight paths.

Receptors include a receptor grid prepared following South Coast Air Quality Management District ("SCAQMD") guidance<sup>7</sup>, as well as discrete receptors placed at sensitive locations within 1,000 meters of the Project. Both current and future sensitive receptors are included in this analysis. This includes planned residential developments, such as the Koll Center Residences and Newport Crossings, which are located within 1,000 meters of the Project. Off-site worker receptors are also evaluated in the HRA. Sensitive receptors, other than residential communities, within 1,000 meters of the Project are listed in Table 3.5-1 of Attachment A; and, all sensitive and worker receptors are shown in Figure 3.5-1 of Attachment A.

The AERMOD dispersion factors and TAC emissions were combined using the California Air Resources Board's ("CARB") HARP2 Air Dispersion and Modeling Risk Tool to calculate ground-level TAC concentrations and resulting health risk impacts. HARP2 incorporates current HRA guidance provided by the California Office of Environmental Health Hazard Assessment

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<sup>7</sup> SCAQMD. 2018. *SCAQMD Modeling Guidance for AERMOD*. Available at: <https://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/modeling-guidance>. Accessed: January 2019.



("OEHHA")<sup>8</sup> and SCAQMD. This includes the latest toxicity values and exposure pathways for the TACs.

Lifetime cancer risk, chronic hazard index ("HIC"), and acute hazard index ("HIA") were calculated at each receptor for the Proposed Project and Alternative 1 as compared to the Baseline Conditions. The exposure parameters used to estimate excess lifetime cancer risks (over a lifetime of 70 years) for all potentially exposed populations were obtained using risk assessment guidelines from OEHHA. For residential exposure, the total exposure duration analyzed is 30 years, in accordance with OEHHA guidance default assumptions, and begins in the third trimester to accommodate the increased susceptibility of exposures in early life. These exposure assumptions, designed to be protective of children younger than age 16, are assumed to be adequately protective of residents older than 30 years of age, including the elderly. For worker exposure, the total exposure duration analyzed is 25 years.

The incremental health risk results of this HRA were compared to SCAQMD thresholds of 10 in one million for cancer risk, and 1.0 for HIC and HIA, which are shown in Table 3. The maximum cancer risk for the Proposed Project is 0.27, at a worker receptor on the northern fence line of JWA. The maximum cancer risk for Alternative 1 is 0.41, which is at the same worker receptor location. (See Figure 5.1-1 in Attachment A for the location of the maximally impacted worker receptor.) The cancer risks are predicted to decrease at sensitive and residential receptors, as compared to Existing Conditions, for both the Proposed Project and Alternative 1. In other words, the cancer risk is lower at locations of sensitive and residential receptors for both the Proposed Project and Alternative 1 when compared to Existing Conditions. The maximum HIC and HIA are less than 1.0 for both the Proposed Project and Alternative 1 at all receptors. Therefore, as concluded in Draft EIR 627 and as shown in the table below, the Proposed Project and Alternative 1 have a less than significant impact related to health risk.

**TABLE 3**  
**GAIP-SPECIFIC HEALTH RISK ASSESSMENT RESULTS**

Receptor Type	Maximum Estimated Cancer Risk (in a million)		Maximum Estimated Chronic Hazard Index		Maximum Estimated Acute Hazard Index	
	Proposed Project	Alternative 1	Proposed Project	Alternative 1	Proposed Project	Alternative 1
Resident	-0.11	-0.10	0.02	0.02	0.10	0.11
Sensitive	-0.12	-0.11	0.01	0.01	0.07	0.07
Worker	0.27	0.41	0.05	0.06	0.21	0.23
SCAQMD Threshold	10		1		1	
Significant Impact?	NO		NO		NO	
Source: Health Risk Assessment Technical Report, John Wayne Airport Table 5.1-1 in Attachment A.						

<sup>8</sup> OEHHA. 2015. *Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. February. Available online at [http://oehha.ca.gov/air/hot\\_spots/hotspots2015.html](http://oehha.ca.gov/air/hot_spots/hotspots2015.html). Accessed: January 2019.

**State Agencies**

## **3.2 STATE AGENCIES**

A comment letter was received from the Governor's Office of Planning and Research (State Clearinghouse) during the public review period. No late comments were received from State agencies.

**Letter 1: Governor's Office of Planning and Research  
Dated November 26, 2018**

**SCH-1** The comment states that the State Clearinghouse submitted the Draft Program Environmental Impact Report to selected state agencies for review. No agencies submitted comments by the end of the review period. The letter acknowledges that the County has complied with the State Clearinghouse review process.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

## **Regional and Local Agencies**

### **3.3 REGIONAL AND LOCAL AGENCIES**

Ten comment letters were received from the following regional and local agencies during the public review period. In addition, a comment letter from the City of Santa Ana was received after the end of the public review period. The City of Santa Ana letter is provided in Section 3.8.

- City of Costa Mesa
- City of Costa Mesa (hard copy of the electronically submitted letter)
- City of Fullerton
- City of Irvine
- City of Irvine (hard copy of the electronically submitted letter)
- City of La Habra
- City of Newport Beach, submitted by Andrea K. Leisy, with Remy Moose Manley
- City of Newport Beach, Councilmember Scott Peotter
- South Coast Air Quality Management District
- South Coast Air Quality Management District (hard copy of the electronically submitted letter)

**Letter 2: City of Costa Mesa  
Dated November 21, 2018**

**CM-1** This comment is the email transmitting the comment letter from the City of Costa Mesa.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**CM-2** The comment identifies two policies (N-1.1 and N-1.7) in the City of Costa Mesa 2000 General Plan that are relevant to the General Aviation Improvement Program ("GAIP").

Policy N-1.7 (Supporting alternative methods for the reduction of noise impacts from John Wayne Airport) is addressed in the Draft Program Environmental Impact Report ("EIR") in Table 4.6-8, General Plan Goals and Policies Consistency Analysis for the Cities of Newport Beach, Irvine, and Costa Mesa (see Draft Program EIR page 4.6-41). Policy N-1.1 (Enforce the maximum acceptable exterior noise levels for residential areas at 65 CNEL), pertains to the City's enforcement powers and would not apply to the County. However, the County of Orange has a similar standard, which is evaluated in the Draft Program EIR.

The Draft Program EIR addresses the physical area encompassed within the GAIP noise contours including an assessment of land use impacts to sensitive receptors. As indicated in Section 4.7 of the Draft Program EIR, the total number of residences exposed to noise levels between 65 and 70 CNEL would increase by ten residences for the Proposed Project when compared to the Baseline 2016 condition. It should be noted, none of the additional residences exposed to exterior noise levels in excess of 65 CNEL are located in the City of Costa Mesa.

As also indicated in Section 4.7, the ten additional residences that would be included between the 65 and 70 CNEL contour compared to the Baseline (2016) condition are included in the area covered by the Santa Ana Heights Acoustical Insulation Program ("AIP").<sup>9</sup>

**CM-3** The comment states that there have been studies of the JWA noise by City of Newport Beach, which may include more accurate information than the data developed with the Federal Aviation Administration ("FAA") Airport Environmental Design Tool Version2d ("AEDT") used for the noise analysis in the Draft Program EIR. The City of Costa Mesa is requesting that the most accurate and appropriate data be used in the analysis.

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<sup>9</sup> The 1985 65 CNEL contour is reflected in the Airport Environs Land Use Plan ("AELUP") and is often called the policy implementation line. The existing 65-CNEL contour is smaller than forecast in the 1985 Master Plan.

As discussed in Section 4.6, consistent with the provisions of Title 21, for the seven residential units with aviation easements, interior impacts would be less than significant because attenuation has been provided and aviation easements have been granted. The other three residential units have a potential for incompatibility due to excessive interior and exterior noise levels. However, it should be noted, of these three units, One unit declined acoustical insulation and two units did not respond after genuine effort to offer insulation to two units was made.

The noise analysis presented in the Draft Program EIR was prepared using the AEDT model, as required by the FAA for aircraft noise analysis. The County is aware that the City of Newport Beach is conducting a noise study pertaining to the commercial carrier operations; however, to the County's knowledge, the study does not encompass general aviation. Additionally, this study is not complete. Therefore, since it is not clear which exact studies by the City of Newport Beach the commenter is referring to, it is not possible to comment on the accuracy of the noise data in the City's pending noise study. However, unless the AEDT model is used, FAA will not accept the analysis. The noise analysis presented in the Draft Program EIR used the AEDT model, as required by the FAA for aircraft noise analysis. In addition, data from the JWA Noise Monitoring System was used as a basis for the modeling, which includes actual data on the aircraft, flight tracks, and runway use at the Airport. The noise analysis provided in the Draft Program EIR is accurate and complete for purposes of the CEQA analysis. No further noise analysis is required.

- CM-4** The comment provides a brief summary on the based aircraft and Full Service Fixed Based Operators ("FBO") under both the Proposed Project and Alternative 1. The question is based on summary Table 1-1, which identifies the key design elements of all the alternatives evaluated in the Draft Program EIR. Specifically, it asks if the third terminal (proposed with Alternative 1), which provides the same added facilities, is intended to serve two different operations in terms of business jets vs. smaller planes since the numbers are very close in terms of total aircraft. The comment also asks for additional explanation for the difference between the Proposed Project and Alternative 1, which would be helpful so that the intensities of each project in terms of noise and air quality could be estimated.

The information requested is provided in multiple locations in the Draft Program EIR. The referenced Table 1-1 identifies the key design elements for each alternative in a tabular format as part of the Executive Summary just to provide a brief overview for comparison. As noted, each of the Full Service FBOs are provided similar space and development opportunities; however, the Proposed Project provides for two Full Service FBOs (one on the east side of the Airport and one on the west side of the Airport), whereas Alternative 1 provides for three Full Service FBOs (two on the east side of the Airport and one on the west side of the Airport). Each of these facilities would provide similar services and have similar capacity. A more detailed Project Description, including a discussion of the functions of these facilities, is provided in Section 3.6 of the Draft Program EIR. Specifically, Section 3.6.1 identifies the facility improvements common to both the Proposed Project and Alternative 1. Sections 3.6.2 and 3.6.3 focus on the Proposed Project and Alternative 1, respectively. The conceptual facilities layouts, which identify the location of facilities of each site, are shown in Exhibits 3-1 and 3-4, for the Proposed Project and Alternative 1, respectively.

A subheading in each of these latter two sections provides details on the type of aircraft and projected number of annual flights by type associated with each alternative. As noted in the Draft Program EIR (page 3-19) the total number of general aviation flights would vary slightly dependent on the alternative selected. The project description, and the subsequent analysis in the Draft Program EIR, uses the constrained forecast data, which addresses the maximum projected general aviation facilities and operations that can be accommodated by John Wayne Airport's ("JWA's") limited footprint. This



information is provided in text and tabular format. Tables 3-5 through 3-7 provide the constrained aviation forecast data for the Proposed Project. Specifically, Table 3-5 identifies the 2016 baseline information and the projected 2026 forecasts by type of aircraft; Table 3-6 identifies the number of general aviation operations; and Table 3-7 provides the operations forecast by engine type. The aviation forecasts for Alternative 1 are provided in Tables 3-9 through 3-11.

In addition to the above noted locations, Tables 5-1 through 5-3 provide a comparison of the operational characteristics of the alternatives evaluated in the Draft Program EIR.<sup>10</sup>

- CM-5** The comment references the operation of flight schools and the flight school apron capacity (page 3-18), which is comparable to what is currently provided at the Airport. However, it states the description is not clear on the operational characteristics of the flight schools (number of schools, hour of operation, etc.) or the potential number of daily flights.

As noted in the comment, the size and capacity of the flight school facilities is not projected to substantially change. The referenced location (in Section 3.6.2) in the Draft Program EIR, is the bullet item referencing the flight schools facilities as part of the Proposed Project. Section 3.6.1, provides a description of the type of improvements common to both the Proposed Project and Alternative 1. As noted in the Draft Program EIR, this section is intended to provide an understanding of the improvements and minimize repetition. This discussion provides a conceptual description of each type of facility based upon GAIP design concepts and the facilities descriptions provided in the *General Aviation Facility Requirements Technical Report* and the *General Aviation Opportunities Facilities Layout Report* (Appendix B of this Program EIR). The characteristics of the flight schools, including the number of flight schools, the type of facilities provided, square footage of buildings, number of tie-down spaces, and number of vehicle parking spaces are discussed on pages 3-12 and 3-13. The proposed location of the flight schools (on the east side of the Airport) are shown in the conceptual facilities layout, provided in Exhibits 3-1 and 3-4, for the Proposed Project and Alternative 1, respectively.

The comment further states that the City of Costa Mesa is concerned with the potential increase in the flight school capacity once these facilities are modernized.

As noted above, the physical capacity of the flight schools would not be increased under the GAIP. The projected operations for the flight schools once these facilities are modernized has been incorporated into the aviation forecasts developed for the GAIP. As such, the noise or other impacts associated with any projected increase in the flight school activity has been included in the analysis for the GAIP as a whole. The impact analysis is not broken down by element, such as flight schools. All general aviation, including the flight schools, and any increase in flight school activity, would continue to be bound by the General Aviation Noise Ordinance ("GANO") (see Section 2.6.4 of the Draft Program EIR for a discussion of the GANO and Topical Response 3.1.3 of these

<sup>10</sup> The Proposed Project and Alternative 1 were evaluated at an equivalent level of detail in the body of the document. In addition, Section 5, Alternatives, evaluated Alternative 2, Alternative 3, and the No Project Alternative.

Responses to Comments). The noise impacts are evaluated in the Draft Program EIR in Section 4.7.

- CM-6** The comment cites page 3-7 of the Draft Program EIR, which indicates that the facilities planning effort recognizes the trend that fewer small-engine and light twin-engine airplanes and more turboprops and business private jets are based at the Airport. The comment states, “given that larger aircraft require more space, the overall storage capacity of the airport in terms of the number of aircraft will be reduced. Given this, and the fact that the noise modeling shows an incremental increase in the noise levels, it can be concluded that the fewer number of planes will result in higher noise levels since the planes are noisier and or larger.”

This is an accurate statement and has been fully evaluated in the Draft Program EIR. The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or raise a specific question regarding the analysis in the Draft Program EIR. For that reason, no further response to this comment is required.

- CM-7** The comment cites a note in the Draft Program EIR stating: “operational emissions for all pollutants except for [carbon monoxide] CO are anticipated to increase with the Proposed Project due to an increase in turbo jet aircraft.”<sup>11</sup> The comment states that it is unclear how the change in fleet (aircraft types/sizes) has been projected in terms of air quality for the planning year 2026.

As stated in *Air Quality Technical Report* (Appendix E of the Draft Program EIR) (see page 39 [Section 5.1]; page 42 [Section 5.2]; and page 46 [Section 5.3]), the air quality analysis used the constrained forecasts prepared for the GAIP to analyze the potential air quality impacts. The fleet parameters used for modeling purposes are presented in the Draft Program EIR in Table 3-5, Table 3-6, and Table 3-7 for the Proposed Project and in Table 3-9, Table 3-10, and Table 3-11 for Alternative 1. The detail on the aircraft types are presented in Appendix E, Table 15 (Annual Aircraft Operations—Existing Plus No Project), Table 18 (Annual Aircraft Operations—Existing Plus Proposed Project), and Table 21 (Annual Aircraft Operations—Plus Alternative 1).

The details on the methodologies used to prepare the fleet mix and forecast are provided in *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendix D of the Draft Program EIR). Additionally, see the Topical Response pertaining to Aviation Forecast, provided in Section 3.1.1 of these Responses to Comments.

- CM-8** The comment states the City of Costa Mesa would prefer a maximum capacity be noted for the larger and noisier planes (e.g., business jets) so that noise and air quality impacts can be more accurately assessed. The analysis in the Draft Program EIR accurately assesses the noise and air quality impacts associated with the aviation forecasts that

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<sup>11</sup> The comment states the note is on page 4.2-9 of Draft Program EIR; however, the referenced note is in Table 4.2-9, on page 4.2-21.

have been developed for the GAIP, including the type of aircraft that are projected for use at the Airport.

As discussed in the Topical Response on Restrictions on General Aviation Operations, provided in Section 3.1.4, a key federal regulation governing the operation of airports is the *Airport Noise and Capacity Act of 1990* ("ANCA;" 49 U.S.C. Section 47521 et seq.). This regulation does not allow the Airport to place a cap on the number, size or take off times of general aviation operations at the Airport without compliance with ANCA restrictions and requirements, including under most circumstances, prior FAA approval.<sup>12</sup> Additionally, please see the Topical Response pertaining to the General Aviation Noise Ordinance provided in Section 3.1.3 of these Responses to Comments.

- CM-9** The comment states that "safety and quality of life measures such as air quality and noise impacts directly impact [the City's] residents and especially for those residing on the East Side of the City who are highly impacted by JWA operation on daily basis."

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

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<sup>12</sup> Section 2.6.2 of the Draft Program EIR provides a brief summarization of the *Airport Noise and Capacity Act of 1990* ("ANCA"). As a general matter, ANCA precludes the local imposition of noise and access restrictions that are not otherwise in accordance with the national noise policy. JWA does have an exemption to ANCA's limitations as it applies to JWA's existing commercial carrier curfew, limitations on the number of annual passengers, number of average daily commercial carrier departures, and related limitations because of the 1985 Settlement Agreement, as amended is grandfathered ANCA. However, the exemption does not extend to limitations on the number of general aviation departures.

**Letter 3: City of Costa Mesa  
Dated November 21, 2018**

This letter, which was transmitted by the U.S. Postal Service, is the same as the City of Costa Mesa electronic submittal (Letter 2). Therefore, no additional responses are required. Please see Responses CM-1 through CM-9.

**Letter 4: City of Fullerton**  
**Dated November 9, 2018**

**FUL-1** This comment is the email transmitting the comment letter from the City of Fullerton.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**FUL-2** The comment states that based on discussions with the Fullerton Municipal Airport Manager, the City of Fullerton has no comments or concerns at this time.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or raise a specific question regarding the analysis in the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

**Letter 5: City of Irvine  
Dated October 11, 2018**

- IRV-1** The comment provides a summation of the components of the Proposed Project and Alternative 1.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

- IRV-2** The comment requests Exhibit 1-2 (Local Vicinity Map) be revised to remove the designation for Webster University Irvine because the facilities are no longer located at Michelson Drive and Von Karman Avenue.

The requested change to the base map has been made and the revised Exhibit 1-2 is provided as part of the Clarifications and Revisions in Section 4.1.1. This modification does not change the conclusions or the analysis in the Draft Program EIR.

- IRV-3** The comment requests clarification on Table 1-1, regarding where table note “a” is applicable.

Table note “a” is located in the first row of the table, on the fourth bullet in columns two through four (the bullet item reads “1 Existing Limited Service FBO<sup>a</sup>”). The table note is shown as being applicable to the Proposed Project, Alternative 1, and Alternative 2.

- IRV-4** The comment requests a revision to page 4.6-9 to indicate that the *City of Irvine General Plan* has 14 elements and to add the Irvine Business Complex (“IBC”), which is Element N.

The following revisions have been made to the Land Use and Planning Regulatory Setting discussion on page 4.6-9 of the Draft Program EIR (*red italics* shows the additional text and ~~red strikethrough~~ show the deletions) consistent with the request of the commenter:

The *City of Irvine General Plan* contains the following ~~13~~ *14* elements: Land Use, Circulation, Housing, Seismic, Cultural Resources, Noise, Public Facilities, Integrated Waste Management, Energy, Safety, Parks and Recreation, Conservation and Open Space, *Irvine Business Complex (“IBC”)* and Growth Management.

- IRV-5** The comment requests that a description of the *City of Irvine General Plan* Noise and IBC Elements be added to page 4.6-9.

The following revisions have been made to the Land Use and Planning Regulatory Setting discussion on page 4.6-9 of the Draft Program EIR 627 (*red italics* shows the additional text) consistent with the request of the commenter:

Noise Element

*The Noise Element provides guidelines for minimizing noise impacts from various sources. The Community Noise Equivalent Level ("CNEL"), commonly used by California local governments, is used by the City of Irvine to quantify community noise levels and standards. Interior and exterior noise standards are identified by land use category. As it pertains to John Wayne Airport, the Noise Element states:*

*The John Wayne Airport noise contour map, prepared annually by the Noise Abatement Center of John Wayne Airport, is used for the assessment of aircraft noise impacts. Annual updates of the original 1980 John Wayne Airport noise contour map, are used for planning analysis (Irvine 1999, last updated 2015).*

Irvine Business Complex

*Recognizing that transition in land use was contemplated in the original entitlement program for the IBC, the IBC Element formally establishes the goals and objectives for future planning for residential and mixed use developments in the IBC based on the IBC Vision Plan and the Mixed Use Overlay Zoning Code Planning Process conducted by the City of Irvine between 2005-2010. The IBC area is located on the southwestern edge of the City of Irvine and adjacent to the cities of Tustin, Santa Ana, and Newport Beach. John Wayne Airport forms the northwestern boundary of the IBC. The IBC Element states:*

*The IBC benefits from its close proximity to the John Wayne Airport, which provide an important transportation hub for the region. The airport has a service area of three million people with an annual volume of over nine million passengers. To keep up with population growth, the County has approved plans to expand facilities at the airport. (Irvine 1999, last updated 2015).*

- IRV-6** The comment requests that Table 4.6-8, which addresses consistency with policies of adjacent jurisdictions, be expanded to include additional objectives from the Land Use Element, Noise Element, and the IBC Element. Specifically, the comment identifies Land Use Element, Objective A-6 and Noise Element Objective F-1 and Objective F-3.

As discussed below, these objectives are not directly related to the actions proposed as part of the General Aviation Improvement Program ("GAIP"). No specific objectives are identified for the IBC Element. Based on a review of the element, one policy associated with Objective N-5 addresses the Airport; however, as discussed below, this policy pertains to the processing of residential development plans and would not be applicable to the GAIP. Therefore, revisions to Table 4.6-8 are not warranted or required. The GAIP would not conflict with these objectives or the policies adopted to implement the objectives.

### **Land Use Element**

Objective A-6 reads: “Achieve harmonious land use patterns throughout the City.” Policies (a) through (j) have been identified to support this objective. These policies are directing action for the City review of development projects or City actions pertaining to coordination with other agencies. The only policy that identifies the Airport is Policy (a), which reads:

Ensure, through the discretionary review process, the public health, safety, and welfare of sensitive receptors/land uses when locating such uses in close proximity to the following land uses:

- Uses which handle, generate, and/or transport hazardous substances (as defined by federal and state regulations).
- Uses which create excessive noise.
- Uses which create excessive dust.
- Uses which create other land use conflicts.

At the same time, ensure that the proposed sensitive receptors/land uses will not have an impact on the continued operation and/or expansion of the following land uses:

- Airports.
- Surface utilities.
- Off-Site hazardous waste facilities.
- Solid waste facilities.
- Manufacturing uses.
- Research and development uses.
- Mining and processing uses.
- Any land use which handles, generates, and/or transports hazardous substances as defined by federal and state regulations.

This policy is directed at the City of Irvine’s discretionary review process when approving sensitive land uses. Therefore, it is not applicable to the GAIP. It should also be noted, although Draft Program EIR 627 did identify sensitive land uses that are exposed to noise levels in excess of the standards, none of these sensitive land uses are located in the City of Irvine. Policy (f) does not specifically mention the Airport; however, it addresses the development of uses adjacent to the City boundary. Policy (f) reads: “Coordinate with the county, landowners, and other cities and agencies in developing compatible land uses for areas adjacent to the City boundary.” The GAIP does not change the uses at the Airport near the City of Irvine and the EIR process does provide opportunities for coordination. As noted above, the GAIP would not result in incompatible land uses in the City of Irvine.

### **Noise Element**

Objective F-1, which is identified as pertaining to mobile noise, reads: “Ensure that City residents are not exposed to mobile noise levels in excess of the CNEL Interior and



Exterior Noise Standards (Table F-1), and Single Event Noise Standard.” The General Plan identifies multiple policies (i.e., Policies (a) through (o)) that have been adopted to implement this objective. Although several of the policies include reference to aircraft noise, the majority of the policies identify requirements applicable to processing development projects; therefore, would not apply to the GAIP.<sup>13</sup> Policy (j) reads as follows: “Ensure that any proposal to update aircraft noise contours used by the City of Irvine for planning analysis is submitted, prior to adoption by the City, to the Airport Land Use Commission.” Although this policy pertains to aircraft noise contours, this policy is focused on the requirements associated with the City’s adoption of noise contours for planning purposes; however, the GAIP (Proposed Project and Alternative 1) would not require any modification to the contours shown in the *City of Irvine General Plan*. The City General Plan utilizes the noise contours associated with the policy implementation line in the *Airport Environs Land Use Plan for John Wayne Airport* (“AELUP”). As indicated in the Draft Program EIR, the GAIP (Proposed Project and Alternative 1) do not exceed the policy implementation line shown in the AELUP for the Noise Impact Zones (see discussion in Table 4.6-8 on page 4.6-31 of the Draft Program EIR). Since no modification to the AELUP is required, the GAIP would be consistent with the contours used by the City of Irvine for planning purposes.

Objective F-3, which pertains to noise abatement, reads: “Achieve maximum efficiency in noise abatement efforts through intergovernmental coordination and public information programs.” Policies (a) through (g) have been adopted to implement this objective. Although several of the policies could be applied to aircraft noise, none of the policies would be applicable to the GAIP. Policy (b) reads: “Monitor federal and state legislation and programs which will reduce noise in Irvine.” There are federal and state legislation and programs pertaining to aircraft noise; however, this policy is providing direction to the City to monitor programs. This is not a policy that would be implemented through a project but refers to actions to be taken by the City. Program EIR 627 does provide a discussion on the various programs that have been adopted to reduce land use incompatibility due to aircraft noise. As noted above, the GAIP noise contours for the Baseline (2016) Plus Proposed Project and Baseline (2016) Plus Alternative 1 do not exceed the policy implementation line shown in the AELUP for the Noise Impact Zones for JWA and are within 65 CNEL noise contour specified by the 1985 JWA Master Plan. Policy (e) reads: “Seek the cooperation of aircraft regulatory agencies in the modification and selection of flight paths which will reduce noise impacts on residential and other noise sensitive areas.” The GAIP does not propose any changes to the aircraft flight paths. Additionally, the County of Orange, as the proprietor of the Airport, has no authority or control over aircraft in flight. Rather, the Federal Aviation Administration (“FAA”) has exclusive regulatory jurisdiction over flight paths, and the pilot-in-command of each aircraft is responsible for safely maneuvering the aircraft in accordance with the FAA’s airspace procedures.

<sup>13</sup> Policy (a) requires “all plans submitted for development review to show the Noise Element existing noise contours, future noise contours and aircraft noise contours. Policy (b) prohibits residential development within the 65 CNEL of aircraft noise contours.

### IBC Element

Objective N-5 reads: “Develop safe, well-designed neighborhoods.” Policies (a) through (n) have been adopted to implement this objective. Only Policy (n) is related to operations at the Airport. Policy (n) reads: “Develop residential uses that are not in conflict with nearby John Wayne Airport Operations.” This policy would not be applicable to the GAIP, rather it is applicable to proposed residential development in the IBC to demonstrate that it would not conflict with the Airport. As noted above, the GAIP would not result in incompatible land uses in the City of Irvine.

- IRV-7** The comment requests that Table 4.6-8 compare Exhibits 4.7-9 and 4.7-11 to Figure F-1 in the *City of Irvine General Plan* to assess if the GAIP (Proposed Project and Alternative 1) would conflict with the aircraft noise contours identified in the General Plan.

The requested comparison of graphic depictions does not lend itself to inclusion in Table 4.6-8, which addresses goals and policies. Therefore, the requested comparison is provided below.

Figure F-1 in the *City of Irvine General Plan* reflects the noise contours identified by the 1985 John Wayne Airport Master Plan. The 1985 65 CNEL contour, which is the basis for the John Wayne Airport Settlement Agreement, is reflected in the JWA AELUP and is often called the policy implementation line.<sup>14</sup> The noise contours for the Baseline (2016) Plus Proposed Project (depicted in Exhibit 4.7-9) and Baseline (2016) Plus Alternative 1 (depicted in Exhibit 4.7-11) do not exceed the policy implementation line shown in the AELUP for the Noise Impact Zones for JWA and are within 65 CNEL noise contour specified by the 1985 JWA Master Plan (see page 4.6-31 and Exhibits 4.7-10 and 4.7-12). As noted in Draft Program EIR 627, the CNEL noise contours with the Baseline (2016) Plus GAIP (Proposed Project and Alternative 1) remain approximately the same size and shape as the Baseline (2016) noise contours (pages 4.7-27 and 4.7-31). The change in general aviation operations from the GAIP has a negligible impact on the CNEL noise contours. Therefore, the noise contours for the GAIP (Proposed Project and Alternative 1) do not conflict with the contours shown in Figure F-1 of the Irvine General Plan.

It should also be noted, Exhibits 4.7-10 and 4.7-12 provide a comparison of the 1985 Master Plan 65 CNEL contour for departures with the Baseline (2016) Plus Proposed Project and Baseline (2016) Plus Alternative 1, respectively. The 1985 Master Plan contour would be a direct comparison of the contour shown on Figure F-1 of the General Plan. The exhibits focus on the departure path because that is where noise sensitive land uses are located.

- IRV-8** The comment asks if the Proposed Project and Alternative 1 impacts the General Plan Figure J-4, Clear and Accident Potential Zones.

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<sup>14</sup> The John Wayne Airport Settlement Agreement is addressed in Section 2.6.3 of the Draft Program EIR (see page 2-17). The discussion of the 1985 Master Plan 65 CNEL contour serving as a policy implementation line is discussed in several locations in the Draft Program EIR, including, pages 4.6-1, 4.6-4 and 4.6-24. As noted in the Draft Program EIR, the existing 65 CNEL contour is smaller than anticipated in the 1985 Master Plan.

Figure J-4 appears to reflect the Airport Safety Zone Reference Map in the JWA AELUP.<sup>15</sup> The functions of these zones are discussed in the Draft Program EIR 627, Section 4.6 on page 4.6-24. The Draft Program EIR concluded that the GAIP (Proposed Project and Alternative 1) would not conflict with the land use compatibility guidelines and requirements of the various zones. Since no impacts have been identified for the AELUP, the GAIP would not conflict with Figure J-4 of the *City of Irvine General Plan*.

**IRV-9** The comment states that during the Notice of Preparation (“NOP”) process, the City of Irvine requested specific Irvine roadways and intersections be included in the study area.

Section 1.2.3 (page 7) of the *General Aviation Improvement Program Traffic Impact Analysis* (“TIA”) (provided as Appendix I to the Draft Program EIR), describes the selection of the study area for the traffic analysis, and the following is excerpted from that section:

There are two study areas used in the traffic analysis. The “secondary study area” is the area for which average daily traffic (ADT) data is presented, and includes the roadway system surrounding JWA. The “primary study area” encompasses those intersections that are included in the peak hour impact analysis. The criteria for selecting this primary study area mirrors the significance criteria used for identifying project impacts, and includes those intersections that have a “measurable” change in traffic as defined by the performance criteria of the local jurisdiction (see discussion in Section 2.1.2). Because of this specific intersection selection, the primary study area is more focused than the secondary study area.

The secondary study area includes the streets in City of Irvine adjacent to JWA. This includes the City streets that would experience some measurable change in traffic due to the GAIP. These locations are depicted in Exhibits 4.8-3, 4.8-4, and 4.8-5 in the Draft Program EIR (Figures 2-1, 2-2, and 4-1 of the traffic report). The last referenced exhibit (figure) shows the changes in average daily traffic (ADT) on the secondary study area streets due to the Proposed Project. As can be seen in that diagram, the Proposed Project related traffic volume change on each of the City of Irvine streets in this area is a negative value (i.e., the Proposed Project causes a decrease rather than an increase in traffic, the decrease being because of the transfer of some general aviation activities to the west side of the Airport). Accordingly, no further analysis was carried out for these streets and they were not included in the primary study area. This same information is shown in Exhibit 4.8-7 (Figure 4-2 in the Traffic Impact Analysis) for Alternative 1.

The primary study area, within which a peak hour intersection analysis was carried out, can be seen in the same three figures referenced above, and is on the west side of the Airport in the City of Costa Mesa. The intersections included there have a measurable increase in traffic due to the proposed project, in accordance with the study area definition described above excerpted from Section 1.2.3 of the traffic report.

<sup>15</sup> Although the scale of Figure J-4 is very small, the shape of the zones surrounding JWA is consistent with the JWA AELUP and the text of the Safety Element references use of the most current available AELUP as a planning resource for evaluating aircraft operations, land use compatibility, and land use intensity.

**IRV-10** The comment states that during the NOP process, the City of Irvine requested the Draft Program EIR analyze existing and proposed driveways that provide access to the public street system. The comment specifically requests the inclusion of the MacArthur Boulevard and Airport Way intersection in this analysis.

The GAIP (Proposed Project and Alternative 1), as addressed in the Draft Program EIR, pertains to the general aviation component of operations at the Airport. Airport Way is the internal loop road that provides access to the commercial carrier terminal area. Therefore, the general aviation traffic does not use this intersection for access to the airfield or other general aviation facilities, nor will they in the future with the GAIP (Proposed Project and Alternative 1). The Airport-related traffic using this intersection is associated with commercial operations, which will not be modified by the GAIP. A detailed study of the commercial aviation component at the Airport was carried out in 2014, and included an analysis of airport access intersections such as Airport Way and MacArthur Boulevard (see reference 6 in the reference section of the Traffic Impact Analysis on page 8).

As noted in Section 5.3 (page 33) of the Traffic Impact Analysis, access to the general aviation activities at JWA would be via two new intersections, one off Airway Avenue on the west side of the Airport, and the other off Campus Drive in general proximity to the existing general aviation access driveway on the east side of the Airport. Both of those locations are addressed in this section of the Traffic Impact Analysis. Airway Avenue is a low volume street (less than 5,000 ADT), and easily able to serve a low volume parking lot for general aviation activities. For the higher volume Campus Drive intersection (partially in the City of Newport Beach, and partially in the County of Orange), a special operational analysis was carried out. This concluded *“that such a driveway would function adequately, with an estimated average vehicle delay for right turn exiting traffic during the PM peak hour of 14.8 seconds, and for left turn entering traffic of 11.8 seconds. A 150 foot turn pocket length for the left turn entry would provide adequate storage for any queue formation due to vehicles waiting to make the turn.”* The analysis assumed unsignalized operation, and that the intersection design would be such as to prohibit left turn exiting traffic.

Section 5.3 of the Traffic Impact Analysis specifically addresses access to the FBO's. These account for most of the ground transportation demand associated with general aviation operations, and for the shift in a component of that demand to the west side with the GAIP. Both Airway Avenue on the west side and Campus Drive on the east side would continue to have driveways serving minor uses that are directly or indirectly associated with general aviation activities. For example, Ike Jones Road off of Airway Avenue serves the Limited Service FBO (Martin Aviation) and Lyon Air Museum. Other driveways currently serve and would continue to serve uses such as the existing Limited Service Southwest FBO (i.e., Jay's Aircraft Maintenance). On the east side, existing driveways opposite Quail and Dove Streets would remain to provide access for minor uses and activities on the east side of the Airport. These driveways will continue to serve as low volume secondary access points for specific uses and activities.

**Letter 6: City of Irvine  
Dated October 11, 2018**

This letter is the same as the City of Irvine electronic submittal (Letter 5). Therefore, no additional responses are required. Please see Responses IRV-1 through IRV-10.

**Letter 7: City of La Habra  
Dated October 16, 2018**

**LH-1** The comment states that based on the project description and location, no impacts are anticipated in the City of La Habra; therefore, the City does not have any comments.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 8: City of Newport Beach**  
**Prepared by Andrea K. Leisy with Remy Moose Manley**  
**Dated November 14, 2018**

- NB-1** The comment states the letter, prepared by Remy Moose Manley, has been submitted on behalf of the City of Newport Beach.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

- NB-2** The comment is restating the basic assumptions associated with the General Aviation Improvement Program ("GAIP") as addressed in the Draft Program EIR.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

- NB-3** The comment states that the GAIP appears poised to significantly increase the number of private jet operations, which would impact the quality of life of the residents of the City. Prior to moving forward with the Project, the City requests that the County of Orange ("County") conduct additional analysis of these effects on City residents.

The comment is a general statement with no specifics regarding the additional analysis that the City believes is required pursuant to the California Environmental Quality Act ("CEQA"). It is assumed that this statement is an introduction to the comments that follow (i.e., NB-4 through NB-30). Each of the comments are addressed below. Therefore, no response is necessary.

- NB-4** The comment questions the assumption used in the cumulative analysis that 40 percent of the Boeing 737 and Airbus 320 aircraft serving the Airport in 2026 would operate the Boeing MAX and Airbus NEO aircraft. The comment notes that the 2014 Settlement Agreement Amendment EIR ("EIR 617") did not reflect these assumptions for the commercial carrier fleet. The comment requests these assumptions be more fully explained and a more thorough analysis of these issues and the impacts associated with a different fleet mix be conducted.

Final EIR 617 did not include MAX and NEO aircraft types in the noise analysis because it was too speculative at that time. However, since the certification of Final EIR 617 in 2014, the airlines have begun to integrate aircraft with the MAX and NEO engines into their fleet mix. In order to provide an accurate and realistic noise analysis, this Draft Program EIR has included MAX and NEO aircraft types based, in part, on the data of orders of the MAX and NEO by airlines and the expectations relating to the airlines continuing to utilize MAX and NEO aircraft types, as discussed in more detail below. This information was not available at the time of preparation of EIR 617. Therefore, the

assumptions in the Draft Program EIR are different than the 2014 EIR 617. However, it should be noted, a comment received on the Notice of Preparation (“NOP”) for EIR 617 from Boeing Company requested that the analysis in EIR 617 be conducted using newer and next generation aircraft, such as the 737-900ERW, 787, 737-MAX, or comparable aircraft by other manufacturers into the fleet mix at the Airport. At that time, the 737-900ERW and 787 were in use at other airports and the 737-MAX was still in production.<sup>16</sup> EIR 617 acknowledged that these newer aircraft may generate less noise and have fewer air emissions compared to the current fleet at the Airport. In addition, since several of these aircraft accommodate more passengers than aircraft in the current fleet, EIR 617 stated it may be possible to serve more passengers (within the passenger cap) with fewer operations. EIR 617 also acknowledged that given the length of the planning timeframe for the Settlement Agreement Amendment (through 2030), it was reasonable to assume that there will be interest in introducing newer and next generation aircraft (EIR 617, page 1-19).

In all predictive and forecast modeling, there are assumptions that must be made regarding future variables. These assumptions are not guarantees or commitments for these aircraft to fly at John Wayne Airport (“JWA”), but rather estimates made from the best available data and using professional judgment and technical expertise. The impact of those variables related to these two aircraft types are fully understood, taken into account in the Draft Program EIR environmental analysis, and believed to be a conservative estimate so as not to overstate the benefits of these aircraft in 2026.

The assumptions made for purposes of the Draft Program EIR analysis are based on airline orders, statements by airlines regarding the use of the MAX and NEO, and factors that affect airlines decision-making on aircraft purchases. All of these indicate a high utilization of the MAX and NEO at the Airport in the future. The following items provide additional documentation to support the assumptions for the MAX and NEO in this Draft Program EIR.

- The aircraft are currently operating at the Airport by Southwest (Boeing 737 MAX) and Frontier Airlines (Airbus 320 NEO).
- Other airlines operating at the Airport are currently utilizing these aircraft or have orders with Boeing and Airbus for these aircraft within the next 8 years. These airlines include: Alaska (Airbus 320 NEO), American (Boeing 737 MAX and Airbus 320 NEO), WestJet (Boeing 737 MAX), and Delta (Airbus 320-NEO).
- Gary Kelly, Southwest CEO stated that he expects 60 percent of the Southwest fleet will eventually be the Boeing 737 MAX. According to the airline, Boeing will deliver 15 of the 737 MAX in 2019, 25 in 2020, 23 in 2023 and 11 in 2024.<sup>17</sup>
- Southwest’s current fleet of 737-700s, which includes more than 500 aircraft, will start to retire in 2022 and Southwest has stated they are replacing them with 737-MAX aircraft.<sup>18</sup>

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<sup>16</sup> Several of the aircraft, such as the 737-900WRW and the 787 would potentially require physical modifications to the Airport facilities, which was not a component of EIR 617.

<sup>17</sup> <https://leehamnews.com/2018/03/01/southwest-ceo-sees-60-fleet-becoming-737-7/>

<sup>18</sup> <https://www.cnn.com/2018/01/03/southwest-airlines-wants-larger-boeing-737-max-8s-soon.html>



- Delta agreed to an order of 100 Airbus 321NEOs and expects to take delivery of its first A321NEO in the first quarter of 2020 with new aircraft arriving through 2023.<sup>19</sup>
- The Boeing 737 MAX aircraft use the CFM International LEAP-1B® engine and the Airbus NEO aircraft uses the CFM International LEAP-1A or Pratt & Whitney PW1000G engines with winglets. These engines offer operators a 12-15 percent reduction in fuel consumption. This factor makes this aircraft/engine combination appealing to airlines as fuel cost is a major factor in airline decisions regarding aircraft purchases. In addition, the fuel taxes in California make operating a more fuel efficient aircraft more appealing and it is assumed airlines will use the MAX and NEO aircraft more in higher fuel price areas.<sup>20</sup>

In addition, and importantly, this assumption applies *only* to the cumulative analysis in the Draft Program EIR and modification of the fleet mix would not change the finding of significance of the cumulative noise impacts. As noted in Section 4.7.8 of the Draft Program EIR 627, the 2014 Final EIR 617 identified significant unavoidable impacts for noise and associated land use compatibility, for which a Statement of Overriding Considerations was adopted. However, as stated in the Draft Program EIR 627 on page 4.7-40, Table 4.7-13, the GAIP's contribution to the cumulative impact is not substantial. The proposed GAIP would change only the general aviation operations and fleet mix at JWA. The Proposed Project and Alternative 1 do not change the number of air carrier operations, runway use, or flight tracks for the commercial carrier operations. Therefore, even if the fleet assumptions for the commercial carriers was modified, the GAIP contribution to the cumulative noise contours would not change. The air carrier operations at JWA are the greatest influence on the size and shape of the noise contours, while the general aviation traffic contributes only a small amount to the contour size and shape. The assumptions for commercial operations are consistent for each of the GAIP scenarios evaluated. Therefore, conducting further analysis of cumulative noise impacts with different fleet mix assumptions for the commercial carrier operations would not change the findings presented in Draft Program EIR 627. No additional analysis is warranted.

**NB-5** The comment raises multiple issues pertaining to flight patterns. Specific concerns raised are identified in the bullet items below (shown in *italics*), followed by a brief explanation/clarification of the information in the Draft Program EIR. Additionally, please see the Topical Response pertaining to Flight Path Procedures, provided in Section 3.1.2 of these Responses to Comments.

- *The Draft Program EIR does not set forth the current flight patterns.*

The Draft Program EIR sets forth the current flight patterns. Specifically, page 42 of the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* (Appendix H) describes the flight patterns and Figure 9 shows the existing flight patterns. These together describe the current flight patterns.

<sup>19</sup> <https://news.delta.com/delta-selects-airbus-a321neo-narrowbody-fleet-renewal>

<sup>20</sup> <https://www.cfmaeroengines.com/engines>

- *It is unclear that the assumption there will not be a change in existing flight patterns is true for both commercial and general aviation aircraft.:*

The analysis assumes there would not be a change in the flight patterns applicable to the type of aircraft. Although the Draft Program EIR acknowledges that the flight patterns are being evaluated by the Federal Aviation Administration (“FAA”) as part of the refinements to the NextGen procedures for the Southern California Metroplex, it would be speculative to incorporate an unapproved flight pattern into the analysis for the GAIP Draft Program EIR. Section 15145 of the State CEQA Guidelines does not require a lead agency to speculate on potential impacts. Flight paths are discussed in more detail in the Topical Response on Flight Path Procedures (see Section 3.1.2 of these Responses to Comments), as well as discussed below. It should also be noted, departure procedures are under the jurisdiction of the FAA and are not within the jurisdiction of the County. FAA and the pilot in command of each aircraft have sole jurisdiction and responsibility for flight paths, and only the FAA has enforcement capability over issues related to flight paths. The County of Orange, as the proprietor of JWA, has no authority or control over aircraft flight paths.

- *The City requests that the County explain in detail the flight patterns being flown by private jets and the basis for the assumption that business jets and other general aviation aircraft will also be directed to continue using existing flight patterns.*

The Draft Program EIR does not provide, and is not required to provide, a description of every possible subdividing of flight tracks for aircraft fleet because the flight tracks are not proposed to change based on the type of aircraft identified in the forecasts. The general aviation aircraft projected with the GAIP in 2026 are currently operating at the Airport. Page 53 of Appendix H further explains “Flight tracks in to and out of JWA are well established ....” The noise analysis properly modeled the appropriate flight paths for the type of aircraft in forecasts for each of the scenarios. Additionally, please refer to the Topical Response pertaining to Flight Path Procedures (see Section 3.1.2 of these Responses to Comments). Any future changes to the flight path are outside the control of the County of Orange. If further detailed information regarding how aircraft are assigned flight paths is desired it is best requested from the FAA Traffic Control Tower.

- NB-6** The comment states that the Draft Program EIR should disclose the addresses or streets and intersections as well as the specific locations where the noise contours are expected to change due to the Proposed Project.

The Draft Program EIR meets disclosure requirements per CEQA. Exhibit 4.7-9 provides a graphic representation of the change in noise contours between the Baseline (2016) and the Proposed Project (i.e., the 75, 70 65, and 60 CNEL contours). This same information is shown in Exhibit 4.7-11 for Alternative 1. Additionally, Exhibits 4.7-10 and 4.7-12 provide the 65 CNEL contour, along with the 1985 Master Plan 65 CNEL contour, for the departure path at a larger scale. In accordance with the Section 15125 of the CEQA Guidelines, a proposed project’s impacts are assessed based on a comparison to the existing environmental setting. Therefore, the project impacts are defined as the difference between the baseline conditions (i.e., existing condition)

compared to the Baseline Plus Proposed Project (or Plus Alternative 1). The GAIP's impacts are not the collective of noise generated by the Airport. This latter scenario is evaluated as part of the cumulative impacts analysis. To facilitate a comparison of the Baseline to the Baseline Plus Project scenarios, an additional graphic has been provided at the end of this response, that provides the 65 CNEL contour associated with the departure path for the Baseline (2016), the Baseline (2016) with the Proposed Project, and the Baseline (2016) with Alternative 1 on a single graphic to allow comparison of the areas where the noise contours are expected to change.

As stated on page 4.7-28, although additional residences would be in the 65 to 70 CNEL Proposed Project contour compared to the Baseline (2016) condition, these residences are included within the Policy Implementation Line ("PIL") and the single family residences are covered by the Airport Improvement Program ("AIP") approved in conjunction with the 1985 Master Plan. Of the 10 new residences impacted by the 65-70 CNEL, avigation easements have been obtained for seven of these units. There are four multi-family units and six single-family residential units. The multifamily units, located on Birch Street and Orchard Drive, are non-conforming uses (residential use in a business park zone), and a prescriptive avigation easement has been acquired.<sup>21</sup> Two of the single-family residential units, which have received acoustical insulation and an avigation easement has been obtained, are located on Mesa Drive and Orchard Drive. A single-family residential unit on Riverside Drive that was offered acoustical insulation refused the offer of acoustical insulation and two units on Mesa Drive were offered acoustical insulation but no response was received. The last unit on Silver Lane participated in the purchase assurance program.

The comment identifies a perceived discrepancy between Draft Program EIR (pages 4.6-22 through 4.6-45) and Table 19 in the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* (Appendix H, page 77). The information in the Draft Program EIR and the technical study are consistent.

The land use discussion, referenced by the commenter in Section 4.6, is for the direct impacts associated with the Proposed Project and Alternative 1 (i.e., Baseline Plus Proposed Project and Baseline Plus Alternative 1). Table 19 in Appendix H is presenting cumulative noise impact data. The discussion on the noted pages in the Draft Program EIR, which is summarized in Table 4.6-5, is consistent with the discussion on page 62 in Appendix H. The best tables to compare, are Table 4.6-5 in the Draft Program EIR and Table 14 in the technical study.

The information in Table 19 of Appendix H is discussed on pages 4.6-47 through 4.6-52 of the Draft Program EIR and shown in specifically Table 4.6-11. It should be noted, the land use analysis in Section 4.6 of the Draft Program EIR utilizes the 65 CNEL contour as the basis for analysis because that is what is the County of Orange General Plan has established for land use compatibility standards (see Methodology discussion in Section 4.6.3 of the Draft Program EIR). As a result there is a difference in the presentation of

<sup>21</sup> Avigation easement is an easement or right of overflight in the airspace above or in the vicinity of a particular property. It also includes the right to create such noise or other effects as may result from the lawful operation of aircraft in such airspace and the right to remove any obstructions to such overflight. For the non-conforming uses located in an area zoned for business park uses, prescriptive avigation easements were acquired. A prescriptive avigation easement is an avigation easement acquired by continued use without permission of the owner for a legally defined period of time.

the data between the Noise Analysis Technical Report and the land use tables in the Draft Program EIR. The tables in the Noise Analysis Technical Study includes the 60 to 65 CNEL contour data in addition to providing the land use information for the 65 and greater CNEL contour.

Also, to clarify, Table 19 in Appendix H does not identify an additional school and two additional places of worship in the 65-70 CNEL contour when compared to Baseline conditions. There is actually a decrease of one place of worship in the 65-70 CNEL contour in the cumulative condition.

Table 19 identifies one additional school within the 60-65 CNEL noise contour. Monte Vista High School and the Children's Village are located in the Proposed Project 60-65 CNEL cumulative contour but not in the 2016 Baseline 60-65 CNEL contour. However, Pacific College was located within the 60-65 CNEL of the 2016 Baseline contour but is not in the 60-65 CNEL of the Proposed Project cumulative contour. As a result, there is a net increase of one school.

With regards to places of worship, the shift in the contours would result in the Saint James Anglican Church, which is located within the 65-70 CNEL of the 2016 Baseline contour, to be located in the 60-65 CNEL of the Proposed Project cumulative contour. The California Victory Church would also be located in the 60-65 CNEL cumulative contour.<sup>22</sup> This results in a net increase of two places of worship in the 60-65 CNEL cumulative contour and one less place of worship in the 65-70 CNEL cumulative contour.

**NB-7** The comment questions the sufficiency of the Draft Program EIR's health risk analysis, as presented in Section 4.2, Air Quality.

The Airport acknowledges this comment. The approach to assessing the GAIP's TAC-related health risk impacts is allowed by the CEQA, which does not mandate the preparation of project-specific HRAs. To further substantiate the findings in Section 4.2 of the Draft Program EIR, a GAIP-specific Health Risk Assessment ("HRA") has been prepared and is provided in Attachment A of these Responses to Comments.

The Topical Response pertaining to the Health Risk Assessment, provided in Section 3.1.6 of these Responses to Comments, summarizes the results of the GAIP-specific HRA. The results of the GAIP-specific HRA affirm the impact conclusion presented in EIR 627; specifically, the Proposed Project and Alternative 1 would not expose sensitive or worker receptors to substantial TAC concentrations – impacts would be less than significant. The GAIP-specific HRA is consistent with various recommendations presented in this comment, such as:

- The HRA is based on fleet mix assumptions specific to the GAIP;
- The HRA utilizes agency-approved methodologies, such as those issued by the South Coast Air Quality Management District ("SCAQMD") and the California Office of Environmental Health Hazard Assessment ("OEHHA");

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<sup>22</sup> In the 2016 Baseline noise contour the California Victory Church is located outside of the 60-65 CNEL noise contour.

- The HRA incorporates dispersion modeling that takes into account variances in distances and directions between new proposed sources of emissions to nearby off-site receptors; and
- The HRA studies the incremental increase in health risk impacts attributable to the Proposed Project and Alternative 1 on sensitive and worker receptors.

**NB-8** The comment raised concerns about the haul routes that would be used during construction of the GAIP, and requested clarification regarding any routes that would travel through the City of Newport Beach. The comment cites data on page 6-7 and Tables 6-2 and 6-3 in Section 6, Long-Term Implications of the Project, of the Draft Program EIR.

In response, the data in the referenced tables substantially and erroneously overstates the vehicle miles traveled (“VMT”) associated with construction-related hauling trips. The necessary corrections to the Draft Program EIR are provided at the end of the response to this comment.

The most applicable discussion of construction-related traffic is in Section 4.8, Transportation/Traffic, specifically under Threshold 4.8-1 and in the *General Aviation Improvement Program Traffic Impact Analysis* (“TIA”) (Appendix I).<sup>23</sup> The construction work for the GAIP is planned to take place over more than a seven-year period (see the discussion of phasing in Sections 3.6.2 and 3.6.3 for the Proposed Project and Alternative 1, respectively).

Tables 4.8-11 and 4.8-18 in the Draft Program EIR quantify the construction-related traffic for the Proposed Project and Alternative 1, respectively. For the truck component, such traffic will be to/from dumpsites (for demolition and excavation) or supply sites (for construction materials).<sup>24</sup> Access to the site for these vehicles will be via the surrounding freeways, using the same local streets as shown in the traffic study for Project traffic. Two such streets are in Newport Beach: Campus Drive (partially in County of Orange) and a portion of Bristol Street.

Most of the trips identified in these tables as “vendors” (versus “construction workers”) will be truck trips, and for the Proposed Project these are estimated to range from 2 tripends (i.e., arrivals and departures) per day to 23 trip ends per day, dependent on the phase of the work. The average is of 9.5 tripends per day over the construction period.<sup>25</sup> Truck traffic on the two Newport Beach streets will only occur during those construction phases that involve the east side of the overall project (Phases 2, 3, 4, 5, 12, and 13).

<sup>23</sup> The construction analysis starts on page 4.8-13 for the Proposed Project and page 4.8-20 for Alternative 1. The construction impact analysis is in Section 5.1.3, of the TIA.

<sup>24</sup> As noted in Section 4.8 and Appendix I, the construction-related trips generation rates were developed by the California Emissions Estimation Model (CalEEMod) that is used throughout the State for estimating air emissions. The construction emissions were calculated for each of the separate phases of the project utilizing the appropriate assumptions for the type of improvement to be implemented. As such, the emissions associated with construction vehicles has already been incorporated in the construction air emissions provided in the *Air Quality Technical Report* (Appendix E).

<sup>25</sup> This information is detailed in Appendix I in Table 5-3 for the Proposed Project and Table 5-4 for Alternative 1.

As noted above, the VMT and related data in Tables 6-2 and 6-3 (Construction Energy Consumption for the Proposed Project and Alternative 1 respectively) is incorrect. These tables are hereby replaced with the following tables. The updated information is shown in *red italics*.<sup>26</sup>

**TABLE 6-2  
PROPOSED PROJECT CONSTRUCTION ENERGY CONSUMPTION**

Source	HP (hours)	VMT	Diesel Fuel (gallons)	Gasoline (gallons)	MWh
Off-road Construction Equipment	89,976		4,499		
Worker commute		<i>31,252</i>		<i>1,530</i>	
Vendors		<i>4,858</i>	<i>852</i>		
On-road haul		<i>174,280</i>	<i>30,575</i>		
Water - dust control					3,188
<b>Totals</b>	<b>89,976</b>	<b><i>210,390</i></b>	<b><i>35,926</i></b>	<b><i>1,530</i></b>	<b>3,188</b>
HP: horsepower; VMT: vehicle miles traveled; MWh: megawatt hours					
Source: Revised using CalEEMod output (from <i>Air Quality Technical Report</i> , [Appendix E] Landrum & Brown 2018)					

**TABLE 6-3  
ALTERNATIVE 1 CONSTRUCTION ENERGY CONSUMPTION**

Source	HP (hours)	VMT	Diesel Fuel (gallons)	Gasoline (gallons)	MWh
Off-road Construction Equipment	93,301		4,665		
Worker commute		<i>37,514</i>		<i>1,837</i>	
Vendors		<i>4,782</i>	<i>839</i>		
On-road haul		<i>188,620</i>	<i>33,091</i>		
Water - dust control					3,149
<b>Totals</b>	<b>93,301</b>	<b><i>230,916</i></b>	<b><i>38,595</i></b>	<b><i>1,837</i></b>	<b>3,149</b>
HP: horsepower; VMT: vehicle miles traveled; MWh: megawatt hours					
Source: CalEEMod output (from <i>Air Quality Technical Report</i> , [Appendix E] Landrum & Brown 2018)					

**NB-9** The comment states there is a desire by several of the City's constituents for the County to offer lead free/lead reduced/alternative fuel as a part of the Project to reduce or eliminate lead emissions.

The current fuel farm serving the Airport's general aviation community provides Jet-A fuel, avgas (also known as 100 low lead), regular unleaded gasoline, and diesel fuel (see discussion on page 4.5-9 of the Draft Program EIR regarding the sizes of the fuel tanks and type of fuel provided). Based on the facilities/products currently provided, the only

<sup>26</sup> The original data is not shown in strike-out format to maintain the readability of the tables.

types of fuel identified in the comment that are not currently available at the Airport are the alternative fuels.

As it pertains to the introduction of alternative fuels, the County, as Airport proprietor, does not have control over the type of fuel the aircraft (either commercial carriers or general aviation) use. The fueling for the general aviation aircraft is managed and operated by the Fixed Based Operators (“FBOs”) for general aviation. The fueling facilities serving the commercial airlines are operated by Aircraft Service International Group for a consortium of airlines (“SNAFuel, Inc.”). As alternative fuels become more available and there is an interest in usage of alternative fuels, the Airport would work with the providers to accommodate the demand.<sup>27</sup>

As mentioned in the Draft Program EIR, *General Aviation Forecasting and Analysis Technical Report*, (provided as Appendix C of the Draft Program EIR), the FAA is working with the U.S. Environmental Protection Agency (“EPA”) and the general aviation industry on the Piston Aviation Fuels Initiative (“PAFI”) to evaluate and identify an acceptable unleaded replacement of the existing aviation gasoline for small airplanes with least impact on the existing fleet. The primary objective of the PAFI program is FAA fleetwide authorization of general aviation aircraft to operation on the PAFI unleaded fuels. The program is scheduled to be completed by 2018 with the FAA authorization and EPA regulatory action. According to the latest update (September 2018) from the FAA, the testing of the remaining PAFI fuels from Shell and Swift revealed unique issues with each fuel that needed to be addressed. The testing completion is delayed from December 2018 to mid-2020.

It should be noted that the long-term air quality impacts associated with the General Aviation Improvement Program (“GAIP”) are less than significant, as discussed in Section 4.2, Air Quality, Draft Program Environmental Impact Report (“EIR”). As shown in Table 4.2-9, the change in the emission levels compared to the Baseline 2016 would be minimal and none of the operational emissions for the Proposed Project would exceed the standards established by the South Coast Air Quality Management District (“SCAQMD”). The carbon monoxide (“CO”) emissions are projected to decrease compared to the Baseline 2016 conditions. This is also applicable to Alternative 1 (see Table 4.2-13).

Even though significant operational impacts were not identified, the County has included two minimization measures that would help to reduce air emissions. These include (1) use of architectural coatings for the East and West Access Roads that have low volatile organic compounds (“VOCs”) content; and (2) FBO use of Zero Emission Vehicle (“ZEV”) ground service equipment where available for 90 percent or greater of the GSE operating hours. Further, MN GHG-1 (page 4.4-31), provided in Section 4.4,

<sup>27</sup> Although the comment does not specify a type of alternative fuel, currently, alternative fuels are being made with biomass materials that result in less air emissions. The Department of Energy (“DOE”) has identified a goal to increase the domestic renewable jet fuel supply. The DOE is helping to fund advancing alternative jet biofuels through research and development. The Federal Aviation Administration (“FAA”) has approved five bio-based jet fuels for air travel. Some of the commercial carriers in the United States, including a few out of Los Angeles International Airport (“LAX”), have started using a blend of alternative fuels, as discussed in the following websites: (<https://www.energy.gov/eere/bioenergy/aviation-fuels>, <https://www.faa.gov/news/updates/?newsId=85425> and <http://www.petroleum-economist.com/articles/midstream-downstream/at-the-pump/2017/alternative-jet-fuel-slow-to-launch>).

Greenhouse Gas Emissions, identifies that the general aviation lease agreements will require compliance with the provisions of the *John Wayne Airport Climate Action Plan* (“CAP”), which was developed to reduce the GHG emissions associated with commercial carrier operations.

- NB-10** The comment contains introductory remarks relating to the peer review analysis performed by KB Environmental Sciences, Inc., dated November 12, 2018, which was attached to the letter from Remy Moose Manley LLP, dated November 14, 2018. The introduction provides background information on EIRs 617 and 627.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

- NB-11** The comment requests clarification and further justification for EIR 627’s reliance on the HRA prepared for certified EIR 617, focusing on the absence of dispersion modeling for general aviation aircraft emissions in EIR 617.

As stated in Section 4.2, Air Quality (page 4.2-24 through page 4.2-29) of the Draft Program EIR 627, a methodological approach that involved comparatively assessing the incremental increase in emissions from the 2014 Settlement Agreement Amendment project (Final EIR 617) with those emissions attributable to the GAIP (Draft Program EIR 627) was used in Draft Program EIR 627. Because the GAIP would result in substantially smaller incremental emission increases than the 2014 Settlement Agreement Amendment project, Draft Program EIR 627 concluded that the health risk impacts of the GAIP would be less than significant. This approach to assessing the GAIP’s toxic air contaminants (“TAC”)-related health risk impacts is allowed by CEQA, which does not mandate the preparation of project-specific HRAs. Instead, under CEQA, lead agencies are authorized to exercise their discretion when selecting methodological approaches for evaluating impacts, provided such decisions are supported by substantial evidence. In this case, substantial evidence, such as the similarities in project location and activity types, supports using certified Final EIR 617’s HRA to comparatively evaluate the magnitude of likely impacts under the GAIP.

Nevertheless, in response to comment, a GAIP-specific HRA was prepared to quantitatively identify potential impacts to off-site sensitive and worker receptors as result of the Project. The HRA was prepared in accordance with the guidance provided by OEHHA and SCAQMD. The HRA takes into account estimates of projected emissions resulting from the expected changes in general aviation aircraft fleet, and incorporates dispersion modeling from such aircraft. Ultimately, the results of this analysis corroborate the conclusion presented in Draft EIR 627 – the GAIP would result in less than significant health impacts. Please refer to Topical Response 3.1.6: pertaining to the Health Risk Assessment, provide in Section 3.1.6 of these Responses to Comments, for further discussion of the HRA. A copy of the GAIP-related HRA is provided in Attachment A of these Responses to Comments.



- NB-12** The comment requests substantiation on how the potential change in fleet mix and related flight paths were accounted for in the analysis for Draft Program EIR 627.

Please see Response NB-11 above, which explains that the methodological approach used in Draft Program EIR 627 was based on a comparative scaling of emissions resulting from the 2014 Settlement Agreement Amendment project and GAIP. This comparative approach focused on the noticeable disparity in total emissions values. In that analysis, the projected change in fleet mix was accounted for, as the total emissions values were based on fleet-specific projections. While the flight paths associated with the GAIP were not quantitatively accounted for in certified Final EIR 617, the associated disparity in total emissions suggest that the influence of flight path would not be of consequence. However, as noted in the Topical Response pertaining to Flight Path Patterns, provided in Section 3.1.2 of these Responses to Comments, the difference in flight paths used by piston aircraft versus jet aircraft was incorporated into the analysis in the Draft Program EIR.

Further, as discussed in Response NB-11 above, a GAIP-specific HRA was prepared in response to comments regarding the comparative-based methodological approach used in Draft EIR Program 627. That HRA takes into account estimates of projected TAC emissions resulting from the expected changes in aircraft fleet, as well as the specific flight paths associated with these aircraft. The results of this analysis corroborate the conclusion presented in Draft Program EIR 627. Please refer to the Topical Response pertaining to the Health Risk Assessment, provided in Section 3.1.6 of these Responses to Comments, for additional information.

- NB-13** The comment states that the methodological approach for health risk impacts used in Draft Program EIR 627 should be reconsidered as it may not be appropriate due to the “different nature of the projects.”

It is not clear from the comment what “nature” of the projects makes the analysis inappropriate. Both projects are situated in the same location and involve the operation of an airport with corresponding aeronautical activities.

The comment implies that CEQA requires preparation of project-specific HRAs. However, CEQA does no such thing. Instead, under CEQA, lead agencies are authorized to exercise their discretion when selecting methodological approaches for evaluating impacts, provided such decisions are supported by substantial evidence. In this case, substantial evidence, such as the similarities in project location and activity types, supports using certified Final EIR 617’s HRA to comparatively evaluate the magnitude of likely impacts under the GAIP.

Nevertheless, an HRA was prepared to quantitatively identify impacts to off-site sensitive and worker receptors as a result of the Project. The results of this analysis corroborate the conclusion presented in Draft Program EIR 627, and confirms that that the “nature” of Draft Program EIR 627 and Final EIR 617 was similar enough that it was appropriate to perform the analysis as originally prepared. Please refer to the Topical Response pertaining to the Health Risk Assessment, provided in Section 3.1.6 of these Responses to Comments, for additional information.

- NB-14** The comment requests further explanation regarding the results of worker-related, non-cancer health risks from certified Final EIR 617, as applied to Draft Program EIR 627.

Please see Response NB-11 above for information regarding the methodological approach presented in Draft Program EIR 627, which reasonably compares total emissions values from the 2014 Settlement Agreement Amendment project and GAIP to assess the magnitude of the GAIP's likely impacts. Please also refer to the Topical Response pertaining to the Health Risk Assessment, provided in Section 3.1.6 of these Responses to Comments, for further discussion of the GAIP-specific HRA. As discussed therein, based on the Project-specific HRA, the GAIP would not result in significant health impacts to worker receptors, a conclusion that is consistent with the one reported in Draft Program EIR 627.

- NB-15** The comment describes and provides background information regarding Draft Program EIR 627 prepared for the GAIP and certified Final EIR 617 prepared for the 2017 Settlement Agreement Amendment project.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

- NB-16** The comment describes the HRA prepared for certified EIR 617. The comment also identifies "common terms & concepts" associated with health risk assessments.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

- NB-17** The comment highlights aircraft operations and fleet mix, and related flight paths as important factors for Final EIR 617 and Draft Program EIR 627.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Response NB-12 above for relevant information.

- NB-18** The comment states that the commenter has assumed that the 2014 Settlement Agreement Amendment project and GAIP are both "implemented on schedule" and that the emissions are "additive".

Guidance from SCAQMD states that: "As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR". This indicates that the cumulative significance thresholds are the same as project-specific significance thresholds. As such, projects that exceed that project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. Conversely, projects that

do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.

As discussed in prior responses, an HRA was prepared for the GAIP and shows that the Project does not exceed the project-specific health risk thresholds, such that impacts are less than significant. Indeed, the GAIP-related incremental contributions to health risk are well below the SCAQMD's thresholds. In fact, the GAIP is expected to reduce cancer risk at sensitive and residential receptor locations when compared to existing conditions. Therefore, based on guidance from SCAQMD, the Project also is not cumulatively considerable.<sup>28</sup> Please refer to the Topical Response pertaining to the Health Risk Assessment for additional information.

The comment also states that aircraft activity levels and types affect the amounts of TACs emitted. The GAIP-specific HRA accounts for changes in aircraft activity levels and types. Again, please refer to the Topical Response pertaining to the Health Risk Assessment for additional information.

**NB-19** The comment states that an HRA should be conducted following established guidelines from local, state, and federal agencies.

The GAIP-specific HRA was prepared in accordance with the guidance provided by OEHHA<sup>29</sup> and SCAQMD<sup>30</sup>. Please refer to the Topical Response pertaining to the Health Risk Assessment, provided in Section 3.1.6 of these Responses to Comments, for additional information.

**NB-20** The comment states that an HRA was not prepared for Draft Program EIR 627, which instead relies on certified EIR 617's HRA results.

Please refer to the Topical Response pertaining to the Health Risk Assessment and responses to prior comments in this peer review analysis for additional information on the methodological approach presented in Draft Program EIR 627 and the GAIP-specific HRA prepared in response to comment. Notably, the significance conclusion is unchanged under either approach – the GAIP would not result in significant health risk impacts.

**NB-21** The comment summarizes the HRA results from certified Final EIR 617.

The Airport acknowledges this comment. It will be included as part of the Final EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any

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<sup>28</sup> South Coast AQMD Cumulative Impacts Working Group White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, August 2003, Appendix D, Cumulative Impact Analysis Requirements Pursuant to CEQA, at D-3, <http://www.aqmd.gov/docs/default-source/Agendas/EnvironmentalJustice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4>.

<sup>29</sup> OEHHA. 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. February. Available online at [http://oehha.ca.gov/air/hot\\_spots/hotspots2015.html](http://oehha.ca.gov/air/hot_spots/hotspots2015.html). Accessed: January 2019.

<sup>30</sup> SCAQMD. 2018. SCAQMD Modeling Guidance for AERMOD. Available at: <https://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/modeling-guidance>. Accessed: January 2019.

substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

- NB-22** The comment summarizes the health risk analysis from EIR 627 and re-states the objective of the peer review.

The Airport acknowledges this comment. It will be included as part of the Final EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

- NB-23** The comment restates the concern addressed in Response NB-14 above regarding the non-cancer health risk results for workers. Please see the referenced response for relevant information.

- NB-24** The comment suggests that distances and directions between sources of emissions and sensitive receptors are different in EIR 617 and EIR 627, and that such differences can have an effect on the transport and fate of TACs.

The Airport acknowledges this comment. This is a similar comment to the one addressed in Response NB-12 above; please refer to the referenced response for relevant information, which explains that the Project-specific HRA accounts for the GAIP's particular emission source locations.

- NB-25** The comment highlights concerns regarding lead emissions related to general aviation aircraft. Notably, the comment also notes that avgas containing lead will be phased out by 2020 to be replaced with alternative fuels and that JWA was not identified by the U.S. EPA as an airport with annual lead emissions greater than 0.5 tons.

Please see the Topical Response pertaining to the Health Risk Assessment, provided in Section 3.1.6 of these Responses to Comments, which explains that the GAIP-specific HRA explicitly accounts for lead emissions from general aviation piston aircraft. The results of this analysis corroborate the conclusion reached in Draft Program EIR 627; namely, the GAIP would not result in significant health impacts as a result of lead emissions (or those from other TACS).

- NB-26** This comment is the same as the one responded to in Response NB-11. Please refer to the response provided for that comment.

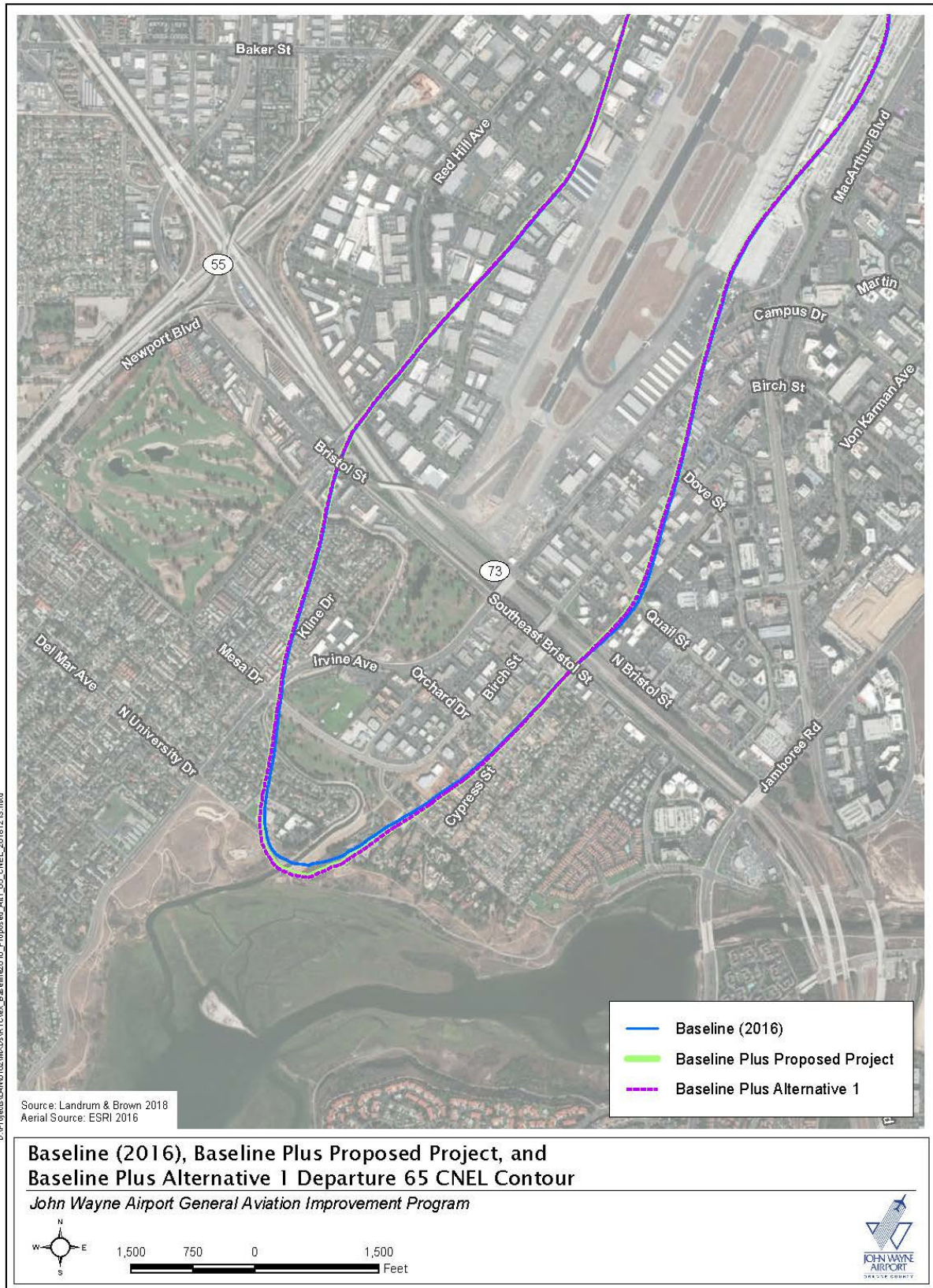
- NB-27** This comment is the same as the one responded to in Response NB-12. Please refer to the response provided for that comment.

- NB-28** This comment is the same as the one responded to in Response NB-13. Please refer to the response provided for that comment.

- NB-29** This comment is the same as the one responded to in Response NB-14. Please refer to the response provided for that comment.

**NB-30** This comment states that recommendations set forth in prior comments must be resolved before the peer reviewer can fully determine the applicability of Final EIR 617 to Draft Program EIR 627.

Please see Response to Comment NB-10 through Response to Comment NB-19- for information that is relevant to this comment. As discussed in the referenced responses, the GAIP-specific HRA confirms that the methodological approach presented in Draft Program EIR 627, which was informed by evidence and analysis presented in EIR 617, accurately assessed the GAIP's health impacts.



**Letter 9: City of Newport Beach**  
**Submitted by Councilmember Scott Peotter**  
**Dated November 21, 2018**

- NBSP-1** The comment expresses the councilmember support of the comments submitted by Kenneth A. Wong (Letter 137) and the desire to have a settlement agreement with the County in regards to general aviation.

Although the comment references the desire for a settlement agreement pertaining to general aviation it does not specify specific issues that would be the basis for the settlement agreement or the lawsuit, which is identified in the comment. The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

- NBSP-2** The comment includes the email sent by Kenneth A. Wong.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. These issues are addressed in responses to the comments submitted by Mr. Wong (see Letter 137).



**Letter 10: South Coast Air Quality Management District  
Dated November 6, 2018**

**AQMD-1** The comment is transmitting the formal review comments on the Draft Program Environmental Impact Report (“EIR”) and includes a South Coast Air Quality Control Management District (“SCAQMD”) Control Number for future reference.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**AQMD-2** The comment provides a summation of the General Aviation Improvement Program (“GAIP”) and a synopsis of the comments identified by the SCAQMD.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. The comments are discussed in detail in subsequent comments; therefore, no response to this comment is required. The concerns are addressed in responses below.

**AQMD-3** The comment recommends that the EIR analyze a scenario where construction activities overlap with operational activities in order to provide the worst-case scenario for air quality impacts.

In response to this comment, and using data from the Draft Program EIR, including *Air Quality Technical Report* (Appendix E), an overlapping emissions scenario is provided below. The recommended scenario does not result in the identification of any new significant air quality impacts.

As noted in the comment, the GAIP (Proposed Project and Alternative 1) is anticipated to be constructed over multiple phases in order to minimize disruption to current JWA operations (see Draft Program EIR Exhibits 3-3a and 3-3b and 3-5a and 3-5b for the phasing concepts for the Proposed Project and Alternative 1, respectively). Specifically, construction would take slightly more than seven years, starting in 2019 and finishing in 2026. Because the construction-related improvements would be completed in phases, and because of the nature of the existing use (i.e., an airport), operational activities (such as aircraft operations) would be accommodated while the improvements are being completed.

For the purpose of this analysis, a mid-project year of 2021 was chosen to evaluate overlapping construction and operational activities, and the corresponding emissions. The year 2021 was selected because it represents a year during which construction would occur simultaneous to some changes in the operation of the Airport due to the GAIP. Of note, year 2021 is the peak year of construction-related emissions from NO<sub>x</sub>, an ozone precursor. Furthermore, aviation forecast data is



available for the year 2021, enabling the evaluation of the aircraft-related operational emissions in that calendar year. The net increase in emissions due to both construction and project operational activities in 2021 are evaluated as described below.

The GAIP operational emissions in 2021 were estimated based on the constrained forecast available in *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendix D of the Draft Program EIR). This includes the estimated annual operations for the Proposed Project and Alternative 1, as shown in Appendix D Tables 21 and 24, respectively. The operational emissions in 2021 were scaled from the full Proposed Project and Alternative 1 operational emissions based on 2026 operational emissions presented in Draft Program EIR Tables 4.2-9 and 4.2-13 and Appendix E, Tables 29 and 30. Because the GAIP is anticipated to be constructed over multiple phases, these emissions do not account for the implementation of minimization measure MN-AQ-2 that would electrify 90 percent of GSE equipment. Therefore, the operational emissions without such reductions are conservatively used in this analysis.

The mitigated construction emissions for the year 2021 were used in this analysis, as provided in the Draft Program EIR Tables 4.2-7 and 4.2-11, and in Appendix E, Table 31. These tables present the increase in emissions due to short-term construction activities, and account for mitigation activities outlined in MM AQ-1 and MM AQ-2.

The 2021 mitigated construction emissions were added to the net increase in operational emissions for the Proposed Project and Alternative 1. The sum was then compared to the SCAQMD's operational thresholds for the pollutants of concern in Table 4. Emissions resulting from an overlap of short-term construction and operational activities for the Baseline Plus Proposed Project and Baseline Plus Alternative 1 scenarios would not cause daily emissions that would equal or exceed the SCAQMD's operational thresholds for the pollutants of concern.

**TABLE 4**  
**OVERLAPPING DAILY CONSTRUCTION AND OPERATIONAL EMISSIONS – BASELINE**  
**AND BASELINE PLUS SCENARIOS**

Scenarios	Daily Net Impact Construction And Operational Emissions (Pounds Per Day)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>SCAQMD Operational Significance Threshold<sup>a</sup></b>	<b>550</b>	<b>55</b>	<b>55</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>SCAQMD Operational Localized Significance Threshold</b>	<b>3,888</b>	<b>N/A</b>	<b>223</b>	<b>N/A</b>	<b>21</b>	<b>9</b>
Existing (2016) Conditions (General Aviation Only)	3,250.0	184.5	187.3	28.4	7.9	7.9
Baseline Plus Proposed Project	3,271.2	203.7	221.7	31.7	10.2	8.9
Baseline Plus Alternative 1	3,278.1	205.0	230.0	31.9	10.8	9.5
<b>Proposed Project Impact Emissions</b>	<b>21.2</b>	<b>19.2</b>	<b>34.4</b>	<b>3.3</b>	<b>2.3</b>	<b>1.0</b>
<b>Alternative 1 Impact Emissions</b>	<b>28.1</b>	<b>20.5</b>	<b>42.7</b>	<b>3.5</b>	<b>2.9</b>	<b>1.6</b>
<b>Baseline Plus Proposed Project Exceed SCAQMD Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<b>Baseline Plus Alternative 1 Exceed SCAQMD Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
SCAQMD=South Coast Air quality Management District <sup>a</sup> Although the SCAQMD has adopted construction thresholds, the comment requested the lower operational thresholds be used for this evaluation. Source: CalEEMod output (from <i>Air Quality Technical Report</i> , [Appendix E] Landrum & Brown 2018)						

**AQMD-4** The comment states that the Draft Program EIR does not quantify and incorporate emissions from the 5,000 – 20,000 gallon aboveground storage tank for avgas into the project’s operational emissions analysis. SCAQMD staff recommends that the Lead Agency clarify if these emissions were accounted for in the operational analysis.

The addition of the self-serve fueling station is in response to long-standing request by pilots and is based on convenience for the pilots. The operational emissions associated with fueling operations are largely driven by the number of flights and type of aircraft being served at the Airport. The total throughput of avgas is expected to decrease relative to baseline, and therefore, total emissions from the avgas storage tanks are expected to decrease. Thus, there is no emissions increase associated with the new storage tank. The new storage tank is being installed to create a more efficient fueling process to minimize overall related emissions, and is not being installed to provide additional fueling capacity.

Table 5 reflects the AEDT's output for the total fuel usage for all aircraft below the mixing height in short tons per year (second column).<sup>31</sup> Based on the aviation forecasts, the use of avgas at the Airport would decrease because the number of small piston powered aircraft that rely on avgas would be reduced.<sup>32</sup>

**TABLE 5**  
**GENERAL AVIATION FUEL USAGE**

<b>Aircraft Only</b>	<b>Fuel Usage (ST)</b>	<b>Fuel Usage from Business Jets and Commuter Props (ST)</b>	<b>Fuel Usage from All Other Aircraft (ST)</b>	<b>JetA (gallons)</b>	<b>AvGas (gallons)</b>
Existing (2016) Conditions GA ONLY	4,244	3,802.9	441.1	1,358,196	147,017
GAIP No Project	5,016	4,562.0	454.0	1,629,303	151,318
GAIP Proposed Project	5,176	4,815.9	360.1	1,719,974	120,024
GAIP Alternative 1	5,255	4,893.4	361.6	1,747,645	120,531
ST=short tons per year					
Source: Landrum & Brown, 2019					

Provision of the proposed self-serve fueling station would serve to reduce the operational emissions associated with general aviation activities at the Airport because it would reduce the number of times the fuel is transferred between vehicles. As discussed in the Draft Program EIR, currently, fuel is delivered to the general aviation aircraft by fuel trucks that are filled from the underground storage tanks located in the fuel farm at the southeastern portion of the Airport (south of the Quail Drive entrance). Based on current operations, trucks operated by the FBOs, are filled at the fuel farms, and then distributed to each aircraft. Aircraft are not able to fill directly from the underground tanks in the fuel farm. This process results in the additional handling of the fuel. By providing a self-serve fuel facility with the new storage tank, pilots would be able to fill their tanks directly, thereby eliminating the emissions associated with the additional handling of the fuel and the emissions associated with the trucks needed to deliver the fuel from the existing storage tanks.

The operational emissions resulting from the Proposed Project and Alternative 1 were calculated using the required Federal Aviation Administration ("FAA") Airport Environmental Design Tool Version2d ("AEDT"). Per the FAA, many updates and corrections representing the best available science have been incorporated into AEDT.<sup>33</sup> No emissions reduction was taken for the provision of the self-serve fueling

<sup>31</sup> AEDT does not provide fuel usage in gallons. Therefore, the approximate JetA and AvGas fuel consumption were calculated under the assumption that all business jets and commuter props used JetA fuel and all other aircraft used avgas. The third and fourth column of Table 5 are the AEDT fuel usage outputs by aircraft type (business jet and commuter prop verses all other aircraft).

<sup>32</sup> Aircraft and flight projections for the Proposed Project is provided in Tables 3-5 and 3-7 of the Draft Program EIR. Tables 3-9 and 3-11 provide this information for Alternative 1.

<sup>33</sup> The FAA AEDT replaces what FAA references as "legacy tools" used for modeling noise, emissions, and fuel consumption. For air quality, the legacy tools include the Emissions and Dispersion Modeling System ("EDMS") (FAA 2016).

station, which is conservative as the project component is expected to minimize emissions associated with fuel transport and delivery. Therefore, the analysis in the Draft Program EIR adequately addresses the emissions associated with the self-service fueling station.

The potential health risk impact associated with the new storage tank was incorporated in the health risk assessment (which is provided as Attachment A to these Responses to Comments). VOC emissions from a new storage tank under the Proposed Project and Alternative 1 are incorporated in the HRA. (See Table 2.4-1 of the Health Risk Assessment) The HRA accounted for the location of the storage tank in its analysis and conservatively assumes that the all avgas fueling will occur at the storage tank, when in reality not all of the fueling will occur here. The HRA analysis conservatively represents the new storage tank to account for the maximum potential change to address concerns from SCAQMD. The results of the HRA showed that the Project will be less than significant for health risk impacts, accounting for potential emissions associated with the new storage tank. It should also be noted, Regulatory Requirement RR HAZ-5 and Standard Condition SC HAZ-2 provided in Section 4.5 of the Draft Program EIR.

**AQMD-5** The comment states that SCAQMD is concerned that Draft EIR 627's health risk analysis does not capture the storage and use of avgas. The comment also notes that the general aviation activities under the GAIP would likely occur at different locations on the Airport's property, when compared to the activities associated with certified EIR 617's HRA. In addition, the comment notes that OEHHA updated the Air Toxics Hot spots Program Guidance Manual for the Preparation of Risk Assessments following completion of EIR 617's HRA. Therefore, the comment recommends preparation of a GAIP-specific HRA.

In response, as stated in Section 4.2, Air Quality (page 4.2-24 through page 4.2-29) of EIR 627, a methodological approach that involved comparatively assessing the incremental increase in emissions from the 2014 Settlement Agreement Amendment project (EIR 617) with those emissions attributable to the GAIP (EIR 627) was used in Draft EIR 627. Because the GAIP would result in substantially smaller incremental emission increases than the 2014 Settlement Agreement Amendment project, Draft EIR 627 concluded that the health risk impacts of the GAIP would be less than significant. This approach to assessing the GAIP's toxic air contaminants ("TAC") -related health risk impacts is allowed by CEQA, which does not mandate the preparation of project-specific HRAs. Instead, under CEQA, lead agencies are authorized to exercise their discretion when selecting methodological approaches for evaluating impacts, provided such decisions are supported by substantial evidence. In this case, substantial evidence, such as the similarities in project location and activity types, supports using certified EIR 617's HRA to comparatively evaluate the magnitude of likely impacts under the GAIP.

Nevertheless, in response to comment, a GAIP-specific HRA was prepared to quantitatively identify potential impacts to off-site sensitive and worker receptors as result of the Project. The HRA was prepared in accordance with the latest guidance provided by OEHHA and SCAQMD. The HRA also takes into account projected emissions resulting from the general aviation aircraft fleet, as well as the avgas

storage tank, and the location of those sources. (Of note, the avgas storage tank is expected to reduce emissions when compared to existing conditions due to more efficient fueling practices.) Ultimately, the results of this analysis corroborate the conclusion presented in Draft EIR 627 – the GAIP would result in less than significant health impacts. Please refer to the Topical Response pertaining to the Health Risk Assessment provided in Section 3.1.6 of these Responses to comments. For further discussion of the HRA, a copy of which is located in Attachment A of these Responses to Comments.

**AQMD-6** The comment states that the proposed 5,000 – 20,000 gallon avgas aboveground storage tank would require a SCAQMD permit for construction and operation, and states the assumptions in the air quality analysis for the CEQA document will be the basis for permit conditions and limits. Further, the comment states the CEQA document should also discuss compliance with applicable SCAQMD Rules, including, but may not be limited to, Rule 201 – Permit to Construct, Rule 203 – Permit to Operate, and Rule 1401 – New Source Review of Toxic Air Contaminants.

As noted in Response AQMD-4, the installation of aboveground tank is for the convenience of the pilots and is expected to actually reduce the total emissions associated with the fueling of aircraft because it would eliminate the need to transfer the fuel from the existing underground storage tank to truck, and then transfer the fuel to the aircraft. In addition, it would reduce the VMT associated with the fuel trucks. As a Program EIR, the precise size of the aboveground tank is not known and would be determined by the Limited Service Southwest FBO.

As noted in the Draft Program EIR, the GAIP would be implemented over a period of years. As such, subsequent activities would be examined in light of the Final Program EIR to determine whether additional CEQA documentation would be required pursuant to the requirements of Section 21166 of CEQA (i.e., *California Public Resources Code*, Section 21166) and Sections 15162 and 15168 of the State CEQA Guidelines for subsequent site development approvals.

The Draft Program EIR does identify the need for the issuance of SCAQMD permits for the self-service fueling station. Should, at the time the improvements are proposed (i.e., Phase 3 of the improvements), the SCAQMD determine that additional information is needed to establish the permit conditions and limits, the applicant of the aboveground storage tank would be required to provide the data. If, based on that information, SCAQMD concludes that the implementation of the aboveground fuel tank would result in effects that were not examined in the Program EIR, then as the lead agency for the permit, SCAQMD can require additional CEQA documentation as part of the permitting process.

The following provides a brief summary of the noted regulations where additional discussion was recommended:

- Rule 201, also identified as Permit To Construct, states that “a person shall not build, erect, install, alter or replace any equipment or agricultural permit unit, the use of which may cause the issuance of air contaminants or the use of which may eliminate, reduce or control the issuance of air contaminants

without first obtaining written authorization for such construction from the Executive Officer.”

- Rule 203, identified as Permit To Operate, states that “a person shall not operate or use any equipment or agricultural permit unit, the use of which may cause the issuance of air contaminants, or the use of which may reduce or control the issuance of air contaminants, without first obtaining a written permit to operate from the Executive Officer or except as provided in Rule 202.”
- Rule 1401, known as the New Source Review of Toxic Air Contaminants, The purpose of this rule specifies limits for maximum individual cancer risk (MICR), cancer burden, and non-cancer acute and chronic hazard index (HI) from new permit units, relocations, or modifications to existing permit units which emit toxic air contaminants. The rule establishes allowable risks for permit units requiring new permits pursuant to Rules 201 or 203.

As discussed in Response AQMD-5, at the request of SCAQMD, additional analysis has been prepared that provides additional supporting documentation on health risks. To ensure that it is clear that these regulations are applicable to the aboveground fuel tank, the permit requirements outline in Section 3.7 of the Draft Program EIR (page 3-25) is hereby modified (*red italics* shows the additional text):

- **South Coast Air Quality Management District.** Issuance of permits, *including provisions in Rule 201 (Permit to Construct); Rule 203 (Permit to Operate), and Rule 1401 (New Source Review of Toxic Air Contaminants), would be applicable* for the self-serve fueling station.

**AQMD-7** The comment cites the requirement in the California Public Resources Code and CEQA Guidelines that requires written responses to all comments submitted by public agencies be provided prior to the certification of the final CEQA document.

The comment is noted. Pursuant to Section 15088 of the State CEQA Guidelines, the Responses to Comments documents will be provided to SCAQMD and all other agencies that commented on the Draft Program EIR a minimum of 10-days prior to the Board of Supervisors’ certification of the Final Program EIR.

**Letter 11: South Coast Air Quality Management District  
Dated November 6, 2018**

This letter is the same as the South Coast Air Quality Management District electronic submittal (Letter 10). Therefore, no additional responses are required. Please see Responses AQMD-1 through AQMD-7.

## Organizations



## **3.4 ORGANIZATIONS**

Fifteen comment letters were received from the following organizations:

- Aircraft Owners and Pilots Association, submitted by Adam Williams
- AirFair, submitted by Melinda Seely
- Airport Working Group, submitted by Mel Beale
- Airport Working Group, submitted by Mel Beale (submittal of the same letter using a different email address)
- Airport Working Group, submitted by Mel Beale (submittal of hard copy of the same letter)
- California Cultural Resource Preservation Alliance, submitted by Patricia Martz, Ph.D.
- Citizens Against Airport Noise and Pollution, submitted by Beverly Blais Moosmann
- Corona del Mar Residents Association, submitted by Debbie Stevens
- Corona del Mar Residents Association, submitted by Debbie Stevens (submittal of hard copy of the same letter)
- Irvine Terrace Community Association, submitted by Brian Jones
- Juaneño Band of Mission Indians Acjachemen Nation, submitted by Joyce Perry
- Southern California Pilots Association, submitted by Joe Finnell
- Southern California Pilots Association, submitted by Pat Prentiss
- Southern California Pilots Association, submitted by Fred Fourcher
- Stop Polluting Our Newport and AirFair, submitted by Steven Taber, with Leech Tishman

**Letter 12: Aircraft Owners and Pilots Association**  
**Submitted by Adam Williams**  
**Dated November 21, 2018**

- AOPA-1** The comment states the General Aviation Improvement Program (“GAIP”) would reduce general aviation parking capacity at the Airport. The comment states the capacity reduction will be caused, in part, by the addition of a “General Aviation Terminal” (“GAT”) intended to serve the needs of regularly scheduled commercial charter operators. According to this comment letter, the Aircraft Owners and Pilots Association (“AOPA”) strongly opposes the displacement of general aviation aircraft to construct new air carrier facilities.

The Airport acknowledges this comment and the opinions expressed therein. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

For clarification, however, the purpose of the GAT is not solely for the needs of regularly scheduled commercial charter operations and, the GAT is identified as an optional facility that may be constructed at one of the Full Service Operators (“FBO”) facilities. The GAT, which is estimated to be 3,953 square feet, would provide a facility that could serve scheduled charter operations and also include functions, such as a conference room, pilot’s lounge, office space, or kitchen/commissary services. As part of the outreach effort conducted by the County and their consultants, having a place for pilots to congregate was identified as a desired facility.

- AOPA-2** The comment states while the GAIP project description cites a projected decrease in general aviation operations between 2016 and 2026, Federal Aviation Administration (“FAA”) data has shown a steady increase in general aviation operations at SNA every year from 2015 until 2018.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

Although this comment does not raise any issues specific to the Draft Program Environmental Impact Report (“EIR”), it should be clarified that the No Project Alternative does identify an incremental increase in the number of operations and based aircraft in 2026. As mentioned in the *General Aviation Forecasting and Analysis Technical Report* (Appendix C of the Draft Program EIR), the base year of the forecast was 2016 and the unconstrained forecast was substantially completed in 2017. The unconstrained forecast projected positive growth in operations from 2016 to 2026 as described in the Project Description, Section 3.5 of the Draft Program EIR and shown in Table 3-3. However, with the limited physical space, as mentioned in Section 3.6, the GAIP has been developed in an effort to balance the environmental, social, and

economic demands regarding general aviation operations at JWA. As a result of the constrained condition under the Proposed Project, the constrained forecast projected a reduction in based aircraft and general aviation operations as shown in Table 3-7.

**AOPA-3** The comment expresses the opinion that the County must maintain sufficient general aviation parking capacity to meet future demand. The comment states the displacement of aircraft capacity at the Airport would result in impacts on other nearby airports and those communities and therefore, the comment indicates that the Draft Program EIR does not full describe the impacts associated with the GAIP.

The County does not have a responsibility nor the physical capacity to provide aviation parking capacity to meet all demand at the Airport. However, and as discussed in Section 3.5 of the Draft Program EIR, as part of the planning effort for the GAIP, an unconstrained forecast for general aviation activity at the Airport was developed. This analysis, which is contained in the *General Aviation Forecasting and Analysis Technical Report* (Appendix C of this Program EIR), helps to define the future regional demand for based aircraft in the Competitive Market Area ("CMA") and ultimately to John Wayne Airport ("JWA").

The displacement of general aviation aircraft was clearly identified in sections and tables throughout the Draft Program EIR, including the project descriptions (in both the Executive Summary and Section 3). The displacement of aircraft was identified as a key issue that will need to be considered by the Board of Supervisors when determining whether to approve the GAIP and select an alternative. Section 1.8, Areas of Controversy/Issues to be Resolved, clearly states:

Though other local airports have capacity, this would be a disruption for local pilots that have historically based their aircraft at JWA. The reduction of based aircraft would be accomplished through the lease process (i.e., leases would not be renewed for tie-down locations or the limitations would be reflected in the leases with the FBOs). The effect of reducing the number of based aircraft needs to be balanced with the need to respond to the trend in aviation by providing the type of facilities that best meets the future needs of the broad spectrum of people wishing to utilize the limited space available at JWA.

The aircraft displacement issue was also discussed as it pertains to land use (Section 4.6, Land Use and Planning). The Draft Program EIR identified that displaced aircraft can be accommodated elsewhere in the region. Fullerton Municipal Airport, also a general aviation airport in Orange County, has capacity for 600 aircraft and at the year ending on October 31, 2017, only 223 aircraft were based at the Fullerton Municipal Airport. Long Beach Airport is also identified as having capacity. As of October 31, 2017, Long Beach Airport had 380-based aircraft and historically has accommodated higher numbers of general aviation aircraft (AirNav.com 2018). AirNav.com reports that as of September 30, 2018, the number of aircraft based at Fullerton has gone down to 127 and as of November 30, 2018, Long Beach Airport has 344-based aircraft.

Although the Land Use and Planning section identified the loss of aircraft parking spaces as adverse because it reduces the overall capacity at the Airport; it was not

identified as a significant land use impact because it would not result in an incompatible land use or conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (see Threshold 4.6-1). The aircraft are accommodated on the Airport through lease agreements, which have established expiration dates or provisions for cancellation of the lease. Therefore, the reduction in the overall number of aircraft based at JWA would not result in a significant environmental impact (see page 4.6-19).

The displacement of aircraft was evaluated in the traffic analysis, with the evaluation having a separate heading in the evaluation for the Proposed Project and Alternative 1 under Threshold 4.8-1. The *General Aviation Improvement Program Traffic Impact Analysis* ("TIA") (Appendix I) addressed this as a Special Issue. As part of this evaluation, a discussion is provided on the methodology for calculating vehicle miles traveled ("VMT") associated with travel to alternative airports (see pages 4.8-15 and 4.8-22 in the Draft Program EIR and Section 5.2 of the TIA). However, the distribution of aircraft to alternative airports in the "Competitive Market Area" is unknown; therefore, the analysis is done based on VMT. Therefore, specific trip assignment would be speculative and is not required pursuant to the California Environmental Quality Act ("CEQA"). Section 15145 of the State CEQA Guideline does not require a lead agency to speculate on potential impacts.

It should also be noted, consistent with Section 15126.6(a)-(b) of the State of California Environmental Quality Act ("CEQA") Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addresses alternatives that include a minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

- AOPA-4** The comment states the study should address if aircraft displaced from the Airport would still need to return to the JWA to pick up their owners and passengers. If so, the number of takeoffs and landings at JWA would increase.

As mentioned in the *General Aviation Forecasting and Analysis Technical Report* (Appendix C of the Draft Program EIR), a survey of the based aircraft owners and interviews with FBO/stakeholders were conducted in November 2016. The actual use of based aircraft at JWA was collected in the survey. The findings were considered in the forecast analysis. Displaced aircraft are no longer based aircraft. Operations from displaced aircraft are included in transient operations forecast. Additionally, aviation forecast includes an increase in number of transient operations of approximately 9 percent between 2016 and 2026 for the baseline forecasts (see Table 18 forecast transient operations in Appendix C of the Draft Program EIR). As noted on page 27 of Appendix D, the transient operations estimated from the unconstrained forecast models are included in the total annual operations. The unconstrained forecast models are driven by socio-economic growth, historic data, information gathered from stakeholder interviews and aircraft owner surveys, and industry trends. Both the full

service and limited service FBOs have maintained and will continue to maintain transient aprons to accommodate visiting transient aircraft operations. This information is also reflected in the Draft Program EIR. As noted on page 3-5 of the Draft Program EIR, operations generated by based aircraft would be constrained because of limited parking spaces for different types of aircraft. Operations generated by transient aircraft utilize the unconstrained forecast model. Since these flights are included in the aviation forecasts, and the air quality and noise impact analysis utilized the forecasts data, the impacts of these additional trips were evaluated in the technical analyses. For additional information on this issue, please see the Topical Response pertaining to Aviation Forecast, provided in Section 3.1.1 of these Responses to Comments.

**AOPA-5** The comment states that while a small increase in turbojet activity is forecast, the real number of future annual turbojet operations is unknown and may be substantially increased by the addition of a new facility. The comment further states that if a specific operator is expected to occupy the facility, their fleet and schedule should be considered as part of the environmental impact study.

The environmental studies completed for the GAIP have been completed at the programmatic level of environmental review. The CEQA Guidelines (Section 15165) recommends the use of a Program EIR “where individual projects are, or a phased project is, to be undertaken and where the total undertaking comprises a project with significant environmental effect, the Lead Agency shall prepare a single program EIR for the ultimate project as described in Section 15168.” For the GAIP, a key consideration for the use of a Program EIR is the County’s ability to consider broad policy alternatives and program-wide mitigation measures. As noted in Section 1.5 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. Other advantages of using a Program EIR cited in the CEQA Guidelines include (1) the ability to provide a more exhaustive consideration of effects and alternatives; (2) inclusion of a more comprehensive evaluation of cumulative impacts; and (3) to avoid duplicative reconsideration of basic policy considerations.<sup>34</sup>

Once the Board of Supervisors certifies the Program EIR, they will consider the selection of an alternative for the GAIP and may ultimately make selections on the leases at the Airport.<sup>35</sup> Until an alternative is selected and approved, the number of Full Service FBOs and the specific operator and their fleet will not be known. The forecasts were used in the noise analysis as it was the best available data at the time the modeling was completed. Additionally, it is recognized that the GAIP would be implemented over a period of years and any changes in the fleet mix would occur gradually as the improvements are phased in. Subsequent activities, such as the development plan review, would be examined in light of the Final Program EIR to determine whether additional CEQA documentation would be required pursuant to the requirements of Section 21166 of CEQA (i.e., *California Public Resources Code*,

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<sup>34</sup> See Section 2.2 of the Draft Program EIR for a discussion on the use of a Program EIR.

<sup>35</sup> Based on the current schedule, the Orange County Board of Supervisors is expected to consider new long-term Fixed Base Operators (“FBOs”) leases in 2019, following a competitive bid process within the parameters of the GAIP.

Section 21166) and Sections 15162 and 15168 of the State CEQA Guidelines for subsequent site development approvals.

**Letter 13: AirFair  
Submitted by Melinda Seely  
Dated October 24, 2018**

- AF-1** The comment expresses support for the Project scope, which confines improvements to the existing Airport footprint. AirFair is opposed to any expansion of the general aviation uses beyond the current airport limits.

The comment correctly identifies that the Draft Program Environmental Impact Report (“EIR”) clearly identifies that the improvements would be confined to the Airport footprint (pages 1-4; 2-8; 3-19; 3-23; and 4.5-21). The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

- AF-2** The comment expresses a concern that the proposed reduction in the availability of facilities for smaller piston engine aircraft coupled with an increase in operation of large corporate jets could have a significant impact on the noise levels, particularly at night.

The comment is noted; however, the analysis in the Draft Program EIR does factor in the increased proportion of jet aircraft. Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. In the Baseline (2016), the turbine and jet aircraft represent 21.6 percent of the total general aviation operations. In 2026, this will increase to 31.0 percent for the Proposed Project and Alternative 1.<sup>36</sup> Focused just on the percent of general aviation jets, in the Baseline (2016), 16.5 percent of the total operations were flown by aircraft with jet engines. In 2026, this would increase to 24.1 percent for the Proposed Project and 24.6 percent for Alternative 1. These assumptions are the basis of the technical analysis; therefore, the noise contours and impact analysis in the Draft Program EIR already reflect these operations.

The noise analysis presented in Section 4.7, identified the General Aviation Improvement Project (“GAIP”) would result in minor increases in aviation noise levels compared to the Baseline (2016) condition however, none of the increases would exceed the thresholds of significance. Increases with the Proposed Project would occur at four noise monitoring stations (“NMS”) that are within the 65 CNEL contour (NMS 1S, 2S, 3S, and 8N). The largest increase (at NMS 3S) is 0.15 CNEL, which is 0.01 CNEL higher than the Baseline Plus No Project Alternative. Alternative 1 would also result in minor increases in aviation noise levels compared to the Baseline (2016) condition, which would not exceed the thresholds of significance. The increases would occur at four NMS that are within the 65 CNEL contour (NMS 1S, 2S, 3S, and 8N). The largest increase (at NMS 3S) is 0.17 CNEL and is 0.03 CNEL higher than the Baseline Plus No Project Alternative. A person can just barely detect a sound level change of approximately 1

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<sup>36</sup> It should be noted, the total number of general aviation operations in 2026, when compared to the Baseline (2016) operations is projected to decrease with the Proposed Project and Alternative 1. Therefore, the resulting percentage of the total would be higher because a lower denominator is used when calculating the percent.

decibel for sounds in the mid-frequency region. When ordinary noises are heard, a young, healthy ear can detect changes of 2 to 3 decibels. This information is summarized in Table 4.7-8 in the Draft Program EIR and the full *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* prepared by Landrum & Brown is included as Appendix H to the Draft Program EIR. It should also be noted, that with the No Project Alternative, an increase in general aviation jet operations is expected compared to the Baseline (2016) operations. The No Project Alternative forecasts an annual increase of 8,200 general aviation operations, of which 6,500 are forecast to be jets (Table 5-21 of Draft Program EIR).

With regard to an increased number of nighttime jet operations, although general aviation operations are permitted 24 hours a day, they are subject to daytime and nighttime noise limits. The General Aviation Noise Ordinance (“GANO”) establishes limitations on the maximum single event noise levels, which are applicable to general aviation nighttime operations. The GAIP would not change any provisions of the GANO. For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments.

**AF-3** The comment states there is a concern about the impacts an international general aviation facility terminal would have on the number of aircraft operations. Of particular concern is the potential for group charter flights.

The forecast international general aviation operations are given in Section 6.4 of the *General Aviation Forecasting and Analysis Technical Report* (Appendix C of the Draft Program EIR) including the baseline, high, and low scenarios. The high scenario considered positive conditions supporting the growth, (e.g. global economy and attractiveness of JWA). Demands for international operations include demands from individuals or group passengers, charter flights or flights for other purposes that have international origins or destinations. As mentioned in Appendix C of the Draft Program EIR, if CBP inspection is available for general aviation aircraft, those international departures originated at JWA would likely return to JWA for custom clearance. For those aircraft entering the US from south of the Mexican border or Pacific, Gulf of Mexico, or Atlantic coastlines, it will depend on whether CBP will grant exemption on the special reporting requirement at designated airports. CBP may grant exemptions to aircraft based at JWA but it is at the discretion of CBP. The Baseline (2016) estimates identify there are 447 annual general aviation international departures from John Wayne Airport. The forecast projected an increase to approximately 490 annual international departures by 2026. For additional information on this issue, please see the Topical Response pertaining to Aviation Forecasts, provided in Section 3.1.1 of these Responses to Comments.

With regards to group charter flights, page 3-10 of the Draft Program EIR does identify that regularly scheduled commercial charter operators have approached the County, expressing their interest in initiating regularly scheduled air service at the Airport. The County’s Phase 2 Commercial Airline Access Plan and Regulation (Access Plan) provides definitions that must be used to determine whether an operation or operator at the Airport is a “Regularly Scheduled Commercial User” or provides “Regularly Scheduled Air Service.” See, Access Plan, Sections 2.39, 2.40. To the extent group charter flights fall within these definitional parameters, compliance with the Access Plan provisions is



required including, but not limited to, the allocation of capacity for the proposed operations. Please see the Topical Response pertaining to Regularly Scheduled Air Service and General Aviation Charter Operations provided in Section 3.1.5 of these Responses to Comments.

The County approved an allocation of capacity for the proposed initiation of service for JetSuiteX in late 2017 and JetSuiteX initiated operations at JWA in mid-2018. Although the Access Plan provides the Airport Director with the discretion to authorize regularly scheduled charter operators to operate out of FBOs, operations out of FBOs is not as a matter of right, and any such operations at an FBO location are subject to the prior discretionary approval of the Airport Director. It should be noted that JetSuiteX is required to comply with the GANO. Additionally, regularly scheduled commercial charter operations require an allocation of passenger capacity prior to the initiation of service consistent with the provisions of the Access Plan).<sup>37</sup>

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<sup>37</sup> Many of the provisions that govern noise and operational capacity are implemented through the JWA Phase 2 Commercial Airline Access Plan and Regulation ("Access Plan"). The Access Plan regulates commercial passenger and cargo carrier operations at JWA by placing limits on the hours of operation, maximum number of regulated average daily departures and annual passengers, and noise levels among other regulations.

**Letter 14: Airport Working Group**  
**Submitted by Mel Beale**  
**Received November 21, 2018**

- AWG-1** The comment serves as a transmittal of the comments from Airport Working Group of Orange County (“AWG”). The comment states the organization has concerns regarding the analysis in the Draft Program Environmental Impact Report (“EIR”) and believes the findings of the Draft Program EIR are not sufficient to move forward with the General Aviation Improvement Program (“GAIP”) as defined.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

- AWG-2** The comment states the GAIP would result in a limited control facility environment that would allow the Fixed Base Operators (“FBO”) leaseholders flexibility to adapt the space to their own needs based on economics and optimization of square footage of aircraft storage capacity. Appendices C and D of the Draft Program EIR provide forecasts and estimates of general aircraft local storage demand, but the only forecast analyzed for environmental impact was a single conservative baseline forecast. In the baseline forecast, applied to the constrained forecast scenario, there will be a significant increase to the number of corporate, business, or private jet operations, which will negatively impact the quality of life of local residents living near the departure tracks. But to obtain a true potential environmental impact, a broader analysis of the impact using a potential higher capacity utilization (above the baseline levels) by the entrepreneurial and innovative leaseholders is needed. This should be based on some constrained version of the high growth rate from Section 6.1.3 Table 13 in Appendix C which shows a much higher growth rate.

The *General Aviation Forecasting and Analysis Technical Report* (Appendix C of this Draft Program EIR) and the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendix D of the Draft Program EIR) provide forecasts and estimates of general aviation aircraft local storage demand. The *Forecasting and Analysis Report* (Appendix C of the Draft Program EIR) provides a detailed explanation of the forecasting process. As noted, the analysis included both weekday and weekend design day data and included Baseline<sup>38</sup>, Low, and High Scenarios. The Baseline Scenario, which became the basis for the analysis was the “middle” scenario (not as indicated in the comment, the most conservative baseline forecasts). However, as noted in the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendix D of the Draft Program EIR), the Proposed Project and alternatives capacity are based on an estimate of the number of

<sup>38</sup> It should be noted, the term baseline here is not used in the same context as the Baseline (2016) the Draft Program EIR. In terms of the California Environmental Quality Act (“CEQA”), the Baseline represents the existing conditions and is the basis for evaluating environmental impacts.

based aircraft and aircraft operations that can be accommodated under the physical space available for aircraft parking and storage. The physical space available is the limiting factor, not the unconstrained demand under the baseline or high growth forecasts contained in the *General Aviation Forecasting and Analysis Technical Report*, (Appendix C). Therefore, development of constrained forecasts for each of the forecast projections is not necessary. Reasonable assumptions were used to estimate the space required to accommodate a range of aircraft types. Additional detail on these issues is also provided in the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments.

It should also be noted, although the FBOs and other leaseholders may be granted flexibility to adapt the space to their own needs, this would be done within the parameters of the GAIP. As noted in Section 3.7 of the Draft Program EIR subsequent activities, such as the development plan review, would be examined in light of the Final Program EIR to determine whether additional CEQA documentation would be required pursuant to the requirements of Section 21166 of CEQA (i.e., *California Public Resources Code*, Section 21166) and Sections 15162 and 15168 of the State CEQA Guidelines for subsequent site development approvals.

**AWG-3** The comment pertains to the recent introduction at John Wayne Airport of scheduled charter operations. According to the commenter, the new facilities at the Fixed Based Operator (“FBO”) would have increased attractiveness compared to other airports in the Competitive Market Area (“CMA”) because of the expanded services, such as General Aviation Facility (“GAF”) with the ability to process international flights. The comment further states, although the passenger counts are controlled within the Settlement Agreement<sup>39</sup>, the manner of operations for general aviation is not as strictly controlled as commercial. Additionally, the comment inquires if late departures (after the commercial curfew or before 7am) would become common.

Please see Response AWG-2 and the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments. In addition, please see the Topical Response pertaining to Regularly Scheduled Air Service and General Aviation Operations provided in Section 3.1.5 of these Responses to Comments.

The Draft Program EIR (page 3-10) does identify that regularly scheduled commercial charter operators have approached the County, expressing their interest in initiating regularly scheduled air service at the Airport. The County approved an allocation of capacity for the proposed initiation of service for JetSuiteX in late 2017 and JetSuiteX initiated operations at JWA in mid-2018. Although the Access Plan provides the Airport Director with the discretion to authorize regularly scheduled charter operators to operate out of FBOs, operations out of FBOs is not as a matter of right, and any such operations at an FBO location are subject to the prior discretionary approval of the Airport Director. It should be noted that JetSuiteX is required to comply with the GANO. Additionally, regularly scheduled commercial charter operations

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<sup>39</sup> The Settlement Agreement and the subsequent amendments, which pertains to predominantly pertains to commercial carrier operations and allowed number of annual passengers, is discussed in Section 2.6.3 of the Draft Program EIR. Section 4.0.1 (page 4-6) identifies the number of regulated commercial flights and passenger caps allowed under the 2014 Settlement Agreement Amendment.

require an allocation of passenger capacity prior to the initiation of service consistent with the provisions of the Access Plan).<sup>40</sup>

As discussed in the Topical Response pertaining to the GANO (see Section 3.1.3 of these Responses to Comments), although general aviation operations are permitted 24 hours a day, they are subject to daytime and nighttime noise limits. As noted in Appendix H, on page 53, the noise analysis for the GAIP assumes the same percent of general aviation jets operating in the evening and nighttime in the Baseline would operate in the GAIP alternatives. This results in approximately 9 percent of business jets operating on an average annual day during the evening period and approximately 3 percent operating during the nighttime period. Based on the forecasts provided in Table 3-7 of the Draft Program EIR, in the Baseline (2016), there were 31,800 annual operations were flown by aircraft with jet engines. In 2026, this would increase to 40,400 for the Proposed Project and 41,400 for Alternative 1. Using the 3 percent nighttime operations factor, this equates to the Proposed Project resulting in approximately 258 additional nighttime operations annually (0.71 additional operations per night) compared to the Baseline (2016). However, each take-off and landing is considered a separate operation. Therefore, the total number of departures would be approximately half that number (i.e., 129), which would result in an average of 0.35 additional daily nighttime departures. For Alternative 1 (see Table 3-11 of the Draft Program EIR), there would be approximately 288 additional nighttime operations annually. Therefore, with Alternative 1 there would be an average of 0.39 additional nighttime departures on a daily basis.<sup>41</sup> It should be noted, the actual number of flights would vary each day because this number is based on a mathematical equation that derives a daily number of nighttime operations based on the annual forecast.

The assumption of growth in international travel and the estimated number of flights associated with general aviation jet aircraft that could be used for charter services have been incorporated into the technical analyses, including the evaluation of noise impacts, in the Draft Program EIR. These issues are also discussed in the Topical Response pertaining to Aviation Forecast, provided in Section 3.1.1 of these Responses to Comments.

**AWG-4** The comment asserts that Draft Program EIR 627 does not forecast an increased percentage in transient (non-hangered) operators' use of the Airport, but with the new

<sup>40</sup> Many of the provisions that govern noise and operational capacity are implemented through the JWA Phase 2 Commercial Airline Access Plan and Regulation ("Access Plan"). The Access Plan regulates commercial passenger and cargo carrier operations at JWA by placing limits on the hours of operation, maximum number of regulated average daily departures and annual passengers, and noise levels among other regulations.

<sup>41</sup> Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. The following calculations were done to determine the expected increase in daily nighttime departures:

- The difference between the number of 2016 jet operations and the 2026 jet operations is calculated.
- The number of operations is then multiplied by 0.03 because 3 percent of the flights are projected to be nighttime flights. Since the number of operations are given as annual operations, this number is then divided by 365 to come up with a daily average number of nighttime operations.
- The number of nighttime operations is divided by two, which provides the number of nighttime departures.

large central terminal with services, there is a strong likelihood this higher number of transient operations would occur. This was not analyzed for noise or pollution impact.

It is not clear what is being referenced as the “large central terminal with services”, which is supposed to be the attractor for a higher number of transient operations. If the comment is referencing the optional General Aviation Terminal, this facility is conceptually estimated to be 3,953 square feet that could serve charter operations, a conference room, pilot’s lounge, office space, or kitchen/commissary services. Additionally, approximately 1,952 square feet is allocated for a General Aviation Facility that would process international flights (see page 3-8 of the Draft Program EIR). These improvements, although they would facilitate the efficient operations at the Airport, are not sufficient to attract aircraft that do not have a purpose to use John Wayne Airport.

Additionally, both the unconstrained and constrained forecasts estimated an increase in number of transient operations of approximately 9 percent between 2016 and 2026 for the baseline forecasts (see Table 18 forecast transient operations in Appendix C of the Draft Program EIR). As noted on page 27 of Appendix D, the transient operations estimated from the unconstrained forecast models are included in the total annual operations. The unconstrained forecast models are driven by socio-economic growth, historic data, information gathered from stakeholder interviews and aircraft owner surveys, and industry trends. Both the full service and limited service FBOs have maintained transient aprons to accommodate visiting transient aircraft operations. This information is also reflected in the Draft Program EIR. As noted on page 3-5 of the Draft Program EIR, operations generated by based aircraft would be constrained because of limited parking spaces for different types of aircraft. Operations generated by transient aircraft utilized the unconstrained forecast model. Since these flights are included in the aviation forecasts, and the air quality and noise impact analysis utilized the forecasts data, the impacts of these additional trips were evaluated in the technical analyses.

International and transient operations are discussed in greater detail in the Topical Response pertaining to Aviation Forecast, provided in Section 3.1.1 of these Responses to Comments.

**AWG-5** The comment questions the use of 2016 for the baseline condition in the Draft Program EIR. The comment cites that CEQA requires that, under normal circumstances, the Draft Program EIR the baseline should reflect the timeframe when Notice of Preparation (“NOP”) is published. The comment asks for an explanation of the 2016 baseline chosen for the EIR.

The NOP was published in March 2017. Both the NOP and the Draft Program EIR identify that 2016 was the most recent year with complete information that could be used as the basis for aviation forecasts. The conditions at the Airport for general aviation activity did not substantially change from the end of 2016 to the first quarter of 2017. Having a complete annual data source for the analysis is required to be able to prepare accurate forecasts. As noted, on page 4.8-3 in the Draft Program EIR:

The 2016 baseline was identified in the Notice of Preparation (provided in Appendix A of this Program EIR) because it was the most recent year with complete information. Pursuant to Section 15125 of the CEQA Guidelines: “An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or . . . at the time environmental analysis is commenced . . . This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.”

The physical conditions at the Airport did not substantively change from December 31, 2016 and March 2017.

- AWG-6** The comment states that the Baseline noise analysis fails to take into account the cumulative noise impacts of the Southern California Metroplex Project, which was implemented in April 2017.

As stated in the Draft Program EIR, Section 1.9, the Federal Aviation Administration (“FAA”) began implementation of Metroplex procedures in late 2016 (arrivals from the north) and continued through December 2017. As noted in Response AWG-5, the Baseline condition is 2016, which was the latest year with full data at the time of the release of the NOP and the initiation of the technical studies. When the Baseline was established, the FAA was (and currently still is) reviewing procedures for possible implementation of the City-requested procedure that would utilize satellite guidance to more accurately direct aircraft along the middle of the Upper Newport Bay. If a modified departure pattern is approved, it is anticipated that implementation of Newport Beach’s requested procedure could result in minor modifications to the noise contours provided in this Program EIR; however, any modifications would not be as a result of or related to the GAIP. Any environmental impacts associated with the change, would be addressed by the FAA as part of their action changing the flight path in the context of the National Environmental Policy Act (“NEPA”) process.<sup>42</sup> The identification of the cumulative projects (Section 4.0.1 of the Draft Program EIR) and the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* (Appendix H, page 86), clearly state due to the uncertainty of the final departure pattern, the cumulative noise analysis does not assume different flight paths than what are currently being used because it would be speculative. Section 15145 of the State California Environmental Quality Act (“CEQA”) Guideline does not require a lead agency to speculate on potential impacts. For additional discussion on this issue, please see the Topical Response pertaining to Flight Path Procedures provided in Section 3.1.2 of these Responses to Comments.

- AWG-7** The comment states, the FAA Airport Environmental Design Tool Version2d (“AEDT”) model was not implemented in 2016 but in March 2012, and therefore; argues that the claim that a direct comparison of the program EIR to the data presented in Final EIR 617 cannot be made is entirely unsupported. The commenter’s statement is not

<sup>42</sup> The County of Orange, as the proprietor of the Airport, has no authority or control over aircraft in flight. Rather, the Federal Aviation Administration (“FAA”) has exclusive regulatory jurisdiction over flight paths, and the pilot-in-command of each aircraft is responsible for safely maneuvering the aircraft in accordance with the FAA’s airspace procedures.

completely accurate and is used to draw an erroneous conclusion regarding the comparison of the data in EIR 617 to Draft Program EIR 627.

The referenced statement in the Draft Program EIR is accurate. Although the AEDT model was approved in 2012, it was not being applied for the type of analysis conducted in Final EIR 617. The Federal Register 18297-98, 3/27/2012 states “Effective March 21, 2012, AEDT 2a is the required tool for noise, fuel burn, and emissions **modeling of air traffic airspace and procedure actions** where the study area is larger than the immediate vicinity of an airport, incorporates more than one airport, or includes actions above 3,000 feet AGL” (emphasis added). EIR 617 was not an air traffic airspace and procedure action, did not incorporate more than one airport, or include airspace actions above 3,000 feet above ground level. Therefore, the Integrated Noise Model (“INM”), not AEDT, was used to model the noise analysis in EIR 617. 80 Federal Register 27853, 05/15/2015 stated “Effective May 29, 2015, AEDT 2b replaces AEDT 2a, INM, and EDMS as the required tool for noise, fuel burn, and emissions modeling of FAA actions. Consistent with current FAA policy and practice, the use of AEDT 2b is not required for projects whose analysis began before the effective date of this policy. In the event AEDT 2b is updated after the environmental analysis process is underway, the updated version may, but need not, be used to provide additional disclosure concerning noise, fuel burn, and emissions.”<sup>43</sup>

**AWG-8** The comment expresses the opinion that the limitation on the analysis of air quality impacts to general aviation only is in error and should include an evaluation of air quality impact of charter and commuter aircraft.

The impact of charter and commuter aircraft are included in the evaluation of air quality impacts as they were included in the forecast of general aviation activity for the GAIP. As noted in the *Air Quality Technical Report* (provided as Appendix E to the Draft Program EIR), the operations and fleet mix for the general aviation operations was developed based on the *Orange County/JWA GAIP Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts*, which were included as Appendix D to the Draft Program EIR.<sup>44</sup> This is because, as explained on page 11 in Appendix C (*General Aviation Forecasting and Analysis Technical Report*) of the Draft Program EIR: “General aviation flight activities comprise a wide range of flying activities, such as flight training, personal and recreational, business and corporate, on-demand charter, aerial work (observation, firefighting, agricultural), sightseeing, air medical, and other purposes.”

The general aviation demand forecast analysis provided in Appendices C and D of the Draft Program EIR include on-demand flight activity operated under FAR Part 135, commonly known as air taxi operations, since they are often indistinguishable from the general aviation operations operated under FAR Part 91. Air taxi operations include transportation of persons, property, and mail using small aircraft typically

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<sup>43</sup> Final EIR 617 was certified by the Board of Supervisors on September 30, 2014 and the City of Newport Beach on October 14, 2014.

<sup>44</sup> The aviation forecasts, provided in Appendix D of the Draft Program EIR, are cited as the source the fleet mix and aircraft operation. For the No Project Alternative, the source is cited on pages 39, 40, and 41. For the Existing Plus Proposed Project, the citations can be found on pages 42, 43, and 44. The citations to Appendix D are on pages 45, 46, 47, and 48 for Alternative 1.

under 30 seats. Section 3.1 of Appendix C describes the composition of general aviation activity. Although the Draft Program EIR does not explicitly categorize the suggested charter and commuter aircraft operations, they are assumed to be accounted for in the general aviation and air taxi forecast methodology.

- AWG-9** The comment references a discussion in the Draft Program EIR that identifies that the “transient aircraft parking areas are excluded from the capacity analysis.” Even though one of the results of the Project is the potential for a dramatic increase in transient aircraft arrival and departure, including access to a new international general aviation terminal, and accommodated by sharing of tie-down space with based aircraft. The noise and air quality impact of that increase in potential transient operations remains unevaluated.

The Airport acknowledges this comment. However, page 3-6 of the Draft Program EIR, clarifies that transient aircraft parking would be provided at each FBO, similar to what is currently provided at the Airport and is required per the FBO lease agreements. Footnote 24, which is cited in the comment and is found on page 3-17 of the Draft Program EIR, states “The number shown for each FBO Apron area includes based aircraft only. For example, the Full-Service NE FBO apron has capacity for 30 total aircraft. Assuming an even split between based and transient aircraft, there are 15 spaces allocated for based aircraft.” In the context of capacity for based aircraft, counting the area that would be utilized by transient aircraft is not appropriate. However, as discussed in Response AWG-4, the forecasts estimated an increase in number of transient operations (see forecast transient operations in Appendix C of the Draft Program EIR). The air quality and noise impact analysis utilized the forecasts data. Therefore, the impacts of these additional trips were evaluated in the technical analyses.<sup>45</sup> These issues are discussed in greater detail in the Topical Response pertaining to Aviation Forecast, provided in Section 3.1.1 of these Responses to Comments

## **Appendix B – General Aviation Opportunities Facilities Layout Report**

- AWG-10** The comment states key operations forecasts for the Proposed Project and Alternative 1 were based on the layout detail included in the *General Aviation Opportunities Facilities Layout Report*, which was provided as Appendix B to the Draft Program EIR. The comment cites a reference to Appendix B, which identifies that the number of “aircraft in hangars” and the number of “aircraft on apron” is not an absolute because of the type and size of aircraft parked at a busy FBO facility is wide ranging and can change frequently based on demand associated with transient aircraft. The comment states that the analysis needs to take into consideration different local hangared aircraft populations at the proposed FBOs to ensure that even at a higher aircraft capacity, there would not be a significant impact, or, it must state a mitigation program. Further, the comment states the impact of a substantial increase in business jet operations is made worse from a community perspective because

<sup>45</sup> Response AWG-8 identifies the location in the *Air Quality Technical Report* where the aviation forecast are the basis of the analysis. The aviation forecasts (Appendix D) is also cited as the basis for the noise analysis in multiple locations in the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* (Appendix H), including the methodology discussion on page 37, the source for the tables showing the yearly aviation operations by alternative, and the source on the figures depicting the noise contours.



business jet departures follow the same Standard Instrument Departure (“SIDs”) tracks used by commercial airlines. The same neighborhoods that are impacted by commercial aircraft will be impacted by noise and pollution under the same departure tracks, whereas the large number of displaced, smaller general aviation prop/piston engine aircraft are fanned after takeoff along different visual paths. This clearly is an increase in noise for residents near NM5, NM6, and NM7 who are not under the flight path of prop/piston aircraft.

The *General Aviation Opportunities Facilities Layout Report*, which was provided as Appendix B to the Draft Program EIR evaluated low, medium and high density scenarios. Under these scenarios, FBO hangar capacity would range from three jets to seven jets. The low density scenario would accommodate three large jets; medium density would accommodate three large jets plus two smaller jets (for a total of five jets); and the high density scenario would accommodate seven smaller jets. The medium density scenario (five jets per hangar) was used for planning purposes because:

- 1) Five aircraft is the median/average density factor;
- 2) This scenario has a mix of large and medium/small jets, which best represents normal or average daily FBO operations;
- 3) Priority is typically offered to the largest aircraft that fits within the space available until the hanger is full, which results in a mix of aircraft sizes; and
- 4) Generally, the five aircraft scenario is assumed to maximize FBO revenue generating potential.

Although it may be possible to load every hangar with up to seven small jets, that scenario is unlikely to occur because it dismisses the presence of the larger global jets, which is not a reasonable assumption because the larger jets will always be present at JWA. These assumptions are reasonable and the most appropriate for the disclosure of potential environmental impacts.

The *Noise Analysis Technical Study* (Appendix H) and Draft Program EIR fully addressed the noise impacts associated with increased business jets. In conducting the analysis, the general aviation jet aircraft were assigned the appropriate departure path; therefore, the increased number of jets flying over NMS 5, 6, and 7 was fully accounted for.

The forecasts were used in the noise analysis as it was the best available data at the time the modeling was completed. Additionally, it is recognized that the GAIP would be implemented over a period of years and any changes in the fleet mix would occur gradually as the improvements are phased in. Subsequent activities, such as the development plan review, would be examined in light of the Final Program EIR to determine whether additional CEQA documentation would be required pursuant to the requirements of Section 21166 of CEQA (i.e., *California Public Resources Code*, Section 21166) and Sections 15162 and 15168 of the State CEQA Guidelines for subsequent site development approvals.

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**Appendix C – General Aviation Forecasting and Analysis Technical Report**

- AWG-11** The comment raises two issues pertaining to the forecast in Appendix C of the Draft Program EIR (*General Aviation Forecasting and Analysis Technical Report*). Three forecast levels are provided for based aircraft and annual operations based on the fleet forecast at each forecast level. The comment says level of aircraft capacity and operations then taken forward in the constrained forecast of Appendix D was not adequately explained for the purpose of external evaluation; and asks why only a single forecast level was defined in the constrained forecast for both the Proposed Project and Alternative 1.

Please see Response AWG-2 and the Topical Response pertaining to Aviation Forecast, provided in Section 3.1.1 of these Responses to Comments regarding the forecast assumptions. As noted, the physical space available is the limiting factor, not the unconstrained demand under the baseline or high growth forecasts contained in the *General Aviation Forecasting and Analysis Technical Report*, (Appendix C). Therefore, development of constrained forecasts for each of the forecast projections is not necessary. Reasonable assumptions were used to estimate the space required to accommodate a range of aircraft types.

- AWG-12** The comment asserts a key component of the environmental impact analysis is the actual assets that will be generating the impact, specifically, the aircraft fleet using the proposed facilities. The concern raised is that no analysis was done based on a range of values of a different mix of fleet, which may increase the number of hangered/based jet aircraft to higher numbers based on facility usage by the FBOs. Additionally, the comment states, some corporate jet owners use their aircraft much more frequently than the national average with more than one takeoff per day, Monday through Friday. Such scenarios seem possible and which may have a significant environmental impact in noise and pollution. A range of forecasts of jet fleet mix, total based aircraft and annual operations above one takeoff a day needs to be completed in the Final Program EIR.

Please see Responses AWG-2, AWG-10, and AWG-11 regarding the development of an appropriate scenario for evaluating the impacts. Additionally, please see the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments.

**Appendix D – Capacity Analysis and General Aviation Constrained Forecasts**

- AWG-13** The comment reiterates the earlier comments regarding the evaluation regarding the use of a single capacity footprint and aircraft fleet mix was developed for each scenario. The comment is asking for the link from each of these analyses and how the ground footprint was designed as a high-level capacity layout.

The procedure used to estimate the aircraft parking capacity of each alternative is provided in Appendix D, Section 2.1, Methodology and Assumptions. Each alternative includes up to six types of aircraft storage facilities and the capacity of each alternative is determined based on the number, type, and size of the facilities provided (as depicted in Figures 3 through 7). Recognizing the capacity is not an absolute number

(varies by the mix of aircraft) the capacity of each alternative is stated as  $\pm$  on the accompanying figures and narrative analysis.

The capacity of each alternative is a best-estimate for planning and evaluation purposes and is considered to be accurate given the detailed analysis and variables involved. The corresponding aircraft mix is not expected to fluctuate or change appreciably. Therefore, the impact assessment associated with each alternative would not be expected to change appreciably either.

**AWG-14** The comment is raising the same issue identified above by asking that the analysis “what if” higher jet aircraft base assumption, based on a potential FBO’s ingenuity at final floor space configuration, must be evaluated in both the Proposed and Alternative 1 projects. As discussed in Response AWG-10, the forecasts developed for the GAIP are reasonable. It would not be reasonable or prudent to undertake complex noise and air emissions analysis on “what-if” scenarios that are not likely to occur and CEQA does not require this type of speculative environmental analysis.

Additionally, the environmental studies completed for the GAIP have been done at the program level of environmental review. The CEQA Guidelines (Section 15165) recommends the use of a Program EIR “where individual projects are, or a phased project is, to be undertaken and where the total undertaking comprises a project with significant environmental effect, the Lead Agency shall prepare a single program EIR for the ultimate project as described in Section 15168.” For the GAIP, a key consideration for the use of a Program EIR is the County’s ability to consider broad policy alternatives and program-wide mitigation measures. As noted in Section 1.5 of the Draft Program EIR, the GAIP provides the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. Other advantages of using a Program EIR cited in the CEQA Guidelines include (1) the ability to provide a more exhaustive consideration of effects and alternatives; (2) inclusion of a more comprehensive evaluation of cumulative impacts; and (3) to avoid duplicative reconsideration of basic policy considerations.

Once the Board of Supervisors certifies the Program EIR, they will consider approval of an alternative for the GAIP and ultimately make selections on the leases at the Airport.<sup>46</sup> Until an alternative is selected and approved, the number of Full Service FBOs and the specific operator and their fleet will not be known. The forecasts were used in the noise analysis as it was the best available data at the time the modeling was complete. Additionally, it is recognized that the GAIP would be implemented over a period of years and any changes in the fleet mix would occur gradually as the improvements are phased in. Subsequent activities, such as the development plan review, would be examined in light of the Final Program EIR to determine whether additional CEQA documentation would be required pursuant to the requirements of Section 21166 of CEQA (i.e., California Public Resources Code, Section 21166) and Sections 15162 and 15168 of the State CEQA Guidelines for subsequent site development approvals.

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<sup>46</sup> Based on the current schedule, the Orange County Board of Supervisors is expected to consider new long-term Fixed Base Operators (“FBOs”) leases in 2019, following a competitive bid process within the parameters of the GAIP.

- AWG-15** The comment asserts transient or itinerant operations are not sufficiently analyzed. The concern raised is whether providing improved facilities, including the GAF, will create a competitive advantage over other facilities in Southern California, thereby having the potential to generate an increase in transient and itinerant business.

Please refer to Responses AWG-4 and AWG-9 regarding transient operations. The transient operations estimated from the unconstrained forecast models are included in the total annual operations for the constrained forecast. This issue is discussed in greater detail in the Topical Response pertaining to Aviation Forecast, provided in Section 3.1.1 of these Responses to Comments.

Although the Airport does not currently provide general aviation CBP services, flights with international origins and destinations currently use the Airport following receipt of CBP clearance at an airport that offers general aviation CBP services prior to landing at JWA. While the GAIP's GAF would accommodate direct international travel through JWA, it is not anticipated to attract or "induce" a significant level of international flights where their intended destination is not JWA (i.e., flights that would stop and clear customs at JWA and then immediately continue on to a different airport). CBP regulations govern landing requirements and procedures for private aircraft arriving in the U.S. As defined by those regulations (19 Code of Federal Regulations (CFR) Subpart C §122.21-122.30), CBP has the authority to limit the locations where private aircraft entering the U.S. from a foreign area may land. Even if JWA provides the optional GAF with CBP inspection service for general aviation aircraft, private aircraft entering the US from south of the Mexican border or Pacific, Gulf of Mexico, or Atlantic coastlines must comply with special CBP reporting requirements. Specifically, they must land at designated airports for CBP inspection and processing unless the aircraft has been exempted from this requirement. The designated airports nearest to JWA are Brown Field (SDM), and Calexico International Airport (CXL) in California.

The GAIP team surveyed CBP facilities at two general aviation airports to learn about the nature and extent of their operations. Generally, CBP facilities provide an essential function and having this capability would be a valuable asset to JWA. However, despite the potential benefits in terms of additional services provided, a CBP facility would not be expected to generate a substantial increase in aircraft activity at JWA. Of the other facilities surveyed, a busy day was 2-3 flights processed. On this basis, any increase general aviation business aircraft activity resulting from a CBP facility is assumed to be accounted for in the current forecasts. No further analysis is warranted.

- AWG-16** The comment asserts growth in scheduled charter operations using the new FBO facilities was not addressed adequately and that general aviation operations are not controlled with the restrictions placed on commercial carriers, such as nightly curfews and class of aircraft. The comment references that Los Angeles International Airport ("LAX") has commercial carrier departures after midnight for South America and the East Coast and speculates that JWA may be able to offer similar options through scheduled charters. Such flights would result in greater noise and pollution issues than addressed in the Draft Program EIR.

The Draft Program EIR does acknowledge that the Airport currently provides charter services (pages 2-13; 4.6-14; and 4.11-12) and air charter services may be provided

by a Full Service FBO (page 3-8). The Draft Program EIR states “Regularly scheduled commercial charter operators have approached the County, expressing their interest in initiating regularly scheduled air service at the Airport” and identifies that one function of the “General Aviation Terminal” (“GAT”) would be to accommodate regularly scheduled charter operators (page 3-10). Similarly, the Draft Program EIR identified that the GAF would allow the processing of charter aircraft (page 3-11). As noted in the Draft Program EIR, although the Access Plan provides the Airport Director with the discretion to authorize scheduled charter operators to operate out of FBOs, any such operations are not as a matter of right, are subject to the discretionary approval of the Airport Director, and must comply with any conditions imposed on the operations by the Airport Director. JetSuiteX, which started operating out of JWA in 2018, has been required to comply with the restrictions included in the JWA Phase 2 Commercial Airline Access Plan (“Access Plan”) that are applicable to commercial carriers.

Other aspects of the comment appear to be speculative and would not be reasonable assumptions for JWA. The comment mentioned that “LAX has commercial carrier departures after midnight and also very early in the morning departures for South America and the East Coast. John Wayne Airport with new services, may be able to offer similar options through scheduled charters.” – The commercial aircraft from LAX to South America<sup>47</sup> are B767s or B787s, and to the East Coast<sup>48</sup> are typically B777, B767s, B757s, B737s, A330s, A321s, A320s. The air carriers providing these commercial operations are certified by FAA to perform flights pursuant to FAR Part 121 or Part 129. The general aviation facilities at the FBO and the potential GAF are not designed for these type of commercial aircraft with over 150 seats per operations. The provisions for a GAT to accommodate possible regularly scheduled commercial charter flights mentioned in Section 3.6.1 of the Draft Program EIR (page 3-10) are designed for air carriers typically hold FAR Part 135 certification. For example, the scheduled charter operations offered by JetSuiteX at JWA are operated by Delux Public Charter or Superior Air Charter (both hold Part 135 certification). JetSuiteX's fleets include 30-seat Embraer EMB-135, 13-seat Embraer Legacy 650, 4-seat Embraer Phenom 100, or 7-seat Embraer Phenom 300.

Further, the GAF is identified as a facility that would service aircraft with 20 or fewer passengers, which would limit the likelihood that this would become a regularly scheduled service.

As noted in the Draft Program EIR (page 3-10), regularly scheduled commercial charter operations require an allocation of passenger capacity prior to the initiation of service consistent with the provisions of the Access Plan. This is discussed in more detail in the Topical Response pertaining to Regularly Scheduled Air Service and

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<sup>47</sup> Examples of South American destination being served are Bogota, Columbia; Lima, Peru; and Santiago, Chile.

<sup>48</sup> Examples of east coast destinations being served are John F. Kennedy Airport in New York; Newark Liberty in New Jersey; Philadelphia International, Pennsylvania; Boston Logan Airport, Massachusetts; Bradley International Airport, Hartford, Connecticut; Baltimore-Washington International Airport, Maryland; Ronald Reagan Washington National Airport, in Arlington Virginia; and Washington Dulles International Airport, in Dulles, Virginia.

General Aviation Charter Operations, provided in Section 3.1.5 of these Responses to Comments.

## Appendix – Noise Analysis Technical Report

**AWG-17** The comment questions the percentage increase in the 2026 cumulative analysis pertaining to the use of the MAX and NEO commercial carrier aircraft along with all aircraft types in the Draft Program EIR. The commenter asserts the assumed fleet mix overstates the use of these aircraft at JWA in 2026.

In all predictive and forecast modeling, there are assumptions that must be made regarding future variables. These assumptions are not guarantees or commitments for these aircraft to fly at John Wayne Airport (“JWA”), but rather estimates made from the best available data and using professional judgment and technical expertise. The impact of those variables related to these two aircraft types are fully understood, taken into account in the EIR environmental analysis, and believed to be a conservative estimate so as not to overstate the benefits of these aircraft in 2026.

The assumptions made for purposes of the Program EIR analysis are based on airline orders, statements by airlines regarding the use of the MAX and NEO, and factors that affect airlines decision-making on aircraft purchases. All of these indicate a high utilization of the MAX and NEO at the Airport in the future. The following items provide additional documentation to support the assumptions for the MAX and NEO in this EIR.

- The aircraft are currently operating at the Airport by Southwest (Boeing 737 MAX) and Frontier Airlines (Airbus 320 NEO).
- Other airlines operating at the Airport are currently utilizing these aircraft or have orders with Boeing and Airbus for these aircraft within the next 8 years. These airlines include: Alaska (Airbus 320 NEO), American (Boeing 737 MAX and Airbus 320 NEO), WestJet (Boeing 737 MAX), and Delta (Airbus 320-NEO).
- Gary Kelly, Southwest CEO stated that he expects 60 percent of the Southwest fleet will eventually be the Boeing 737 MAX. According to the airline, Boeing will deliver 15 of the 737 MAX in 2019, 25 in 2020, 23 in 2023 and 11 in 2024.<sup>49</sup>
- Southwest’s current fleet of 737-700s, which includes more than 500 aircraft, will start to retire in 2022 and Southwest has stated they are replacing them with 737-MAX aircraft.<sup>50</sup>
- Delta agreed to an order of 100 Airbus 321NEOs and expects to take delivery of its first A321NEO in the first quarter of 2020 with new aircraft arriving through 2023.<sup>51</sup>
- The Boeing 737 MAX aircraft use the CFM International LEAP-1B® engine and the Airbus NEO aircraft uses the CFM International LEAP-1A or Pratt & Whitney PW1000G engines with winglets. These engines offer operators a 12-

<sup>49</sup> <https://leehamnews.com/2018/03/01/southwest-ceo-sees-60-fleet-becoming-737-7/>

<sup>50</sup> <https://www.cnn.com/2018/01/03/southwest-airlines-wants-larger-boeing-737-max-8s-soon.html>

<sup>51</sup> <https://news.delta.com/delta-selects-airbus-a321neo-narrowbody-fleet-renewal>

15 percent reduction in fuel consumption. This factor makes this aircraft/engine combination appealing to airlines as fuel cost is a major factor in airline decisions regarding aircraft purchases. In addition, the fuel taxes in California make operating a more fuel efficient aircraft more appealing and it is assumed airlines will use the MAX and NEO aircraft more in higher fuel price areas.<sup>52</sup>

In addition, and importantly, this assumption applies *only* to the cumulative analysis in the Draft Program EIR and modification of the fleet mix would not change the finding of significance of the cumulative noise impacts. As noted in Section 4.7.8 of the Draft Program EIR 627, the 2014 Final EIR 617 identified significant unavoidable impacts for noise and associated land use compatibility, for which a Statement of Overriding Considerations was adopted. However, as stated in the Draft Program EIR 627 on page 4.7-40, Table 4.7-13, the GAIP's contribution to the cumulative impact is not substantial. The proposed GAIP would change only the general aviation operations and fleet mix at JWA. The Proposed Project and Alternative 1 do not change the number of air carrier operations, runway use, or flight tracks for the commercial carrier operations. Therefore, even if the fleet assumptions for the commercial carriers was modified, the GAIP contribution to the cumulative noise contours would not change. The air carrier operations at JWA are the greatest influence on the size and shape of the noise contours, while the general aviation traffic contributes only a small amount to the contour size and shape. The assumptions for commercial operations are consistent for each of the GAIP scenarios evaluated. Therefore, conducting further analysis of cumulative noise impacts with different fleet mix assumptions for the commercial carrier operations would not change the findings presented in Draft Program EIR 627. No additional analysis is warranted.

**AWG-18** The comment states the forecast of aircraft operations for the corporate/business jet increased hangar and apron tie-down aircraft appears understated at roughly one cycle per day, Monday through Friday.

Please see Response AWG-10 and the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1.

**AWG-19** The comment asserts the GAIP will significantly increase the noise and pollution for the community members because mid-sized and large jet engine powered business aircraft fly the same departure procedures as commercial airlines, whereas smaller aircraft like this being displaced generally "fan" right or left immediately after takeoff. The comment expresses the opinion that the CNEL contours in Appendix H do not adequately address the incremental impact on residents near noise monitoring stations ("NMS") 5, 6, and 7. Further, the comment references overstating the use of quiet commercial aircraft (MAX and NEO) in the base assumptions for 2016, magnifies the issue.

As noted in Response AWG-10, the Draft Program EIR fully addressed the noise impacts associated with increased business jets because these operations are included in the aviation forecast. In conducting the analysis, the general aviation jet aircraft

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<sup>52</sup> <https://www.cfmaeroengines.com/engines>

were assigned the appropriate departure path; therefore, the increased number of jets flying over NMS 5, 6, and 7 was fully accounted for. With regards to the request for Appendix H to include a “special analysis” to address the incremental impacts associated with the projected noise increases shown in Tables 16 and 17 in Appendix H, the land uses impacts associated with the Cumulative (2026) 65 CNEL and greater noise contours is presented in the Draft Program EIR in Section 4.6.8, starting on page 4.6-49.

Please see Response AWG-17, above regarding the appropriate assumptions for the NEO and MAX aircraft. As noted above, any changes to the commercial carrier fleet mix would not influence the GAIP’s contribution to aviation noise.

## Appendix E – Air Quality Technical Report

**AWG-20** The commenter questions whether the air quality impact analysis underestimates the effect of the business jet operations because the larger business fleet aircraft burn kerosene and fly the same departure tracks as commercial aircraft, and would result in micro particle effluent over neighborhoods. Three specific concerns were raised, which are summarized below.

- A perceived understatement of business jet operations;
- The volume of different pollutants based of different fleet mix operations scenarios; and
- The cumulative impact of pollutants from older aircraft versus what the commenter is characterizing as an unrealistic assumption of more efficient MAX and NEO aircraft as a percentage of total operations

First, please see Response to AWG-10 and the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1 regarding the development of the aviation forecasts. As discussed in that Topical Response, the aviation forecasts developed for the GAIP reasonably represent future operating conditions at the Airport and are supported by substantial evidence.

Second, the constrained forecasts presented in Appendix D were used to prepare the air quality analysis for the GAIP and directly influence the results presented in Tables 18 and 21 of Appendix E.<sup>53</sup> It can be assumed that, if operations increased at JWA, the air quality impacts would also increase accordingly. It can also be assumed that, if the fleet mix changed, the emissions presented in the Draft Program EIR would also change. However, the fleet mix presented in Appendix D (and incorporated into Appendix E) was developed specifically for the GAIP and the conditions at JWA. And, the EIR is not required to analyze speculative operating conditions at the Airport.

Third, as stated on page 4.2-30 of the Draft Program EIR, the cumulative impacts analysis for criteria air pollutants is based on guidance provided by the South Coast

<sup>53</sup> Please see minor revisions to the emissions table provided in Section 4 of these Responses to Comments. The revisions reflect a minor correction to the model output for VOC; however, they do not change the findings of the Draft Program EIR.



Air Quality Management District (“SCAQMD”) that projects exceeding project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. Conversely, projects not exceeding project-specific thresholds are generally not considered cumulatively significant. Therefore, following this guidance, the GAIP would not have a cumulatively considerable contribution to any cumulative air quality impacts. Specifically, the GAIP’s construction-related emissions would be below SCAQMD thresholds with implementation of MM AQ-1, and the GAIP’s operational-related emissions would not exceed SCAQMD thresholds. Therefore, a change in the assumed commercial carrier fleet mix (i.e., the percentage of NEO and MAX aircraft) would not change the findings of the Draft Program EIR as those findings relate to the significance of the incremental contribution of the Proposed Project and Alternative 1 to the cumulative condition. The impacts associated with the commercial carrier operations were fully addressed in Final EIR 617 for the 2014 Settlement Agreement Amendment.

- AWG-21** The comment states that, due to improved facilities (i.e., customs, security, immigration, and ambiance) associated with the GAIP, the impact of incremental transient and itinerant operations would increase. The comment states that the impacts associated with the increased volume of such aviation activity was not addressed.

Please see Responses to AWG-9, AWG-10 and the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1 of these Responses to Comment, regarding the development of the aviation forecasts. The constrained forecasts presented in Appendix D were used to prepare the air quality analysis for the GAIP and directly influence the results presented in Tables 18 and 21 of Appendix E.<sup>54</sup>

### **Conclusion Comments**

- AWG-22** The comment expresses an opinion that the assumptions for the future aircraft operations volume is questionable. The comment further states that these assumptions, which were used in the technical studies (i.e., Appendices), had an effect on how determinations were made; therefore, AWG’s opinion is the assumptions in the forecast make determinations on environmental impact moot.

Each of the issues identified in the comments above have been responded to providing clarification, including references to where the information can be found in the technical studies or Draft Program EIR. The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

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<sup>54</sup> Please see minor revisions to the emissions table provided in Section 4 of these Responses to Comments. The revisions reflect a minor correction to the model output for VOC; however, they do not change the findings of the Draft Program EIR. The volatile organic compounds (“VOCs”) (also referred to as reactive organic gases) values in Tables 2 and 3 below, are the updated values.

**AWG-23** The comment reiterates the commenter's opinion (see comment AWG-22) that Draft Program EIR 627 has serious deficiencies, which make a final determination of environmental impact on the Proposed Project or Alternative 1 insufficient without further analysis. The comment provides an example of what is perceived as a deficiency by incorrectly stating the Draft Program EIR fails to analyze, or even mention, the impact of the displacement of those smaller aircraft, including the surface traffic and air quality impacts of users having to access them at far flung airports throughout the region.

The displacement of general aviation aircraft was clearly identified in a multitude of sections and tables throughout the Draft Program EIR, including the project descriptions (in both the Executive Summary and Section 3). This will be an issue that will need to be considered by the Board of Supervisors when determining whether to approve the GAIP and select an alternative. Section 1.8, Areas of Controversy/Issues to be Resolved, clearly states:

Though other local airports have capacity, this would be a disruption for local pilots that have historically based their aircraft at JWA. The reduction of based aircraft would be accomplished through the lease process (i.e., leases would not be renewed for tie-down locations or the limitations would be reflected in the leases with the FBOs). The effect of reducing the number of based aircraft needs to be balanced with the need to respond to the trend in aviation by providing the type of facilities that best meets the future needs of the broad spectrum of people wishing to utilize the limited space available at JWA.

The need to displace aircraft was also discussed as it pertains to land use (Section 4.6, Land Use and Planning). The Draft Program EIR identified that displaced aircraft can be accommodated elsewhere in the region. Fullerton Municipal Airport, also a general aviation airport in Orange County, has capacity for 600 aircraft and at the year ending on October 31, 2017, only 223 aircraft were based at the Fullerton Municipal Airport. Long Beach Airport is identified as having capacity because as of October 31, 2017 it had 380 based aircraft and historically has accommodated higher numbers of general aviation aircraft (AirNav.com 2018). AirNav.com reports that as of September 30, 2018, the number of aircraft based at Fullerton has gone down to 127 and as of November 30, 2018, Long Beach Airport has 344-based aircraft.

Although the Land Use and Planning section identified the loss of aircraft parking spaces as adverse because it reduces the overall capacity at the Airport; it was not identified as a significant land use impact because it would not result in an incompatible land use or conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (see Threshold 4.6-1). The aircraft are accommodated on the Airport through lease agreements, which have established expiration dates or provisions for cancelation of the lease. Therefore, the reduction in the overall number of aircraft based at JWA would not result in a significant environmental impact (see page 4.6-19).

The displacement of aircraft was evaluated in the traffic analysis, with the evaluation having a separate heading in the evaluation for the Proposed Project and Alternative 1 under Threshold 4.8-1. The *General Aviation Improvement Program Traffic Impact*

*Analysis* (“TIA”) (Appendix I) addressed this as a Special Issue. As part of this evaluation, a discussion is provided on the methodology for calculating vehicle miles traveled (“VMT”) associated with travel to alternative airports (see pages 4.8-15 and 4.8-22 in the Draft Program EIR and Section 5.2 of the TIA). However, the distribution of aircraft to alternative airports in the “Competitive Market Area” is unknown; therefore, the analysis is done based on VMT. Therefore, specific trip assignment would be speculative and is not required pursuant to the California Environmental Quality Act (“CEQA”). Section 15145 of the State CEQA Guideline does not require a lead agency to speculate on potential impacts.

**Letter 15: Airport Working Group**  
**Submitted by Mel Beale**  
**Dated November 21, 2018**

The organization submitted the same comment letter using different email addresses; however, the comments are the same as the comments provided in Letter 14. Please see Responses AWG-1 through AWG-23 as responses to these comments.

**Letter 16: Airport Working Group  
Submitted by Mel Beale  
Dated November 21, 2018**

The organization submitted the same comment letter using different email addresses; however, the comments are the same as the comments provided in Letter 14. Please see Responses AWG-2 through AWG-23 as responses to these comments.<sup>55</sup>

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<sup>55</sup> Comment AWG-1 is an introductory comment on the email, which was not included in the hard copy transmittal.

**Letter 17: California Cultural Resource Preservation Alliance**  
**Submitted by Patricia Martz, Ph.D.**  
**Dated November 1, 2018**

**CCRPA-1** The comment states that the Cultural Resources section is very comprehensive, and the organization concurs with the determinations. However, a concern is raised regarding the statement that the monitors will salvage and catalogue artifacts as necessary and asks that the language be changed to provide for consideration of the feasibility of avoidance and preservation in place with data recovery as the fall back mitigation measure.

The comment is noted; however, given the substantial disturbance of the site and expected shallow level of ground disturbance, the potential for discovery of substantial resources is remote. The Draft Program Environmental Impact Report ("EIR") has incorporated the County's standard conditions, as well as a minimization measure for tribal cultural resources. SC CULT-1 (included in Section 4.3 of the Draft Program EIR) does state "If the archaeological resources are found to be significant, the *archaeological observer shall determine appropriate actions*, in cooperation with the project applicant, for exploration and/or salvage" (emphasis added). Similar wording is provided in the MN TCR-1 as it pertains to the Native American monitor. If a significant resource were identified and the monitors demonstrate that preservation in place is preferable, the standard condition does provide for this. If isolated artifacts/tribal cultural resources are found, the decision can be made if the collection and appropriate handling of the resources or reburial of the resources is the most desirable.

**CCRPA-2** The comment requests that the California Cultural Resource Preservation Alliance, Inc. be placed on the list of organizations to be contacted regarding this and future projects in the region.

The comment is noted and the organization has been added to the mailing list to receive future notices for JWA-related projects. For other projects in the region, the organization should contact the surrounding jurisdictions directly.

**Letter 18: Citizens Against Airport Noise and Pollution**  
**Submitted by Beverly Blais Moosmann**  
**Dated November 19, 2018**

**CAANP-1** This comment is the email transmitting the comment letter sent on behalf of the Citizens Against Airport Noise and Pollution.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**CAANP-2** The comment letter transmitted is the standardized letter.

The Airport acknowledges this comment. These comments have been addressed in Section 3.6.2, Responses to the Standardized Letter.

**Letter 19: Corona del Mar Residents Association**  
**Submitted by Debbie Stevens**  
**Dated November 21, 2018**

- CDMRA-1** The comment indicates the submittal is on behalf of the residents of Corona del Mar and requests the organization receive public notices issued on this project.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. The County will include the Corona del Mar Residents Association on all future notices regarding the General Aviation Improvement Program (“GAIP”).

- CDMRA-2** The comment communicates that a hard copy of the letter is also being transmitted.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required. The hard copy of the letter is included as Letter 20.

- CDMRA-3** The comment identifies the area represented by the Corona del Mar Residents Association.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

- CDMRA-4** The comment states general aviation operations are expected to increase due to the General Aviation Improvement Program (“GAIP”) and the impacts of noise, air quality and traffic all resulting from increased flights and frequencies have not been sufficiently addressed.

As a point of clarification, the total number of general aviation operations are projected to decrease with the GAIP (either the Proposed Project or Alternative 1). The Draft Program Environmental Impact Report (“EIR”) identifies the projected number of general aviation operations by aircraft type in Tables 3-7 and 3-11, for the Proposed Project and Alternative 1, respectively. However, due to the change in projected fleet mix the Draft Program EIR does identify an incremental increase in the aviation-related noise levels and air emissions. These issues are addressed in response to the specific comments, provided below.

- CDMRA-5** The commenter expresses an opinion that the assumptions used in the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report*



(Appendix H of the Draft Program EIR) and summarized in the Draft Program EIR, overstates the utilization of Boeing MAX and Airbus NEO aircraft that are projected to operate at the Airport in 2026. As a result the comment states that air quality, noise, and traffic impacts are understated.

In all predictive and forecast modeling, there are assumptions that must be made regarding future variables. These assumptions are not guarantees or commitments for these aircraft to fly at John Wayne Airport ("JWA"), but rather estimates made from the best available data and using professional judgment and technical expertise. The impact of those variables related to these two aircraft types are fully understood, taken into account in the EIR environmental analysis, and believed to be a conservative estimate so as not to overstate the benefits of these aircraft in 2026.

The assumptions made for purposes of the Program EIR analysis are based on airline orders, statements by airlines regarding the use of the MAX and NEO, and factors that affect airlines decision-making on aircraft purchases. All of these indicate a high utilization of the MAX and NEO at the Airport in the future. The following items provide additional documentation to support the assumptions for the MAX and NEO in this EIR.

- The aircraft are currently operating at the Airport by Southwest (Boeing 737 MAX) and Frontier Airlines (Airbus 320 NEO).
- Other airlines operating at the Airport are currently utilizing these aircraft or have orders with Boeing and Airbus for these aircraft within the next 8 years. These airlines include: Alaska (Airbus 320 NEO), American (Boeing 737 MAX and Airbus 320 NEO), WestJet (Boeing 737 MAX), and Delta (Airbus 320-NEO).
- Gary Kelly, Southwest CEO stated that he expects 60 percent of the Southwest fleet will eventually be the Boeing 737 MAX. According to the airline, Boeing will deliver 15 of the 737 MAX in 2019, 25 in 2020, 23 in 2023 and 11 in 2024.
- Southwest's current fleet of 737-700s, which includes more than 500 aircraft, will start to retire in 2022 and Southwest has stated they are replacing them with 737-MAX aircraft.
- Delta agreed to an order of 100 Airbus 321NEOs and expects to take delivery of its first A321NEO in the first quarter of 2020 with new aircraft arriving through 2023.
- The Boeing 737 MAX aircraft use the CFM International LEAP-1B® engine and the Airbus NEO aircraft uses the CFM International LEAP-1A or Pratt & Whitney PW1000G engines with winglets. These engines offer operators a 12-15 percent reduction in fuel consumption. This factor makes this aircraft/engine combination appealing to airlines as fuel cost is a major factor in airline decisions regarding aircraft purchases. In addition, the fuel taxes in California make operating a more fuel efficient aircraft more appealing and it is assumed airlines will use the MAX and NEO aircraft more in higher fuel price areas.

In addition, and importantly, this assumption applies only to the cumulative analysis in the Draft Program EIR and modification of the fleet mix would not change the finding of significance of the cumulative noise impacts. As noted in Section 4.7.8 of the Draft Program EIR 627, the 2014 Final EIR 617 identified significant unavoidable impacts for noise and associated land use compatibility, for which a Statement of Overriding Considerations was adopted. However, as stated in the Draft Program EIR 627 on page 4.7-40, Table 4.7-13, the GAIP's contribution to the cumulative impact is not substantial. The proposed GAIP would change only the general aviation operations and fleet mix at JWA. The Proposed Project and Alternative 1 do not change the number of air carrier operations, runway use, or flight tracks for the commercial carrier operations. Therefore, even if the fleet assumptions for the commercial carriers was modified, the GAIP contribution to the cumulative noise contours would not change. The air carrier operations at JWA are the greatest influence on the size and shape of the noise contours, while the general aviation traffic contributes only a small amount to the contour size and shape. The assumptions for commercial operations are consistent for each of the GAIP scenarios evaluated. Therefore, conducting further analysis of cumulative noise impacts with different fleet mix updated assumptions for the commercial carrier operations would not change the findings as presented in Draft Program EIR 627. No additional analysis is deemed to be warranted.

**CDMRA-6** The comment states the existing and proposed flight paths are not discussed; therefore, impacts cannot be determined.

Page 42 of the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* (Appendix H) describes the flight patterns and Figure 9 shows the existing flight patterns. These together describe the current flight patterns. Section 6.1.1 on page 53 of Appendix H, states the assumption that no change in flight paths would occur. Further it explains "Flight tracks into and out of JWA are well established, particularly with the Airport's noise abatement procedures." Although the Draft Program EIR acknowledges that the flight patterns are being evaluated by the Federal Aviation Administration ("FAA") as part of the refinements to the NextGen procedures for the Southern California Metroplex, it would be speculative to incorporate an unapproved flight pattern into the analysis for the GAIP Draft Program EIR. Section 15145 of the State CEQA Guidelines does not require a lead agency to speculate on potential impacts. The noise analysis properly modeled the appropriate flight paths for the type of aircraft in forecasts for each of the scenarios. This assumption applies to both commercial and general aviation. For additional information please see the Topical Response pertaining to Flight Path Procedures provided in Section 3.1.2 of these Responses to Comments.

It should also be noted, departure procedures are under the jurisdiction of the FAA and are not within the jurisdiction of the County. FAA and the pilot in command of each aircraft have sole jurisdiction and responsibility for flight paths, and only the FAA has enforcement capability over issues related to flight paths. The County of Orange, as the proprietor of JWA, has no authority or control over aircraft flight paths.

**CDMRA-7** The comment identifies a number of residential areas that have been proposed for residential development in the vicinity of the Airport and suggested that these additional sensitive receptors should be evaluated for potential impacts associated with the GAIP.

None of the listed developments would be impacted by the GAIP-related changes in aviation noise. From a cumulative perspective, all the developments listed are outside of the cumulative 65 Community Noise Equivalent Level (“CNEL”) contour for 2026. This includes the projected increases in flights associated with the 2014 Settlement Agreement Amendment. Further, each of these developments would have addressed aviation noise as part of their individual entitlement process and the California Environmental Quality Act (“CEQA”). Therefore, based on the established thresholds for the County (and the City of Newport Beach), aviation noise impact on these developments would be less than significant. No change or additional information is required to address this comment.

**CDMRA-8** The comment states that the health risk assessment for the GAIP is inadequate and calls for an HRA to evaluate the potential increase in emissions associated with GAIP-related aeronautical activities and other cumulative projects, including the 2014 Settlement Agreement Amendment project (certified EIR 617). The comment further states that the HRA should consider new sensitive receptors adjacent to the Airport undergoing environmental review.

In response, please see Topical Response 3.1.6: Health Risk Assessment, which summarizes the results of the GAIP-specific HRA (a copy of which is provided as Attachment A to these Responses to Comment) that has been prepared in response to comment. The results of the GAIP-specific HRA affirm the impact conclusion presented in EIR 627; specifically, the Proposed Project and Alternative 1 would not expose sensitive or worker receptors to substantial toxic air contaminants (“TAC”) concentrations – impacts would be less than significant.

As requested by this comment, the GAIP-specific HRA accounts for the anticipated changes in aircraft fleet and incorporates potential future sensitive receptors, including those at the Koll Center Residences and Newport Crossings, two developments within 1,000 meters of the Airport that are currently under environmental review. Again, the results of this analysis corroborate the conclusion presented in Draft EIR 627, and shows that the health risk impact from the Project is less than significant.

Guidance from SCAQMD states that: “As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR”. This indicates that the cumulative significance thresholds are the same as project-specific significance thresholds. As such, projects that exceed that project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant.

As discussed in prior responses, an HRA was prepared for the GAIP and shows that the Project does not exceed the project-specific health risk thresholds, such that impacts are less than significant. Indeed, the GAIP-related incremental contributions to health risk are well below the SCAQMD's thresholds. In fact, the GAIP is expected to reduce cancer risk at sensitive and residential receptor locations when compared to existing conditions. Therefore, based on guidance from SCAQMD, the Project also is not cumulatively considerable.<sup>56</sup> Please refer to Topical Response 3.1.6: Health Risk Assessment for additional information.

- CDMRA-9** The comment states the California Emissions Estimator Model ("CalEEMod") output files, identified as Attachment 2 to the *Air Quality Technical Report* (Appendix E), were missing from the published documentation made available online and requests 30 additional days to review the data after it is provided.

The Airport acknowledges this comment. As noted below, the *Air Quality Technical Report* provided sufficient information on the modeling assumptions for the reader to understand the basis of the analysis. However, for full disclosure, the missing data was forwarded to Ms. Stevens for review by the Corona del Mar Residents Association on December 21, 2018. The accidentally omitted input files also were posted to the Airport's website ([www.ocair.com/DEIR627](http://www.ocair.com/DEIR627)) on December 21, 2018.

As stated on page 35 of Appendix E, *Air Quality Technical Report*, emissions during the proposed construction were calculated using CalEEMod with defaults used for equipment and trip generation data, which includes emission factors, hours of use, type of equipment, engine load, and etc. The CalEEMod model calculated emissions resulting from each construction activity detailed in pages 29-34 of Appendix E, *Air Quality Technical Report*. CalEEMod assignment of default equipment based on project size and construction activity as well as emission factors per construction equipment is available in the CalEEMod User's Guide and Appendix D, Default Data Tables, available on-line <http://www.aqmd.gov/caleemod/user's-guide>. Therefore between the information provided in Appendix E and the CalEEMod user guide, the same information provided in Attachment 2 is available to the reader.

- CDMRA-10** The comment asserts the wrong analysis was done to estimate localized emissions impact because the Draft Program EIR used the screening data developed by the South Coast Air Quality Management District ("SCAQMD") for the Localized Significance Thresholds ("LST").

The LST analysis uses a conservative approach consistent with SCAQMD methodology. As described in page 18 of Appendix E, the SCAQMD developed an LST methodology and mass rate look-up tables by source receptor area ("SRA") that can be used to determine whether a project may generate significant adverse localized air quality impacts. The LST methodology includes tables that specifically show values for projects that are less than or equal to five acres. However, the LST methodology can be applied to projects larger than five acres as a screening tool

<sup>56</sup> South Coast AQMD Cumulative Impacts Working Group White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution, August 2003, Appendix D, Cumulative Impact Analysis Requirements Pursuant to CEQA, at D-3, <http://www.aqmd.gov/docs/default-source/Agendas/EnvironmentalJustice/cumulative-impacts-working-group/cumulative-impacts-white-paper-appendix.pdf?sfvrsn=4>.

since it is conservative to do so. If the emissions from a project with a larger site are less than the allowable emissions for a 5-acre project site, then the larger project site will not result in a significant localized air quality impact. This is because the larger the project size, the higher the LST screening threshold becomes (i.e., compare the screening threshold of a 1-acre site vs. a 5-acre site). The AQMD provides guidance to perform dispersion modeling should any project choose to, or be required to because they do not pass the conservative LST screening evaluation. The project-specific air dispersion modeling is not required by AQMD guidance.

The mitigated Proposed Project and Alternative 1 construction emissions presented in Tables 4.2-7 and 4.2-11 of the Draft Program EIR and Appendix E, *Air Quality Technical Report*, Table 32 would result in emissions below the localized significance threshold.<sup>57</sup>

The air quality analysis evaluated the potential air quality impacts due to construction and operational related activities on the entire Airport as a whole, which incorporates each individual project element, and concluded that the potential air quality impacts would be less than significant.

**CDMRA-11** The comment asserts the Draft Program EIR does not address the fact that general aviation aircraft are not subject to the same requirements as commercial airlines.

The Draft Program EIR acknowledges, that general aviation aircraft are not subject to the same limitations as commercial carrier operations in several locations. The Regulatory Setting in Section 2 discusses the General Aviation Noise Ordinance, which clearly states: “Generally, general aviation operations are permitted 24 hours a day, subject to daytime and nighttime noise limits” (see Section 2.6.4). Further the Noise Section of the Draft Program EIR states general aviation operations are permitted 24 hours a day subject to noise limits (page 4.7-20). This is also discussed in Appendix H. The noise analysis for the GAIP, does take into account the fact that general aviation jets can fly 24 hours a day. As stated in Appendix H, page 53, the noise analysis for the GAIP assumes the same percent of general aviation jets operating in the evening and nighttime in the 2016 Baseline would operate in the GAIP alternatives. This results in approximately 9 percent of the business jets operating on an average annual day during the evening period and approximately 3 percent operating during the nighttime period. The evaluation in the Draft Program EIR is adequate and no additional analysis is required.

**CDMRA-12** The comment states the residents in Corona del Mar have been subject to overflights of eastbound flights leaving JWA. The comment further states that increases in general aviation flights, without adequately addressing their environmental impact on households near the Airport or under the flight paths, is unacceptable and should be remedied by a rigorous study of these issues before proceeding with any changes in general aviation traffic at John Wayne Airport.

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<sup>57</sup> Minor revisions have been made to the emissions tables in the Draft Program EIR and the *Air Quality Technical Report*, included as Appendix E. These changes are provided in Section 4 of these Responses to Comments. The revisions reflect a minor correction to the model output for VOC; however, they do not change the findings of the Draft Program EIR.

As noted in Response CDMRA-4, the total number of general aviation operations are projected to decrease with the GAIP. The Draft Program EIR clearly identifies the incremental increase in the aviation-related noise levels, air emissions, and land use compatibility impacts associated with the GAIP. Mitigation measures have been incorporated to reduce potentially significant impacts associated with implementation of the GAIP. Further, the GAIP has voluntarily incorporated Minimization Measures, which are conditions proposed to reduce an adverse effect of the Project even when that effect does not result in a significant impact.

**Letter 20: Corona del Mar Residents Association  
Submitted by Debbie Stevens  
Dated November 21, 2018**

This letter, which was transmitted by the U.S. Postal Service, is the same as the Corona del Mar Residents association electronic submittal (Letter 19). Therefore, no additional responses are required. Please see Responses CDMRA-3 through CDMRA-12.<sup>58</sup>

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<sup>58</sup> Comments CDMRA-1 and CDMRA-2 are introductory comments on the email, which were not included in the hard copy transmittal.

**Letter 21: Irvine Terrace Community Association**  
**Submitted by Brian Jones**  
**Dated: November 20, 2018**

**ITCA-1** The comment states that anything done should not lead to noisier planes or a failure to observe the current curfews by private aircraft.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. As a point of clarification, General Aviation Noise Ordinance ("GANO") is the basis for the curfew for commercial carriers. As noted in the Draft Program EIR and the Topical Response pertaining to the GANO (see Section 3.1.3 of these Responses to Comments), general aviation aircraft are allowed to fly 24-hours per day; however, they are subject to nighttime specified Single Event Noise Exposure Level ("SENEL") limits. The existing commercial aircraft curfew and GANO limits would not be taken away or modified as a result of the proposed GAIP.



**Letter 22: Juaneño Band of Mission Indians, Acjachemen Nation**  
**Submitted by Joyce Perry**  
**Dated November 15, 2018**

**JBMI-1** The comment states the Juaneño Band of Mission Indians, Acjachemen Nation are concerned there is the potential for the presence of buried cultural resources and have requested a Native American monitor certificated by the Tribe be present during ground disturbing activities.

The Airport acknowledges this comment. The Minimization Measure (MN) provided in Section 4.9.8 of the Draft Program Environmental Impact Report (“EIR”) does provide for Native American monitoring when grading activities are located in native sediment. The improvements will be constructed by the Fixed-Based Operators (“FBOs”); therefore, it will be the FBOs responsibility to retain the Native American monitor. The County cannot dictate that a specific tribe be hired; however, the measure is hereby modified to require that the Native American monitor is a representative of a tribe with ancestral connection to the land (*red italics* shows the additional text).

**MN TCR-1 Tribal Cultural Resources Observation and Salvage.** Prior to the issuance of any grading permit in which native soil is disturbed, the applicant shall provide written evidence to the Manager, Permit Services, that a Native American monitor has been retained to observe grading activities in native sediment and to salvage and catalogue tribal cultural resources as necessary. The Native American monitor, *which shall be a representative of a tribe with ancestral connection to the land*, shall be present at the pre-grade conference, shall establish procedures for tribal cultural resource surveillance, and shall establish, in cooperation with the County, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the tribal cultural resource as appropriate. If the tribal cultural resources are found to be significant, the Native American observer shall determine appropriate actions, in cooperation with the County for exploration and/or salvage.

**JBMI-2** The comment requests if any cultural deposits are found, a feasible avoidance and preservation plan is in place to protect the resources.

The Airport acknowledges this comment; however, given the substantial disturbance of the site and expected shallow level of ground disturbance, the potential for discovery of substantial resources is considered to be remote. The Draft Program EIR has incorporated the County’s standard conditions, as well as a minimization measure for tribal cultural resources. However, it should be noted, the standard condition SC CULT-1 does state “If the archaeological resources are found to be significant, the *archaeological observer shall determine appropriate actions*, in cooperation with the project applicant, for exploration and/or salvage” (emphasis added). Similar wording is provided in the minimization measure MN TCR-1 as it pertains to the Native American monitor. If a significant resource were identified and the monitors

demonstrate that preservation in place is preferable, the standard condition does provide for this. If isolated artifacts/tribal cultural resources are found, the decision can be made if the collection and appropriate handling of the resources or reburial of the resources is the most desirable approach for protecting the resources.

**Letter 23: Southern California Pilots Association**  
**Submitted by Joe Finnell**  
**Dated November 7, 2018**

**SCPA-1** This comment is the email transmitting the comment letter sent on behalf of the Southern California Pilots Association by the organization's president.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**SCPA-2** The comment expresses an opinion regarding the diminishing number of general aviation tie-down tenants and the pricing structure by the Fixed Based Operators ("FBOs") over the past few years.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required. However, it should be noted, there has been a consistent decline in single-engine piston aircraft since 1980 at the Airport. Multi-engine piston aircraft experienced a sharp decline in the early 1990s and have continued to decrease, although at a slower rate; turbine-powered aircraft (turbo prop and jet) experienced variable growth at John Wayne Airport ("JWA" or "Airport"). The historic trends are summarized in Section 2.4 of the Draft Program EIR and discussed in detail in Section 5 of the *General Aviation Forecasting and Analysis Technical Report*, which is Appendix C to the Draft Program EIR.

**SCPA-3** The comment expresses concern that the improvements proposed by the General Aviation Improvement Program ("GAIP") would be achieved by reducing the number of tie-down spaces to accommodate a variety of changes, which would impact current tenants. The comment states that with the recent changes to the FBOs, aircraft services and avgas prices have become more in line with neighboring airports. As a result, customers have become more willing to make JWA their aircraft home base.

Please see Response SCPA-2 pertaining to the historic trends in general aviation. The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

**SCPA-4** The comment states the opinion that the proposed reduction in quantity of tie-down spaces is counter to the Airport's obligation to support all aircraft at the Airport as required by federal government funding support terms.

The GAIP is not in conflict with the Airport's federal obligations to support all aircraft at the Airport. Even with the GAIP (Proposed Project and Alternative 1), the majority of the flights at the Airport are and would continue to be general aviation operations. Additionally, a substantial portion of the airfield area is dedicated to general aviation use. This would not change as a result of the GAIP.

- SCPA-5** The comment expresses the desire to maintain at least the current capacity of 596 general aviation aircraft while increasing the number of hangars on the field.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport has capacity of 596 general aviation aircraft, at the end of 2016 (the Baseline for the GAIP), only 482 spaces were occupied. Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act ("CEQA") Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that ranged from minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

The GAIP attempts to provide facilities that best meets the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use. Additionally, the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in the table, in 2026 the forecast identify piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1.

The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is "to embrace flexibility to allow for technological advances and market trends". The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time. However, it is

acknowledged and documented in the Draft Program EIR, that the construction of the hangars would reduce the capacity at the Airport for tie-down space.

- SCPA-6** The comment requests effort be made to keep the existing perimeter road in its current location by obtaining a waiver from the FAA. Doing so will prevent displacing or unnecessarily eliminating additional tie-down spaces.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers.

As noted in Section 3.6 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of FAA design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport's commitment to providing a safe and secure facility for county aviation.

- SCPA-7** The comment expresses the opinion that reducing capacity is not an improvement and requests the Draft Program EIR be updated to prevent this impact.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. With regards to the need to review the Draft Program EIR, as noted in Response SPCA-5, the No Project Alternative is fully and adequately evaluated in the EIR. The No Project Alternative would maintain the capacity for 596 general aviation aircraft and eliminate the impacts identified on existing and future tenants.

**Letter 24: Southern California Pilots Association**  
**Submitted by Pat Prentiss**  
**Dated November 8, 2018**

**SCPA 2-1** The comment, submitted by the Present of the John Wayne Airport Chapter of the Southern California Pilots Associates, concurs with the previous letter submitted by the organization's president.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 25: Southern California Pilots Association**  
**Submitted by Fred Fourcher**  
**Dated November 21, 2018**

**SCPA 3-1** This comment is the email transmitting the comment letter for the Southern California Pilots Association.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**SCPA 3-2** The comment identifies the three main needs of the Southern California pilots are:

1. Little or no reduction in the number of light general aviation aircraft on the field
2. Significantly more hangar space for Light general aviation than current
3. Competitive maintenance and FBO facilities that keep our prices low

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**SCPA 3-3** In the comment the Southern California Pilots Association ("SCPA") express concern with the reduction of aircraft that would occur as a result of the General Aviation Improvement Program ("GAIP"). The comment states the "General Aviation Terminal" ("GAT") does not serve the needs of the light general aviation community is intended to serve the needs of scheduled commuter airline traffic.

The Airport acknowledges this comment and the opinions expressed therein. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

For clarification, however, the purpose of the GAT is not solely for the needs of regularly scheduled commercial charter operations and, the GAT is identified as an optional facility that may be constructed at one of the Full Service Operators ("FBO") facilities. The GAT, which is estimated to be 3,953 square feet, would provide a facility that could serve scheduled charter operations and also include functions, such as a conference room, pilot's lounge, office space, or kitchen/commissary services. As part of the outreach effort conducted by the County and their consultants, having a place for pilots to congregate was identified as a desired facility.

**SCPA 3-4** The comment asserts the Draft Program EIR does not adequately address the true impact of displacing up to 242 aircraft. SCPA requests the Program EIR include the impact of these aircraft on neighboring airports and study the actual use behaviors of existing aircraft located at these airports whose owners reside near JWA. These aircraft are typically brought to JWA to pick up owners and passengers then depart again, doubling the takeoffs and landings than if they were based at JWA. The EIR should state if there are hangars available at Fullerton, the closest general aviation Airport as well as other airports farther away.

The displacement of general aviation aircraft was clearly identified in sections and tables throughout the Draft Program EIR, including the project descriptions (in both the Executive Summary and Section 3). The displacement of aircraft was identified as a key issue that will need to be considered by the Board of Supervisors when determining whether to approve the GAIP and select an alternative. Section 1.8, Areas of Controversy/Issues to be Resolved, clearly states:

Though other local airports have capacity, this would be a disruption for local pilots that have historically based their aircraft at JWA. The reduction of based aircraft would be accomplished through the lease process (i.e., leases would not be renewed for tie-down locations or the limitations would be reflected in the leases with the FBOs). The effect of reducing the number of based aircraft needs to be balanced with the need to respond to the trend in aviation by providing the type of facilities that best meets the future needs of the broad spectrum of people wishing to utilize the limited space available at JWA.

The aircraft displacement issue was also discussed as it pertains to land use (Section 4.6, Land Use and Planning). The Draft Program EIR identified that displaced aircraft can be accommodated elsewhere in the region. Fullerton Municipal Airport, also a general aviation airport in Orange County, has capacity for 600 aircraft and at the year ending on October 31, 2017, only 223 aircraft were based at the Fullerton Municipal Airport. Long Beach Airport is also identified as having capacity. As of October 31, 2017, Long Beach Airport had 380-based aircraft and historically has accommodated higher numbers of general aviation aircraft (AirNav.com 2018). AirNav.com reports that as of September 30, 2018, the number of aircraft based at Fullerton has gone down to 127 and as of November 30, 2018, Long Beach Airport has 344-based aircraft.

Although the Land Use and Planning section identified the loss of aircraft parking spaces as adverse because it reduces the overall capacity at the Airport; it was not identified as a significant land use impact because it would not result in an incompatible land use or conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (see Threshold 4.6-1). The aircraft are accommodated on the Airport through lease agreements, which have established expiration dates or provisions for cancellation of the lease. Therefore, the reduction in the overall number of aircraft based at JWA would not result in a significant environmental impact (see page 4.6-19).



The displacement of aircraft was evaluated in the traffic analysis, with the evaluation having a separate heading in the evaluation for the Proposed Project and Alternative 1 under Threshold 4.8-1. The *General Aviation Improvement Program Traffic Impact Analysis* ("TIA") (Appendix I) addressed this as a Special Issue. As part of this evaluation, a discussion is provided on the methodology for calculating vehicle miles traveled ("VMT") associated with travel to alternative airports (see pages 4.8-15 and 4.8-22 in the Draft Program EIR and Section 5.2 of the TIA). However, the distribution of aircraft to alternative airports in the "Competitive Market Area" is unknown; therefore, the analysis is done based on VMT. Therefore, specific trip assignment would be speculative and is not required pursuant to the California Environmental Quality Act ("CEQA"). Section 15145 of the State CEQA Guideline does not require a lead agency to speculate on potential impacts.

**SCPA 3-5** The comment states Draft Program EIR does not address whether an exemption from the Federal Aviation Administration ("FAA") can be obtained to keep the perimeter road in the same place. Movement of the perimeter road away from the runway by 10 feet is reducing hundreds of thousands of square feet from general aviation facilities.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of FAA design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport's commitment to providing a safe and secure facility for county aviation.

Based on the preliminary assessment, it is estimated the relocation of the vehicle service road and taxiway shift to comply with the FAA design standards would result in a reduction of approximately 30 tie-down spots (16 from the County managed tie-downs and 14 FBO tie-down locations).<sup>59</sup>

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<sup>59</sup> This is based on the loss of tie-down spaces associated with Alternative 3. With the Proposed Project and Alternative 1, the physical area would no longer be used for tie-downs, the redesign of the facilities would allow the remaining space to be optimized.

**SCPA 3-6** The comment states the Draft Program EIR does not address ways to keep the current number of aircraft on the field. The EIR needs to address the impact of shifting the current number of aircraft to predominately being housed in hangars. A hangar that takes the same footprint yet houses two aircraft is a more efficient use of land. The EIR needs to address the environmental impact of having two planes stacked in T hangars instead of just one aircraft. This saves land and other resources while keeping the planes covered, reducing maintenance and the environmental impact of aircraft painting on a more frequent basis.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers.

Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act (“CEQA”) Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addresses alternatives that include a minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft. As stated in the CEQA Guidelines, “An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. An EIR is not required to consider alternatives which are infeasible.” Therefore, there is not a requirement to evaluate an alternative that evaluates shifting the current number of aircraft to predominately being housed in hangars.

The facility planning study was based on common practice in the industry. The use of equipment for stacking aircraft (such as the AeroLift system) is not commonly used in the industry today. It should be noted, the T-hangars located on the west side of the Airport could not accommodate this equipment because the 25-height requirement for the equipment would exceed the FAA height restrictions at the location on the west side where T-hangars are proposed. On the east side of the Airport, 69 of the 72 T-hangars could be built to accommodate the equipment and still be consistent with the FAA height restrictions. However, this scenario is unlikely to occur because not every hangar tenant owns two aircraft or would otherwise be expected to store two aircraft in their hangar. Additionally, one of the aircraft must be small enough to be lifted and stored in an elevated or “stacked” position (e.g., aircraft storage weight less than 2,500 pounds). As noted, the planning was done consistent with common practice in the industry. Section 15145 of the State CEQA Guidelines do not require a lead agency to speculate.

If at some time in the future a Fixed-Based Operator proposed such a system, the impacts could be assessed at that time. This would allow the County to better define the scope of the changes to the Airport capacity. As noted in Section 3.7 of the Draft Program EIR, subsequent activities, such as the development plan review, would be examined in light of consistency with the parameters of the GAIP and the impacts

assessed in the Final Program EIR. Through this process, the County would determine whether additional CEQA documentation would be required pursuant to the requirements of Section 21166 of CEQA (i.e., *California Public Resources Code*, Section 21166) and Sections 15162 and 15168 of the State CEQA Guidelines.

- SCPA 3-7** The comment states the Draft Program EIR does not address the impact of the trends in newer aircraft types, such as electric aircraft used initially for training and eventually for business and pleasure flights. The environmental impact of charging facilities along with the lower noise and pollution should also be accounted for in the Draft Program EIR.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Assuming wide spread use of either electric aircraft is not reasonable at this time. therefore, a technical analysis of the environmental impacts of transitioning piston-powered aircraft to electric aircraft cannot effectively be done. If as the time electric powered aircraft are integrated into the fleet mix, the FBOs can propose the installation of charging stations to accommodate the demand.

- SCPA 3-8** The comment states the Draft Program EIR does not address changes in the general aviation fleet such as turboprops and very light jets. These aircraft have wingspans longer than conventional piston general aviation aircraft. The Draft Program EIR and proposed plan do not specifically address the size of T-hangars necessary for the larger wingspans.

As given in the *General Aviation Forecasting and Analysis Technical Report* (Appendix C of the Draft Program EIR), the Design Aircraft (also known as the Critical Aircraft) identified for the facility planning study is a composite aircraft representing a collection of aircraft classified by the three parameters:

- Aircraft Approach Category (“AAC”) – D: Approach speed 141 knots or more but less than 166 knots
- Airplane Design Group (“ADG”) – III: Wingspan 79 feet or more but less than 118 feet
- Taxiway Design Group (“TDG”) – 2: Cockpit to main gear 40 feet or more but less than 65 feet, and main gear width 15 feet or more but less than 20 feet

Based on the existing operations at JWA, the largest general aviation jet aircraft evaluated in the GAIP include models with the classification of AAC/ADG/TDG of D/III/2 include the GLF5-Gulfstream V and GLF6-Gulfstream G650 models.

As given in the *General Aviation Facility Requirements Technical Report* and the *General Aviation Opportunities Facilities Layout Report* (Appendix B of the Draft Program EIR), the T-hangars have multiple sizes for single engine and twin engine aircraft. The suggested Cirrus Vision Jet with a wingspan of 38 feet is comparable to the size of aircraft fitted in the T-hangar for single engine aircraft. The suggested Piper M600 with a wingspan of 43 feet is comparable to the size of aircraft fitted in the T-hangar for twin engine aircraft.

- SCPA 3-9** The comment states the Draft Program EIR fails to make a distinction between unscheduled general aviation aircraft used for personal and business flights and scheduled flights using Regional Jets. The environmental impact of operating these terminals with parking, traffic, the large number of passengers, and the increased number of flights is not adequately addressed. These flights would normally be classified as commercial airlines currently operating out of the main terminal. The comment asserts the Draft Program EIR should state the reason for the reduction in the numbers of light general aviation aircraft at Airport is because scheduled airline capacity is being added to the FBOs.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The comment does not accurately reflect the intent of the GAIP. As stated on page 3-5 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. By providing a concept that maximizes the efficiency and safety of facilities, the Airport will be able to prioritize future improvements. The facilities proposed are responsive to the trends in general aviation. Please see the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments. This issue is also addressed in the Topical Response pertaining to Regularly Scheduled Air Service and General Aviation Charter Operations provided in Section 3.1.5 of these Responses to Comments. In addition, please see Response SCPA 3-3.

- SCPA 3-10** The comment states the Draft Program EIR must adequately address all aspects of this proposed business model at Airport. The comment states that land and facilities for two or three GAT on land that could be used to serve general aviation aircraft.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the basis for the comment is not accurate. First, the Draft Program EIR addresses the physical elements proposed in the GAIP. It addresses the impacts of the construction and operation of the facilities identified in the GAIP, the operations forecasted for the GAIP, and effects, on a programmatic level, associated with displacement of general aviation aircraft.

When the comment states the Draft Program EIR needs to address the “business model”, it is not clear what elements the commenter is suggesting have not been addressed within the scope of CEQA. If by business model, the comment is referencing the economics of the GAIP, these issues would be outside the scope of an EIR. CEQA (Section 21080(e)), the State CEQA Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project’s potential effects that do not result, directly or indirectly, in a “physical change” to the environment. Indeed, noting that CEQA does not require analysis of impacts that are solely economic in nature.<sup>60</sup> However, Section 2.5.1, of the Draft Program EIR (General Setting) provides

<sup>60</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.

some general information on the Airport's contribution, as a whole (commercial and general aviation), to the regional economy, including general revenues through fees and charges, and taxes paid by passengers, employers and employees. Notably, general aviation revenues at JWA account for approximately 4 percent of the Airport's total revenue stream.<sup>61</sup>

The assertions that the GAIP is providing for two or three GAT, is incorrect. As noted in Response SCPA 3-3, the GAT is identified as an optional facility that may be constructed at one of the Full Service Operators ("FBO") facilities.

**SCPA 3-11** The comment states the Draft Program EIR does not address the need for multiple limited service FBOs which are essential to the light general aviation community. The one limited service FBO listed is Jay's Aircraft Maintenance; however, there are other maintenance operations on the field. The Draft Program EIR needs to address or more of these limited service FBOs offering self-serve fuel.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The Airport currently has two leaseholds for limited service FBOs. These are currently held by Jay's Aircraft Maintenance and Martin Aviation. The other maintenance operations are subtenants of the FBOs. There is nothing in the GAIP that would preclude the continuation of this sort of leasing arrangement. Your comment is noted with regards to additional self-serve fueling.

**SCPA 3-12** The comment duplicated Table 11 from the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendix D). However, no specific comment was address pertaining to the table.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

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<sup>61</sup> JWA FY 2016-17 Revenue Report <https://www.ocair.com/investorrelations/financials/revenuereports/FY16-17.pdf>

**Letter 26: Stop Polluting Our Newport and AirFair**  
**Prepared by Steven M. Taber with Leech Tishman Fuscaldo & Lampl**  
**Dated November 21, 2018**

- SAF-1** This comment is the email transmitting the comment letter on behalf of the community organizations Stop Polluting Our Newport (“SPON”) and AirFair.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- SAF-2** The comment identifies a primary concern is the General Aviation Improvement Program (“GAIP”) will increase the number of business jet operations at John Wayne Airport (the “Airport”), which would have adverse effects on the public health and welfare. in Orange County and in the City of Newport Beach. SPON and AirFair request that the County of Orange conduct additional analyses before commencing the Project.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- SAF-3** The comment expresses a concern regarding the GAIP being presented as a “Program EIR”. The comment expresses the opinion that the Draft Program EIR is vague and ambiguous so that decisions can be made at a later date. This approach is inadequate for proper evaluation of potential impacts or decision-making. SPON and AirFair are concerned they will lose their ability to comment on and effect meaningful change in the subsequent implementation phases of the GAIP. The comment requests more detailed information than what is presented in the Draft Program EIR.

The Airport acknowledges this comment; however, the comment fails to provides details on what aspect of the GAIP is insufficiently defined. As noted in the Draft Program EIR and acknowledged in the comment, the GAIP would be implemented over a period of years. The California Environmental Quality Act (“CEQA”) Guidelines (Section 15165) recommends the use of a Program EIR “where individual projects are, or a phased project is, to be undertaken and where the total undertaking comprises a project with significant environmental effect, the Lead Agency shall prepare a single program EIR for the ultimate project as described in Section 15168.” For the GAIP, a key consideration for the use of a Program EIR is the County’s ability to consider broad policy alternatives and program-wide mitigation measures. As noted in Section 1.5 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. Other advantages of using a Program EIR cited in the CEQA Guidelines include (1) the ability to provide a more exhaustive consideration of effects and alternatives; (2)

inclusion of a more comprehensive evaluation of cumulative impacts; and (3) to avoid duplicative reconsideration of basic policy considerations.<sup>62</sup>

Although the environmental studies completed for the GAIP have been completed at the programmatic level of environmental review, the assumptions provided in the Draft Program EIR are not at all vague (see Section 3.6). In addition to the more detailed description of the uses in Section 3.6, of the Draft Program EIR, Table 1-1 identifies the key design elements for each alternative in a tabular format as part of the Executive Summary just to provide a brief overview for comparison. The first row in this table provides an overview that identifies the number Full Service Fixed Based Operators (“FBOs”), other physical improvements, the number of based aircraft, and the number of general aviation flights that are forecasts for each scenario. The subsequent rows in Table 1-1 provides a further breakdown on square footage and based aircraft storage capacity for each of the proposed facilities. A more detailed Project Description, including a discussion of the functions of these facilities, is provided in Section 3.6 of the Draft Program EIR. Specifically, Section 3.6.1 identifies the facility improvements common to both the Proposed Project and Alternative 1. Sections 3.6.2 and 3.6.3 focus on the Proposed Project and Alternative 1, respectively. The conceptual facilities layout, which identifies the location of the facilities, are shown in Exhibits 3-1 and 3-4, for the Proposed Project and Alternative 1, respectively. It is unclear what additional detail could be provided in the Project Description.

Once the Board of Supervisors certifies the Program EIR, they will consider the selection of an alternative for the GAIP and ultimately make selections on the leases at the Airport.<sup>63</sup> Until an alternative is selected and approved, the number of Full Service FBOs and the specific operator and their fleet will not be known. Recognizing this inherent uncertainty, the Draft Program EIR evaluated two development scenarios (the Proposed Project and Alternative 1) at an equivalent level of consideration.

Furthermore, each implementation phase of the GAIP would be require approvals of development construction plans and issuance of building permits. As noted on page 3-25 of the Draft Program EIR, “subsequent activities would be examined in light of the Final Program EIR to determine whether additional CEQA documentation would be required pursuant to the requirements of Section 21166 of CEQA (i.e., *California Public Resources Code*, Section 21166) and Sections 15162 and 15168 of the State CEQA Guidelines for subsequent site development approvals”.

Based on the detailed Project Description provided in the Draft Program EIR, which was also the basis of the detail technical studies (see Appendices B through I), it is unclear what additional more detailed information could reasonably be provided.

**SAF-4** The comment states the Draft Program EIR assumes a scenario where business jet traffic will increase at the expense of smaller private planes, yet no details are provided about how many times a day these business jets might be taking off and landing or whether any constraints could be placed on their use beyond the limits currently in place. The comment

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<sup>62</sup> See Section 2.2 of the Draft Program EIR for a discussion on the use of a Program EIR.

<sup>63</sup> Based on the current schedule, the Orange County Board of Supervisors is expected to consider new long-term Fixed Base Operators (“FBOs”) leases in 2019, following a competitive bid process within the parameters of the GAIP.

asserts the analysis did not consider that the change in fleet mix would result in additional flights over the residents in Newport Beach because business jets usually fly the same flight paths as commercial jets.

The aviation forecasts do address the operational frequency associated with the business jet operations. The *General Aviation Forecasting and Analysis Technical Report*, included as Appendix C of the Draft Program EIR, provides the annual and the design day general aviation activity forecasts. Design day is defined as the average day of the peak month. Only the annual general aviation operations were broken down by engine type. In addition to being addressed in Appendix C, this issue is discussed in the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments.

The forecasts were used as the basis for the air quality and noise analysis. In conducting the analysis, analysis properly modeled the appropriate flight paths for the type of aircraft in forecasts for each of the scenarios. Specifically, page 42 of the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* (Appendix H) describes the flight patterns and Figure 9 shows the existing flight patterns. These together describe the current flight patterns. Page 53 of Appendix H further explains, "Flight tracks in to and out of JWA are well established, particularly with the Airport's noise abatement procedures."<sup>64</sup> Table 10 of Appendix H provides a breakdown of the GAIP Alternative Scenarios yearly aircraft operations by aircraft type.

As stated in the *Air Quality Technical Report*, included as Appendix E of the Draft Program EIR, the air quality analysis used the constrained forecasts prepared for the GAIP to analyze the potential air quality impacts (see page 39 [Section 5.1]; page 42 [Section 5.2]; and page 46 [Section 5.3]). The detail on the aircraft types are presented in Appendix E, Table 15 (Annual Aircraft Operations—Existing Plus No Project), Table 18 (Annual Aircraft Operations—Existing Plus Proposed Project), and Table 21 (Annual Aircraft Operations—Plus Alternative 1).

With regards to if there would be any additional constraints placed on business jets beyond the limits currently in place, please see the Topical Response pertaining to Restrictions on General Aviation Operations, provided in Section 3.1.4 of these Responses to Comments.

- SAF-5** The comment questions the assumption that the percentage of day, evening and night distribution of future aircraft operations would be consistent with the percentage of existing operations because of business jets would increase as the number of arrivals of longer haul business jets often occur in the evening hours due to the longer time duration of their trips.

The Airport acknowledges this comment. As stated in Appendix H, page 53, the noise analysis for the GAIP assumes the same percent of general aviation jets operating in the evening and nighttime in the 2016 Baseline would operate in the GAIP alternatives as it

<sup>64</sup> The footnote in the comment raises questions because of changes in flight routes associated with the Southern California Metroplex flight routes. Please the Topical Response pertaining to Flight Path Procedures (see Section 3.1.2 of these Responses to Comments).



was the best available data. Any other assumptions would be speculative. Section 15145 of the CEQA Guideline does not require a lead agency to speculate on potential impacts.

Appendix H, Table 5 provides the Baseline (2016) distribution of flights by day, evening, and nighttime hours. Based on this data approximately 9 percent of the business jets operating on an average annual day operating during the evening period and approximately 3 percent operating during the nighttime period. Table 10 of Appendix H, provides the distribution of flights by aircraft type. As stated in Appendix H, page 53, the noise analysis for the GAIP assumes the same percent of general aviation jets operating in the evening and nighttime in the 2016 Baseline would operate in the GAIP alternatives. This equates to an average of approximately 11 additional nighttime departures per month or 0.35 per day with the Proposed Project and 12 additional nighttime departures per month or 0.39 per day with Alternative 1.<sup>65</sup> It should be noted, the actual number of flights would vary each day because this number is based on a mathematical equation that derives a daily number of nighttime operations based on the annual forecast.

**SAF-6** The comment asserts it is logical to assume that an increase in business jet operations will lead to an increase in charter flights offered through the full-service Fixed Based Operators (“FBO”). This will result in an increase in the number of passengers using the Airport. Since passengers on charter flights are not included in the MAP CAP<sup>66</sup> that was agreed upon in the Settlement Agreement, SPON and AirFair believe that the number of passengers utilizing the full-service FBO should be analyzed in the Draft Program EIR.

The Airport acknowledges this comment. However, as noted on page 3-10 of the Draft Program EIR, regularly scheduled commercial charter operations require an allocation of passenger capacity prior to the initiation of service consistent with the provisions of the JWA Phase 2 Commercial Airline Access Plan (“Access Plan”). In addition, please see the Topical Response pertaining to Regularly Scheduled Air Service and General Aviation Charter Operations, provided in Section 3.1.5 of these Responses to Comments.

**SAF-7** The comment asks what is the largest private/business jet that could be accommodated at the Airport.

As given in *General Aviation Forecasting and Analysis Technical Report* (Appendix C to the Draft Program EIR), the Design Aircraft (also known as the Critical Aircraft)

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<sup>65</sup> Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. The following calculations were done to determine the expected increase in daily nighttime departures:

- The difference between the number of 2016 jet operations and the 2026 jet operations is calculated.
- The number of operations is then multiplied by 0.03 because 3 percent of the flights are projected to be nighttime flights. Since the number of operations are given as annual operations, this number is then divided by 365 to come up with a daily average number of nighttime operations.
- The number of nighttime operations is divided by two, which provides the number of nighttime departures.

<sup>66</sup> The MAP CAP is referencing a provision in the 1985 Settlement Agreement, as amended, which establishes a limit on the number of million annual passengers served at the Airport.

identified for the facility planning study is a composite aircraft representing a collection of aircraft classified by the three parameters:

- Aircraft Approach Category (“AAC”) – D: Approach speed 141 knots or more but less than 166 knots
- Airplane Design Group (“ADG”) – III: Wingspan 79 feet or more but less than 118 feet
- Taxiway Design Group (“TDG”) – 2: Cockpit to main gear 40 feet or more but less than 65 feet, and main gear width 15 feet or more but less than 20 feet

Based on the existing operations at JWA, the largest general aviation jet aircraft evaluated in the GAIP include models with the classification of AAC/ADG/TDG of D/III/2 include the GLF5-Gulfstream V and GLF6-Gulfstream G650 models.

**SAF-8** The comment asks how the largest private/business jet compares in size with the commercial jets currently departing the Airport.

Generally, the largest business/private jets are considerably smaller and weigh less than the short- to medium-range twinjet narrow body airliners that serve John Wayne Airport on a daily basis (e.g, B737-700 or A321). The most common scheduled commercial jets currently departing JWA include the Boeing B737s, Embraer EMB175s, Airbus A320s, Airbus A319s, Boeing B717s, and Boeing B757s (with over 1000 scheduled departures in 2017 and 2018).

The AAC/ADG/TDG classifications of these commercial jets are C/III/3, D/III/3, C/IV/4, or D/IV/4. The comparison with the general aviation design aircraft, evaluated in the GAIP, is summarized in Table 6, below.

**TABLE 6**  
**COMPARISON OF GENERAL AVIATION DESIGN AIRCRAFT**

	Common Scheduled Commercial Jets				General Aviation Design Aircraft
AAG/ADG/TDG Classifications	C/III/3	D/III/3	C/IV/4	D/IV/4	D/III/2
Aircraft Approach Category ("AAC")	Approach speed 121 knots or more but less than 141 knots	Approach speed 141 knots or more but less than 166 knots	Approach speed 121 knots or more but less than 141 knots	Approach speed 141 knots or more but less than 166 knots	Approach speed 141 knots or more but less than 166 knots
Airplane Design Group ("ADG")	Wingspan 79 feet or more but less than 118 feet		Wingspan 118 feet or more but less than 171 feet		Wingspan 79 feet or more but less than 118 feet
Taxiway Design Group ("TDG") (Refer Figure 1-1 of FAA AC 150/5300-13A for details)	Cockpit to main gear less than 65 feet, and main gear width 20 feet or more but less than 30 feet		Cockpit to main gear 65 feet or more but less than 100 feet, and main gear width less than 30 feet		Cockpit to main gear 40 feet or more but less than 65 feet, and main gear width 15 feet or more but less than 20 feet
Aircraft Model Examples	B737s, EMB175s, A320s, A319s, B717s	B737-800, 900	B757-200	B757-300	Gulfstream G500, G550, G600, G650
Source: AECOM analysis using FAA AC 150/5300-13A.					

**SAF-9** The comment asks how the noise from the largest private/business jet compares with the quietest commercial jet currently used at JWA.

Appendix H, Attachment 1 provides Single Event Noise Exposure Level ("SENEL") noise contours for several general aviation jets and propeller aircraft along with commercial aircraft for comparison of noise emissions.

**SAF-10** The comment asks if street traffic increases as a result of more space being provided for business jets. The change in the trip generation rate was addressed in the *General Aviation Improvement Program Traffic Impact Analysis* ("TIA") prepared for the GAIP, which is provided as Appendix I to the Draft Program EIR. This information was summarized in the Draft Program EIR in Section 4.8.2, which provides an overview of the methodology used for the transportation/traffic analysis. Both the TIA and the Transportation/Traffic section of the Draft Program EIR (Section 4.8), identifies that the variable used in the general aviation trip rates is aircraft operations. The data are separated into four types of general aviation aircraft (piston aircraft, turbine aircraft, jets, and helicopters). Since the forecasts indicate a change in the aircraft mix over time, with fewer piston aircraft and more jet aircraft compared to existing general aviation operations, the analysis has factored in that the larger general aviation aircraft would

have higher passenger occupancy, resulting in a greater number of ground transportation trips per aircraft. To account for this change over time, trip generation rates have been developed for each of the four types of general aviation aircraft at JWA.

Appendix A of the TIA describes the derivation of trip generation rates based on aircraft type. The following is excerpted from Section A.2 (Trip Generation Rates) on page 36 of that appendix:

“Over time, it is estimated that the aircraft mix for JWA general aviation operations will change towards more of the larger aircraft using the airport. This is shown clearly in the aviation forecasts and it is reasonable to assume that larger aircraft generate more trips per operation than smaller aircraft because of their greater seating capacity. To account for this change over time, GAIP trip generation rates were derived for each of the aircraft types used in the aviation forecasts (piston, turbo, jet, and helicopter).”

These rates were shown in Table 4.8-1 of the Draft Program EIR and Table A-3 in the TIA.

Section A.3 of the TIA, describes the trip generation for each of the GAIP alternatives. The trip generation results given in Table A-4 of the TIA show the existing trip generation based on the existing aircraft mix, and then the corresponding trip generation for the forecast years. Since the future aircraft mix varies by alternative, the future trip generation also varies by alternative. For example, the daily rate in 2016 is 8.548 trips per aircraft operation (takeoff or landing), and for the Proposed Project is 9.756 per aircraft operation, a 14 percent increase. Alternative 1 has a 9.781 trip rate per aircraft operation. Hence the increase in jet aircraft over time is directly accounted for in the estimates of future street traffic. It is this higher trip generation rate that results in an incremental increase in the total number of vehicle trips even though the total number of general aviation operations is reduced. This is all discussed under Threshold 4.8-1 of the Draft Program EIR (see pages 4.8-9 through 4.8-22).

**SAF-11** The comment asserts the use of 2016 as the baseline year for its analysis is outdated because in 2017, the Federal Aviation Administration (“FAA”) implemented three new departure routes as part of the Southern California Metroplex; therefore, the baseline should have been revised to 2017.

Section 15125 of the CEQA Guidelines, states, “An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published . . . This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.” The NOP was published in March 2017. Both the NOP and the Draft Program EIR identify that 2016 was the most recent year with complete information that could be used as the basis for aviation forecasts. The conditions at the Airport for general aviation activity did not substantially change from the end of 2016 to the first quarter of 2017. Having a complete annual data source for the analysis is required to be able to prepare accurate forecasts. As noted, on page 4.8-3 in the Draft Program EIR:

The 2016 baseline was identified in the Notice of Preparation (provided in Appendix A of this Program EIR) because it was the most recent year with complete information. Pursuant to Section 15125 of the CEQA Guidelines: “An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or . . . at the time environmental analysis is commenced . . . This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant.”

The physical conditions at the Airport did not substantively change from December 31, 2016 and March 2017.

The Draft Program EIR did acknowledge the initiation of the Southern California Metroplex flight paths. This was identified in Section 1.9 of the Draft Program EIR as an Airport-related issues not associated with the GAIP. However, as noted above, when the studies were initiated for the GAIP, there would not have been noise contour data for departures under Metroplex. Importantly, the GAIP will not result in any modification to these flight paths at the Airport. For addition discussion, please see the Topical Response on Flight Path Procedures provided in Section 3.1.2 of these Responses to Comments.

**SAF-12** The comment SPON and AirFair are opposed to the idea of creating an international General Aviation Facility (“GAF”) at the Airport. SPON and AirFair believe that the addition of a GAF could result in a large increase in business jet traffic and therefore noise, traffic and pollution, particularly from an increase in nighttime operations. The comment asserts the impact cannot be analyzed without specific details regarding the maximum potential number of passengers who would transit through the proposed facility. Of particular concern is the possibility that a GAF will generate an increase in group charter flights and passengers.

Although the Airport does not currently provide general aviation CBP services, flights with international origins and destinations currently use the Airport following receipt of CBP clearance at an airport that offers general aviation CBP services prior to landing at JWA. While the GAIP’s GAF would accommodate direct international travel through JWA, it is not anticipated to attract or “induce” a significant level of international flights where their intended destination is not JWA (i.e., flights that would stop and clear customs at JWA and then immediately continue on to a different airport). CBP regulations govern landing requirements and procedures for private aircraft arriving in the U.S. As defined by those regulations (19 Code of Federal Regulations (CFR) Subpart C §122.21-122.30), CBP has the authority to limit the locations where private aircraft entering the U.S. from a foreign area may land. Even if JWA provides the optional GAF with CBP inspection service for general aviation aircraft, private aircraft entering the US from south of the Mexican border or Pacific, Gulf of Mexico, or Atlantic coastlines must comply with special CBP reporting requirements. Specifically, they must land at designated airports for CBP inspection and processing unless the aircraft has been exempted from this requirement. The designated airports nearest to JWA are Brown Field (SDM), and Callexico International Airport (CXL) in California.

- SAF-13** The comment SPON and AirFair have a concern that the addition of a hangar facility for the Orange County Sheriff's Department ("OCSD") will result in an increase in helicopters flying in and out of JWA. While the Draft Program EIR assumes that there will not be an increase in the number of helicopters based at the Airport, there is no mention of whether the addition of a hangar facility at the Orange County Sheriff's flight operations would result in an increase in helicopter flights at the Airport.

The Draft Program EIR clearly states (page 3-13), that the "OCSD currently leases two box hangars from ACI Jet. The GAIP assumes the OCSD may lease space either directly from the County or from the west side FBO." Although the Draft Program EIR assumes the total number of helicopters would not increase, the operation forecasts identified that the total number of helicopter operations is projected to increase from 3,900 in 2016 to 4,800 operations in 2026 with either the Proposed Project or Alternative 1 (see Tables 3-7 and 3-11, for the Proposed Project and Alternative 1, respectively). The helicopter operations, which are not just associated with OCSD, have been accounted for in the technical evaluations. It should be noted, that the operational characteristics (i.e., flight pattern) of OCSD helicopter flights would be comparable to the current operations because the GAIP conceptual plans retain the OCSD in same general area where they are currently located on the west side of the Airport. OCSD helicopters depart to the south, over Taxiway B, then turn to the west (i.e., right) at a 270 degree turn to cross over the Airport and proceed in a southeasterly direction.

- SAF-14** The comment states SPON and AirFair incorporate by reference all the comments made by the City of Newport Beach and request answers to the questions raised by the City of Newport Beach. In particular, SPON and AirFair want to express support for the project scope indicating that any GAIP improvements would be "confined to the existing Airport footprint."

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Responses to comments from the City of Newport Beach are provided as responses to Letter 8 (please see Responses NB-1 through NB-30).

- SAF-15** The comment a copy of all public notices issued in connection with the Project, including the Notice of Availability of the Final Program EIR be provided to Steven M. Taber, that prepared the comments on behalf of SPON and AirFair.

The Airport acknowledges this comment. All notices pertaining to the GAIP and Final Program EIR, will be provided.

## **Individuals and Businesses**

## 3.5 INDIVIDUALS AND BUSINESSES

The responses to letters/emails/comment cards from individuals and businesses can be found under four subheadings in this responses to comments document. Section 3.5 includes individuals and businesses that submitted individualized letters within the 60-day public review period. Those individuals that submitted a standardized letter (i.e., form letter) will find their comment letter in Section 3.6 of Volume 1B. Those individuals who provided verbal comments at the September 26, 2019 public meeting will find their comments in Section 3.7 of Volume 1B. For those that submitted their comments after the close of public review period, the letters are provided in Section 3.8.

This section (Section 3.5) provides responses to comments from the 112 individuals and businesses that submitted individualized letters within the 60-day public review period. The following is the list of those commenters. There are individuals that submitted multiple letters or the same letter multiple times. In these instances, there is a number in parentheses after their name to differentiate the letters.

<b>A</b>	<b>B (cont.)</b>	<b>F</b>
ACI Jet (1)	Bob and Diana Brooks	Jeanne Fobes
ACI Jet (2)	Delores and Wayne Browning	Frederick Fong
Deirdre Adams	<b>C</b>	Daniel Freedman
Joan Allison	Sarah Catz (1)	<b>G</b>
Nancy Alston (1)	Sarah Catz (2)	Susan Gaunt
Nancy Alston (2)	Sarah Catz (3)	Pam and Bill Goode
American Aircraft Maintenance, submitted by Lina Shi (1)	Clay Lacy Aviation, submitted by Scott Cutshall	Peter Grant
	Antoinette Cole	Grant Thornton submitted by Alan Herrmann
American Aircraft Maintenance, submitted by Lina Shi (2)	Paul Columbus	Fred Greensite
	W. David Cook	<b>H</b>
	Todd Corbitt	Joel Hackney
American Aircraft Maintenance, submitted by Lina Shi (3)	Andy Couch	Kathy Harbour
	CPF Airways (1)	Bill and Cherie Hart
	CPF Airways (2)	Sandi Hill
Melinda Atkin	CPF Airways (3)	Fred Howser
Brent and Carla Anderson	CPF Airways (4)	Libby Huyck (1)
<b>B</b>	Linda Crum	Libby Huyck (2)
Lewis and Teresa Becker	<b>D</b>	Libby Huyck (3)
David Benvenuti, MD	Christy Dambrosio	<b>I</b>
Leann Benvenuti	Patrick Davern	Benjamin Imai
Carol Berg	Cindy Dillion	<b>J</b>
Marvin Blum	Jeff Dvorak	Daniel Jensen
Brandt Group, submitted by Robert B. Lange	Jeff Dvorak (2)	Johnson & Associates, submitted by Randal Johnson
	<b>E</b>	
Michael Brant-Zawadzki	Maris Ensing	Jeanne Johnson



<b>J (cont.)</b>	<b>O</b>	<b>T</b>
Carol Jung	Oceanfront Jobs submitted by Steve Bunch	Triad Investment Management, submitted by David Hutchison
<b>K</b>		
Franz Kallao	Brigid O'Connor	
Nancy Kirksey	William J. O'Connor	<b>U</b>
Carolyn and Bill Klein	<b>P</b>	Martha Unickel
Sheila Koff	Lee Pearl	U.S. Fasteners, submitted by Kevin Halliburton
<b>L</b>	Sally Petersen	
Wayne Lindholm	Sandra Petty-Weeks	<b>V</b>
Andrea Lingle	Doug Pham	Polly and David Verfaillie
Randall Lipton	Doug Pham	Dan Vogt
Stephen Livingston	<b>R</b>	Peggy Vombauer
Thomas Logan	Doug Robinett	<b>W</b>
Karen Love	Alice Rosellini	Grant Whitcher
<b>M</b>	<b>S</b>	Christina and Alan White
Peter Macdonald	Law Offices of Gary L. Schank	Dana White
Bonnie McClellan	Gary Schank	Karol Wilson
Meyer Properties submitted by James Hasty	Law Offices of Gary L. Schank	Simone Wilson
Meyer Properties submitted by James Hasty	Schock Boats, submitted by Steven Schock	Mike Wolf
	Signature Flight Support, submitted by Julie Broderick	Kenneth A. Wong
Shannon and Jeff Mieke		<b>Y</b>
Lesley Miller	Frank Singer	
Diane Myers	Susan Skinner	
<b>N</b>	Michael C. Smith	
John Nord	Pauline L. Smith	

**Letter 27: ACI Jet**  
**Submitted by Joe Daichendt**  
**Dated October 25, 2018**

**ACI-1** The comment states the forecast used in the Draft Program Environmental Impact Report (“EIR”) that show a reduction in the number of general aviation aircraft at the Airport do not represent current conditions. Further, the comment indicates that previously, an obstacle to growth at the Airport was fuel prices and this is no longer a barrier and that a reduction in the number of general aviation aircraft is not the solution. The commenter also provides the opinion that for the success of the Airport, the number of general aviation aircraft should not be reduced; rather, it needs to be increased or at a minimum, maintained at current levels.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, as a point of clarification, the aviation forecast evaluate long-term trends in aviation and need to look at a longer horizon than a few years. The *General Aviation Forecasting and Analysis Technical Report* and the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendices C and D to the Draft Program EIR) discuss the methodology used for the development of the aviation forecast. The forecast are consistent with the Federal Aviation Administration (“FAA”) guidance for the development of aviation forecasts. For an overview of the process, please see the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1. As it pertains to fuel prices and benefits of a self-serve fueling station, the General Aviation Improvement Program (“GAIP”) does provide for a self-service fueling station.

**ACI-2** The comment states the delays of the GAIP continue to have an important impact on the Airport. The comment further states that due to the delays, no improvements have been constructed and the Airport is not able to service the Bombardier Global 7000. As a result, the commenter indicates that the Airport and Orange County have missed out on opportunities from both a service and revenue perspective.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**ACI-3** The commenter supports an alternative with two fixed based operators (“FBOs”), stating this would speed up all improvements.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The Draft Program EIR did identify one less phase of construction for the Proposed Project (with two Full Service FBOs) when compared to Alternative 1 (three Full Service FBOs). The phasing concepts

are presented in the Draft Program EIR as Exhibits 3-3a and 3-3b for the Proposed Project and Exhibits 3-5a and 3-5b for Alternative 1. As noted in the Draft Program EIR (page 3-23), implementation of the improvements associated with the GAIP would be phased to minimize disruption to Airport operations and reduce the need to temporarily relocate based aircraft to other airports in the region. The phasing would require temporary relocation of uses while each area on the Airport is under construction. Given the space limitations on the Airport, small segments of work would need to be conducted at a single time. The comment does not present a concept for the phasing or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 28: ACI Jet  
Submitted by Joe Daichendt  
Received October 29, 2018**

This letter is the same as the ACI Jet electronic submittal (Letter 27). Therefore, no additional responses are required. Please see Responses ACI-1 through ACI-3.

**Letter 29: Deirdre Adams  
Dated November 21, 2018**

- DA-1** The comment states that any modifications that increases the number of larger planes will cause disruption for those under the flight path. The comment also expresses the opinion that the noise restrictions on general aviation is not adequate. Further the comment references the number of general aviation aircraft that fly outside of curfew hours.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport acknowledges that there are violations, to characterize it that “These numbers demonstrate that this lack of observance of regulations is a chronic problem for this type of aircraft and should be addressed” is not an accurate characterization. In the period cited (July 1, 2017 through June 2018), there was a compliancy rate of 99.9 percent.

As discussed in the Topical Response pertaining to the GANO, provided in Section 3.1.3, when an aircraft exceeds the GANO noise limits at one or more locations, a “Notice of Violation” is issued to the registered owner of the aircraft. The Notice of Violation applies to the aircraft owner, the aircraft operator, and the aircraft. Notices of Violation remain in effect for three years after the violation date. If three GANO violations occur within a three-year period, the aircraft owner, the aircraft operator and the aircraft are subject to denial of use of the Airport for a period of three years. In light of the 99.9 percent compliance rate and the minimal number of repeat offenders, the County has implemented a program that does effectively addresses compliance with the regulations.

The existing commercial aircraft curfew and GANO limits would not be taken away or modified as a result of the proposed GAIP.

- DA-2** The comment states anything that allows an increase in the number of larger aircraft to fly outside of curfew should be discouraged, including changes to the general aviation program. Therefore, the commenter opposes any of the alternatives in the General Aviation Improvement Program (“GAIP”).

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, the existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level (“SENEL”) limits for general aviation aircraft are identified in the General Aviation Noise Ordinance (“GANO”), which would not be taken away or modified as a result of the proposed GAIP. For additional discussion, please see the Topical Response pertaining to the GANO provided in Section 3.1.3 of these Responses to Comments. The increase in the number of larger aircraft in the fleet mix is part of the trend in aviation, which is outside the control of John Wayne Airport. Both the GANO and aviation trends are discussed in

the Draft Program Environmental Impact Report.<sup>67</sup> For additional discussion of the issues please see the Topical Responses provided in Sections 3.1.1 and 3.1.3 of these Responses to Comments.

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<sup>67</sup> The GANO is discussed in Section 2.6.4 and historic aviation trends are discussed in Section 2.4 of the Draft Program EIR.

**Letter 30: Joan Allison  
Dated November 20, 2018**

- JA-1** The comment states there is more noise from helicopters and private jets over her house. The commenter expresses the opinion that that they do not need more noise or pollution caused by planes.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- JA-2** The commenter expresses an opposition to the General Aviation Improvement Program ("GAIP").

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 31: Nancy Alston**  
**Received November 20, 2018**

**NA-1** The comment states the General Aviation Improvement Program (“GAIP”) will significantly increase the noise and pollution on both the arrival and departure paths due to increasing general aviation jets, which are unconstrained by the commercial jet curfew.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. Although this comment does not specifically identify a concern regarding the analysis in the Draft Program EIR, it does raise several points that warrant clarification.

The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. The forecast used in the analysis for the GAIP does acknowledge a change in fleet from the current condition. The forecasts takes into consideration data on a variety of indicators, including but not limited to, pilot population, growth in student pilot population, shipment of general aviation aircraft, and projected demand. The study provides the general aviation demand forecasts for based aircraft, annual operations, daily and peak hour operations, and international operations at the Airport.<sup>68</sup> As demonstrated in the historic data, and projected in the forecasts data, an increase in the number of private jets is projected even with the No Project Alternative. For additional discussion of the Aviation Forecast, please see the Topical Response provided in Section 3.1.1 of these Responses to Comments.

Although general aviation operations are permitted 24 hours a day, they are subject to daytime and nighttime noise limits. Section 2.6.4 of the Draft Program EIR provides a discussion of the County’s General Aviation Noise Ordinance (“GANO”), which includes noise restrictions applicable to nighttime general aviation operations in Section 3.1.3 of these Responses to Comments. The existing commercial aircraft curfew and GANO limits would not be taken away or modified as a result of the proposed GAIP.

It should also be noted, the impacts of increased jet operations has been addressed in the Draft Program EIR. Utilizing the forecast data as the basis for the analysis, the Draft Program EIR identifies the incremental increase in the aviation-related noise levels, air emissions, and land use compatibility impacts associated with the GAIP. Mitigation measures have been incorporated to reduce potentially significant impacts associated with implementation of the GAIP. Further, the GAIP has voluntarily incorporated

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<sup>68</sup> A summary of the methodology for conducting the forecast is provided on page 3-3 of the Draft Program EIR. The full analysis is contained in the *General Aviation Forecasting and Analysis Technical Report* (Appendix C of the Program EIR) and the development of the constrained forecast is provided in *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendix D of the Draft Program EIR).



Minimization Measures, which are conditions proposed to reduce an adverse effect of the Project even when that effect does not result in a significant impact.

- NA-2** The comment states the increase in jet traffic at the Airport comes at the same time as our 2018 Federal Aviation Administration (“FAA”) Reauthorization Act, which recognizes the impact of aircraft traffic on local communities.

It should be noted, that while the FAA Reauthorization Act does recognize that airport noise can adversely impact nearby communities, it is a broad legislation (approximately 1,200 pages) that includes, but is not limited to, provisions for funding, airline regulations, airport standards, use of drones, and modernization of airport infrastructure. It is not intended to give airport specific project related guidance. Additionally, the Draft Program EIR does identify the potential impacts on the surrounding communities and identifies measures to reduce the impacts to the maximum extent feasible. It should also be noted, that the FAA has other legislation, such as the *Airport Noise and Capacity Act of 1990*, that the Airport is required to comply with.<sup>699</sup> It should also be noted, that the Draft Program EIR includes minimization measures, in addition to County Standard Conditions and Mitigation Measures. As noted on page 4-2 of the Draft Program EIR, Minimization Measures are conditions proposed to reduce an adverse effect of the Project even when that effect may not result in a significant impact. This goes beyond the requirements of California Environmental Quality Act (“CEQA”), which requires there to be a nexus between the project impacts and mitigation measures.

- NA-3** The comment claims due to the vagueness of the Draft Program EIR document, the residents of Newport Beach have no idea what changes this Project will bring about with its attendant noise and pollution.

Details on the Project Description are provided in multiple locations in the Draft Program EIR. Table 1-1 identifies the key design elements for each alternative in a tabular format as part of the Executive Summary just to provide a brief overview for comparison. The first row in this table provides an overview that identifies the number of Full Service Fixed Based Operators (“FBOs”), other physical improvements, the number of based aircraft, and the number of general aviation flights that are forecasts for each scenario. The subsequent rows in Table 1-1 provide a further breakdown on square footage and based aircraft storage capacity for each of the proposed facilities. A more detailed Project Description, including a discussion of the functions of these facilities, is provided in Section 3.6 of the Draft Program EIR. Specifically, Section 3.6.1 identifies the facility improvements common to both the Proposed Project and Alternative 1. Sections 3.6.2 and 3.6.3 focus on the Proposed Project and Alternative 1, respectively. The conceptual facilities layout, which identifies the location of the facilities, are shown in Exhibits 3-1 and 3-4, for the Proposed Project and Alternative 1, respectively.

A subheading in each of these latter two sections provides details on the type of aircraft and projected number of annual flights by aircraft type associated with each alternative.

<sup>699</sup> A brief overview of the *Airport Noise and Capacity Act of 1990* (“ANCA”) is provided in Section 2.6.2 of the Draft Program EIR.

As noted in the Draft Program EIR (page 3-19) the total number of general aviation flights would vary slightly dependent on the alternative selected. The project description, and the subsequent analysis in the Draft Program EIR, uses the constrained forecast data, which addresses the maximum projected general aviation facilities and operations that can be accommodated by John Wayne Airport's ("JWA's") limited footprint. This information is provided in text and tabular format. Tables 3-5 through 3-7 provide the constrained aviation forecast data for the Proposed Project. Specifically, Table 3-5 identifies the 2016 baseline information and the projected 2026 forecasts by type of aircraft; Table 3-6 identifies the number of general aviation operations; and Table 3-7 provides the operations forecast by engine type. The aviation forecasts for Alternative 1 are provided in Tables 3-9 through 3-11.

In addition to the above noted locations, Tables 5-1 through 5-3 provide a comparison of the operational characteristics of the alternatives evaluated in the Draft Program EIR.<sup>70</sup>

The analysis in the Draft Program EIR is not vague. The impacts associated with the GAIP, are discussed in detail in Sections 4.1 through 4.11 and Section 6 of the Draft Program EIR. Each section provides an overview of the methodology used and thresholds of significance applied. To further enhance the readers' understanding, each section provides a discussion of the regulatory setting applicable to the issue being evaluated. This is provided in addition to the required existing conditions, impacts, cumulative impacts, and mitigation program discussion. At the end of each section, there is a statement on the level of significance of the impacts after the implementation of the proposed mitigation program.

The comment specifically raises the issues of noise and pollution. Although the type of pollution is not defined in the comment, the Draft Program EIR provides an evaluation of air quality emissions in Section 4.2, which is a detailed summary of the *Air Quality Technical Report*, included as Appendix E. Greenhouse gas emissions are evaluated in Section 4.4 and the *Greenhouse Gas Technical Report* included as Appendix G. Noise impacts are evaluated in Section 4.7 and the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report*, which is included as Appendix H. Land use impacts, which are associated with noise impacts, are evaluated in Section 4.6.

**NA-4** The comment asks the number of general aviation jets that can be accommodated at John Wayne Airport in a 24-hour period.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The number of jets that can be accommodated in a 24-hour period is a theoretical question and is dependent on multiple factors (e.g., airfield capacity, weather conditions, etc.). Therefore, the commenter is referred to the aviation forecast, summarized in the Draft Program EIR (Sections 3.6.2 and 3.6.3 for the Proposed Project and Alternative 1, respectively) and discussed in detail in the *Orange County/John Wayne Airport (JWA) General Aviation*

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<sup>70</sup> The Proposed Project and Alternative 1 were evaluated at an equivalent level of detail in the body of the document. In addition, Section 5, Alternatives, evaluated Alternative 2, Alternative 3, and the No Project Alternative.

*Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendix D of the Draft Program EIR).

The forecast referenced in the Draft Program EIR and these reports, projects the number of annual operations categorized by aircraft type (including general aviation jets). Table 7, below, reflects the information in the Draft Program EIR and provides a comparison of the number of operations by aircraft engine type for the Baseline (2016) condition to the constrained forecast for the Proposed Project, Alternative 1, and the No Project Alternative. As noted in the table, an operation is defined as either a takeoff or landing, each counting as one operation; therefore, the number of departures would be half of the numbers shown in the table.

**TABLE 7**  
**JWA FORECAST OPERATIONS BY AIRCRAFT ENGINE TYPE**  
**COMPARISON OF ALTERNATIVES**

Year	Piston	Turbine	Jet	Helicopter/Other	Total Operations <sup>a</sup>
<b>Existing Conditions</b>					
2016	147,300	9,800	31,800	3,900	<b>192,800</b>
<b>Proposed Project</b>					
2026	111,000	11,700	40,400	4,800	<b>167,900</b>
<b>Alternative 1</b>					
2026	111,600	10,800	41,400	4,800	<b>168,600</b>
<b>No Project (Constrained Forecasts)</b>					
2026	147,000	10,900	38,300	4,800	<b>201,000</b>
Note: Numbers may not add up due to rounding.					
<sup>a</sup> An operation is defined as either a takeoff or landing, each counting as one operation.					
Source: AECOM 2018b (Appendix D to this Program EIR). Taken from Table 5-3 in the Draft Program EIR.					

Although the forecast is prepared for annual operations, a daily average for general aviation jets, derived from the annual operations, could be calculated by dividing the annual number by 365. Based on this calculation, the Proposed Project on average would result in 111 jets operations per day (approximately 56 departures), which is an increase of 24 jets operations per day compared to the Baseline (approximately 12 departures). Alternative 1 on average would result in 113 jets operations per day (approximately 57 departures), which is an increase of 26 jets operations per day compared to the Baseline (approximately 13 departures). However, the actual number of flights would vary each day because this number is based on a mathematical equation that derives a daily number of operations based on the annual forecast.

**NA-5** The comment asks if all future general aviation jets will be stage 3 aircraft.

Stage 1 and Stage 2 aircraft are no longer permitted to operate in the United States. As of December 31, 2015, all civil jet aircraft, regardless of weight were required to meet Stage 3 or Stage 4 certification to fly within the contiguous United States. Therefore, all

future aircraft operating at JWA will be at least Stage 3 aircraft. This issue is discussed in Section 4.7.2 on page 4.7-10 of the Draft Program EIR.

- NA-6** The comment asks what assumptions were made in predicting general aviation jet and non-jet operations.

The approach and methodology in the forecast of general aviation operations is provided in the *General Aviation Forecasting and Analysis Technical Report* and the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts*, which are provided as Appendices C and D of the Draft Program EIR. In addition, please see the Topical Response on Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments.

- NA-7** The comment asks currently what is the average number of passengers on general aviation jets. What assumptions are used in the forecasts.

The *General Aviation Improvement Program Traffic Impact Analysis* ("TIA"), provided as Appendix I of the Draft Program EIR describes the derivation of general aviation trip generation rates based on aircraft type (piston, turbo, jet, and helicopter). Table A-3, provided in Appendix A of the TIA, and reproduced below, shows this derivation using 2016 aircraft operations by type and representative ground transportation trip factors for each type of aircraft.

**Table A-3**  
**General Aviation Trip Generation Rates by Aircraft Type**

Measure	Piston	Turbine	Jet	Helicopter/ Other	TOTAL
Annual Operations (2016)	147,300	9,800	31,800	3,900	192,800
Weekday Operations	468	31	101	12	612
Weekday Tripends/Operation	1.5	3.5	5.0	2.5	2.2
Weekday Tripends	701.4	108.9	504.8	31.0	1,346
Non-Operations Tripends	157.8	24.5	113.6	7.0	303
<b>Total Weekday Tripends (TE)</b>	<b>859</b>	<b>133</b>	<b>618</b>	<b>38</b>	<b>1,648</b>
<b>TE/Annual Operations (000's)</b>	<b>5.83</b>	<b>13.57</b>	<b>19.43</b>	<b>9.74</b>	<b>8.55</b>
Notes:					
Annual aircraft operations are total general aviation take-offs plus landings.					
Trip Rates are weekday ground transportation vehicle tripends (TE) per annual aircraft operations (000's)					
Source: <i>General Aviation Improvement Program Traffic Impact Analysis</i> (Appendix I), 2018					

The trip factors are on the third row (1.5, 3.5, 5.0, and 2.5 for the four different aircraft types respectively). These factors are for ground transportation vehicle trips per aircraft, and the actual passengers would be the equivalent number of persons in the ground transportation vehicles. Using an occupancy factor of 1.12 (the occupancy factor

for work trips on the regional highway system) gives an average occupancy of 5.6 persons per jet aircraft operation for business related trips. For non-business trips the occupancy factor would be higher (around 1.4, the factor for non-work trips on the regional highway system), giving an occupancy of 7.0 persons per aircraft. Combining the two trip purposes gives an overall average of 6.0 as a representative average for jet passengers per aircraft.

Based on the number of jet operations in 2016, the annual passengers on general aviation jet aircraft would be 190,800 (31,800 x 6.0), and the average number of weekday passengers would be 606 (101 x 6.0).

**NA-8** The comment asks does the analysis of operations account for the number of planes merely arriving to pick up people at JWA.

The operations associated with “pick up people at JWA” are categorized as transient aircraft because they are not based at JWA. These transient operations are included in the forecast analysis. As explained in the Topical Response pertaining to Aviation Forecast (provided in Section 3.1.1 of these Responses to Comments), the forecasts analysis followed the FAA guidelines and included transient operations. The forecast of annual transient operations summarized in Table 18 of Appendix C of the Draft Program EIR. The transient operations include jet and other aircraft operations. As noted, in the Draft Program EIR, operations generated by transient aircraft reference the unconstrained forecast model because they are not constrained by the facilities at the Airport.

**NA-9** The comment asks the average percentage of general aviation jet departures per month that currently operate before 7:00 AM and after 10:00 PM.

In the 2016 Baseline, approximately 9 percent of the business jets operating on an average annual day operated during the evening period and approximately 3 percent operated during the nighttime period. This equates to approximately 40 average general aviation nighttime jet departures per month.

This same percentage for nighttime operations was applied to the GAIP in the analysis of the alternatives. As stated in Appendix H, page 53, the noise analysis for the GAIP assumes the same percent of general aviation jets operating in the evening and nighttime in the 2016 Baseline would operate in the GAIP alternatives. This equates to an average of approximately 11 additional nighttime departures per month or 0.35 per day with the Proposed Project and 12 additional nighttime departures per month or 0.39 per day with Alternative 1.<sup>71</sup> It should be noted, the actual number of flights would vary

<sup>71</sup> Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. The following calculations were done to determine the expected increase in daily nighttime departures:

- The difference between the number of 2016 jet operations and the 2026 jet operations is calculated.
- The number of operations is then multiplied by 0.03 because 3 percent of the flights are projected to be nighttime flights. Since the number of operations are given as annual operations, this number is then divided by 365 to come up with a daily average number of nighttime operations.
- The number of nighttime operations is divided by two, which provides the number of nighttime departures.

each day because this number is based on a mathematical equation that derives a daily number of nighttime operations based on the annual forecast.

**NA-10** The comment asks what is the largest general aviation jet that can be accommodated at the Airport.

As given in *General Aviation Forecasting and Analysis Technical Report*, which is Appendix C to the Draft Program EIR, the Design Aircraft (also known as the Critical Aircraft) identified for the facility planning study is a composite aircraft representing a collection of aircraft classified by the three parameters:

- Aircraft Approach Category (“AAC”) – D: Approach speed 141 knots or more but less than 166 knots
- Airplane Design Group (“ADG”) – III: Wingspan 79 feet or more but less than 118 feet
- Taxiway Design Group (“TDG”) – 2: Cockpit to main gear 40 feet or more but less than 65 feet, and main gear width 15 feet or more but less than 20 feet

Based on the existing operations at JWA, the largest general aviation jet aircraft evaluated in the GAIP include models with the classification of AAC/ADG/TDG of D/III/2 include the GLF5-Gulfstream V and GLF6-Gulfstream G650 models.

**NA-11** The comment asks about the development of a model used for the largest general aviation jet identified in the previous question, and if no model was done, why not?

The FAA-required Aviation Environmental Design Tool (“AEDT”) model was used to evaluate the noise impacts of the GAIP. This model includes an evaluation of noise impacts of large general aviation aircraft identified in the aviation forecasts. The listing of the aircraft incorporated into the AEDT model are listed in Table 15 of the *Noise Analysis Technical Report*, which is included in Appendix H of the Draft Program EIR. A summary of the results of the AEDT noise model analysis is included in Draft Program EIR Section 4.7.7.

**NA-12** The comment asks what percentage of the current general aviation jet operations are charter and the number of passengers currently departing on charters flights. Further, the comment inquires about the assumptions used for the forecasts of charter flights.

Although it is unclear what the commenter is referencing as “charter flights,” primarily because that term has a number of different meanings depending on the context in which the term is referenced, the Airport has information regarding the number of flights that fly out of JWA, and the number of passengers on those flights, only to the extent that the flights fall within the definition of a Regularly Scheduled Commercial User as that term is defined in the Phase 2 Commercial Airline Access Plan and Regulation. These flights may include “charter flights” to the extent they fall within the definition of a Regularly Scheduled Commercial User. Section 2.40 of the Access Plan defines Regularly Scheduled Commercial User as follows: “Regularly Scheduled Commercial User means any person conducting aircraft operations at JWA for the purpose of carrying passengers, freight, or cargo where such operations: (i) are operated in support of, advertised, or otherwise

made available to members of the public by any means for commercial air transportation purposes, and members of the public may travel or ship Commercial Cargo on the flights; (ii) the flights are scheduled to occur, or are represented as occurring (or available) at specified times and days; and (iii) the person conducts, or proposes to operate, departures at JWA at a frequency greater than two (2) times per week during any consecutive three (3) week period.” To the extent charter flights fall within the definition of a Regularly Scheduled Commercial User, the operations must request and be provided an allocation of capacity prior to initiating operations at the Airport and comply with the regulated passenger capacity, Average Daily Departure (“ADD”) limits, and million annual passenger (“MAP”) capacity limitations at the Airport, among other Access Plan requirements.

To the extent general aviation jet charter operations do not fall within the definition of a Regularly Scheduled Commercial User as that term is defined in the Access Plan, the Airport does not have the ability nor is it required to determine how many jet operations are charter operations and how many passengers may be utilizing those operations. For additional information on this issue please see the Topical Response pertaining to Regularly Scheduled Air Service and General Aviation Charter Operations provided in Section 3.1.5 of these Responses to Comments. Additionally, please see the discussion of general aviation charter operations contained in the Topical Response pertaining to Aviation Forecast, provided in Section 3.1.1 of these Responses to Comments.

**NA-13** The comment states that other than the No Project Alternative, the GAIP scenarios would reduce the capacity for general aviation aircraft at the Airport. The comment, then asks if an alternative that would reduce the number of general aviation jet operations was considered.

Alternative 3 identifies a reduction in capacity for all aircraft types other than multi-engine piston aircraft when compared to the 2016 Baseline. This is also a reduction when compared to the No Project Alternative, which does not assume any changes in general aviation capacity compared to the 2016 Baseline scenario. Although the capacity would be reduced with Alternative 3, the aviation forecast for all scenarios, including the No Project Alternative, identifies an increase in operations for jet aircraft. The number of general aviation jet operations for Alternative 3 (36,400 annually) is less than the projection for the No Project Alternative (38,300 annually). Tables 5-1 through 5-3 in the Draft Program EIR provide a comparison of the operational characteristics of the alternatives.

As noted in the Draft Program EIR, the constrained forecast data addresses the maximum projected general aviation facilities and operations that can be accommodated by JWA’s limited footprint. The easiest place to see this comparison is in Table 5-3 of the Draft Program EIR. This table provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. By dividing the forecasted 2026 capacity by the unconstrained capacity the percentage of the demand served can be determined for each of the alternatives evaluated. The results are:

- Proposed Project would serve slightly less than 81 percent of the unconstrained demand for turbojet aircraft.

- Alternative 1 would serve approximately 85 percent of the unconstrained demand for turbojet aircraft.
- Alternative 2 would serve slightly less than 79 percent of the unconstrained demand for turbojet aircraft.
- Alternative 3 would serve approximately 65 percent of the unconstrained demand for turbojet aircraft.
- The No Project Alternative would serve approximately 73 percent of the unconstrained demand for turbojet aircraft.

The Airport is not able to impose restrictions on the number of general aviation jet operations without complying with the requirements of ANCA, including under most circumstances, prior FAA approval.<sup>72</sup> As discussed in the Topical Response on Restrictions on General Aviation Operations, provided in Section 3.1.4 of these Responses to Comments, a key federal regulation governing the operation of airports is the *Airport Noise and Capacity Act of 1990* (“ANCA;” 49 U.S.C. Section 47521 et seq.). This regulation does not allow the Airport to place a cap on the number of general aviation operations at the Airport or the type of general aviation aircraft at the Airport without compliance with ANCA, including under most circumstances, prior FAA approval.

**NA-14** The question being asked or point being made by the comment is not clear. The comment states, “Are you concluding or defending that under the Project the addition of more general aviation jets does not affect the community because in the last 10 years the total number of general aviation planes has greatly declined?”

It is not clear that the comment is raising a question related to the analysis in the Draft Program EIR or is directed toward the process in developing the GAIP. The purpose of the Draft Program EIR is to evaluate, pursuant to the CEQA, the potential impacts associated with implementation of the GAIP. This includes potential impacts on the surrounding community. The Draft Program EIR did identify impacts on the surrounding community with implementation of the GAIP.

The Draft Program EIR does provide information on the historical general aviation trends, which at the Airport have shown a consistent decline in single-engine piston aircraft since 1980 (see Section 2.4, Project History). Multi-engine piston aircraft experienced a sharp decline in the early 1990s and have continued to decrease, although at a slower rate. As noted, turbine-powered aircraft (turbo prop and jet) experienced variable growth at the Airport and business jet operations steadily increased from 2003 to 2006, and have remained relatively stable at around 25,000 annual operations since then. This information was included to provide context for the aviation forecasts and demonstrates that the trend in the decline of the piston aircraft is a long-standing trend. The County, in doing the required planning as the Airport proprietor, needs to be

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<sup>72</sup> Section 2.6.2 of the Draft Program EIR provides a brief summarization of the *Airport Noise and Capacity Act of 1990* (“ANCA”). As a general matter, ANCA precludes the local imposition of noise and access restrictions that are not otherwise in accordance with the national noise policy. JWA does have an exemption to ANCA’s limitations as it applies to JWA’s existing commercial carrier curfew, limitations on the number of annual passengers, number of average daily commercial carrier departures, and related limitations because of the 1985 Settlement Agreement, as amended is grandfathered ANCA. However, the exemption does not extend to limitations on the number of general aviation departures.



cognizant of these trends to ensure the facilities provided at the Airport meet the current and future demands.

As part of the decision-making process, the Board of Supervisors will consider the environmental impacts addressed in the Draft Program EIR and balance them with the long-term vision for the Airport. This requirement to weigh these factors is required by CEQA. Section 15021 of the State CEQA Guidelines states that “CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors . . .” Whenever an agency approves a project that would have significant unavoidable impacts, the rationale for approving the project is outlined in the statement of overriding considerations. It is through this process that competing interests and concerns are balanced.

**NA-15:** The comment asks if the analysis takes into account that the historical annual number of general aviation flights, which combined a majority of piston-driven planes and a minority of general aviation jets, cannot be compared in noise and pollution to the GAIP's general aviation mix, which includes a higher ratio of general aviation jets to non-jets.

Historic annual operations for general aviation operations were considered when preparing the future forecasts for the Draft Program EIR (see Appendix D, Capacity Analysis and Constrained Forecasts, page 2). CEQA Guidelines §15125 (a) state “An EIR must include a description of the physical environmental conditions in the vicinity of the project, as they exist at the time the notice of preparation is published, or if no notice of preparation is published, at the time environmental analysis is commenced, from both a local and regional perspective. This environmental setting will normally constitute the baseline physical conditions by which a lead agency determines whether an impact is significant. The description of the environmental setting shall be no longer than is necessary to an understanding of the significant effects of the proposed project and its alternatives.” Therefore, CEQA requires the Draft Program EIR to compare the impacts of the future forecasted operations to the baseline conditions.

The impact analyses are conducted using the projected fleet mix and operational characteristics (e.g., flight path patterns associated with the forecasted aircraft). This provides data that allows a comparison of the noise and emissions levels that would occur with the change in fleet mix (one that includes a greater number of higher ratio of jet aircraft) with the current baseline. The incremental change in noise and emissions projected with the forecasted fleet mix from the Baseline (2016) condition allows the identification the impacts associated with the GAIP. This methodology for the noise and air quality analysis is described in the Draft Program EIR, Chapter 4, Section 4.2, beginning on page 4.2-1 and Section 4.7, beginning on page 4.7-1. Both of these analyses take into account the fleet mix in preparing the analysis analyzing the potential impacts of the GAIP. It should also be noted, although the ratio of jet aircraft is projected to increase with all scenarios, including the No Project Alternative, piston aircraft would still comprise about 66 percent of the general aviation operations with both the Proposed Project and Alternative 1.

**NA-16:** The comment asks if with the GAIP it is assumed there will continue to be less piston-driven aircraft and an increase in general aviation jets.

As discussed in the Topical Response pertaining to Aviation Forecasting provided in Section 3.1.1 of these Responses to Comments, the decline in piston-driven aircraft has been a long-standing trend in the general aviation industry and is not just related to general aviation operations at JWA and/or the GAIP. However, in an effort to balance the most efficient uses on the limited space available at JWA, the GAIP would accommodate fewer piston-driven aircraft than are currently based at JWA. As previously noted, the forecast included in the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendix D) are based on an estimate of the number of based aircraft and aircraft operations that can be accommodated under the physical space available for aircraft parking and storage at JWA. Reasonable assumptions were used to estimate the space required to accommodate a range of aircraft types. The forecasts for the Proposed Project and Alternative 1 are provided in Sections 3.6.2 and Section 3.6.3, respectively. In addition, Tables 5-1 through 5-3 provide a comparison of the operational characteristics of all the alternatives evaluated in the Draft Program EIR. The Table 5-3 aviation forecasts show a decrease in piston aircraft operations and an increase in jet aircraft operations in 2026 for all alternatives.

**NA-17** The comment asks if there would be the need for future EIRs for implementation of elements of the Project because certain items, such as the GAT/FBO, are not fully identified as to the location. The comment further asks if further documentation would be required with each phase.

The comment incorrectly states the locations of Fixed Based Operators (“FBOs”) are not specifically defined. Exhibits 3-1 and 3-4 provide the conceptual facilities layout plans for the proposed facilities, including the Full Service and Limited Service FBOs, for the Proposed Project and Alternative 1, respectively. Although the precise location of the General Aviation Terminal (“GAT”), is not defined, page 3-9 identifies that the optional GAT could be accommodated at any of the Full Service FBOs; therefore, the function and general location has been fully defined in the Draft Program EIR. A detailed phasing plan is also provided as part of the Project Description (see Exhibits 3-3a and 3-3b for the Proposed Project and Exhibits 3-5a and 3-5b for Alternative 1).

The need for subsequent CEQA documentation would be determined as improvements are proposed for construction. As noted in the Draft Program EIR, it is recognized that the GAIP would be implemented over a period of years. If, as part of the subsequent site development process, substantial changes are made to the proposed improvements or the phasing of the improvements, such that new significant impacts or substantially more severe impacts would occur then additional CEQA documentation would be required. As noted in the Draft Program EIR (page 3-25), “As such, subsequent activities would be examined in light of the Final Program EIR to determine whether additional CEQA documentation would be required pursuant to the requirements of Section 21166 of CEQA (i.e., *California Public Resources Code*, Section 21166) and Sections 15162 and 15168 of the State CEQA Guidelines for subsequent site development approvals.” The subsequent approvals are identified in Section 3.7 of the Draft Program EIR.

- NA-18** The comment asks the purpose of the General Aviation Facility (“GAF”). Further the question asks if the location of the GAF would be set in the future.

As defined on page 3-6 of the Draft Program EIR, the GAF provides the space to permit international arrivals and for processing international passengers in accordance with federal guidelines (i.e., Customs and Boarder Protection requirements). Page 3-9 states that the Full Service FBOs have been sized such that the GAF could be accommodated at any of the Full Service FBOs. However, it is assumed that these facilities would be part of only one of the full service FBOs. The other FBOs would be able to utilize the GAF facilities. Therefore, the precise location (i.e., which Full Service FBO would be allowed to provide the optional GAF) is not known, but the locations of the Full Service FBOs in which a GAF could be located are clearly identified in the Draft Program EIR. The conceptual facilities layout, which identifies the location of the proposed facilities, including the Full Service FBOs, are shown in Exhibits 3-1 and 3-4, for the Proposed Project and Alternative 1, respectively.

- NA-19** The comment states, “Given the project is both general at the planning level and that some of the improvements are to be implemented at a later date how is this project to be implemented? How can the cumulative impacts be considered?”

Response NA-3 discusses the GAIP project description in the Draft Program EIR. As noted in the previous response, the Draft Program EIR discusses the size and function of each of the proposed physical improvements, the number of based aircraft, and the number of general aviation flights that are forecasts for each scenario. Conceptual site plans for the location of facilities are provided. Section 3.6 also provides a phasing plan for both the Proposed Project and Alternative 1. Exhibits 3-3a and 3-5a provide a graphic presentation of the phasing for the Proposed Project and Alternative 1, respectively. Exhibits 3-3b and 3-5b provide a description of the improvements by phase for the Proposed Project and Alternative 1, respectively. Therefore, although the improvements are proposed to be implemented over a period of over seven years, the general physical characteristics of each improvement is sufficiently defined to assess the potential impacts. The function of each improvement is defined with sufficient detail to provide an understanding of the operations, which are consistent with the uses currently at the Airport.

The comment further asks about how can cumulative impacts be evaluated. The GAIP is the very type of project that is well suited to the preparation of a Program EIR. The CEQA Guidelines (Section 15165) recommends the use of a Program EIR “where individual projects are, or a phased project is, to be undertaken and where the total undertaking comprises a project with significant environmental effect, the Lead Agency shall prepare a single program EIR for the ultimate project as described in Section 15168.” For the GAIP, a key consideration for the use of a Program EIR is the County’s ability to consider broad policy alternatives and program-wide mitigation measures. As noted in Section 1.5 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. Other advantages of using a Program EIR cited in the CEQA Guidelines include (1) the ability to provide a more exhaustive consideration of effects and alternatives; (2) inclusion of a more comprehensive evaluation of cumulative impacts; and (3) to avoid duplicative reconsideration of basic policy considerations. By

preparing a Program EIR, the impacts of each component of the project are comprehensively identified as “project impacts”. This allows a cumulative analysis of the project as a whole. In addition, the document evaluated other projects that would potentially contribute to impacts similar to the GAIP impacts. See Section 4.0.1 for a discussion on the cumulative methodology and listing of cumulative projects.

**NA-20** The comment asks if cumulative impacts were considered.

Sections 4.1 through 4.11 provided a discussion on cumulative impacts for each of the topical areas addressed in the Draft Program EIR. As noted in Response NA-19, refer to Section 4.0.1 for a discussion on the cumulative methodology and listing of cumulative projects.

**NA-21** The comment asks if “the County undertaken [any measures] to reduce noise and emissions in any of the proposed alternatives.”

As noted on page 4-1 of the Draft Program EIR, a number of Regulatory Requirements, Standard Conditions of Approval, and Minimization Measures<sup>73</sup> have been identified to avoid or minimize impacts. These conditions and requirements, in addition to the Mitigation Measures, will be tracked in the Mitigation Monitoring and Reporting Program (“MMRP”) that would be adopted in conjunction with the Project approval.<sup>74</sup> The Mitigation Program is discussed in the Draft Program EIR under the applicable topical sections. Specifically, the noise and emission reduction measures/programs are discussed in Sections 4.2 (Air Quality), 4.4 (Greenhouse Gas Emissions), 4.6 (Land Use), and 4.7 (Noise).

**NA-22** The comment asks about fuel consumption for each alternative and if ways to reduce fuel consumption were considered. The comment further asks if the Proposed Project actually increases fuel consumption because of the type of aircraft it would favor.

The energy analysis, Table 6-4, provided in Section 6 of the Draft Program EIR, has a comparison of aircraft fuel usage for general aviation operations for the Proposed Project, Alternative 1, and the No Project compared to the Baseline (2016). As shown, there would be an increase of 23 and 25 percent when compared to the Baseline for the Proposed Project and Alternative 1, respectively. This is four and six percent higher than the No Project Alternative for the Proposed Project and Alternative 1, respectively.

The County, as Airport proprietor, does not have control over the type or quantity of fuel the aircraft (either commercial carriers or general aviation) use. The fueling for the general aviation aircraft is managed and operated by the FBOs for general aviation.

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<sup>73</sup> As noted in Response NA-1, Minimization Measures are conditions proposed to reduce an adverse effect of the Project even when that effect does not result in a significant impact.

<sup>74</sup> The California Public Resources Code Section 21081.6 (AB 3180) requires that a lead or responsible agency adopt a MMRP when approving or carrying out a project where an environmental document, either an EIR or a mitigated negative declaration, has identified measures to reduce potential adverse environmental impacts. The MMRP identifies the mitigation measure; the method by which the adopted measure will be implemented; the responsible party for verifying the measure has been satisfactorily completed; the method of verification; and the appropriate time or phase for the implementation of each mitigation measure. The MMRP is formally adopted by the Board of Supervisors in conjunction with the certification of the EIR. As appropriate, elements of the MMRP may be incorporated into subsequent lease agreements.

However, the GAIP has incorporated energy saving provisions for those areas that are in the County's purview. For the GAIP, this is done through Minimization Measure ("MN"). The County has agreed to incorporate measures into the Project, which are conditions proposed to reduce an adverse effect of the GAIP even when that effect does not result in a significant impact. Such measures, identified in the EIR as MNs, are beyond the requirements of CEQA. The minimization measures pertaining to air quality (see page 4.2-32) and greenhouse gas emissions (see page 4.4-31) would result in energy savings. MN GHG-1 requires all general aviation-related development and uses facilitated by approval of the GAIP comply with applicable measures in the JWA *Climate Action Plan* and MN AQ-2 requires the FBOs employ Zero Emission Vehicle ("ZEV") ground support equipment ("GSE") where available (e.g. tugs, water carts, lavatory carts, other ramp service equipment/vehicles) for 90 percent or greater of the GSE operating hours.

- NA-23** The comment requests a confirmation that Project would not plan to expand the Airport footprint.

As stated on page 1-4 of the Draft Program EIR, "All improvements are proposed to be confined to the existing Airport footprint (i.e., no expansion of the general aviation uses beyond the current Airport limits)." There are no plans to expand beyond the Airport footprint. Additionally, the comment inquires about guarantees during the build out phase of the GAIP, which is presumably asking if there are guarantees that implementation of the phased GAIP improvements would not extend off-site. Any extension of improvements off-site would require subsequent CEQA review because they would not be included in the GAIP.

- NA-24** The comment asks if there are any proposal for "through the fence" operations or potential location of other services off site.

As it pertains to "through the fence operations", the GAIP does not propose any such agreements. Currently, there is one agreement, which was initially entered into in 1999, that provides a secured fence for the pass-through of freight to the commercial carriers. The GAIP does not preclude this activity nor modify this agreement. This agreement does not pertain to general aviation; therefore, the GAIP does not assume any "through the fence operations". However, it should be noted, currently there are services, ranging from mechanics to catering companies that are not located on the Airport but provide a service to the Airport or Airport tenants. The County cannot control or dictate which private-companies provide services or where these services are located off site. The GAIP does not require such services. With regards to guarantees during the build out phase of the GAIP, similar to existing conditions, the County does not control the location of private businesses that may offer services to the Airport or Airport tenants.

- NA-25** The comment asks if in light of the recent 2018 FAA Reauthorization Bill, which includes consideration of effects on communities, will there be any changes the GAIP.

Please see Response NA-2 regarding the Reauthorization Bill. It should be noted, the GAIP is not in conflict with the Reauthorization Bill. The GAIP has incorporated a Mitigation Program that minimizes potential impacts and includes measures when significant impacts have not been identified for the GAIP. The only significant

unavoidable impact identified for the GAIP is three residential units that would be included in the future (2026) 65 CNEL contour that do not have avigation easements and have not received (although they were offered) sound attenuation through the Santa Ana Heights Acoustical Insulation Program ("AIP") to ensure interior noise levels do not exceed 45 CNEL. Also, as discussed in the Draft Program EIR, in conjunction with Final EIR 617 prepared for the 2014 Settlement Agreement Amendment, a second Sound Insulation Program ("SIP") was adopted, which would be available to these residents in the future if impact thresholds are exceeded. In summary, the Draft Program EIR is not in conflict with the Reauthorization Bill and land use and community impacts have been adequately analyzed,

There are no plans to modify the GAIP prior to consideration of the proposed project by the Board of Supervisors. As discussed in Response NA-14, the Board of Supervisors will consider the environmental impacts addressed in the Draft Program EIR and balance them with the long-term vision for the Airport prior to taking action on the proposed GAIP.

**Letter 32: Nancy Alston  
Dated November 21, 2018**

This letter, which was transmitted by the U.S. Postal Service, is the same as the Ms. Alston's electronic submittal (Letter 31). Therefore, no additional responses are required.

**Letter 33: American Aircraft Maintenance  
Submitted by Lina Shi  
Dated November 6, 2018**

- AAM-1** The commenter expresses an interest in becoming a Limited Service Fixed Based Operator (“FBO”) on the Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

It should be noted, that the Board of Supervisors will select the FBOs through a competitive bid process. The County has added American Aircraft Maintenance to the list of companies that will receive the Request for Proposals.

- AAM-2** The commenter indicates that they are a Cirrus Aircraft authorized service center and expresses an interest in the upcoming proposal efforts.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.



**Letter 34: American Aircraft Maintenance**  
**Submitted by Lina Shi**  
**Dated November 6, 2018**

- AAM 2-1** This comment reiterates the comments in the previous transmittal by American Aircraft Maintenance (Letter 33); therefore, please see Responses AAM 1-1. No additional response is required.
- AAM 2-2** This comment reiterates the comment (AAM-1-2) in the previous transmittal by American Aircraft Maintenance (Letter 33); therefore, please see Response AAM 1-2. No additional response is required.
- AAM 2-3** The comment includes the email sent by Mr. Wayne Lindholm. These issues are addressed in responses to Mr. Lindholm's comments (see Letter 92).

**Letter 35: American Aircraft Maintenance  
Submitted by Lina Shi  
Dated November 6, 2018**

These comments are the same as American Aircraft Maintenance's earlier submittal (Letter 33). Therefore, no additional responses are required.

**Letter 36: Melinda Atkin**  
**Dated November 21, 2018**

An email was received but there was no content or attachment. Therefore, no response is possible or required.

**Letter 37: Brent and Carla Anderson**  
**Dated November 21, 2018**

- BCA-1** This comment is the email transmitting the comment letter from the Brent and Carla Anderson and expresses their opposition to the proposed expansion and changes at the Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, as a point of clarification, the General Aviation Improvement Program ("GAIP") is not an "expansion" of the Airport property or operations. The total number of general aviation based aircraft and general aviation flights would actually be reduced compared to the Baseline 2016. As evaluated in the Draft Program EIR, based on the aviation forecasts there would be an increase in turbine aircraft (i.e., turboprop and turbo-jet). Please see the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments.

- BCA-2** The comment provides a summary statement of the commenter's understanding of the GAIP. The comment also expresses concerns that the construction of new hangars will displace smaller owned aircraft in favor of larger jet aircraft. The commenters' express concerns about (1) impact on our nighttime curfew; (2) increased pollution from leaded jet fuel; and (3) increases in daily departures that will be the result of the GAIP.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The General Aviation Noise Ordinance ("GANO") is the basis for the curfew for commercial carriers and the maximum permitted nighttime noise levels associated with general aviation operations. As noted in the Draft Program EIR and Topical Response pertaining to the GANO (see Section 3.1.3 of these Responses to Comments), although general aviation aircraft are allowed to fly 24-hours per day, they are subject to nighttime specified Single Event Noise Exposure Level ("SENEL") limits. The existing commercial aircraft curfew and GANO limits would not be taken away or modified as a result of the proposed GAIP.

With regards to increased pollution, the increased air emissions, evaluated in Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions did identify an incremental increase in air emissions; however, the impacts were identified as less than significant pursuant to the South Coast Air Quality Management District ("SCAQMD") standards. In addition to the analysis in the Draft Program EIR, the Topical Response pertaining to Health Risk provided in Section 3.1.6 of these Responses to Comments, provides additional detail on the potential impacts associated with increased air emissions.

As noted in Response BCA-1, regarding the increase in the number of daily departures, with the GAIP the number of general aviation based aircraft and general aviation flights would be reduced compared to the Baseline 2016.

- BCA-3** The comment states the GAIP will led to a new mix of general aviation aircraft at JWA, allowing more large private and corporate jets to depart and fly overhead anytime of the day or night.

While the general aviation aircraft would be subject to certain noise requirements, they would not be subject to the curfew, which is only applicable to commercial carriers. Please see Response BCA-2.

- BCA-4** The comment expresses the opinion that the increase in nighttime flights would set a dangerous precedent for the future of the JWA curfew, which will be subject to renegotiation in 2035.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, as a point of clarification, the 2014 Settlement Agreement Amendment specifies that the essential terms and conditions of the 1985 Settlement Agreement, with certain capacity enhancing and other modifications, extend through December 31, 2030, and the curfew restrictions extend through December 31, 2035. The County has no obligation to the settlement parties except as that obligation or restriction is expressly stated in the Settlement Agreement. In conjunction with any possible future Settlement Agreement amendment discussions, the settlement parties will need to review the possibility of amending the Settlement Agreement to extend beyond 2030 and, if so, consider and agree to the terms of any such extension, including consideration of the curfew.

- BCA-5** The comment expresses the commenters' strong opposition to the GAIP.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Response BCA-1.

**Letter 38: Lewis and Teresa Becker**  
**Dated November 20, 2018**

**TB-1** The comment expresses an opposition to new hangars that would accommodate larger private aircraft because it would allow additional flights that are not subject to the curfew hours.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. It should be noted, the existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level ("SENEL") limits for general aviation aircraft are identified in the General Aviation Noise Ordinance ("GANO") would not be taken away or modified as a result of the proposed GAIP. For additional discussion, please see the Topical Response pertaining to the GANO provided in Section 3.1.3 of these Responses to Comments.

**Letter 39: David Benvenuti, MD**  
**Dated November 21, 2018**

- DB-1** The commenter states his location under the flight path and the annoyance of daytime larger jets.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- DB-2** The comment states the GAIP would allow larger jets to fly overhead at night and would impact the commenter negatively.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, the noise impacts have been addressed in Draft Program EIR in Section 4.7 (and Appendix H). The change in fleet mix has been incorporated into the analysis. Additionally, as stated in Appendix H, page 53, the noise analysis for the General Aviation Improvement Program ("GAIP") assumes the same percent of nighttime general aviation jets operating in the 2016 Baseline would operate in the GAIP alternatives. This results in approximately 3 percent of the general aviation operating during the nighttime period (an average of approximately 0.35 additional nighttime departures per day with the Proposed Project and 0.39 additional nighttime departures with Alternative 1).<sup>75</sup> It should be noted, the actual number of flights would vary each day because this number is based on a mathematical equation that derives a daily number of nighttime operations based on the annual forecast.

Additionally, as a point of clarification, the existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level ("SENEL") limits for general aviation aircraft are identified in the General Aviation Noise Ordinance ("GANO"). Although general aviation operations are permitted 24 hours a day, they are subject to daytime and nighttime noise limits established in the GANO. The existing commercial aircraft curfew and GANO limits would not be taken away or modified as a result of the

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<sup>75</sup> Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. The following calculations were done to determine the expected increase in daily nighttime departures:

- The difference between the number of 2016 jet operations and the 2026 jet operations is calculated.
- The number of operations is then multiplied by 0.03 because 3 percent of the flights are projected to be nighttime flights. Since the number of operations are given as annual operations, this number is then divided by 365 to come up with a daily average number of nighttime operations.
- The number of nighttime operations is divided by two, which provides the number of nighttime departures.

proposed GAIP. For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments.



**Letter 40: Leann Benvenuti  
Dated November 21, 2018**

- LB-1** The commenter states the change in flight departure patterns have resulted in increased noise over Linda Isle.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, the County of Orange, as the proprietor of the Airport, has no authority or control over aircraft in flight. Rather, the Federal Aviation Administration (“FAA”) has exclusive regulatory jurisdiction over flight paths, and the pilot-in-command of each aircraft is responsible for safely maneuvering the aircraft in accordance with the FAA’s airspace procedures. Please see the Topical Response pertaining to Flight Path Procedures provided in Section 3.1.2 of these Responses to Comments.

- LB-2** The comment expresses an opposition to allowing larger personal jets to depart during nighttime hours.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, the Airport no further response to this comment is required. However, it should be noted, the GAIP will not change the General Aviation Noise Ordinance (“GANO”), which is the basis for the commercial carrier curfew. As noted in the Draft Program EIR and Topical Response pertaining to the GANO (see Section 3.1.3 of these Responses to Comments), although general aviation aircraft are allowed to fly 24-hours per day, they are subject to nighttime specified Single Event Noise Exposure Level (“SENEL”) limits. The GAIP would not change these limits and is not proposing any changes to the GANO. In addition, please see the Topical Response pertaining to Restrictions on General Aviation Operations (see Section 3.1.4 of these Responses to Comments).

**Letter 41: Carol Berg  
Dated November 20, 2018**

**CB-1** The commenter expresses an opposition to any improvements that would increase noise, pollution, number of flights, or effect the curfew at the Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. The comment does not make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, the General Aviation Improvement Program ("GAIP") is not an expansion of the Airport property or operations. The total number of general aviation based aircraft and general aviation flights would actually be reduced compared to the Baseline 2016. However, as evaluated in the Draft Program EIR, based on the aviation forecasts there would be an increase in turbine aircraft (i.e., turboprop and turbo-jet), which would result in an incremental increase in noise and air emissions; however, the increase would not be significant based on the thresholds of significance.

**Letter 42: Marvin Blum  
Dated November 11, 2018**

An email was received but there was no content or attachment. Therefore, no response is possible or required

**Letter 43: Brandt Group, Inc.  
Submitted by Robert B. Lange  
Dated November 5, 2018**

- BG-1** The comment states it is in regards to the proposed mislabeled “General Aviation Reconfiguration.”

The Airport has not identified the General Aviation Improvement Program (“GAIP”) as a reconfiguration. The Draft Program Environmental Impact Report (“EIR”) uses the term reconfiguration only three times throughout the EIR and those are in reference to (1) an explanation as to why a Water Supply Assessment is not required pursuant to Senate Bill (“SB”) 610 and SB 221; (2) the potential relocation of sewer conveyance lines to serve new buildings; and (3) in the growth inducing analyses as it pertains to public services.

- BG-2** The comment states the nature of general aviation has changed in the last few years due to a huge surge in on- demand jet charter/fractional ownership business, which also operates, for the most part, under part 91.

The Draft Program Environmental Impact Report (“EIR”) does provide a brief history of general aviation at the Airport. The change in the number and type of operations is a trend that has been going on for more than the last few years. As noted in the Draft Program EIR, the level of general aviation at the Airport has varied over the years with a high of 503,829 operations in 1991 and a low of 174,726 in 2013. However, general aviation has consistently represented the majority of operations at the Airport. In 2016, the most recent year with complete information, there were 192,800 general aviation operations, which represents nearly 67 percent of the Airport's total number of operations. Further, there has been a consistent decline in single-engine piston aircraft at the Airport since 1980. The historic trends are discussed in detail in the *General Aviation Forecasting and Analysis Technical Report*, which is Appendix C to the Draft Program EIR. (see page 2-10). Additionally, as noted on page 3-10 of the Draft Program EIR, regularly scheduled commercial charter operations require an allocation of passenger capacity prior to the initiation of service consistent with the provisions of the JWA Phase 2 Commercial Airline Access Plan (“Access Plan”).<sup>76</sup>

- BG-3** The comment states “the attorneys that drew up the recent City of Newport Beach aviation agreement obviously withheld and/or the City failed to recognize, this critical information during their negotiations.”

The comment appears to be referencing the 1985 Settlement Agreement, as amended. The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no

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<sup>76</sup> Many of the provisions that govern noise and operational capacity are implemented through the JWA Phase 2 Commercial Airline Access Plan and Regulation (“Access Plan”). The Access Plan regulates commercial passenger and cargo carrier operations at JWA by placing limits on the hours of operation, maximum number of regulated average daily departures and annual passengers, and noise levels among other regulations.

further response to this comment is required. However, as a point of clarification, the Settlement Agreement, which was originally entered into in 1985 by the County of Orange, the City of Newport Beach, and two community groups (Stop Polluting Our Newport ["SPON"], and Airport Working Group ["AWG"]) reached a comprehensive agreement settling all pending actions and claims related to the 1985 Master Plan and EIR 508, as well as the pending appeal on the 1981 Master Plan/EIR 232 litigation. It was most recently amended in 2014. The original Settlement Agreement and amendments to the Settlement Agreement, including the 2014 Settlement Agreement Amendment, pertain to commercial carrier operations and number of passengers served at the Airport, among other commercial air carrier issues.<sup>77</sup> The Settlement Agreement does not address general aviation activities. The proposed GAIP only addresses general aviation. The 2014 Settlement Agreement Amendment is identified as a cumulative project. As such, the cumulative impacts analysis in Draft Program EIR 627 addresses the 2026 commercial carrier operations addressed in the 2014 Settlement Agreement Amendment.

- BG-4** The comment reiterates the opinion that the name of the Project is not appropriately named because it is not a standard general aviation re-alignment rather it is an expansion of jet traffic.

As indicated in Response BG-1, the GAIP is not characterized as a reconfiguration or a re-alignment. The official name of the Project is the General Aviation Improvement Program. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is "to embrace flexibility to allow for technological advances and market trends".

Section 2.4 of the Draft Program EIR identifies the historical general aviation trends have shown a consistent decline in single-engine piston aircraft since 1980 at the Airport and steady increase in the number of business jet operations. The GAIP proposes facilities that can accommodate the needs of the current trend. Although the constrained aviation forecasts, which are the basis of the technical analysis in the Draft Program EIR, identify a reduction in the overall number of general aviation flights, it does show an increased number of general aviation jet aircraft operations compared to the Baseline (2016), as well as jet aircraft representing a larger proportion of the overall general aviation flights. Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. The type of improvements, the associated number of flights by aircraft classification, and the impacts from those improvements and operations are clearly identified in the Draft Program EIR. The GAIP is not mischaracterized or mislabeled in the Draft Program EIR.

- BG-5** The comment expresses the opinion that re-assignment of general aviation aircraft from John Wayne Airport to Long Beach, Fullerton and/or Corona is not reasonable due to the commute times.

Long Beach Airport is located approximately 23 miles northwest of John Wayne Airport. The Fullerton Airport is located approximately 18 miles north of John Wayne Airport. The Corona Airport is located approximately 30 miles northeast of John Wayne Airport.

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<sup>77</sup> A brief overview of the Settlement Agreement and the subsequent amendments are provided in Section 2.6.3.

As discussed in Section 4.8.6 of the Draft Program EIR, 90 percent of JWA registered aircraft owners are in Orange County, with the remainder in adjacent counties (page 4.8-15). It is estimated that the average trip distance for JWA-related general aviation vehicle trips is 15.25 miles. Therefore, the distance for a pilot to commute to one of the alternative airports would vary from their point of origin.

The reasonableness of the commute would be a personal and subjective judgment. The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 44: Michael Brandt-Zawadski**  
**Dated November 20, 2018**

- MBZ-1** The comment expresses a concern about potential increases in general aviation jet noise that would come with the proposed hangars.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- MBZ-2** The comment expresses the opinion that a nighttime to 7:00 AM curfew for private jets needs to be part of the plan.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

However, it should be noted that the County, as the Airport proprietor is not allowed to place a cap on the number, size or take off times of general aviation operations at the Airport without compliance with *Airport Noise and Capacity Act of 1990* ("ANCA;" 49 U.S.C. Section 47521 et seq.) restrictions and requirements, including under most circumstances, prior FAA approval.<sup>78</sup> This is further discussed in the Topical Response pertaining to Restrictions on General Aviation Operations provided in Section 3.1.4 of these Responses to Comments.

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<sup>78</sup> Section 2.6.2 of the Draft Program EIR provides a brief summarization of the *Airport Noise and Capacity Act of 1990* ("ANCA"). As a general matter, ANCA precludes the local imposition of noise and access restrictions that are not otherwise in accordance with the national noise policy. JWA does have an exemption to ANCA's limitations as it applies to JWA's existing commercial carrier curfew, limitations on the number of annual passengers, number of average daily commercial carrier departures, and related limitations because of the 1985 Settlement Agreement, as amended is grandfathered ANCA. However, the exemption does not extend to limitations on the number of general aviation departures.

**Letter 45: Bob and Diana Brooks**  
**Dated November 21, 2018**

**BDB-1** The comment states they have been fighting this noise and pollution problem in the community for years and expresses the opinion if the General Aviation Improvement Program (“GAIP”) is allowed, and bigger hangers are built, “this could ruin all of us.”

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**BDB-2** The comment expresses a concern pertaining to air quality and the lack of curfew for general aviation with the resultant increased noise, and effects on property values.

The potential air quality and noise impacts were evaluated in the Draft Program EIR. Although an incremental increase in air emissions and noise were identified, the impacts did not exceed thresholds and were identified as less than significant. With regards to the curfew, the GAIP will not change the General Aviation Noise Ordinance (“GANO”), which is the basis for the curfew. As noted in the Draft Program EIR and Topical Response pertaining to the GANO (see Section 3.1.3 of these Responses to Comments), although general aviation aircraft are allowed to fly 24-hours per day, they are subject to nighttime specified Single Event Noise Exposure Level (“SENEL”) limits. Based on the aviation forecasts, the GAIP would result in an average of approximately 0.35 additional nighttime departures per day with the Proposed Project. With Alternative 1 there would be an average of 0.39 additional nighttime departures on a daily basis.<sup>79</sup> It should be noted, the actual number of flights would vary each day because this number is based on a mathematical equation that derives a daily number of nighttime operations based on the annual forecast.

The California Environmental Quality Act (“CEQA”) (Section 21080(e)), the State CEQA Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project’s potential effects that do not result, directly or indirectly, in a “physical change” to the environment. CEQA does not require analysis of impacts that are solely economic in nature.<sup>80</sup> Therefore, no more specific response is required as it pertains to property values.

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<sup>79</sup> Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. The following calculations were done to determine the expected increase in daily nighttime departures:

- The difference between the number of 2016 jet operations and the 2026 jet operations is calculated.
- The number of operations is then multiplied by 0.03 because 3 percent of the flights are projected to be nighttime flights. Since the number of operations are given as annual operations, this number is then divided by 365 to come up with a daily average number of nighttime operations.
- The number of nighttime operations is divided by two, which provides the number of nighttime departures.

<sup>80</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.)



Although property values reflect socioeconomic rather than environmental values, and therefore, analysis under CEQA is not required, researchers have conducted numerous “valuation” studies in areas around airports in the United States and elsewhere in the world. Understanding the applicability of these studies is complex because it is extremely difficult to isolate airport noise (or even airport proximity) as the causative factor in any conclusions regarding effects on value. Rather, the noise level at a given property location becomes one of many property features and amenities (e.g., number of rooms, crime rate, schools) that make up the total value of that property. Some of the studies make little or no attempt to normalize the data for property-specific factors. Even when an “appraisal” approach to valuation is performed, it is still difficult to isolate aircraft noise or proximity to an airport as the causative effect except when noise levels substantially exceed the noise levels projected for residential areas near an airport.

Of the multiple studies conducted, two studies are worth noting. They are summarized below:

- The Airport Cooperative Research Program (“ACRP”) develops near-term practical solutions to problems faced by airport operators. ACRP is managed by the Transportation Research Board (“TRB”) of the National Academies and sponsored by the Federal Aviation Administration (“FAA”). In September 2008, “Synthesis 9: Effects of Aircraft Noise: Research Update on Selected Topics” was released by the ACRP.<sup>81</sup> The purpose of the synthesis was to update and complement the U.S. Federal Highway Administrations’ 1985 “Aviation Noise Effects” report because, in the decades since the 1985 study was first published, much had changed in the understanding of this complex issue, including increased air travel; new and quieter aircraft; increased awareness of land use planning and aviation noise; and mitigation of previously incompatible land uses. Knowledge of the effects of aviation noise also changed, including knowledge advancements in the areas of health effects, annoyance, sleep disturbance, and potential effects on children’s learning abilities in school. In summary, the 2008 synthesis report concluded that “the studies of the effects of aviation noise on property values are highly complex owing to the differences in methodologies, airport/community environments, market conditions, and demand variables involved.”<sup>82</sup>
- The Orange County real estate industry, in partnership with the Orange County Business Council, commissioned a fact-based study in February 2000 to objectively examine the impact a proposed commercial airport at the closed El Toro Marine Corps Air Station could have on residential property values. The study also surveyed the 2,000 most recent home purchasers in Orange County to measure how the proposed El Toro airport affected their home purchase decision. The study concluded among other things, noise is clearly an important airport factor in relation to property values. However, factors other than the airport were more significant to their home purchase decision.

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<sup>81</sup> Transportation Research Board of the National Academies (TRB). 2008. *ACRP Synthesis 9: Effects of Aircraft Noise: Research Update on Selected Topics, A Synthesis of Airport Practice*. Washington, D. C.: TRB.

<sup>82</sup> Ibid.

- A 2018 study developed by Collateral Analytics and the University of San Diego evaluated the impact of airport and highway noise on residential property values in San Diego County.<sup>83</sup> The study collected average noise data from road sources and airport flight paths to estimate if there is a direct correlation between reported noise levels and residential property values. While the study concluded that noise levels are correlated to residential property values, a direct correlation was not established. Moreover, other factors, such as a property's proximity to central urban locations, were found to be more significant to residential property values.

**BDB-3** The comment expresses concern regarding the impacts on neighborhoods within the flight path and states the importance of the curfew.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Response BDB-2 regarding the GANO and limited number of projected additional nighttime flights. The existing commercial aircraft curfew and GANO limits would not be taken away or modified as a result of the proposed GAIP.

**BDB-4** The comment expresses opposition to the GAIP because of the concern regarding quality life in the surrounding neighborhoods. The commenters' concern has been forwarded to the decision-makers for consideration as part of the Final Program EIR package. The comment does not raise any specific issue regarding the analysis in the Draft Program EIR and no further response is required.

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<sup>83</sup> <https://collateralanalytics.com/wp-content/uploads/2018/10/CA-RESEARCH-The-Impact-of-Noise-on-Residential-Property-Values.pdf>

**Letter 46: Delores and Wayne Browning  
Dated November 20, 2018**

**DWB-1** The commenters expresses opposition to the General Aviation Improvement Program ("GAIP").

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 47: Sarah Catz**  
**Dated September 26, 2018**

**SC-1**     The comment asked if there was a way to view the PowerPoint presentation from the September 26, 2018 public meeting.

On September 27, 2018, the Airport let the commenter know that the PowerPoint presentation would be posted to the Airport's website and a direct link would be provided.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 48: Sarah Catz**  
**Dated September 27, 2018**

- SC 2-1** The comment acknowledged the County's notification regarding future posting of the PowerPoint presentation to the website.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 49: Sarah Catz**  
**Dated September 28, 2018**

**SC 3-1** The comment is acknowledging an email from the County notifying Ms. Catz that the PowerPoint presentation from the September 26, 2018 public meeting was available online at the Airports website (<https://www.ocair.com/generalaviation/gaimprovement>).

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 50: Clay Lacy Aviation  
Submitted by Scott Cutshall  
Dated November 21, 2018**

- CLA-1** This comment is the email transmitting the comment letter from Scott Cutshall on behalf of Clay Lacy Aviation.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- CLA-2** The comment states the comments provide recommendations to reduce the environmental impact of John Wayne Airport ("JWA") while maximizing benefits to the County of Orange and general aviation customers.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- CLA-3** The comment states Alternative 1 as the option that "embraces flexibility to allow for technological advances and market trends", and increases total hangar capacity at the airport. However, the Proposed Project and all alternatives show a decrease in spaces available for General Aviation aircraft, which in the commenter's opinion is not in the best interests of general aviation. The comment recommends the Draft Program EIR be revised to outline the environmental implications of displacing so many aircraft from JWA. Solutions are possible, and Clay Lacy Aviation is committed to working with the airport and its users to identify creative solutions to remove the negative impacts.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the Draft Program EIR did outline the environmental implications of displacing aircraft.

The displacement of general aviation aircraft was clearly identified in sections and tables throughout the Draft Program EIR, including the project descriptions (in both the Executive Summary and Section 3). The displacement of aircraft was identified as a key issue that will need to be considered by the Board of Supervisors when considering the potential environmental impacts of the GAIP and determining whether to approve the GAIP and select an alternative. Section 1.8, Areas of Controversy/Issues to be Resolved, clearly states:

Though other local airports have capacity, this would be a disruption for local pilots that have historically based their aircraft at JWA. The reduction of based aircraft would be accomplished through the lease process (i.e., leases would not be renewed for tie-down locations or the limitations would be reflected in the leases with the Fixed Based Operators ["FBOs"]). The effect of reducing the number of based aircraft needs to be

balanced with the need to respond to the trend in aviation by providing the type of facilities that best meets the future needs of the broad spectrum of people wishing to utilize the limited space available at JWA.

The aircraft displacement issue was also discussed as it pertains to land use (Section 4.6.7, Land Use and Planning). The Draft Program EIR identified that displaced aircraft can be accommodated elsewhere in the region. Fullerton Municipal Airport, also a general aviation airport in Orange County, has capacity for 600 aircraft and at the year ending on October 31, 2017, only 223 aircraft were based at the Fullerton Municipal Airport. Long Beach Airport is also identified as having capacity. As of October 31, 2017, Long Beach Airport had 380-based aircraft and historically has accommodated higher numbers of general aviation aircraft (AirNav.com 2018). AirNav.com reports that as of September 30, 2018, the number of aircraft based at Fullerton has gone down to 127 and as of November 30, 2018, Long Beach Airport has 344-based aircraft.

Although the Land Use and Planning section identified the loss of aircraft parking spaces as adverse because it reduces the overall capacity at the Airport; it was not identified as a significant land use impact because it would not result in an incompatible land use or conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (see Threshold 4.6-1). The aircraft are accommodated on the Airport through lease agreements, which have established expiration dates or provisions for cancelation of the lease. Therefore, the reduction in the overall number of aircraft based at JWA would not result in a significant environmental impact (see page 4.6-19).

The displacement of aircraft was also evaluated in the traffic analysis, with the evaluation having a separate heading in the evaluation for the Proposed Project and Alternative 1 under Threshold 4.8-1. The *General Aviation Improvement Program Traffic Impact Analysis* ("TIA") (Appendix I) addressed this as a Special Issue. As part of this evaluation, a discussion is provided on the methodology for calculating vehicle miles traveled ("VMT") associated with travel to alternative airports (see pages 4.8-15 and 4.8-22 in the Draft Program EIR and Section 5.2 of the TIA). However, the distribution of aircraft to alternative airports in the "Competitive Market Area" is unknown; therefore, the analysis is done based on VMT. Therefore, specific trip assignment would be speculative and is not required pursuant to the California Environmental Quality Act ("CEQA"). Section 15145 of the State CEQA Guideline does not require a lead agency to speculate on potential impacts.

It should also be noted, consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act ("CEQA") Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addresses alternatives that include a minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.



- CLA-4** The comment states the Draft Program EIR does not adequately study how many redundant movements can be eliminated by increasing hangar capacity and required maintenance services at JWA. Reducing redundant movements would significantly reduce noise and lessen the environmental impact of the Airport while increasing tax revenues for the County. The comment defines a redundant movement as a takeoff or landing that occurs when an aircraft, who's owner lives or works in Orange County, would prefer to park the plane at JWA but is required to use an alternative airport.

In conjunction with the preparation of the *General Aviation Forecasting and Analysis Technical Report* (Appendix C of the Draft Program EIR), a survey of the based aircraft owners and interviews with FBO/stakeholders were conducted in November 2016. Based on the survey data collected on the use of based aircraft, the percentage of time flying for ferry flights is very low. In addition, there is no substantial evidence to determine that aircraft owners, who live or work in the Orange County, with their aircraft parked at adjacent airport, would ferry their aircraft to JWA or take a car to the adjacent airport.

Instead of speculating the individual activity of each based aircraft on a granular level, the forecasts analysis was carried out following the FAA's guidelines and considered multiple factors affecting the aviation demands, including socioeconomic data, demographics, geographic attributes, and external factors such as fuel costs. This is discussed in more detail in Appendices C, and D of the Draft Program EIR. Additionally, the Topical Response pertaining to Aviation Forecasts, provided in Section 3.1.1 of these Responses to Comments, provides an overview of the forecasting process.

Furthermore, aircraft operations attributable to ferrying empty aircraft to and from JWA would be counted as transient operations, and transient operations are projected to increase as shown in Table 18 of Appendix C of the Draft Program EIR. Although the Draft Program EIR does not explicitly categorize "redundant" operations, they are assumed to be accounted for in the forecast methodology.

- CLA-5** The comment states one way to further increase hangar capacity of Alternative 1 would be to increase the height of several T-hangars to 25 feet. This would enable the use of piston aircraft aviation lifts to double-stack the hangars, effectively increasing the T-hangar capacity for piston aircraft by over 50 percent.

The facility planning study was based on common practice in the industry. The use of equipment for stacking aircraft (such as the AeroLift system) is not commonly used in the industry today. It should be noted, the T-hangars located on the west side of the Airport could not accommodate this equipment because the 25-height requirement for the equipment would exceed the FAA height restrictions at the location on the west side where T-hangars are proposed. On the east side of the Airport, 69 of the 72 T-hangars could be built to accommodate the equipment and still be consistent with the FAA height restrictions. However, this scenario is unlikely to occur because not every hangar tenant owns two aircraft or would otherwise be expected to store two aircraft in their hangar. Additionally, one of the aircraft must be small enough to be lifted and stored in an elevated or "stacked" position (e.g., aircraft storage weight less than 2,500 pounds). As noted, the planning was done consistent with common practice in the industry. Section 15145 of the State CEQA Guidelines do not require a lead agency to speculate.

If at some time in the future a Fixed-Based Operator proposed such a system, the impacts could be assessed at that time. This would allow the County to better define the scope of the changes to the Airport capacity. As noted in Section 3.7 of the Draft Program EIR, subsequent activities, such as the development plan review, would be examined in light of consistency with the parameters of the GAIP and the impacts assessed in the Final Program EIR. Through this process, the County would determine whether additional CEQA documentation would be required pursuant to the requirements of Section 21166 of CEQA (i.e., *California Public Resources Code*, Section 21166) and Sections 15162 and 15168 of the State CEQA Guidelines.

- CLA-6** The comment suggests when considering new FBO leaseholders, the Airport should consider selecting leaseholders who provide maintenance services, authorizations or capabilities not currently offered at the Airport. If a required maintenance service is not offered at the Airport, the aircraft must depart JWA for maintenance, then return back to JWA after maintenance, resulting in a redundant arrival and departure.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 51: Antoinette Cole  
Dated November 21, 2018**

- AC-1** The comment expresses a concern about the aircraft noise and health effects. The comment requests the decision-makers consider the taxpayers when making a decision on the General Aviation Improvement Program ("GAIP").

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. The comment does not make any substantive comment about the adequacy of the Draft Program EIR. Therefore, no further response to this comment is required. However, it should be noted, the potential incremental increase in noise is addressed in Section 4.7 of the Draft Program EIR. Health effects are discussed in the Draft Program EIR in Section 4.2, Air Quality. Additional detail on this issue is provided in the Topical Response 3.1.6 and in Attachment A of these Responses to Comments.

**Letter 52: Paul Columbus  
Dated October 17, 2018**

- PC-1** The comment identifies the benefits of T-hangars and is concerned about the reduction in T-hangars, citing the Project Description section of the Draft Program Environmental Impact Report ("EIR"). The commenter recommends revisions to the General Aviation Improvement Program ("GAIP") to increase the number of T-hangars.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. Although the comment does not raise any specific issue regarding the analysis in the Draft Program EIR, it should be noted, the GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Additionally, Table 3-8 identifies that Alternative 1 would result in a slight increase in the number of T-hangars spaces provided. Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time. T-hangars are more limited by providing capacity for one single-engine or one light twin-engine aircraft per unit. Flexibility to allow the Airport to respond to technological advances and market trends is one of the Project Objectives (see Section 3.3 for the full listing of Project Objectives).

**Letter 53: W. David Cook**  
**Dated November 19, 2018**

**WDC-1** The comment summarizes the General Aviation Improvement Program (“GAIP”) as increasing the number of large corporate aircraft at John Wayne Airport (“JWA”) at the expense of light aircraft and transmits additional comments, which are addressed below.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**WDC-2** The comment asserts the Draft Program EIR does not adequately account for the increase of non-airline jet aircraft noise and pollution over the Back Bay departure corridor. The reasons provided to support the assertion on the inadequacy of the evaluation include the following:

- (1) the number of general aviation departures is uncontrolled;
- (2) the number of after-hours general aviation departures is not controlled;
- (3) the analysis does not take into consideration the slower evolution of quieter next generation engines (as used by the airlines) into the corporate jet fleet; and
- (4) the analysis does not take into consideration the additional pollution and noise from additional corporate jet operations on the JWA.

Specific responses on each of the commenter points are provided below. However, it should be noted, the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report*, which is summarized in Section 4.7 of the Draft Program EIR and included as Appendix H, evaluates the noise impacts associated with the forecasted fleet mix and operational characteristics. The air quality impacts, including air emissions, were evaluated in Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions. The technical studies supporting the air quality and greenhouse gas emissions are included in Appendices E and G, respectively.

The noise and air analyses are based on the aviation forecasts. The forecast recognized the unregulated nature of general aviation operations. As discussed in Sections 3.5 and 3.6 of the Draft Program EIR, the forecasts take into consideration data on a variety of indicators, including but not limited to, pilot population, growth in student pilot population, shipment of general aviation aircraft, and projected demand. The Draft Program EIR provides the general aviation demand forecasts for based aircraft, annual operations, daily and peak hour operations, and international operations at the Airport. The constrained forecast are based on an estimate of the number of based aircraft and aircraft operations that can be accommodated under the physical space available for aircraft parking and storage.<sup>84</sup> The details on the methodologies used to prepare the fleet

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<sup>84</sup> Section 3.5 of the Draft Program EIR provides an overview of the forecasting process and presents the unconstrained forecasts. Recognizing the space limitations at the Airport, constrained forecasts were then developed. The constrained forecasts for the Proposed Project and Alternative 1 are provided in Sections 3.6.2 and Section 3.6.3, respectively.

mix and forecast are provided in the *General Aviation Forecasting and Analysis Technical Report* and the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecast*, which are included as Appendices C and D, respectively. Additionally, please see the Topical Response pertaining to Aviation Forecast provided in Section 3.1.1 of these Responses to Comments.

The noise analysis for the GAIP does take into account the fact that general aviation jets can fly 24 hours a day. As stated in Appendix H, page 53, the noise analysis for the GAIP assumes the same percentage of general aviation jets operating in the evening and nighttime in the 2016 Baseline would operate in the GAIP alternatives. This results in approximately 9 percent of the business jets operating on an average annual day operating during the evening period and approximately 3 percent operating during the nighttime period.

Based on the forecasts provided in Table 3-7 of the Draft Program EIR, in the Baseline (2016), there were 31,800 annual operations flown by aircraft with jet engines. In 2026, this would increase to 40,400 for the Proposed Project and 41,400 for Alternative 1 (Table 3-11 of the Draft Program EIR). Using the 3 percent nighttime operations factor, this equates to the Proposed Project resulting in approximately 258 additional annual nighttime operations (0.71 additional operations per night) compared to the Baseline (2016). However, each take-off and landing is considered a separate operation. Therefore, it would result in an average of 0.35 additional nighttime departures on a daily basis. For Alternative 1 there would be approximately 288 additional annual nighttime operations (0.79 additional operations per night). Therefore, with Alternative 1 there would be an average of 0.39 additional nighttime departures on a daily basis.<sup>85</sup> It should be noted, the actual number of flights would vary each day because this number is based on a mathematical equation that derives a daily number of nighttime operations based on the annual forecast.

The fleet mix used for the GAIP noise and air quality analyses assumes an increase in the number of turbine aircraft (turbo-prop and turbo-jet); however, the type of aircraft are reflective of the Baseline (2016) general aviation fleet mix. Therefore the slower introduction of quieter next generation engines has been assumed and incorporated into the noise and air quality analysis. The commercial fleet mix assumptions were updated in the cumulative impacts (2026) noise analysis. As noted in the Draft Program EIR (page 4.7-37) and Appendix H, the updated analysis increased the percentage of aircraft in the Boeing 737-MAX and Airbus A320-NEO families based on the current aircraft orders reported by Boeing and Airbus in the U.S.

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<sup>85</sup> Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. The following calculations were done to determine the expected increase in daily nighttime departures:

- The difference between the number of 2016 jet operations and the 2026 jet operations is calculated.
- The number of operations is then multiplied by 0.03 because 3 percent of the flights are projected to be nighttime flights. Since the number of operations are given as annual operations, this number is then divided by 365 to come up with a daily average number of nighttime operations.
- The number of nighttime operations is divided by two, which provides the number of nighttime departures.

The air quality and greenhouse gas emissions analyses utilized the same forecast assumptions as was used in the noise analysis. Therefore, the appropriate fleet mix was used in assessing the potential impacts. The evaluation in the Draft Program EIR is adequate and no additional analysis is required.

**WDC-3** The comment states with the exception of Alternative 3, the GAIP foster large corporate aircraft operations at the expense of general aviation light aircraft, which have historically been an important part of JWA. Additionally, since there are only two airports serving light aircraft in Orange County (JWA and Fullerton Airport), the GAIP (with the exception of Alternative 3) will significantly decrease light aircraft parking and facilities.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The following is provided for clarification. Alternative 3 and the No Project Alternative would provide more capacity for smaller piston-powered aircraft; however, based on the forecasts, both of these scenarios would result in an underutilization of the space at JWA. As noted on page 5-57 of the Draft Program EIR, both Alternative 3 and the No Project Alternative would result in facilities going unused because they are not responsive to the type of facilities required (i.e., tie-down area for more small aircraft than there is demand for). Under all alternatives, the number of general aviation operations at the JWA would still be dominated by the smaller piston-powered aircraft. Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in the table, in 2026 the forecast identifies piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1. Small piston-powered aircraft would account for slightly less than 68 percent of the operations with Alternative 2.

The GAIP would reduce the overall capacity for small piston-powered aircraft in Orange County; however, there is no indication that there is insufficient capacity. As noted in the Draft Program EIR, the area allocated for small aircraft based in Orange County is currently underutilized. In addition to the underutilized space at JWA, Fullerton Municipal Airport has the capacity for 600 aircraft but at the time the Draft Program EIR was prepared, had 230 based aircraft. The greater demand is for additional capacity for the larger business jets.

Section 1.8 of the Draft Program EIR identifies as an issue to be resolved, the need to balance the effect of reducing the number of based aircraft with the provision of facilities that may best meet the broad spectrum of future aviation needs within the limited space available at JWA. The Board of Supervisors will consider the environmental impacts addressed in the Draft Program EIR, including the displacement of aircraft, and balance them with the long-term vision for the Airport.

**Letter 54: Todd Corbitt  
Dated November 5, 2018**

- TC-1** The commenter expresses his position that the commute associated with having his aircraft based at an airport other than John Wayne Airport would not be reasonable.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- TC-2** The comment requests that the Final Program EIR evaluate options for maintaining the current level of capacity for general aviation. The comment expresses the desire to maintain at least the current capacity of 596 general aviation aircraft while increasing the number of hangars on the field.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport has capacity of 596 general aviation aircraft, at the end of 2016 (the Baseline for the GAIP), only 482 spaces were occupied. Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act (“CEQA”) Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that included a minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline (2016) condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use. Additionally, the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in Table 5-3, in 2026 the forecast identifies that piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1.

The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is “to embrace flexibility



to allow for technological advances and market trends”. The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time. However, it is acknowledged and documented in the Draft Program EIR, that the construction of the hangars would reduce the capacity at the Airport for tie-down space.

- TC-3** The comment recommends the County study the applicability of a waiver from the Federal Aviation Administration (“FAA”) to keep the existing location of the perimeter road to avoid needing to reduce capacity for general aviation.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the General Aviation Improvement Program (“GAIP”) will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of FAA design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport’s commitment to providing a safe and secure facility for county aviation.

**Letter 55: Andy Couch**  
**Dated November 21, 2018**

- AC-1** The comment states that to name the project the “General Aviation Improvement Program” is misleading. The comment expresses the opinion it would more accurately be described as a “Business Jet Improvement Program” because the primary result of the implementation of the Proposed Project, or Alternatives 1 or 2, will be a substantial increase in the number of business jet operations at John Wayne Airport (“JWA”). The comment further states the business jet operations will not be limited by the airline curfew or the other restrictions on commercial airline operations.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. For clarification, it should be noted, the analysis conducted in the Draft Program EIR reflects that general aviation operations will not be limited by the airline curfew or the other restrictions on commercial airline operations. For additional information on this issue, please see the Topical Response pertaining to the General Aviation Noise Ordinance, provided in Section 3.1.3 of these Responses to Comments.

- AC-2** The comment acknowledges it may be necessary to update the 30-year old plan for John Wayne Airport, to modify parts of the Airport to comply with Federal Aviation Administration (“FAA”) regulations or changing needs. It is not necessary to substantially increase the number of facilities for business jets, which will result in an increase in business jet operations and noise.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted that the facilities proposed are in recognition of the underutilization of the tie-down space for piston-powered aircraft and the aviation forecasts, which reflect a continuing increase in business jets. These assumptions are reflected in the analysis in the Draft Program EIR. The noise analysis provided in Section 4.7 of the Draft Program EIR (and the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report*, which is summarized in Section 4.7 of the Draft Program EIR and included as Appendix H) reflects the increase in the number of business jets. Table 15 in Appendix H provides fleet mix used in the noise analysis. The analysis acknowledges an incremental increase in aviation noise levels as a result of the changes in fleet mix; however, the impact is less than significant based on the applicable noise thresholds (see Section 4.7.5).

- AC-3** The comment acknowledges that under current federal statutes, there may be restrictions upon the limits that can be imposed upon business jet aircraft; however, one of the limits that can be imposed is to limit the business jet facilities.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- AC-4** The comment states the benefit from the proposed GAIP will be for the wealthy who fly in business jets. The comment further states the County will benefit as indicated by the various business jet revenue streams identified in the Draft Program Environmental Report 627.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

As a point of clarification, the Draft Program EIR does not include data on specific business jet revenue streams. Section 2.5.1, of the Draft Program EIR (General Setting) provides some general information on the Airport's contribution, as a whole (commercial and general aviation), to the regional economy, including general revenues through fees and charges, and taxes paid by passengers, employers and employees. Notably, general aviation revenues at JWA account for approximately 4 percent of the Airport's total revenue stream.<sup>86</sup>

The Draft Program EIR is not required to include fiscal data. The State CEQA Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project's potential effects that do not result, directly or indirectly, in a "physical change" to the environment. Indeed, noting that CEQA does not require analysis of impacts that are solely economic in nature.<sup>87</sup>

- AC-5** The comment states the general public, and especially Newport Beach residents, will suffer the additional noise generated by the increased business jet operations. A jet engine does not care if it is attached to an airliner or business jet, it emits the same noise.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, the noise characteristics of the various aircraft is provided in the Appendix H, Attachment 1 provides Single Event Noise Exposure Level ("SENEL") noise contours for several

<sup>86</sup> JWA FY 2016-17 Revenue Report <https://www.ocair.com/investorrelations/financials/revenuereports/FY16-17.pdf>

<sup>87</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.)

general aviation jets and propeller aircraft along with commercial aircraft for comparison of noise emissions.

- AC-6** The comment the points out Proposed Project and Alternatives 1 and 2 all require the eviction of a substantial numbers of piston engine general aviation aircraft. Further it the comment states Fullerton Airport is not a viable alternative for a substantial numbers of piston engine airplane owners and pilots due to traffic. In the commenter's opinion, the forced relocation of dozens of piston engine airplanes from JWA to Fullerton Airport is so impractical that it does not deserve serious consideration.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers.

For additional information, the displacement of aircraft was evaluated in the Draft Program EIR traffic analysis, with a separate heading in the evaluation for the Proposed Project and Alternative 1 under Threshold 4.8-1. The *General Aviation Improvement Program Traffic Impact Analysis* ("TIA") (Appendix I) addressed this as a Special Issue. As part of this evaluation, a discussion is provided on the methodology for calculating vehicle miles traveled ("VMT") associated with travel to alternative airports (see pages 4.8-15 and 4-8-22 in the Draft Program EIR and Section 5.2 of the TIA). The viability of the commute to Fullerton Airport or other airports in the region will be a personal decision by the aircraft owner.

Section 1.8 of the Draft Program EIR, identifies the need to balance the effect of reducing the number of based aircraft with the need to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at JWA. The Board of Supervisors will consider the environmental impacts addressed in the Draft Program EIR, including the displacement of aircraft, and balance them with the long-term vision for the Airport.

- AC-7** The comment indicates that the County should ensure that ordinary people who own or rent airplanes are not displaced from JWA to make room for the very wealthy and their business jets.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- AC-8** The comment indicates required updates to John Wayne Airport can be accomplished with Alternative 3, which would not require the eviction of a substantial numbers of piston engine airplanes from the Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no

further response to this comment is required. It should be noted, that Alternative 3 does not provide for any upgrading of facilities at the Airport.

**Letter 56: CPF Airway Associates**  
**Prepared by Matthew C. Henderson, with Miller Starr Regalia**  
**Dated October 25, 2018**

- CPF-1** The comment addresses the size of the Draft Program Environmental Impact Report (“EIR”) and asks for an extension of the public review period.

In response to this and other requests, the Airport extended the public review period until November 21, 2018. This resulted in a 60-day public review period. The Airport sent notices of the extension to all parties that received the Draft Program EIR or the Notice of Availability, as well as published a notice in the Orange County Register and posted notice of the extension on the Airport website.

- CPF-2** The comment states CPF Airway Associates is not opposed to the Project.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- CPF-3** The comment identifies a concern that the Project does not account for the existing secured entry gate into the Airport from the CPF Airway Associates property. This gate is used by airlines and other operators to move cargo into and out of the Airport's secured area.

It is acknowledged that the secured gate at 3000 Airway Avenue serves an important function for the Airport's efficient operation. There is no intention to eliminate the gate at this location. It must be recognized that the analysis is being done at a program level of detail and the scale and level of specificity shown in the concept plans for the Proposed Project and Alternative 1 (Exhibits 3-1 and 3-4, respectively) is not intended to represent actual project design plans.

To ensure that as the General Aviation Improvement Program (“GAIP”) moves forward the gate access is protected, an acknowledgement of the gate and inclusion of a minimization measure has been added to the Land Use and Planning discussion and will be included in the Final Program EIR (*red italics* shows the additional text and ~~red strikethrough~~ shows the deletions):

On page 4.6-15, Existing Conditions, Non-General Aviation Facilities, the following text is added:

*Currently, there are license agreements for perimeter fence access for freight, cargo, and maintenance operations incidental to the transportation of passengers into the Airport from 3000 Airway Avenue in Costa Mesa (located immediately north of the Limited Service Southwest FBO). The agreements were initially entered into in 1999 to provide support for American, Alaska, United and Delta Airlines. In 2003, a license was granted for Southwest Airlines. The parcel is not part of the*

*Airport; however, the entry gate provides access to the secured portion of the airfield pursuant to "through the gate" license agreements with the County.*

On page 4.6-20, Impact Analysis, Threshold 4.6-1, Compatibility with Surrounding Land Uses, the following text is added for the Proposed Project.

*As noted in Existing Conditions, licenses have been granted for a secured entry gate into the Airport from 3000 Airway Avenue in Costa Mesa (located north of the Limited Service Southwest FBO) to facilitate the movement of cargo and other items into and out of the Airport. The Proposed Project identifies T-hangars located between the gate and Perimeter Road, on the Airport. The Proposed Project does not intend to eliminate or impede the function of the secured gate at this location. Therefore, no impacts to offsite land uses are anticipated at this location. However, Minimization Measure (MN) LU-1 is recommended to ensure that as development occurs in this location that full access between the gate and Perimeter Road is maintained.*

The following text is added to the Impact Analysis for Alternative 1, Compatibility with Surrounding Land Uses, on page 4.6-45:

*Similar to the Proposed Project, Alternative 1 identifies T-hangars located north of the Limited Service Southwest FBO in proximity to the secured gate used for the pass through of cargo and other items to the Airport. Alternative 1 does not intend to eliminate or impede the function of the existing secured gate at this location. Therefore, no impacts to offsite land uses are anticipated at this location. MN LU-1 is recommended to ensure as development occurs in this location that full access between the gate and Perimeter Road is maintained.*

The following text is added to Section 4.6.9, Mitigation Program on page 4.6-52:

*As noted above, the GAIP does not intend to eliminate or impede the function of the secured gate located on the west side of the Airport. Although no significant impacts have been identified, MN LU-1 is recommended to ensure that during the development review process, the design of the facilities adjacent to 3000 Airway Avenue maintains access between the secured gate and Perimeter Road, located on the Airport.*

*MN LU-1 In conjunction with the review of development construction plans for facilities adjacent to 3000 Airway Avenue, Costa Mesa, California, the applicant shall ensure, and the JWA Deputy Airport Director, Facilities, or designee, shall verify, that secured gate access used to facilitate the movement of cargo and other items into and out of the Airport is maintained for an adequate connection to Perimeter Road. The precise location and configuration of the gate may be modified within this parcel but the function of the gate shall not be compromised.*

The following text is added to Table 1-2, Summary of Potential Impacts, Mitigation Measures and Level of Significance, under Land Use, in the fourth column in the row for Threshold 4.6-1 on page 1-28:

*Although a significant impact has not been identified, the following MN is recommended to ensure that access through the secured gate on the west side of the Airport is maintained:*

*MN LU-1 In conjunction with the review of development construction plans for facilities adjacent to 3000 Airway Avenue, Costa Mesa, California, the applicant shall ensure, and the JWA Deputy Airport Director, Facilities, or designee, shall verify, that secured gate access used to facilitate the movement of cargo and other items into and out of the Airport is maintained for an adequate connection to Perimeter Road. The precise location and configuration of the gate may be modified within this parcel but the function of the gate shall not be compromised.*

- CPF-4** The comment states that the Draft Program EIR does not acknowledge or analyze the existence of a heliport on the roof of 3000 Airway Avenue. Changes in the Airport's layout and use may affect operations at the heliport.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not specify what elements of the GAIP would potentially have an adverse effect on the continued helicopter operations. None of the changes proposed by the GAIP (Proposed Project or Alternative 1) would have an impact on the continued operation of the heliport (i.e., HeliStream). As noted in the Draft Program EIR, all proposed improvements would comply with Federal Aviation Administration ("FAA") design requirements. The Proposed Project and Alternative 1 do identify T-hangars adjacent to the building in question; however, the T-hangars would not be an obstruction that would impact the continued helicopter operations at HeliStream. The GAIP does not propose a use that would be considered incompatible with the heliport. There is no requirement to address the function of each specific company located adjacent to the Airport since there would not be an impact. No further analysis of this issue is required.

- CPF-5** The comment questions, if the forecasts used in the Draft Program EIR identify an increase in demand for general aviation activity compared to the Baseline 2016, why the GAIP (Proposed Project and all alternatives) only considers reducing the Airport's general aviation capacity. The reduced facilities seem at odds with the GAIP objectives. The failure to include an alternative that increases the Airport's capacity is a flaw in the Draft Program EIR.

As discussed in Section 3.6 of the Draft Program EIR, the GAIP has been developed in an effort to balance the environmental, social, and economic demands regarding general operations at JWA. As noted throughout the Draft Program EIR, although hangars at the Airport are occupied, there is additional capacity for aircraft in the tie-down areas. Based on the limited physical space, not all of Orange County's aviation demands can be met at



the Airport. Therefore, it is critical that the Airport optimize the facilities to best meet the needs of larger aviation community.

As part of the GAIP, historical data, both for JWA and nationally, has been evaluated to provide the best balance of facilities to meet the demand for various types of general aviation aircraft based at the Airport. As noted above, achieving this operational efficiency and economic balance has been incorporated into the GAIP objectives (see Section 3.3 for the Project Objectives).

To understand the best balance for the Airport, aviation forecasts were developed. This would allow facility improvements to best respond to the demand at the Airport. First, unconstrained aviation forecasts were developed. These forecasts used historical data for JWA and aviation industry trends. The forecasts take into consideration data on a variety of indicators including, but not limited to, pilot population, growth in student pilot population, shipment of general aviation aircraft, and projected demand. The study provides the unconstrained general aviation demand forecasts for based aircraft, annual operations, daily and peak hour operations, and international operations at the Airport. Since there is not sufficient physical space to meet the unconstrained demands, constrained forecast data addresses the maximum projected general aviation facilities and operations that can be accommodated by JWA's limited footprint.<sup>88</sup> It is through this process that the alternatives for the GAIP were developed.

Section 5 of the Draft Program EIR does identify a range of alternatives. Alternative 3 and the No Project Alternative would provide more capacity for smaller piston-powered aircraft; however, based on the forecasts, both of these scenarios would result in an underutilization of the space at JWA. As noted on page 5-57 of the Draft Program EIR, both Alternative 3 and the No Project Alternative would result in facilities going unused because they are not responsive to the types of facilities required (i.e., tie-down area for more small aircraft than there is demand for). Since the comment does not provide specifics on how general aviation can be expanded at JWA within the current footprint, it is not possible to respond to specific concepts the commenter may have.

**CPF-6** The comment qualifies that the comments are preliminary in nature and may be supplemented in the future. It states there are broader concerns as to limiting general aviation at the Airport, and the substitution of carriers such as JetSuiteX for existing small-scale private owners and pilots. The substitution of users (regional jets for single-engine propeller aircraft) will give rise to greater impacts.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The Draft Program EIR has fully accounted for impacts associated with the proposed GAIP and the comment does not

<sup>88</sup> The unconstrained aviation forecasts are discussed in Section 3.5 of the Draft Program EIR. Detailed information on the unconstrained aviation forecasts can be found in the *General Aviation Forecasting and Analysis Technical Report*, which is Appendix C. The constrained aviation forecasts are summarized in the Draft Program EIR (Sections 3.6.2 and 3.6.3 for the Proposed Project and Alternative 1, respectively) and discussed in detail in the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts*, which is provided as Appendix D. Comparison tables for each of the alternatives evaluated, including the No Project Alternative, are provided in Tables 5-1 through 5-3 (Section 5, Alternatives).

specify which topical areas are perceived as having inadequate analysis in the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 57: CPF Airway Associates**  
**Prepared by Matthew C. Henderson, with Miller Starr Regalia**  
**Received October 29, 2018**

This letter is the same as the CPF Airway Associates' electronic submittal of the October 25, 2018 letter (Letter 56). Therefore, no additional responses are required. Please see Responses CPF-1 through CPF-6.

**Letter 58: CPF Airway Associates**  
**Prepared by Matthew C. Henderson, with Miller Starr Regalia**  
**Dated November 20, 2018**

**CPF 3-1** The comment is the email transmitting the comment letter on behalf of Matthew C. Henderson.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**CPF 3-2** The comment states they have not found any plan or other document that is identified as the General Aviation Improvement Program ("GAIP") itself. A Public Records Act (Government Code section 6250 et seq.) request was submitted to the County for the applicable documents. The comment further states since the County was unable to provide documents after the close of the public review period for the Draft Program EIR, CPF Airway Associates reserves the right to provide additional comments on the Draft Program EIR based on the requested documents.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. It should be noted, although the public review period closed on November 21, 2018, all comments received after the close of the review period will be included in the submittal to the Board of Supervisors for consideration.

**Letter 59: CPF Airway Associates**  
**Prepared by Matthew C. Henderson, with Miller Starr Regalia**  
**Received November 21, 2018**

This letter is the same as the CPF Airway Associates' electronic submittal of the November 20, 2018 letter (Letter 58). Therefore, no additional responses are required. Please see Responses CPF 3-1 through CPF 3-2.

**Letter 60: Linda Crum**  
**Dated November 20, 2018**

- LC-1** The comment states there would be a direct impact to quality of life as a result of private jets, which are not regulated and would be able to take off at any time. The comment also references black specks on patios from engine residue and jet fuel.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response is required. However, the concerns raised in the comments are addressed herein.

The County's General Aviation Noise Ordinance ("GANO") establishes the commercial aircraft curfew and limitations on the maximum single event noise levels. The single event noise levels also apply to general aviation nighttime operations. The existing commercial aircraft curfew and GANO limits would not be taken away or modified as a result of the proposed General Aviation Improvement Program ("GAIP"). For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments.

The air quality and noise impacts associated with the GAIP were evaluated in the Draft Program EIR. The findings of this analysis are discussed below.

The air quality impacts, including air emissions, were evaluated in Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions. The technical studies supporting the air quality and greenhouse gas emissions are included in Appendices E and G, respectively. The air analyses are based on the aviation forecasts. The operational emissions for the Proposed Project and Alternative 1, are presented in Tables 4.2-9 and 4.2-13 of the Draft Program EIR, respectively, (and Table 31 of Appendix E, *Air Quality Technical Report*), demonstrate the GAIP would result in emissions below the applicable SCAQMD thresholds. Because the construction and operational emissions were below the applicable SCAQMD thresholds, the implementation of the Proposed Project or Alternative 1 would not result in a violation of the state air quality standards.

It should be noted, Final EIR 617, prepared for the 2014 Settlement Agreement Amendment, included a detailed discussion on air pollution that could be characterized as black dust, and is frequently termed "black carbon."<sup>89</sup> It is a constituent of PM<sub>2.5</sub>. Airborne particulate matter is discussed on page 4.2-2 of the Draft Program EIR. As noted, PM<sub>2.5</sub> is either directly emitted in combustion exhaust or is formed in atmospheric reactions between various gaseous pollutants including NO<sub>x</sub>, sulfur oxides ("SO<sub>x</sub>"), and

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<sup>89</sup> Final EIR 617 is located on the Airport's website at: <https://www.ocair.com/communityrelations/settlementagreement/deir617>. The Responses to Comments, which contains the discussion on black carbon can be found at: [https://www.ocair.com/communityrelations/settlementagreement/docs/Responses\\_to\\_Comments\\_DEIR%20No.%20617-August2014.pdf](https://www.ocair.com/communityrelations/settlementagreement/docs/Responses_to_Comments_DEIR%20No.%20617-August2014.pdf)

VOCs. PM<sub>2.5</sub> can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

While operations at JWA may result in PM<sub>2.5</sub> emissions and thus black carbon emissions, given the varied sources of black carbon emissions, the black dust in the surrounding area is likely not solely due to JWA due to the proximity of other likely sources of black carbon (e.g., diesel-powered trucks on Route 1 and marine vessels such as ferries, commercial fishing boats, tour boats, and other motor, as well as on-road vehicles operating along I-405 and SR-73). According to USEPA's "Report to Congress on Black Carbon", transportation/mobile sources accounted for 52.3 percent of the black carbon emitted in the United States in 2005.<sup>90</sup> This category of sources includes on-road vehicles, non-road vehicles, locomotives, commercial marine vessels, aircraft, and tire and brake wear. In comparison, aircraft-related black carbon emissions only accounted for only 0.06 percent of total U.S. black carbon emissions. Moreover, SCAQMD's 2012 Air Quality Management Plan (AQMP) indicates that near-roadway studies have found the highest concentrations of black carbon in the immediate vicinity (i.e., within 17 meters) of freeways frequently traveled by heavy-duty diesel trucks (i.e., the I-710 freeway), with black carbon concentrations decreasing exponentially with increasing distance downwind from the freeway.<sup>91</sup>

The relationship between emissions and air concentrations is complex. Numerous factors influence the dispersion and transport of emissions. These factors include emission source location, parameters of the source of emissions (e.g., exit velocity), emissions magnitude, and atmospheric conditions (e.g., mixing height, wind direction, and wind speed).

The small particle size of black carbon also influences how emissions may "deposit." Specifically, black carbon is considered to be smaller than 2.5 microns in diameter (i.e., PM<sub>2.5</sub>). Particles of this size behave more like a gas and do not deposit like larger particles.<sup>92</sup> Thus, the presence of aircraft overhead may appear to lead to deposition of emissions straight down, but the small particle sizes likely do not deposit or settle straight down. Rather, the meteorology will disperse the black carbon over a wider area leading to low concentrations by the time it reaches ground level.<sup>93</sup>

Moreover, the "mixing height" is another important factor in the dispersion of air pollutants. According to the Federal Aviation Administration's ("FAA") Aviation Environmental Design Tool ("AEDT") Technical Manual, the mixing height is "the height at the top layer of atmosphere where relatively vigorous mixing of pollutants and other

<sup>90</sup> USEPA, 2012 (March). *Report to Congress on Black Carbon* ((EPA-450/R-12-001). Research Triangle Park, NC: USEPA. <http://www.epa.gov/blackcarbon/2012report/fullreport.pdf>.

<sup>91</sup> South Coast Air Quality Management District (SCAQMD). 2013 (February). *Final 2012 Air Quality Management Plan* (page 9-12). Diamond Bar, CA: SCAQMD. <http://aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan>.

<sup>92</sup> Seinfeld, J.H. and S.N. Pandis. 1994. *Atmospheric Chemistry and Physics: From Air Pollution to Climate Change* (Chapter 2, Section 2.7.4). Hoboken, NJ: Wiley & Sons, Inc.

<sup>93</sup> USEPA. 2012d (January 5, last update). *The Particle Pollution Report: Current Understanding of Air Quality and Emissions through 2003* (Understanding Particle Pollution, page 6). Research Triangle Park, NC: USEPA. [http://www.epa.gov/airtrends/aqtrnd04/pmreport03/pmunderstand\\_2405.pdf](http://www.epa.gov/airtrends/aqtrnd04/pmreport03/pmunderstand_2405.pdf).

gases will take place for the airport in a given month.”<sup>94</sup> Stated somewhat more simply, the mixing height is the “depth through which atmospheric pollutants are typically mixed by dispersive processes.”<sup>95</sup> The AEDT default standard for the mixing height for airport air dispersion modeling is 3,000 feet. Any aircraft emissions above this level will have a negligible effect on ground level concentrations. While aircraft in approach or on take-off may appear to be a primary source of black carbon emissions for those beneath the flight path, the combination of the factors discussed above (location, particle size, and atmospheric conditions) all lead to the dispersion and dilution of emissions before they ever reach ground level (if at all).

Although this comment does not raise any specific issue regarding the analysis in the Draft Program EIR, it should be noted that Section 4.7 evaluates the noise impact associated with the GAIP (Proposed Project and Alternative 1). The Proposed Project would result in minor increases in aviation noise levels compared to the Baseline (2016) condition however, none of the increases would exceed the thresholds of significance. The increases would occur at four noise monitoring stations (“NMS”) that are within the 65 CNEL contour (NMS 1S, 2S, 3S, and 8N). The largest increase (at NMS 3S) is 0.15 CNEL, which is 0.01 CNEL higher than the Baseline Plus No Project Alternative. Alternative 1 would also result in minor increases in aviation noise levels compared to the Baseline (2016) condition, which would not exceed the thresholds of significance. The increases would occur at four NMS that are within the 65 CNEL contour (NMS 1S, 2S, 3S, and 8N). The largest increase (at NMS 3S) is 0.17 CNEL and is 0.03 CNEL higher than the Baseline Plus No Project Alternative. A person can just barely detect a sound level change of approximately 1 decibel for sounds in the mid-frequency region. When ordinary noises are heard, a young, healthy ear can detect changes of 2 to 3 decibels. This information is summarized in Table 4.7-8 in the Draft Program EIR and the full *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* prepared by Landrum & Brown is included as Appendix H to the Draft Program EIR.

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<sup>94</sup> Federal Aviation Administration (FAA). 2017 (September). Aviation Environmental Design Tool. Version 2d. Technical Manual (Page 10). Washington, D.C.: FAA. [https://aedt.faa.gov/documents/aedt2d\\_techmanual.pdf](https://aedt.faa.gov/documents/aedt2d_techmanual.pdf)

<sup>95</sup> USEPA. 2004 (September). User’s Guide for the AMS/EPA Regulatory Model – AERMOD (EPA-454/B-03-001, page GLOSSARY-3). Research Triangle Park, NC: USEPA. <http://www.epa.gov/scram001/7thconf/aermod/aermodugb.pdf>.



**Letter 61: Christy Dambrosio**  
**Dated November 20, 2018**

- CD-1** The commenter expresses opposition to the General Aviation Improvement Program (“GAIP”) citing the concerns associated with pollution and lack of curfew for general aviation aircraft.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response is required.

As a point of clarification, the existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level (“SENEL”) limits for general aviation aircraft are identified in the General Aviation Noise Ordinance (“GANO”) would not be taken away or modified as a result of the proposed General Aviation Improvement Program (“GAIP”). For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments.

The air quality and noise impacts associated with the GAIP were evaluated in the Draft Program Environmental Impact Report (“EIR”) in Sections 4.2 and 4.7, respectively. Although incremental increases were identified, impacts were less than significant.

**Letter 62: Patrick Davern  
Dated November 5, 2018**

**PD-1** The comment requests additional studies be conducted because the alternatives evaluated curtail tie down spaces and add little to no hangar spaces. It also gives more square footage to operators who cater to jet aircraft.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers.

It is acknowledged that the General Aviation Improvement Plan (“GAIP”) would provide additional capacity for fixed wing turbine aircraft, including turbo jets. However, it should be noted that majority of based aircraft at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program Environmental Impact Report (“EIR”) provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in Table 5-3, in 2026 the forecast identifies that piston-powered aircraft would account for slightly more than 66 percent of the total general aviation operations for the Proposed Project and Alternative 1.

As discussed in Section 3.6 of the Draft Program EIR, the GAIP has been developed in an effort to balance the environmental, social, and economic demands regarding general operations at John Wayne Airport (“JWA”). As noted throughout the Draft Program EIR, although hangars at the Airport are occupied, there is additional capacity for aircraft in the tie-down areas. Based on the limited physical space, not all of Orange County’s aviation demands can be met at the Airport. Therefore, it is critical that the Airport optimize the facilities to best meet the needs of larger aviation community.

As part of the GAIP, historical data, both for JWA and nationally, has been evaluated to provide the best balance of facilities to meet the demand for various types of aircraft based at the Airport. As noted above, achieving this operational efficiency and economic balance has been incorporated into the GAIP objectives (see Section 3.3 for the Project Objectives).

To understand the best balance for the Airport, aviation forecasts were developed in order to address facility improvements that may best respond to the demand at the Airport. First, unconstrained aviation forecasts were developed. These forecasts used historical data for JWA and aviation industry trends. The forecasts take into consideration data on a variety of indicators including, but not limited to, pilot population, growth in student pilot population, shipment of general aviation aircraft, and projected demand. The study provides the general aviation demand forecasts for based aircraft, annual operations, daily and peak hour operations, and international operations at the Airport. Since there is not sufficient physical space to meet the unconstrained demands, constrained forecast data addresses the maximum projected

general aviation facilities and operations that can be accommodated by JWA's limited footprint.<sup>96</sup> It is through this process that the alternatives for the GAIP were developed.

Alternative 3 and the No Project Alternative would provide more capacity for smaller piston-powered aircraft; however, based on the forecasts, both of these scenarios would result in an underutilization of the space at JWA. As noted on page 5-57 of the Draft Program EIR, both Alternative 3 and the No Project Alternative would result in facilities going unused because they are not responsive to the type of facilities required (i.e., tie-down area for more small aircraft than there is demand for). The number of general aviation operations at JWA would still be dominated by the smaller piston-powered aircraft. Small piston-powered aircraft would account for slightly less than 68 percent of the flights with Alternative 2.

**PD-2** The commenter states he has made a large investment in pilot training and an aircraft, which is tied-down at JWA. The commenter states the opinion that the Airport should invest in having more tie down spaces and additional hangar space for the general public. The comment further recommends the GAIP be a well-balanced plan for everyone at the Airport not just the large corporate operators.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Response PD-1.

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<sup>96</sup> The unconstrained aviation forecasts are discussed in Section 3.5 of the Draft Program EIR. Detailed information on the unconstrained aviation forecasts can be found in the *General Aviation Forecasting and Analysis Technical Report*, which is Appendix C. The constrained aviation forecasts are summarized in the Draft Program EIR (Sections 3.6.2 and 3.6.3 for the Proposed Project and Alternative 1, respectively) and discussed in detail in the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts*, which is provided as Appendix D. Comparison tables for each of the alternatives evaluated, including the No Project Alternative, are provided in Tables 5-1 through 5-3 (Section 5, Alternatives).

**Letter 63: Cindy Dillion  
Dated November 5, 2018**

- CD-1** The comment expresses an objection to any plan that diminishes John Wayne as a general aviation airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- CD-2** The comment states an opinion that commercial aviation has not only ruined living in so many surrounding neighborhoods, but will now be pushing out general aviation.

The Airport acknowledges this commenter's opinion. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it is important to clarify that the General Aviation Improvement Program ("GAIP") does not allow any changes to the commercial carrier operations or physical space allocated to commercial carrier operations. The same physical area currently dedicated to general aviation operations will be maintained for general aviation activities under all of the GAIP alternatives.

- CD-3** The comment suggests that an alternative be identified that maintains current capacity of approximately 596 general aviation aircraft and also increases the number of hangars.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport has capacity of 596 general aviation aircraft, at the end of 2016 (the Baseline for the GAIP), only 482 spaces were occupied. Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act ("CEQA") Guidelines, the Draft Program EIR evaluated a reasonable range of project alternatives. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that included minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition, but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use. Additionally, the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity

and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in Table 5-3, in 2026 the forecast identifies that piston-powered aircraft would account for slightly more than 66 percent of the total general aviation operations for the Proposed Project and Alternative 1.

The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is “to embrace flexibility to allow for technological advances and market trends”. The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time. However, it is acknowledged and documented in the Draft Program EIR, that the construction of the hangars would reduce the capacity at the Airport for tie-down space.

- CD-4** The comment recommends the County obtain a waiver from the Federal Aviation Administration (“FAA”) to keep the existing location of the perimeter road avoid reducing tie down and hangar capacity for general aviation.

The Airport acknowledges this comment. The comment will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of FAA design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport’s commitment to providing a safe and secure facility for county aviation.

**Letter 64: Jeff Dvorak  
Dated November 21, 2018**

- JD-1** This comment is the email transmitting the comment letter and requesting future notifications.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. The commenter has been added to the list of those to be notified of future Draft Program EIR updates.

- JD-2** The comment addresses the size of the Draft Program Environmental Impact Report ("EIR") and felt that a longer public review period was warranted, given the complexity of the issues.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in the comment, the Airport did extend the public review period until November 21, 2018. This resulted in a 60-day public review period. The 60-day review period is more than is required by the California Environmental Quality Act ("CEQA") Guidelines (Section 15105) and is longer than the standard 45-day CEQA review period. The 60-day review period allows agencies and the public an opportunity to provide input on the environmental document. Although it is acknowledged that many of the issues are technical and complex, the Draft Program EIR has summarized the technical studies with the understanding that the document is being reviewed by members of the public and decision-makers that may not have the technical expertise to fully understand all the complexities of the analyses. Every attempt has been made to simplify vocabulary and provide definitions where terminology may not be known by the general public. Additionally, as noted in the Draft Program EIR and at the September 26, 2018 public meeting, there are other opportunities to provide input, such as at the Board of Supervisors meeting on the project.

- JD-3** The comment states that the objectives of the General Aviation Improvement Program ("GAIP") appear only to benefit Airport operations and profitability. However, it does not address the concerns of the community, such as noise and pollution emanating from the Airport. The comment references the Federal Aviation Administration ("FAA") Reauthorization Act of 2018 as addressing community concerns regarding the impact of noise and pollution on health.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. For clarification, pursuant to CEQA (Section 15124), "the statement of objectives should include the underlying purpose of the project." As such, the objectives are project specific. The GAIP does include objectives that pertain to the operation and fiscal aspects for the Airport; however, they are not limited to the economic benefit of the Airport. The objectives, which are listed in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR, are structured to

support the role of the GAIP as providing the framework for future general aviation improvements at the Airport. As noted in the Draft Program EIR (page 1-3), the GAIP is intended to be the basis for the review of potential future improvements proposed either by the County or its tenants as part of the leases at the Airport.

While the FAA Reauthorization Act does recognize that airport noise can adversely impact nearby communities, it is a broad legislation (approximately 1,200 pages) that includes, but is not limited to, provisions for funding, airline regulations, airport standards, use of drones, and modernization of airport infrastructure. It is not intended to give specific project related guidance. Through the CEQA process the County is evaluating and giving consideration to potential impacts on the surrounding community. As part of the decision-making process, the Board of Supervisors will consider the environmental impacts addressed in the Draft Program EIR and the comments on the Draft Program EIR and balance them with the long-term vision for the Airport. This requirement to weigh these factors is required by CEQA. Section 15021 of the State CEQA Guidelines states that “CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors . . .” Whenever an agency approves a project that would have significant unavoidable impacts, the rationale for approving the project is outlined in the statement of overriding considerations. It is through this process that competing interests and concerns are balanced.

**JD-4** The comment asks if the residents in the area surround the Airport are considered stakeholders.

The outreach on the GAIP to the community surrounding the Airport is being done through the EIR process. As noted in the Draft Program EIR, a Scoping Meeting was held on April 12, 2017 at the JWA Administrative Office in the Airport Commission Meeting Room to facilitate agency and public review and comment on the Notice of Preparation (“NOP”) of the Draft Program EIR. Additionally, and subsequent to the NOP comment period, the Draft Program EIR was distributed for public review and comment. The documents were provided on the Airport’s website to facilitate easy access ([www.ocair.com/DEIR627](http://www.ocair.com/DEIR627)) and as a means of obtaining input from the community. As part of the public review process, notices were sent (via U.S. mail or email, dependent on the contact information provided) to attendees of the public scoping meeting or parties that had requested the Airport add their contact information to the mailing list. A total of 756 notices were sent to various agencies, elected officials, organizations, businesses, and individuals. In addition, a notice of public availability of the Draft Program EIR was published in the Orange County Register. Over 300 letters were received on the Draft Program EIR. A public meeting to review the findings of the document was held on September 26, 2018 at the JWA Administrative Offices in Costa Mesa. At this meeting, the public was also given an opportunity to provide input on the Draft Program EIR and to ask questions about the Project (see the transcript of the September 26, 2018 public meeting in Section 3.7.1, of these Responses to Comments). A final opportunity for the public to voice their opinions as stakeholders will be at the Board of Supervisors hearing on the GAIP, in the Spring of 2019. Notices of this meeting will be sent to all those that commented on the Draft Program EIR. Response JD-12 identifies the additional opportunities for public input through the hearing process.

**JD-5** The comment asks why there is little public awareness of the pending GAIP.

As noted in Response JD-4, the County has conducted a robust outreach effort associated with the Draft Program EIR consistent, and in some cases, beyond CEQA requirements for public notice and outreach. Over 300 comment letters were received during the public review and comment process.

**JD-6** The comment asks how the local residents in the immediate area benefit from the proposed changes. The comment also states that noise is increased for with an additional 10-12 housing units located in the 65 CNEL contour.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The Draft Program EIR addresses the potential impacts associated with the GAIP improvements. Although the GAIP is focused on improvements on the Airport (see Project Objectives in Section 3.3 of the Draft Program EIR) and does not propose other improvements or other enhancements outside of the Airport that may be viewed as a benefit to the surrounding community, as part of the CEQA process, a Mitigation Program is proposed to avoid, minimize, and mitigate potential impacts. As discussed on page 4-2 of the Draft Program EIR, the County has agreed to incorporate minimization measures into the Project, which are conditions proposed to reduce an adverse effect of the Project even when that effect does not result in a significant impact. Such measures are beyond the requirements of CEQA. The minimization measures pertaining to air quality (see page 4.2-32) and greenhouse gas emissions (see page 4.4-31) would provide benefit to the larger community by reducing emissions. Please see Response JD-7 below regarding housing units within the 65-70 CNEL. Additionally, it should be noted that, as part of the decision-making process, both project impacts and benefits will be considered.

**JD-7** The comment references 10-12 houses now within the 65-70 CNEL and requests the specific physical addresses of these 10-12 homes. Additionally, it inquires if the Airport will contact the individual owners and inform them of the impact of the GAIP and if not, why not.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As a point of clarification, the Draft Program EIR identifies there would be 10 to 12 additional residences (associated with the Proposed Project and Alternative 1, respectively) in the 65 to 70 CNEL contour at build-out of the GAIP, which is identified as 2026. The addition of these residences is in comparison to the Baseline (2016). As discussed in Draft Program EIR 627 and below, these residences have been identified in the Airport Noise Impact Zones since 1985; CEQA requires the impact analysis be based on a comparison of future conditions to the existing baseline conditions. Impacts cannot be assessed based on a “plan to plan”



basis.<sup>97</sup> Therefore, even though these impacts have been known and identified since 1985, they are also identified as impacts associated with the GAIP.

As stated on page 4.7-28, although additional residences would be in the 65 to 70 CNEL Proposed Project contour compared to the Baseline (2016) condition, these residences are located in an area covered by the Acoustical Insulation Program ("AIP") approved in conjunction with the 1985 Master Plan. Of the 10 new residences impacted by the GAIP 65-70 CNEL, aviation easements have been obtained for seven of these units. There are four multi-family units and six single family residential units. The multifamily units, located on Birch Street and Orchard Drive, are non-conforming uses (residential use in a business park zone), and a prescriptive aviation easement has been acquired.<sup>98</sup> Two of the single-family residential units, which have received acoustical insulation and an aviation easement has been obtained, are located on Mesa Drive and Orchard Drive. A single-family residential unit on Riverside Drive that was offered acoustical insulation refused the offer of acoustical insulation and two units on Mesa Drive were offered acoustical insulation but no response was received. The last unit on Silver Lane participated in the purchase assurance program, received insulation, and an aviation easement was acquired. Alternative 1 would affect these same units and an additional, two multi-family units in the same complex for which a prescriptive aviation easement has been acquired.

As discussed in the Draft Program EIR (pages 4.6-23 and 4.6-46), these residences are all within the 65 CNEL contour from the 1985 Master Plan, which the Airport Environs Land Use Plan ("AELUP") uses as a policy implementation line for establishing the Airport Noise Impact Zones. Additionally, in 2014 when the Final EIR 617 was prepared for the Settlement Agreement Amendment, this area was again identified as being in a future (2026) 65 CNEL contour due to the increased commercial carrier flights. These units would continue to be eligible for consideration of attenuation measures through the Sound Insulation Program ("SIP") adopted as part of Final EIR 617 because they fall within the 65 CNEL contour projected for 2026 due to the increased commercial carrier flights associated with the 2014 Settlement Agreement Amendment.

The three residences without aviation easements have not been directly notified of the impact identified in the Draft Program EIR. As noted, above and in the Draft Program EIR, these residences are all within the 65 CNEL contour from the 1985 Master Plan and the 2014 Settlement Agreement Amendment. The precise timing of when these homes would be located in the future 65 CNEL contour is not known. However, the SIP, which would be the program that would offer interior noise attenuation to these homes, establishes the mechanism for providing insulation. Briefly, the SIP requires that starting with the JWA 2015 Fourth Quarter Noise Report,<sup>99</sup> the annual noise levels at Noise Monitoring Station ("NMS") 1S, 2S, and 3S will be compared by the County of

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<sup>97</sup> CEQA requires the impacts be evaluated compared to the existing condition not compared to a future noise level identified in the 1985 Master Plan or the 2014 Settlement Agreement Amendment.

<sup>98</sup> Aviation easement is an easement or right of overflight in the airspace above or in the vicinity of a particular property. It also includes the right to create such noise or other effects as may result from the lawful operation of aircraft in such airspace and the right to remove any obstructions to such overflight. For the non-conforming uses located in an area zoned for business park uses, prescriptive aviation easements were acquired. A prescriptive aviation easement is an aviation easement acquired by continued use without permission of the owner for a legally defined period of time.

<sup>99</sup> Quarterly reports are available on the Airport web site.

Orange to the 2013 annual noise levels. If the noise levels have increased by 1.5 dB or more at any of these NMS, all noise sensitive uses represented by that NMS (i.e., that is the closest NMS to the parcel) that have not been previously insulated under the 1985 AIP will be eligible for evaluation for participation in the SIP. The framework for the SIP is provided on page 4.7-10 of the Draft Program EIR. Additional detail is provided in in Section 4.6.7 of Final EIR 617.<sup>100</sup>

- JD-8** The comment references the County of Orange’s 45 CNEL interior noise limit for habitable rooms of residences be met with windows open or windows closed” and requests an exhibit with a 45 CNEL line.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, a noise contour map as requested is not applicable because this standard is based on an interior noise level. As noted in the Draft Program EIR (page 4.7-9), typical construction attenuates outdoor noise by 20 dBA with windows closed; therefore, the 65 CNEL contour is the best measure for assessing potential interior noise levels.<sup>101</sup> As noted in Response JD-7, the SIP provides for attenuation of sensitive land uses where potential noise impacts are identified. Part 1 of the SIP is to evaluate by measuring the indoor noise levels for each habitable room or educational space. If the average noise level in all habitable rooms or education spaces of a use is greater than an average of 45 CNEL then the use will be eligible for sound insulation.

- JD-9** The comment asks if all residents within the affected area are aware of the Orange County interior noise requirement. Further, the comment asks what testing and services are provided to homeowners within the impacted area to determine if the interior of their homes meets the 45 CNEL interior noise level.

The Airport acknowledges this comment; however, the County is unable to know whether the residents surrounding the Airport are aware of the County’s interior noise standards. That said, these noise standards have been applicable for many years and have been included in all environmental documents prepared for projects at the Airport. Therefore, these interior noise requirements have been made available to the public in the context of the environmental documents prepared for projects at John Wayne Airport, which have been provided for public review and comment.

With regard to testing and services, as noted above, the SIP requires that starting with the JWA 2015 Fourth Quarter Noise Report, the annual noise levels at NMS 1S, 2S, and 3S will be compared by the County of Orange to the 2013 annual noise levels. If the noise levels have increased by 1.5 dB or more at any of these NMS, all noise sensitive uses

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<sup>100</sup> The SIP was adopted as mitigation in Final EIR 617. Final EIR 617 is located on the Airport’s website at <https://www.ocair.com/communityrelations/settlementagreement/deir617>. The Mitigation Monitoring and Reporting Program, which contains the mitigation measures, can be found at [https://www.ocair.com/communityrelations/settlementagreement/docs/CEQA\\_CertificationResolution%2314-084withCEQA\\_Findings&MMRP.pdf](https://www.ocair.com/communityrelations/settlementagreement/docs/CEQA_CertificationResolution%2314-084withCEQA_Findings&MMRP.pdf)

<sup>101</sup> It should be noted, as part of the Acoustical Insulation Program (“AIP”) implemented as part of the 1985 Master Plan, of the 903 rooms tested, only 2.5 percent had a noise reduction of 20 dB or less. In all cases, those residences that had a room with a noise reduction of 20 dB or less, the noise reduction of the other rooms was considerably higher. This indicates that these rooms had specific deficiencies that are not typical. Approximately 95 percent of the untreated rooms achieved more than 22 dB of outdoor-to-indoor noise reduction (Source: Final EIR 617).

represented by that NMS (i.e., that is the closest NMS to the parcel) that have not been previously insulated under the 1985 AIP will be eligible for evaluation for participation in the SIP.

The first part of the SIP is the measuring of interior noise levels for each habitable room. The owner will be contacted by the Airport. The evaluation will be performed by measuring the indoor noise levels for each habitable room or educational space.<sup>102</sup> If the average noise level in all habitable rooms or education spaces of a use is greater than an average of 45 CNEL then the use will be eligible for sound insulation.<sup>103</sup> As noted in Response JD-7, the framework for the SIP is provided on page 4.7-10 of the Draft Program EIR. Additional detail is provided in in Section 4.6.7 of Final EIR 617.

- JD-10** The comment references the conclusion in Draft Program EIR 627 that the 65 CNEL contour expanding beyond the existing contour and including additional residences would be a significant land use compatibility impact. Further clarification is requested for the basis for the conclusion that the GAIP would not have a significant impact in terms of noise, air quality, hazardous materials, etc.

The determination if a change in the environment is identified as a significant impact pursuant to CEQA is based on the thresholds of significance that are applied for each environmental topical area (e.g., air quality, noise, land use, traffic, etc.) required to be applied. Without close consideration of the thresholds of significance, the impact conclusions pertaining to land use compatibility and noise impacts may seem incongruent. However, it is important to look at the thresholds of significance used for each impact category. For land use, the basis for the conclusion that there would be a significant impact is based on the significance criteria/threshold that outdoor living areas exposed to a greater than 65 CNEL noise level. Those residences would be incompatible with the County's exterior noise standard.<sup>104</sup> Therefore, from a land use perspective exceeding the 65 CNEL threshold is considered a significant impact. For noise, impacts attributable to the GAIP are evaluated based on the County of Orange significance threshold criteria, which is summarized in Table 4.7-4 of the Draft Program EIR. For noise exposures of greater than 65 CNEL, the increase over existing conditions must be 1.5 dB or greater for a significant impact to be identified. Since the noise increase is less than 1.5 dB, the noise impact is less than significant.

As noted above, thresholds of significance have been identified for each of the Draft Program EIR topical areas. In each section, a separate subheading for the thresholds of significance is provided. A conclusion of land use incompatibility does not influence

<sup>102</sup> Per FAA guidance, noise levels will be measured with all windows and doors closed. Uses with measured interior noise levels less than 45 CNEL that do not have an existing central ventilation system, but rely on keeping windows open for air circulation will be eligible for a Continuous Positive Ventilation System. Implementation of such a system will be dependent on meeting the FAA requirements for implementation of such a system.

<sup>103</sup> If the average noise level is less than 45 CNEL, any use with a noise level greater than an average of 45 CNEL in any habitable room or educational space will be eligible for sound insulation if the FAA waives its requirement that noise levels be averaged across all habitable rooms or education spaces. Final EIR 617, Mitigation Measure N-3, states the Airport will request that the FAA waive its requirement that the average noise level in all habitable rooms or educational spaces exceed 45 CNEL.

<sup>104</sup> Table 4.6-1 provides a definition of "outdoor living area." As noted in the definition, outdoor areas usually not included in this definition are front yard areas, driveways, greenbelts, maintenance areas, and storage areas associated with residential land uses.

topics such as air quality and hazardous materials. As noted in Section 4.2, for air quality the thresholds established by the South Coast Air Quality Management District have been applied. For hazardous materials, and as noted in Section 4.5.4, three thresholds developed from the CEQA Environmental Checklist were applied.

- JD-11** The comment asks what current air quality data is available since the implementation of NextGen Metroplex procedures. Additionally, the comment inquires if air pollution contour maps have been developed similar to the noise maps (Exhibit 4.7-6) to demonstrate how the air pollution is distributed over the neighboring community. Additionally, the comment asks if there are plans to develop air pollution contour maps and if no, why not.

As stated in Chapter 4.2 of the Draft Program EIR, Orange County lies in the South Coast Air Basin, which is within the jurisdiction of the South Coast Air Quality Management District (“SCAQMD”). The SCAQMD is the air pollution control agency that is responsible for monitoring, attaining and maintaining State and federal ambient air quality standards in the South Coast Air Quality Basin, in which JWA is located. As stated in Section 3.2, of the *Air Quality Technical Report*, which is included as Appendix E of the Draft Program EIR, the SCAQMD monitors the air quality at 38 permanent monitoring stations and five single-pollutant source monitoring sites in the South Coast Air Basin. This monitoring network is currently active and the SCAQMD publishes a report on the local air quality annually. The Airport does not own or maintain air quality monitors.

An exhibit depicting the air pollution at specific points of the Airport and its neighboring communities was not developed for the purpose of this study. An atmospheric dispersion model can be used to produce a map or a spatial representation of air pollution across a project area, based upon the operational and physical characteristics of the emission sources combined with meteorological and local terrain data. Based on guidance from the FAA, it was determined that an atmospheric dispersion model was not required for the level of air quality assessment required for this study.

The FAA’s *Aviation Emissions and Air Quality Handbook* states that a quantitative assessment is required for a project that would cause or create a reasonably foreseeable increase in emissions. The first level of quantitative assessment is the development of operational and construction emissions inventories. Operational and construction emissions inventories are designed to quantify the amounts of criteria pollutants associated with operational and construction activities associated with implementation of a proposed project. These emissions inventories are then used to determine whether a project would cause a new violation of a state air quality standard or contribute to a new violation in a manner that would increase the frequency or severity of the new violation. Typically, atmospheric dispersion modeling is conducted if the emissions inventories show that an exceedance of a state or federal air quality standard would result due to the implementation of a proposed project.

As presented in Appendix E, *Air Quality Technical Report*, the air quality assessment evaluated the Proposed Project and its alternatives’ potential impact on air quality in accordance with the guidelines provided in the most recent version of the FAA’s *Aviation Emissions and Air Quality Handbook*, the 1993 CEQA Air Quality Handbook published by the SCAQMD, and other CEQA guidance provided by the SCAQMD. Emissions inventories

were prepared to estimate the total amount of construction and operational-related pollutants generated by the implementation of the proposed project and its alternatives. The mitigated Proposed Project and Alternative 1 construction emissions are presented in Tables 4.2-7 and 4.2-11 of the Draft Program EIR, respectively (and Appendix E, *Air Quality Technical Report*, Table 32). As shown, the emissions would be below the localized significance thresholds provided by the SCAQMD. Additionally, the Proposed Project and Alternative 1 operational emissions presented in Tables 4.2-9 and 4.2-13 of the Draft Program EIR (and Table 31 of Appendix E, *Air Quality Technical Report*), would result in emissions below the applicable SCAQMD thresholds. Because the construction and operational emissions were below the applicable SCAQMD thresholds, the implementation of the Proposed Project or Alternative 1 would not result in a violation of the state air quality standards. Therefore, no atmospheric dispersion modeling was conducted or is required for the purpose of this study.

Because the construction and operational emissions reported were below the applicable SCAQMD thresholds, the implementation of the Proposed Project or Alternative 1 would not result in a violation of state air quality standards. Therefore, no atmospheric dispersion modeling was conducted or is required for the purpose of this study and no maps of air pollution were prepared.

**JD-12** The comment asks what is the process the Airport Commission uses to access the needs of the “stakeholders”.

The history of the development of the GAIP is presented in Section 2.4 of the Draft Program EIR. In the development of the actual plan (“proposed project” for purposes of CEQA), a series of meeting and outreach efforts were conducted by Airport staff with the general aviation tenants to identify issues the general aviation community would like addressed and priorities for making improvements. As part of the preliminary assessment, three primary options for general aviation improvements were evaluated.

The Orange County Airport Commission conducted a public meeting on the GAIP in early 2016. As part of that meeting, the Airport Commission requested a subsequent third party assessment of these alternatives was performed prior to the initiation of the CEQA process. The review focused on the alternatives’ (1) conformance with FAA Airport Design standards to the extent feasible; (2) operational characteristics such as ground taxi flows and potential impacts to the air traffic controllers; (3) conformance with building height restrictions and with the Code of Federal Regulations (specifically Title 14, Part 77 [“Part 77”]); and (4) layout requirements for efficient and effective operation of the FBO facilities. The focus of this subsequent third party review was on the GAIP function of the Airport. As noted in the Draft Program EIR (page 2-11), the alternative that JWA staff recommended for further evaluation as the proposed GAIP was supported by the third party assessment. As part of the initial CEQA process, it was decided to evaluate two alternatives (Proposed Project and Alternative 1) at an equal level of consideration.

The improvements identified by the GAIP are then evaluated in the Draft Program EIR. It is through the CEQA process that effects of the GAIP on the community are identified

and the community has opportunities to provide input.<sup>105</sup> As noted on page 2-9 of the Draft Program EIR, the Airport Commission and Board of Supervisors will conduct public meetings on the GAIP. The Airport Commission will make a recommendation on the proposed GAIP to the Board of Supervisors. The public is given the opportunity to provide testimony on the GAIP at both the Airport Commission and the Board of Supervisors meeting. It is through this process that the environmental impacts and the concerns of the surrounding communities and the Airport tenants (i.e., pilots and businesses serving the general aviation community) are identified. The Board of Supervisors hearing on the GAIP, is anticipated in the Spring of 2019. Notices of this meeting will be sent to all those that commented on the Draft Program EIR.

- JD-13** The comment asks how was the conclusion derived to reduce general aviation piston aircraft and increase general aviation jet aircraft capacity. Further, the comment asks if there is data from market studies to support this.

The GAIP used historical data, both for JWA and nationally, to evaluate the best balance of facilities to meet the demand for various types of aircraft based at the Airport. As discussed in Sections 2.4 and 3.5 of the Draft Program EIR, historical general aviation trends have shown a consistent decline in single-engine piston aircraft since 1980 at the Airport. Multi-engine piston aircraft experienced a sharp decline in the early 1990s and have continued to decrease, although at a slower rate; turbine-powered aircraft (turbo prop and jet) experienced variable growth at the Airport. Business jet operations steadily increased from 2003 to 2006, where it tapered to around 25,000 in annual operations and has remained relatively stable since then.

As part of the planning effort for the GAIP, an unconstrained forecast for general aviation activity at the Airport was developed. This analysis, which is contained in the *General Aviation Forecasting and Analysis Technical Report* (Appendix C of the Draft Program EIR), takes into consideration data on a variety of indicators, including but not limited to, pilot population, growth in student pilot population, shipment of general aviation aircraft, and projected demand. The study provides the general aviation demand forecasts for based aircraft, annual operations, daily and peak hour operations, and international operations at the Airport.

The unconstrained forecasts were then evaluated and a constrained forecast was developed, which addresses the maximum projected general aviation facilities and operations that can be accommodated by JWA's limited footprint. The constrained analysis is provided in the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts*, (included as Appendix D to the Draft Program EIR). The Topical Response pertaining to Aviation Forecast, provided in Section 3.1.1 of these Responses to Comments, also provides a discussion on the aviation forecast process.

- JD-14** The comment asks how does the GAIP plan to reduce capacity for general aviation piston powered aircraft benefit the existing fleet of privately owned piston-powered aircraft based at JWA.

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<sup>105</sup> Response JD-4 provides an overview of the outreach effort to the community.

The GAIP is not intended to focus on a single segment of the general aviation users at the Airport. The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport (see Project Objectives provided in Section 3.3 of the Draft Program EIR). These new facilities (including tie-downs and hangars) would be phased in, to minimize operational disruption at the Airport. The leasing of tie-down spaces will be done through the FBOs.

- JD-15** The comment asks how many general aviation piston aircraft owners who keep their plane at JWA are residents of Orange County. Additionally, the comment asks how many of the general aviation jets that will be based in JWA are owned by residents/companies headquartered in Orange County and if out of county owners be allowed to keep their planes at JWA.

The *General Aviation Forecasting and Analysis Report* (page 9) identifies that based on the address of the registered owner of the aircraft, over 86 percent of the aircraft owners are located within California, 90 percent of which are from Orange County.

At this time, there is no way of knowing the location of owners of general aviation jets that will be based at JWA in the future. As noted in the Draft Program EIR, the improvements will be implemented over a period of over seven years. The FBOs will be responsible for determining the allocation of the tie-down and hangar spaces within the parameters of the GAIP. The County is not able to use residency as criteria to restrict leases for aircraft based at JWA.

- JD-16** The comment cites one of the six objectives listed in the GAIP is to “to maximize economic, self-sustaining, revenue producing facilities.” The comment asks if the GAIP is designed to increase revenue for the Airport and FBOs or in serving the aircraft owners of Orange County. Further, the comment asks what will be the economic benefit to JWA.

The cited objective is one of six objectives. It is important for the Airport to have a self-sustaining facility. It is important for the Airport to have a self-sustaining facility since JWA does not receive any support from Orange County’s general fund. However, as noted the intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. As noted in Section 5.5 of the Draft Program EIR, the full utilization of the portion of the Airport dedicated to general aviation aircraft would maximize the area that would support revenue-producing facilities.

The Draft Program EIR does not include fiscal data. The State CEQA Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project’s potential effects that do not result, directly or indirectly, in a “physical change” to the environment. Indeed, noting that CEQA does not require analysis of impacts that are solely economic

in nature.<sup>106</sup> Therefore, no more specific response is required as it pertains to revenue. However, Section 2.5.1, of the Draft Program EIR (General Setting) provides some general information on the Airport's contribution, as a whole (commercial and general aviation), to the regional economy, including general revenues through fees and charges, and taxes paid by passengers, employers and employees. Notably, general aviation revenues at JWA account for approximately 4 percent of the Airport's total revenue stream.<sup>107</sup>

- JD-17** The comment asks how does a decrease in the number of smaller, privately owned piston-powered aircraft based at JWA and an increase in larger general aviation jet aircraft, benefit Newport Beach and neighboring communities.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

For clarification purposes, however, the GAIP is focused on improving general aviation at the Airport in order to facilitate improved operational efficiency based on the aviation forecasts. Although the Draft Program EIR does identify measures that would reduce potential impacts and would provide benefit to the larger community, the focus of the project (as demonstrated by the Project Objectives provided in Section 3.3 of the Draft Program EIR) is on general aviation facilities improvements.

- JD-18** The comment asks if the projected increase in general aviation jet traffic be subjected to a curfew, and if not why not.

The curfew, which applies to commercial aircraft at the Airport, is controlled by the County's General Aviation Noise Ordinance ("GANO"). The GANO also establishes limitations on the maximum single event noise levels, which are applicable to general aviation nighttime operations (the GANO is discussed in Section 2.6.4 of the Draft Program EIR). The existing commercial aircraft curfew and GANO limits would not be taken away or modified as a result of the proposed GAIP.

The Airport is not able to extend the curfew restrictions to general aviation aircraft without complying with the requirements of ANCA, including under most circumstances, prior FAA approval.<sup>108</sup> The *Airport Noise and Capacity Act of 1990* ("ANCA") precludes the local imposition of noise and access restrictions that are not otherwise in accordance with the national noise policy. JWA does have an exemption from ANCA's limitations as

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<sup>106</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.)

<sup>107</sup> *JWA FY 2016-17 Revenue Report* <https://www.ocair.com/investorrelations/financials/revenuereports/FY16-17.pdf>

<sup>108</sup> Section 2.6.2 of the Draft Program EIR provides a brief summarization of the *Airport Noise and Capacity Act of 1990* ("ANCA"). As a general matter, ANCA precludes the local imposition of noise and access restrictions that are not otherwise in accordance with the national noise policy. JWA does have an exemption to ANCA's limitations as it applies to JWA's existing commercial carrier curfew, limitations on the number of annual passengers, number of average daily commercial carrier departures, and related limitations because of the 1985 Settlement Agreement, as amended is grandfathered ANCA. However, the exemption does not extend to limitations on the number of general aviation departures.



it applies to JWA's existing commercial carrier curfew, limitations on the number of annual passengers, number of average daily commercial carrier departures, and related restrictions because the 1985 Settlement Agreement, as amended, is grandfathered under ANCA. However, the exemption does not extend to limitations on the number of general aviation departures.

For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments. Additional information on ANCA is also provided in the Topical Response pertaining to Restrictions on General Aviation Operations provided in Section 3.1.4 of these Responses to Comments.

- JD-19** The comment states general aviation jet aircraft have a long history of violating noise limits. The comment asks how will this be better controlled, especially given the current lack of regulation of the general aviation jet aircraft fleet.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport acknowledges that there are violations, to characterize it as a history of violating the noise limits does not consider the data in the full context. In the period from July 1, 2017 through June 2018, there was a compliancy rate of 99.9 percent.

As discussed in the Topical Response pertaining to the GANO, provided in Section 3.1.3, when an aircraft exceeds the GANO noise limits at one or more locations, a "Notice of Violation" is issued to the registered owner of the aircraft. The Notice of Violation applies to the aircraft owner, the aircraft operator, and the aircraft. Notices of Violation remain in effect for three years after the violation date. If three GANO violations occur within a three-year period, the aircraft owner, the aircraft operator and the aircraft are subject to denial of use of the Airport for a period of three years. In light of the 99.9 percent compliance rate and the minimal number of repeat offenders, the County has implemented a program that does effectively addresses compliance with the regulations.

- JD-20** The comment asks if any flight schools specializing in jet aircraft flight instruction are anticipated and if hours for their operation and training flights will be established. The comment further inquires if the hours have not been established, why not.

The size and capacity of the flight school facilities is not projected to substantially change compared to Baseline (2016). Section 3.6.1 of the Draft Program EIR, provides a description of the type of improvements common to both the Proposed Project and Alternative 1. This discussion provides a conceptual description of each type of facility based upon GAIP design concepts and the facilities descriptions provided in the *General Aviation Facility Requirements Technical Report* and the *General Aviation Opportunities Facilities Layout Report* (Appendix B of the Draft Program EIR). The characteristics of the flight schools, including the number of flight schools, the type of facilities provided, square footage of buildings, number of tie-down spaces, and number of vehicle parking spaces are discussed on pages 3-12 and 3-13. It cannot be known at this time if a flight school would specialize in any specific type of flight instruction. The proposed location of the flight schools (on the east side of the Airport) are shown in the conceptual facilities

layout, provided in Exhibits 3-1 and 3-4, for the Proposed Project and Alternative 1, respectively.

The projected operations for the flight schools once these facilities are modernized has been incorporated into the aviation forecasts developed for the GAIP. As such, the noise or other impacts associated with any projected increase in the flight school activity has been included in the analysis for the GAIP as a whole. The impact analysis is not broken down by element, such as flight schools. All general aviation, including the flight schools, and any increase in flight school activity, would continue to be bound by the General Aviation Noise Ordinance (“GANO”) (see Section 2.6.4 of the Draft Program EIR for a discussion of the GANO and Topical Response 3.1.3 of these Responses to Comments).

As noted in Response JD-18, the Airport is not allowed to place a cap on the number of general aviation operations at the Airport without complying with the requirements of ANCA, including under most circumstances, prior FAA approval. This would also apply to placing restrictions on the flight schools. Please see the Topical Response pertaining to Restrictions on General Aviation Operations, which also addresses ANCA, provided in Section 3.1.4 of these Responses to Comments.

**Letter 65: Jeff Dvorak<sup>109</sup>**  
**Dated November 21, 2018**

- JD 2-1** The comment addresses the size of the Draft Program Environmental Impact Report (“EIR”) and felt that a longer public review period was warranted, given the complexity of the issues.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in the comment, the Airport did extend the public review period until November 21, 2018. This resulted in a 60-day public review period. The 60-day review period is more than is required by the California Environmental Quality Act (“CEQA”) Guidelines (Section 15105) and is longer than the standard 45-day CEQA review period. The 60-day review period allows agencies and the public an opportunity to provide input on the environmental document. Although it is acknowledged that many of the issues are technical and complex, the Draft Program EIR has summarized the technical studies with the understanding that the document is being reviewed by members of the public and decision-makers that may not have the technical expertise to fully understand all the complexities of the analyses. Every attempt has been made to simplify vocabulary and provide definitions where terminology may not be known by the general public. Additionally, as noted in the Draft Program EIR and at the September 26, 2018 public meeting, there are other opportunities to provide input, such as at the Board of Supervisors meeting on the General Aviation Improvement Program (“GAIP”).

- JD 2-2** The comment states that the objectives of the General Aviation Improvement Program (“GAIP”) appear only to benefit Airport operations and profitability. The comment cites the Federal Aviation Administration (“FAA”) Reauthorization Act of 2018 as addressing community concerns regarding the impact of noise and pollution on health.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. For clarification, pursuant to CEQA (Section 15124), “the statement of objectives should include the underlying purpose of the project.” As such, the objectives are project specific. The GAIP does include objectives that pertain to the operation and fiscal aspects for the Airport; however, they are not limited to the economic benefit of the Airport. The objectives, which are listed in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR, are structured to support the role of the GAIP as providing the framework for future general aviation improvements at the Airport. As noted in the Draft Program EIR (page 1-3), the GAIP is intended to be the basis for the review of potential future improvements proposed either by the County or its tenants as part of the leases at the Airport.

While the FAA Reauthorization Act does recognize that airport noise can adversely impact nearby communities, it is a broad legislation (approximately 1,200 pages) that includes, but is not limited to, provisions for funding, airline regulations, airport

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<sup>109</sup> The comment was sent via Susan Dvorak’s email address; however, the letter is under the signature of Jeff Dvorak. Most of the questions are duplicative of the comments in Letter 64, also submitted by Jeff Dvorak. However, since some of the wording and order of the comments is slightly different, both comment letters have been bracketed and responded to separately.

standards, use of drones, and modernization of airport infrastructure. It is not intended to give specific project related guidance. Through the CEQA process the County is evaluating and giving consideration to potential impacts on the surrounding community. As part of the decision-making process, the Board of Supervisors will consider the environmental impacts addressed in the Draft Program EIR and balance them with the long-term vision for the Airport. This requirement to weigh these factors is required by CEQA. Section 15021 of the State CEQA Guidelines states that “CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors . . .” Whenever an agency approves a project that would have significant unavoidable impacts, the rationale for approving the project is outlined in the statement of overriding considerations. It is through this process that competing interest and concerns are balanced.

**JD 2-3** The comment asks if the residents in the area surround the Airport are considered stakeholders. The comment further asks why there was not more publicized public forums on the proposed GAIP.

The outreach on the GAIP to the community surrounding the Airport is being done through the EIR process. As noted in the Draft Program EIR, a Scoping Meeting was held on April 12, 2017 at the JWA Administrative Office in the Airport Commission Meeting Room to facilitate agency and public review and comment on the Notice of Preparation (“NOP”) of Draft Program EIR 627. Additionally and subsequent to the NOP comment period, the Draft Program EIR was distributed for public review and comment. The documents were provided on the Airport’s website to facilitate easy access ([www.ocair.com/DEIR627](http://www.ocair.com/DEIR627)) and as a means of obtaining input from the community. As part of the public review process, notices were sent (via U.S. mail or email, dependent on the contact information provided) to attendees of the public scoping meeting or parties that had requested the Airport add their contact information to the mailing list. A total of 756 notices were sent to various agencies, elected officials, organizations, businesses, and individuals. In addition, notice of public availability of the Draft Program EIR was published in the Orange County Register. Over 300 letters were received on the Draft Program EIR. A public meeting to review the findings of the document was held on September 26, 2018 at the JWA Administrative Offices in Costa Mesa. At this meeting, the public was also given an opportunity to provide input on the Draft Program EIR and to ask questions about the Project (see the transcript of the public comments from the September 26, 2018 public meeting in Section 3.7, of these Responses to Comments).

As noted on page 2-9 of the Draft Program EIR, the Airport Commission and Board of Supervisors will conduct public meetings on the GAIP. The Airport Commission will make a recommendation on the proposed GAIP to the Board of Supervisors. The public is given the opportunity to provide testimony on the GAIP at both the Airport Commission and the Board of Supervisors meeting. It is through this process that the environmental impacts and the concerns of the surrounding communities and the Airport tenants (i.e., pilots and businesses serving the general aviation community) are identified. The Board of Supervisors hearing on the GAIP, is anticipated in the Spring of 2019. Notices of this meeting will be sent to all those that commented on the Draft Program EIR.

- JD 2-4** The comment asks how the local residents in the immediate area benefit from the proposed changes and references changes in air pollution and an increase in housing units within the 65-70 CNEL.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The Draft Program EIR addresses the potential impacts associated with the GAIP improvements. Although the GAIP is focused on improvements on the Airport (see Project Objectives in Section 3.3 of the Draft Program EIR) and does not propose other improvements or other enhancements outside of the Airport that may be viewed as a benefit to the surrounding community, as part of the CEQA process, a Mitigation Program is proposed to avoid, minimize, and mitigate potential impacts. As discussed on page 4-2 of the Draft Program EIR, the County has agreed to incorporate minimization measures into the Project, which are conditions proposed to reduce an adverse effect of the Project even when that effect does not result in a significant impact. Such measures are beyond the requirements of CEQA. The minimization measures pertaining to air quality (see page 4.2-32) and greenhouse gas emissions (see page 4.4-31) would provide benefit to the larger community by reducing emissions. It should be noted that, as part of the decision-making process, both project impacts and benefits will be considered. Additionally, please see Response JD 2-5 below regarding housing units within the 65-70 CNEL.

- JD 2-5** The comment references 10-12 houses now within the 65-70 CNEL and requests the specific physical addresses of these 10-12 homes. Additionally, it inquires if the Airport will contact the individual owners and inform them of the impact of the GAIP and if not, why not.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As a point of clarification, the Draft Program EIR identifies there would be 10 to 12 additional residences (associated with the Proposed Project and Alternative 1, respectively) in the 65 to 70 CNEL contour at build-out of the GAIP, which is identified as 2026. The addition of these residences is in comparison to the Baseline (2016). As discussed in Draft Program EIR 627 and below, these residences have been identified in the Airport Noise Impact Zones since 1985. CEQA requires the impact analysis be based on a comparison of future conditions to the existing condition. Impacts cannot be assessed based on a “plan to plan” basis.<sup>110</sup> Therefore, even though these impacts have been known, they are identified as impacts associated with the GAIP.

As stated on page 4.7-28, although additional residences would be in the 65 to 70 CNEL Proposed Project contour compared to the Baseline (2016) condition, these residences are in an area covered by the Acoustical Insulation Program (“AIP”) approved in

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<sup>110</sup> CEQA requires the impacts be evaluated compared to the existing condition not compared to a future noise level identified in the 1985 Master Plan or the 2014 Settlement Agreement Amendment.

conjunction with the 1985 Master Plan. Of the 10 new residences impacted by the GAIP 65-70 CNEL, aviation easements have been obtained for seven of these units. There are four multi-family units and six single family residential units. The multifamily units, located on Birch Street and Orchard Drive, are non-conforming uses (residential use in a business park zone), and a prescriptive aviation easement has been acquired.<sup>111</sup> Two of the single-family residential units, which have received acoustical insulation and an aviation easement has been obtained, are located on Mesa Drive and Orchard Drive. A single-family residential unit on Riverside Drive that was offered acoustical insulation refused the offer of acoustical insulation and two units on Mesa Drive were offered acoustical insulation but no response was received. The last unit on Silver Lane participated in the purchase assurance program, received insulation and an aviation easement was acquired. Alternative 1 would affect these same units and an additional, two multi-family units in the same complex for which a prescriptive aviation easement has been acquired.

As discussed in the Draft Program EIR (pages 4.6-23 and 4.6-46), these residences are all within the 65 CNEL contour from the 1985 Master Plan, which the Airport Environs Land Use Plan ("AELUP") uses as a policy implementation line for establishing the Airport Noise Impact Zones. Additionally, in 2014 when the Final EIR 617 was prepared for the Settlement Agreement Amendment, this area was again identified as being in a future (2026) 65 CNEL contour due to the increased commercial carrier flights. These units would continue to be eligible for consideration of attenuation measures through the Sound Insulation Program ("SIP") adopted as part of Final EIR 617 because they fall within the 65 CNEL contour projected for 2026 due to the increased commercial carrier flights associated with the 2014 Settlement Agreement Amendment.

The three residences without aviation easements have not been directly notified of the impact identified in the Draft Program EIR. As noted, above and in the Draft Program EIR, these residences are all within the 65 CNEL contour from the 1985 Master Plan and the 2014 Settlement Agreement Amendment. The precise timing of when these homes would be located in the future 65 CNEL contour is not known. However, the SIP, which would be the program that would offer interior noise attenuation to these homes, establishes the mechanism for providing insulation. Briefly, the SIP states that starting with the JWA 2015 Fourth Quarter Noise Report,<sup>112</sup> the annual noise levels at Noise Monitoring Stations ("NMS") 1S, 2S, and 3S will be compared by the County of Orange to the 2013 annual noise levels. If the noise levels have increased by 1.5 dB or more at any of these NMS, all noise sensitive uses represented by that NMS (i.e., that is the closest NMS to the parcel) that have not been previously insulated under the 1985 AIP will be eligible for evaluation for participation in the Sound Insulation Program ("SIP"). The

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<sup>111</sup> Aviation easement is an easement or right of overflight in the airspace above or in the vicinity of a particular property. It also includes the right to create such noise or other effects as may result from the lawful operation of aircraft in such airspace and the right to remove any obstructions to such overflight. For the non-conforming uses located in an area zoned for business park uses, prescriptive aviation easements were acquired. A prescriptive aviation easement is an aviation easement acquired by continued use without permission of the owner for a legally defined period of time.

<sup>112</sup> Quarterly reports are available on the Airport web site.

framework for the SIP is provided on page 4.7-10 of the Draft Program EIR. Additional detail is provided in Section 4.6.7 of Final EIR 617.<sup>113</sup>

- JD 2-6** The comment references the County of Orange’s 45 CNEL interior noise limit for habitable rooms of residences be met with windows open or windows closed” and requests an exhibit with a 45 CNEL line.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, a noise contour map as requested is not applicable because this standard is based on an interior noise level. As noted in the Draft Program EIR (page 4.7-9), typical construction attenuates outdoor noise by 20 dBA with windows closed; therefore, the 65 CNEL contour is the best measure for assessing potential interior noise levels.<sup>114</sup> As noted in Response JD 2-5, the SIP provides for attenuation of sensitive land uses where potential noise impacts are identified. Part 1 of the SIP is to evaluate by measuring the indoor noise levels for each habitable room or educational space. If the average noise level in all habitable rooms or education spaces of a use is greater than an average of 45 CNEL then the use will be eligible for sound insulation.

- JD 2-7** The comment asks if all residents within the affected area are aware of the Orange County interior noise requirement. Further, the comment asks what testing and services are provided to homeowners within the impacted area to determine if the interior of their homes meets the 45 CNEL interior noise level.

The Airport acknowledges this comment; however, the County is unable to know whether the residents surrounding the Airport are aware of the County’s interior noise standards. That said, these noise standards have been applicable for many years and have been included in all environmental documents prepared for projects at the Airport. Therefore, these interior noise requirements have been made available to the public in the context of the environmental documents prepared for projects at John Wayne Airport, which have been provided for public review and comment.

With regard to testing and services, as noted above, the SIP requires that starting with the JWA 2015 Fourth Quarter Noise Report, the annual noise levels at NMS 1S, 2S, and 3S will be compared by the County of Orange to the 2013 annual noise levels. If the noise levels have increased by 1.5 dB or more at any of these NMS, all noise sensitive uses represented by that NMS (i.e., that is the closest NMS to the parcel) that have not been previously insulated under the 1985 AIP will be eligible for evaluation for participation in the SIP.

<sup>113</sup> The SIP was adopted as mitigation in Final EIR 617. Final EIR 617 is located on the Airport’s website at <https://www.ocair.com/communityrelations/settlementagreement/deir617>. The Mitigation Monitoring and Reporting Program, which contains the mitigation measures, can be found at [https://www.ocair.com/communityrelations/settlementagreement/docs/CEQA\\_CertificationResolution%2314-084withCEQA\\_Findings&MMRP.pdf](https://www.ocair.com/communityrelations/settlementagreement/docs/CEQA_CertificationResolution%2314-084withCEQA_Findings&MMRP.pdf)

<sup>114</sup> It should be noted, as part of the Acoustical Insulation Program (“AIP”) implemented as part of the 1985 Master Plan, of the 903 rooms tested, only 2.5 percent had a noise reduction of 20 dB or less. In all cases, those residences that had a room with a noise reduction of 20 dB or less, the noise reduction of the other rooms was considerably higher. This indicates that these rooms had specific deficiencies that are not typical. Approximately 95 percent of the untreated rooms achieved more than 22 dB of outdoor-to-indoor noise reduction (Source: Final EIR 617).

The first part of the SIP is the measuring of interior noise levels for each habitable room. The owner will be contacted by the Airport. The evaluation will be performed by measuring the indoor noise levels for each habitable room or educational space.<sup>115</sup> If the average noise level in all habitable rooms or education spaces of a use is greater than an average of 45 CNEL then the use will be eligible for sound insulation.<sup>116</sup> As noted in Response JD 2-5, the framework for the SIP is provided on page 4.7-10 of the Draft Program EIR. Additional detail is provided in in Section 4.6.7 of Final EIR 617.

**JD 2-8** The comment references the conclusion in Draft Program EIR 627 that the 65 CNEL contour expanding beyond the existing contour and including additional residences would be a significant land use compatibility impact. Further clarification is requested for the basis for the conclusion that the GAIP would not have a significant impact in terms of noise, air quality, hazardous materials, etc.

The determination if a change in the environment is identified as a significant impact pursuant to CEQA is based on the thresholds of significance that are applied for each environmental topical area (e.g. air quality, noise, land use, traffic, etc.). Without close consideration of the standards, the conclusions pertaining to land use compatibility and noise impacts may seem incongruent. However, it is important to look at the standards use for each topic. For land use, the basis for the conclusion that there would be a significant impact is based on the outdoor living areas exposed to a greater than 65 CNEL noise level. Those residences would be incompatible with the County's exterior noise standard.<sup>117</sup> Therefore, from a land use perspective exceeding the 65 CNEL threshold is considered a significant impact, for noise impacts attributable to the GAIP are evaluated based on the County of Orange significance threshold criteria, which is summarized in Table 4.7-4 of the Draft Program EIR. For noise exposures of greater than 65 CNEL the increase over existing conditions must be 1.5 dB or greater to exceed the significance threshold. Since the noise increase is less than 1.5 dB, the noise impact is less than significant.

As noted above, thresholds of significance have been identified for each of the Draft Program EIR topical areas. In each section, a separate subheading for the thresholds of significance is provided. A conclusion of land use incompatibility does not influence topics such as air quality and hazardous materials. As noted in Section 4.2.5, for air quality the thresholds established by the South Coast Air Quality Management District have been applied. For hazardous materials three thresholds developed from the CEQA Environmental Checklist were applied (Section 4.5.4).

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<sup>115</sup> Per FAA guidance, noise levels will be measured with all windows and doors closed. Uses with measured interior noise levels less than 45 CNEL that do not have an existing central ventilation system, but rely on keeping windows open for air circulation will be eligible for a Continuous Positive Ventilation System. Implementation of such a system will be dependent on meeting the FAA requirements for implementation of such a system.

<sup>116</sup> If the average noise level is less than 45 CNEL, any use with a noise level greater than an average of 45 CNEL in any habitable room or educational space will be eligible for sound insulation if the FAA waives its requirement that noise levels be averaged across all habitable rooms or education spaces. Final EIR 617, Mitigation Measure N-3, states the Airport will request that the FAA waive its requirement that the average noise level in all habitable rooms or educational spaces exceed 45 CNEL.

<sup>117</sup> Table 4.6-1 provides a definition of "outdoor living area." As noted in the definition, outdoor areas usually not included in this definition are front yard areas, driveways, greenbelts, maintenance areas, and storage areas associated with residential land uses.



- JD 2-9** The comment asks what current air quality data is available since the implementation of NextGen Metroplex procedures. Additionally, the comment inquires if air pollution contour maps have been developed similar to the noise maps (Exhibit 4.7-6) to demonstrate how the air pollution is distributed over the neighboring community. Further the comment asks if are there plans to develop air pollution contour maps, and if not, why not.

As stated in Chapter 4.2 of the Draft Program EIR, Orange County lies in the South Coast Air Basin, which is within the jurisdiction of the South Coast Air Quality Management District (“SCAQMD”). The SCAQMD is the air pollution control agency that is responsible for monitoring, attaining and maintaining State and federal ambient air quality standards in the South Coast Air Quality Basin, in which JWA is located. As stated in Section 3.2, of the *Air Quality Technical Report*, which is included as Appendix E of the Draft Program EIR, the SCAQMD monitors the air quality at 38 permanent monitoring stations and five single-pollutant source monitoring sites in the South Coast Air Basin. This monitoring network is currently active and the SCAQMD publishes a report on the local air quality annually. The Airport does not own or maintain air quality monitors.

An exhibit depicting the air pollution at specific points of the Airport and its neighboring communities was not developed for the purpose of this study. An atmospheric dispersion model can be used to produce a map or a spatial representation of air pollution across a project area, based upon the operational and physical characteristics of the emission sources combined with meteorological and local terrain data. Based on guidance from the FAA, it was determined that an atmospheric dispersion model was not required for the level of air quality assessment required for this study.

The FAA’s *Aviation Emissions and Air Quality Handbook* states that a quantitative assessment is required for a project that would cause or create a reasonably foreseeable increase in emissions. The first level of quantitative assessment is the development of operational and construction emissions inventories. Operational and construction emissions inventories are designed to quantify the amounts of criteria pollutants associated with operational and construction activities associated with implementation of a proposed project. These emissions inventories are then used to determine whether a project would cause a new violation of a state air quality standard or contribute to a new violation in a manner that would increase the frequency or severity of the new violation. Typically, atmospheric dispersion modeling is conducted if the emissions inventories show that an exceedance of a state or federal air quality standard would result due to the implementation of a proposed project.

As presented in Appendix E, *Air Quality Technical Report*, the air quality assessment evaluated the Proposed Project and its alternatives’ potential impact on air quality in accordance with the guidelines provided in the most recent version of the FAA’s *Aviation Emissions and Air Quality Handbook*, the 1993 CEQA Air Quality Handbook published by the SCAQMD, and other CEQA guidance provided by the SCAQMD. Emissions inventories were prepared to estimate the total amount of construction and operational-related pollutants generated by the implementation of the proposed project and its alternatives. The mitigated Proposed Project and Alternative 1 construction emissions are presented in Tables 4.2-7 and 4.2-11 of the Draft Program EIR, respectively (and Appendix E, *Air Quality Technical Report*, Table 32). As shown, the emissions would be below the

localized significance thresholds provided by the SCAQMD. Additionally, the Proposed Project and Alternative 1 operational emissions presented in Tables 4.2-9 and 4.2-13 of the Draft Program EIR (and Table 31 of Appendix E, *Air Quality Technical Report*), would result in emissions below the applicable SCAQMD thresholds. Because the construction and operational emissions were below the applicable SCAQMD thresholds, the implementation of the Proposed Project or Alternative 1 would not result in a violation of the state air quality standards. Therefore, no atmospheric dispersion modeling was conducted or is required for the purpose of this study.

Because the construction and operational emissions reported were below the applicable SCAQMD thresholds, the implementation of the Proposed Project or Alternative 1 would not result in a violation of state air quality standards. Therefore, no atmospheric dispersion modeling was conducted or is required for the purpose of this study and no maps of air pollution were prepared.

**JD 2-10** The comment asks what is the process the Airport Commission uses to access the needs of the “stakeholders”.

The history of the development of the GAIP is presented in Section 2.4 of the Draft Program EIR. In the development of the actual plan, a series of meeting and outreach efforts were conducted by Airport staff with the general aviation tenants to identify issues the general aviation community would like addressed and priorities for making improvements. As part of the preliminary assessment, three primary options for general aviation improvements were evaluated.

The Orange County Airport Commission conducted a public meeting on the GAIP in early 2016. As part of that meeting, the Airport Commission requested a subsequent third party assessment of these alternatives was performed prior to the initiation of the CEQA process. The review focused on the alternatives’ (1) conformance with FAA Airport Design standards to the extent feasible; (2) operational characteristics such as ground taxi flows and potential impacts to the air traffic controllers; (3) conformance with building height restrictions and with the Code of Federal Regulations (specifically Title 14, Part 77 [“Part 77”]); and (4) layout requirements for efficient and effective operation of the FBO facilities. The focus of this subsequent third party review was on the GAIP function of the Airport. As noted in the Draft Program EIR (page 2-11), the alternative that JWA staff recommended for further evaluation as the proposed GAIP was supported by the third party assessment. As part of the initial CEQA process, it was decided to evaluate two alternatives (Proposed Project and Alternative 1) at an equal level of consideration.

The improvements identified by the GAIP are then evaluated in the Draft Program EIR. It is through the CEQA process that effects of the GAIP on the community are identified and the community has opportunities to provide input.<sup>118</sup> As noted on page 2-9 of the Draft Program EIR, the Airport Commission will conduct a public meeting on the GAIP and make a recommendation on the proposed GAIP to the Board of Supervisors; however, it is the Board of Supervisors that will take the final action on the Project. Public is given the opportunity to provide testimony on the GAIP at both the Airport

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<sup>118</sup> Response JD-4 provides an overview of the outreach effort to the community.

Commission and the Board of Supervisors meeting. It is through this process that the environmental impacts and the concerns of the surrounding communities and the Airport tenants (i.e., pilots and businesses serving the general aviation community) are identified. As noted in Response JD-3, the Board of Supervisors will consider the environmental impacts addressed in the Draft Program EIR and comments made on the Draft Program EIR as part of their final decision-making process.

- JD 2-11** The comment asks how was the conclusion derived to reduce general aviation piston aircraft and increase general aviation jet aircraft capacity. Further, the comment asks if there is data from market studies to support this.

The GAIP used historical data, both for JWA and nationally, to evaluate the best balance of facilities to meet the demand for various types of aircraft based at the Airport. As discussed in Sections 2.4 and 3.5 of the Draft Program EIR, historical general aviation trends have shown a consistent decline in single-engine piston aircraft since 1980 at the Airport. Multi-engine piston aircraft experienced a sharp decline in the early 1990s and have continued to decrease, although at a slower rate; turbine-powered aircraft (turbo prop and jet) experienced variable growth at the Airport. Business jet operations steadily increased from 2003 to 2006, where it tapered to around 25,000 in annual operations and has remained relatively stable since then.

As part of the planning effort for the GAIP, an unconstrained forecast for general aviation activity at the Airport was developed. This analysis, which is contained in the *General Aviation Forecasting and Analysis Technical Report* (Appendix C of the Draft Program EIR), takes into consideration data on a variety of indicators, including but not limited to, pilot population, growth in student pilot population, shipment of general aviation aircraft, and projected demand. The study provides the general aviation demand forecasts for based aircraft, annual operations, daily and peak hour operations, and international operations at the Airport.

The unconstrained forecasts were then evaluated and a constrained forecast was developed, which addresses the maximum projected general aviation facilities and operations that can be accommodated by JWA's limited footprint. The constrained analysis is provided in the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts*, (included as Appendix D to the Draft Program EIR). The Topical Response pertaining to Aviation Forecast, provided in Section 3.1.1 of these Responses to Comments, also provides a discussion on the aviation forecast process.

- JD 2-12** The comment asks how does the GAIP plan to reduce capacity for general aviation piston powered aircraft benefit the existing fleet of privately owned piston-powered aircraft based at JWA.

The GAIP is not intended to focus on a single segment of the general aviation users at the Airport (see Project Objectives provided in Section 3.3 of the Draft Program EIR). The GAIP attempts to provide facilities that best meets the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. The new facilities (including tie-downs and hangars) would be phased in, to minimize operational disruption at the Airport. The leasing of tie-down spaces will be done through the FBOs.

**JD 2-13** The comment asks how many general aviation piston aircraft owners who keep their plane at JWA are residents of Orange County. Additionally, the comment asks how many of the general aviation jets that will be based in JWA are owned by residents/companies headquartered in Orange County and if out of county owners be allowed to keep their planes at JWA.

The *General Aviation Forecasting and Analysis Report* (page 9) identifies that based on the address of the registered owner of the aircraft, over 86 percent of the aircraft owners are located within California, 90 percent of which are from Orange County.

At this time, there is no way of knowing the location of owners of general aviation jets that will be based at JWA in the future. As noted in the Draft Program EIR, the improvements will be implemented over a period of over seven years. The FBOs will be responsible for determining the allocation of the tie-down and hangar spaces within the parameters of the GAIP. The County is not able to use residency as criteria to restrict leases for aircraft based at JWA.

**JD 2-14** The comment asks how does a decrease in the number of smaller, privately owned piston-powered aircraft based at JWA and an increase in larger general aviation jet aircraft, benefit Newport Beach and neighboring communities.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

However, to clarify, the GAIP is focused on improving general aviation facilities at the Airport in order to facilitate improved operational efficiency based on the aviation forecasts. Although the Draft Program EIR does identify measures that would reduce potential impacts and would provide benefit to the larger community, the focus of the project is on general aviation facilities improvements.

**JD 2-15** The comment asks if the projected increase in general aviation jet traffic be subjected to a curfew, and if not why not.

The commercial aircraft curfew is controlled by the County's General Aviation Noise Ordinance ("GANO"), which also establishes limitations on the maximum single event noise levels applicable to general aviation nighttime operations (the GANO is discussed in Section 2.6.4 of the Draft Program EIR). The existing commercial aircraft curfew and GANO limits would not be taken away or modified as a result of the proposed GAIP.

The Airport is not able to extend the curfew restrictions to general aviation aircraft. The *Airport Noise and Capacity Act of 1990* ("ANCA") precludes the local imposition of noise and access restrictions that are not otherwise in accordance with the national noise policy. JWA does have an exemption from ANCA's limitations as it applies to JWA's existing commercial carrier curfew, limitations on the number of annual passengers, number of average daily commercial carrier departures, and related limitations because the 1985 Settlement Agreement, as amended is grandfathered under ANCA. However,

the exemption does not extend to limitations on the number of general aviation departures. ANCA is discussed in Section 2.6.2 of the Draft Program EIR.

For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments. Additional information is also provided on ANCA in the Topical Response pertaining to Restrictions on General Aviation Operations provided in Section 3.1.4 of these Responses to Comments.

- JD 2-16** The comment states general aviation jet aircraft have a long history of violating noise limits. The comment asks how will this be better controlled, especially given the current lack of regulation of the general aviation jet aircraft fleet.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport acknowledges that there are violations, to characterize it as a history of violating the noise limits does not consider the data in the full context. In the period from July 1, 2017 through June 2018, there was a compliancy rate of 99.9 percent.

As discussed in the Topical Response pertaining to the GANO, provided in Section 3.1.3, when an aircraft exceeds the GANO noise limits at one or more locations, a “Notice of Violation” is issued to the registered owner of the aircraft. The Notice of Violation applies to the aircraft owner, the aircraft operator, and the aircraft. Notices of Violation remain in effect for three years after the violation date. If three GANO violations occur within a three-year period, the aircraft owner, the aircraft operator and the aircraft are subject to denial of use of the Airport for a period of three years. In light of the 99.9 percent compliance rate and the minimal number of repeat offenders, the County has implemented a program that does effectively addresses compliance with the regulations.

- JD 2-17** The comment states that one of the six objectives listed in the GAIP is “to maximize economic, self-sustaining, revenue producing facilities.” The comment asks what will be the economic benefit to JWA.

It should be noted, the State CEQA Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project’s potential effects that do not result, directly or indirectly, in a “physical change” to the environment. Indeed, noting that CEQA does not require analysis of impacts that are solely economic in nature.<sup>119</sup> Therefore, no more specific response is required as it pertains to revenue. The Draft Program EIR does not include fiscal data. Section 2.5.1, of the Draft Program EIR (General Setting) provides some general information on the Airport’s contribution, as a whole (commercial and general aviation), to the regional economy, including general revenues through fees and charges, and taxes paid by passengers, employers and employees. Notably, general

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<sup>119</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.)

aviation revenues at JWA account for approximately 4 percent of the Airport's total revenue stream.<sup>120</sup>

As noted in Section 5.5 of the Draft Program EIR, the full utilization of the portion of the Airport dedicated to general aviation aircraft would maximize the area that would support revenue-producing facilities. It is important for the Airport to have a self-sustaining facility since JWA does not receive any support from Orange County's general fund.

**JD 2-18** The comment asks if any flight schools specializing in jet aircraft flight instruction are anticipated and if hours for their operation and training flights will be established. The comment further asks if the hours have not been established, why not.

The facilities would be able to accommodate both fixed-wing and rotor wing aircraft. The GAIP would not preclude a flight school in offering jet aircraft flight instruction. The size and capacity of the flight school facilities is not projected to substantially change compared to the Baseline (2016). Section 3.6.1 of the Draft Program EIR, provides a description of the type of improvements common to both the Proposed Project and Alternative 1. This discussion provides a conceptual description of each type of facility based upon GAIP design concepts and the facilities descriptions provided in the *General Aviation Facility Requirements Technical Report* and the *General Aviation Opportunities Facilities Layout Report* (Appendix B of the Draft Program EIR). The characteristics of the flight schools, including the number of flight schools, the type of facilities provided, square footage of buildings, number of tie-down spaces, and number of vehicle parking spaces are discussed on pages 3-12 and 3-13. It cannot be known at this time if a flight school would specialize in any specific type of flight instruction. The proposed location of the flight schools (on the east side of the Airport) are shown in the conceptual facilities layout, provided in Exhibits 3-1 and 3-4, for the Proposed Project and Alternative 1, respectively.

The projected operations for the flight schools once these facilities are modernized has been incorporated into the aviation forecasts developed for the GAIP. As such, the noise or other impacts associated with any projected increase in the flight school activity has been included in the analysis for the GAIP as a whole. The impact analysis is not broken down by element, such as flight schools. All general aviation, including the flight schools, and any increase in flight school activity, would continue to be bound by the General Aviation Noise Ordinance ("GANO") (see Section 2.6.4 of the Draft Program EIR for a discussion of the GANO and Topical Response 3.1.3 of these Responses to Comments).

As noted in Response JD 2-15, the Airport is not allowed to place a cap on the number of general aviation operations at the Airport without complying with the requirements of ANCA, including under most circumstances, prior FAA approval. Please see the Topical Response pertaining to Restrictions on General Aviation Operations, which also addresses ANCA, provided in Section 3.1.4 of these Responses to Comments. This would also apply to placing restrictions on the flight schools.

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<sup>120</sup> JWA FY 2016-17 Revenue Report <https://www.ocair.com/investorrelations/financials/revenuereports/FY16-17.pdf>

**Letter 66: Maris J. Ensing  
Dated November 8, 2018**

- ME-1** The comment expresses concern that the General Aviation Improvement Program does not identify covered tie-downs, which are currently provided at the Airport. The covered spaces protect the aircraft by keeping them out of full sun and weather. The commenter further expresses the opinion that covered tie-downs areas are more important than having another Fixed Based Operator (“FBO”).

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. Additionally, it should be noted, although not specified, covered tie-down areas may be provided by FBOs where the Federal Aviation Administration (“FAA”) safety design standards and County design requirements can be met. The FBO would make the decision to construct covers or shade structures, which would be evaluated by the County as part of the development review process.

- ME-2** The commenter does not support the realignment of the perimeter road to meet the FAA design standards because it will displace general aviation aircraft. The comment cites that people that drive on the Airport are trained and aware that crossing the line from the perimeter road is not permitted.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the General Aviation Improvement Program (“GAIP”) will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of FAA design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport’s commitment to providing a safe and secure facility for county aviation.

- ME-3** The comment expresses the opinion that any future plans should increase opportunities for general aviation at John Wayne Airport (“JWA”).

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The GAIP has been developed in an effort to balance the environmental, social, and economic demands regarding general

operations at the Airport. The GAIP provides the framework for general aviation improvements at the Airport in an effort to best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at the Airport. Furthermore, the GAIP does not modify the physical area dedicated to general aviation uses. For a summary of how future general aviation forecasts were developed, please see the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments.

- ME-4** The comment expresses the concerns that high-rise high-density building being developed in the vicinity of the Airport is another step to push general aviation out as much as possible. The comment also references that by not utilizing the opportunity to use the nearby defunct airbase, it is not appropriate to continue to erode possibilities for the pilot citizens of Orange County to own aircraft and keep them stationed at JWA.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. It should be noted, the County does not have land use authority for the lands surrounding the Airport. The approvals of development would be in the jurisdiction of the cities of Irvine, Newport Beach, and Costa Mesa. Additionally, as it pertains to the reuse of the Marine Corps Air Station ("MCAS") El Toro, the County did pursue developing it as an international airport and JWA would be utilized for general aviation. It was the voters of Orange County that approved an initiative (Measure W) in 2002, which designated the base for the development of the Orange County Great Park and eliminated planned aviation uses for the MCAS El Toro site.



**Letter 67: Jeanne Fobes  
Dated November 21, 2018**

**JF-1** The comment expresses a concern if the General Aviation Improvement Program (“GAIP”) is approved new hangar facilities will be built at John Wayne Airport (“JWA”), that will displace smaller privately owned aircraft in favor of larger privately owned jet aircraft., including corporate jet fleets. Specific issues that were identified include:

- General aviation aircraft being able to make international flights.
- Impact on the nighttime curfew resulting from the new mix of general aviation aircraft which may include more large private and corporate jets to depart and fly overhead anytime of the day or night. While the general aviation aircraft would be subject to certain noise requirements, they would not be subject to the curfew.
- Increased air pollution from leaded jet fuel.
- Increases in daily departures.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required; however, the following provides some information on each of the points raised.

International Flights. If the optional General Aviation Facility (“GAF”) is constructed this would allow any general aviation aircraft (not just larger aircraft) to fly internationally. As described on page 3-11 of the Draft Program EIR, the processing of international GAF are normally located at small, low volume airports and provide U.S. Customs and Border Protection (“CBP”) with the ability to process up to 20 passengers and their baggage at one time. The *Forecasting and Analysis Report* has estimated potential international general aviation departures/arrivals if U.S. CBP inspection services were to be provided at JWA.

Although the Airport does not currently provide general aviation CBP services, flights with international origins and destinations currently use the Airport. As noted in the Draft Program EIR, flights with an international origin are required to stop at an airport that offers general aviation CBP services prior to landing at JWA. The *Forecasting and Analysis Report* provides a thorough discussion of how the baseline and forecasts were developed for international operations (see Section 6.4 of the *Forecasting and Analysis Report*). The long-term projected growth rates are comparable to the forecast global economy and represent a reasonable range of potential international activity growth. The Baseline (2016) estimates there are 447 annual general aviation international departures from John Wayne Airport. The forecast projected an increase to approximately 490 annual international departures by 2026. In addition, please see the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments.

Impact On Nighttime Curfew. The commercial aircraft curfew is controlled by the County's General Aviation Noise Ordinance ("GANO"), which also establishes limitations on the maximum single event noise levels applicable to general aviation nighttime operations (the GANO is discussed in Section 2.6.4 of the Draft Program EIR). As noted on page 53 of the *Noise Analysis Technical Report* (contained in Appendix H), the noise analysis assumes the same percent of general aviation jets operating in the nighttime hours (10:00 PM to 7:00 AM) in the 2016 Baseline would operate in the GAIP alternatives.

Based on the forecasts provided in Table 3-7 of the Draft Program EIR, in the Baseline (2016), 31,800 annual operations were flown by aircraft with jet engines. In 2026, this would increase to 40,400 for the Proposed Project and 41,400 for Alternative 1 (Table 3-11 of the Draft Program EIR). Using the 3 percent nighttime operations factor, this equates to the Proposed Project resulting in approximately 258 additional annual nighttime operations (0.71 additional operations per night) compared to the Baseline (2016). However, each take-off and landing is considered a separate operation. Therefore, it would result in an average of 0.35 additional nighttime departures on a daily basis. For Alternative 1, there would be approximately 288 additional annual nighttime operations (0.79 additional operations per night). Therefore, with Alternative 1 there would be an average of 0.39 additional nighttime departures on a daily basis.<sup>121</sup> It should be noted, the actual number of flights would vary each day because this number is based on a mathematical equation that derives a daily number of nighttime operations based on the annual forecast.

The existing commercial aircraft curfew and GANO limits would not be taken away or modified as a result of the proposed GAIP. For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments.

Increased Air Pollution. The increased air emissions were evaluated in Draft Program EIR Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions. The analysis did identify an incremental increase in air emissions; however, the impacts were identified as less than significant pursuant to the South Coast Air Quality Management District ("SCAQMD") standards. In addition to the analysis in the Draft Program EIR, the Topical Response pertaining to Health Risk provided in Section 3.1.6 of these Responses to Comments, provides additional detail on the potential impacts associated with increased air emissions.

Increased Number of Flights. It should be noted, the GAIP is not an expansion of the Airport property or operations. The total number of general aviation based aircraft and general aviation flights would actually be reduced compared to the Baseline 2016. However, as evaluated in the Draft Program EIR, based on the aviation forecasts there

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<sup>121</sup> Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. The following calculations were done to determine the expected increase in daily nighttime departures:

- The difference between the number of 2016 jet operations and the 2026 jet operations is calculated.
- The number of operations is then multiplied by 0.03 because 3 percent of the flights are projected to be nighttime flights. Since the number of operations are given as annual operations, this number is then divided by 365 to come up with a daily average number of nighttime operations.
- The number of nighttime operations is divided by two, which provides the number of nighttime departures.

would be an increase in turbine aircraft (i.e., turboprop and turbo-jet). Please see the Topical Response pertaining to Aviation Forecast provided in Section 3.1.1 of these Responses to Comments.

- JF-2** The commenter expresses the opinion that the noise restrictions currently in place have not been adequate for the quality of life in our communities. Further, the increase in nighttime flights would set a dangerous precedent for the future of the JWA curfew, which will be subject to renegotiation in 2035.

The Airport acknowledges this comment. As noted in Response JF-1, the GAIP is not proposing to modify the GANO, which is the basis for the commercial aircraft curfew. With regards to sufficient restrictions, JWA has extensive noise restrictions not available at most airports in the country. The *Airport Noise and Capacity Act of 1990* (“ANCA”) precludes the local imposition of noise and access restrictions that are not otherwise in accordance with the national noise policy. JWA does have an exemption from ANCA’s limitations as it applies to JWA’s existing commercial carrier curfew, limitations on the number of annual passengers, number of average daily commercial carrier departures, and related limitations because the 1985 Settlement Agreement, as amended, which was adopted prior to 1990, is grandfathered under ANCA. However, the exemption does not extend to limitations on the number of general aviation departures. ANCA is discussed in Section 2.6.2 of the Draft Program EIR. Additional information on ANCA is also provided in the Topical Responses pertaining to Restrictions on General Aviation Operations provided in Section 3.1.4 of these Responses to Comments.

A point of clarification, the 2014 Settlement Agreement Amendment specifies that the essential terms and conditions of the 1985 Settlement Agreement, with certain capacity enhancing and other modifications, extend through December 31, 2030, and the curfew restrictions extend through December 31, 2035. The County has no obligation to the settlement parties except as that obligation or restriction is expressly stated in the Settlement Agreement. In conjunction with any possible future Settlement Agreement amendment discussions, the settlement parties will need to review the possibility of amending the Settlement Agreement to extend beyond 2030 and, if so, consider and agree to the terms of any such extension, including consideration of the curfew

- JF-3** The commenter would like to go on the record as strongly opposing this proposed expansion.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 68: Frederick Fong  
Dated November 21, 2018**

- FF-1** The comment provides information on the commenter’s background and aviation activity at John Wayne Airport (“JWA”), which provides context for the comments.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- FF-2** The comment states the Draft Program EIR is voluminous and written with fairly technical language. The comment makes the suggestion that a summary, in highlighted or bullet form, be posted to make it understandable to a broader audience.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although it is acknowledged that many of the issues are technical and complex, the Draft Program EIR has summarized the technical studies with the understanding that the document is being reviewed by members of the public and decision-makers that may not have the technical expertise to fully understand all the complexities of the analyses. Every attempt has been made to simplify vocabulary and provide definitions where terminology may not be known by the general public.

Section 1 of the Draft Program EIR provides an Executive Summary, which contains a brief summary of the General Aviation Improvement Program (“GAIP”) and the associated environmental impacts. The two tables in the Executive Summary appear to provide the information in the format requested.

- Table 1-1 identifies the key design elements for each alternative in a tabular format, which provides a brief overview for comparison. The first row in this table provides an overview that identifies the number of Full Service Fixed Based Operators (“FBOs”), other physical improvements, the number of based aircraft, and the number of general aviation flights that are forecasts for each scenario. The subsequent rows in Table 1-1 provides a further breakdown on square footage and based aircraft storage capacity for each of the proposed facilities.
- Table 1-2 presents a summary of the potential environmental effects of the Proposed Project and Alternative 1; measures to mitigate impacts to the extent feasible; and expected status of effects following implementation of the mitigation measures.

- FF-3** The comment states using the term general aviation to include single engine, twin engine, and small light jet airplanes together with charter jet and turbo-propeller operations, those for-hire-transportation is wrong. The latter belongs to the “Commercial” category with the airlines regardless of their wingspan and fleet size. The comment requests re-categorizing the commercial jet airline operation to include

chartered operators of both jet and turbojet-propeller aircrafts for hire regardless of wingspan and fleet size.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The tables in the Draft Program EIR defining the number of based aircraft and number of forecasted operations all distinguish between fixed-wing piston-powered aircraft (single and multi-engine), fixed-wing turbine aircraft (turboprop and turbo jet), and helicopters. Therefore, this definition is clear in the Project Description.

As noted in the Draft Program EIR (page 3-10), the JWA Phase 2 Commercial Airline Access Plan ("Access Plan") provides the Airport Director with the discretion to authorize scheduled charter operators to operate out of FBOs. However, these operations are not as a matter of right, but are subject to the discretionary approval of the Airport Director, and must comply with any conditions imposed on the operations by the Airport Director, including written authorization from the Airport Director specifying the exact location of the authorized RON position and the duration of the authorization, which cannot be greater than one Plan Year (Access Plan, Section 5.12). Also noted on page 3-10 of the Draft Program EIR, regularly scheduled commercial charter operations require an allocation of passenger capacity prior to the initiation of service consistent with the provisions of the Access Plan.<sup>122</sup> For additional information on this issue please see the Topical Response pertaining to Regularly Scheduled Air Service and General Aviation Charter Operations provided in Section 3.1.5 of these Responses to Comments.

The County's Phase 2 Commercial Airline Access Plan and Regulation (Access Plan), provides definitions that must be used to determine whether an operation and/or operator at the Airport is "Regularly Scheduled Air Service" and/or a "Regularly Scheduled Commercial User" (see, Access Plan, Sections 2.39 and 2.40, respectively). Section 2.40 defines "Regularly Scheduled Commercial User" as "...any person conducting aircraft operations at JWA for the purpose of carrying passengers, freight, or cargo where such operations: (i) are operated in support of, advertised, or otherwise made available to members of the public by any means for commercial air transportation purposes, and members of the public may travel or ship Commercial Cargo on the flights; (ii) the flights are scheduled to occur, or are represented as occurring (or available) at specified times and days; and (iii) the person conducts, or proposes to operate, departures at JWA at a frequency greater than two (2) times per week during any consecutive three (3) week period." Section 2.39 defines "Regularly Scheduled Air Service" to include "... all operations conducted by a Regularly Scheduled Commercial User at JWA." Operations which qualify under these definitional terms must comply with the regulations set forth in the Access Plan, including, but not limited to, the Million Annual Passenger (MAP) limitation at the Airport which is provided in Section 2.26 of the Access Plan.

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<sup>122</sup> Many of the provisions that govern noise and operational capacity are implemented through the JWA Phase 2 Commercial Airline Access Plan and Regulation ("Access Plan"). The Access Plan regulates commercial passenger and cargo carrier operations at JWA by placing limits on the hours of operation, maximum number of regulated average daily departures and annual passengers, and noise levels among other regulations.

General aviation operations, which do not fall within the definitional provisions of a “Regularly Scheduled Commercial User” or “Regularly Scheduled Air Service” set forth in Section 2.39 or 2.40 of the Access Plan must adhere to the regulations set forth in the General Aviation Noise Ordinance (GANO). There are no operational limitations placed on general aviation operations or general aviation passenger totals at the Airport.

- FF-4** The comment states JWA is extremely congested, enlarging commercial jet and for-hire-transport airplane operations at this point forward would compound this congestion at the expense of safety, timely flight operations, and general public health.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, for clarification purposes, the GAIP would not expand regularly scheduled commercial carrier operations, as defined by the Access Plan.

- FF-5** The comment cites a study that discusses impacts associated with over-exposure to Jet-A fuel.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, health effects are discussed in the Draft Program EIR in Section 4.2, Air Quality. Additional detail on this issue is provided in the Topical Response 3.1.6 and in Attachment A of these Responses to Comments.

- FF-6** The comment states the proposed expansion of commercial operations compounds the health hazard in jet fumes, noise pollution, and overcrowded local and freeway traffic. The comment predicts JWA will face similar public and political pressure experienced by Santa Monica Airport to close the airport for its prime real estate.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, several clarifications are warranted. First, the Draft Program EIR did evaluate the potential air quality, noise, and transportation/traffic impacts associated with the GAIP and impacts were found to be less than significant (see Sections 4.2, 4.7, and 4.8 for the evaluation of these topics, respectively). Secondly, the GAIP would not expand regularly scheduled commercial carrier operations, as defined by the Access Plan. Finally, the operational characteristics of JWA are very different from Santa Monica Airport, which is a general aviation airport. Any such closure would require approval of the FAA.

- FF-7** The comment states another new FBO on the field is unsustainable and shortsighted; not only is it because the economy is cyclical and volatile, in a protracted downturn business and leisure travels by private jets and chartered airplanes will be substantially depressed to a halt.

The comment appears to be referencing Alternative 1, which proposes the addition of a third Full Service FBO. For clarification purposes, the Proposed Project and all other alternatives maintain the two Full Service FBOs on the Airport. The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- FF-8** The comment states the displacement of over 200 airplanes would create a hardship on the displaced aircraft owners since other airports are approximately an hour away due to freeway traffic. The comment raises the logistical concern of when aircraft needs to come back to JWA for servicing. Additionally, the comment states it is unlikely there would be sufficient tie-down spots for the aircraft in the Los Angeles basin to accommodate the aircraft displaced from JWA.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. For clarification, as shown in Draft Program EIR Tables 3-4 and 3-8 for the Proposed Project and Alternative 1, respectively, there are projected to be 128 less aircraft in the Proposed Project and 126 less aircraft in Alternative 1 (the differences between currently occupied aircraft parking spaces at JWA and projected 2026 aircraft spaces). The Draft Program EIR did assess the availability of tie-down spaces at nearby airports. As noted on page 4.6-19 of the Draft Program EIR, Fullerton Municipal Airport, also a general aviation airport in Orange County, has capacity for 600 aircraft and at the year ending on October 31, 2017, only 223 aircraft were based at the Fullerton Municipal Airport. Long Beach Airport, which had 380 aircraft based in October 2017, is also identified as having unused capacity. AirNav.com reports that as of September 30, 2018, the number of aircraft based at Fullerton has gone down to 127 and as of November 30, 2018, Long Beach Airport has 344-based aircraft.

- FF-9** The comment provides an extensive listing of recommended modifications that should be made at the Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act ("CEQA") Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that

included minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

**FF-10** The comment states that the above comments are based on his 25 years as a private pilot. The comment further states that the County should not lose sight of the fact that the Airport is a public service agency and not a publicly traded for profit entity.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

However, and for clarification purposes, one of the six objectives listed in the GAIP (Section 3.3 of the Draft Program EIR) is “to maximize economic, self-sustaining, revenue producing facilities.” It is important for the Airport to have a self-sustaining facility since JWA does not receive any support from Orange County’s general fund. In addition, and importantly, when airport owners or sponsors accept funds from the Federal Aviation Administration (“FAA”), they must agree to certain obligations (or assurances). These assurances require the recipients to maintain and operate their facilities safely and efficiently and in accordance with specified conditions. One of the Airport’s Grant Assurances with the FAA (Grant Assurance 24, Fee and Rental Structure) requires the Airport to be as financially self-sustaining as possible under the particular circumstances at the Airport. The purpose of the self-sustaining rule is to maintain the utility of the federal investment in the airport. As noted in Section 3.6 of the Draft Program EIR, the intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements.

The Draft Program EIR does not include fiscal data. The State CEQA Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project’s potential effects that do not result, directly or indirectly, in a “physical change” to the environment. Indeed, noting that CEQA does not require analysis of impacts that are solely economic in nature.<sup>123</sup> However, it should be noted, Section 2.5.1, of the Draft Program EIR (General Setting) provides some general information on the Airport’s contribution, as a whole (commercial and general aviation), to the regional economy, including general revenues through fees and charges, and taxes paid by passengers, employers and

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<sup>123</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.)



employees. Notably, general aviation revenues at JWA account for approximately 4 percent of the Airport's total revenue stream.<sup>124</sup>

**FF-11** This comment reiterates the comments addressed above.

In addition to providing the comments in an email, the commenter included the letter as an attachment to the email. Therefore, the comments in FF-11 have been addressed in Responses FF-1 through FF-10. No additional responses are necessary.

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<sup>124</sup> JWA FY 2016-17 Revenue Report <https://www.ocair.com/investorrelations/financials/revenuereports/FY16-17.pdf>

**Letter 69: Daniel Freedman**  
**Dated October 25, 2018**

- DF-1** The comment states the improvements proposed by the General Aviation Improvement Program (“GAIP”) are positive but reducing the number of available general aviation parking spots overweighs any positive outcome that the improvements may deliver.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- DF-2** The comment states the users of aircraft no longer able to be based at the Airport will not be the only people to bear the negative effects of the GAIP's capacity reduction. Aircraft maintenance services on the airport will be greatly and negatively impacted, and there will be some negative impact on fuel providers.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- DF-3** The comment expresses support for the self-service fueling and on-field customs proposed as part of the GAIP, with the self-service fueling being a high priority. However, the commenter would like to see these improvements accomplished without forcing aircraft tenants off of the Airport. If that is not possible, the commenter expresses his opinion that it would be better not to have the improvements.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 70: Susan Gaunt  
Dated November 19, 2018**

- SG-1** The comment expresses opposition to the General Aviation Improvement Program (“GAIP”) because it would result in a new mix of jets that would not be subject to the current curfew.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, the County’s General Aviation Noise Ordinance (“GANO”), which establishes limitations on the maximum single event noise levels, is applicable to general aviation nighttime operations. For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments.

**Letter 71: Pam and Bill Goode**  
**Dated November 21, 2018**

**PBG-1** The commenter expresses opposition to opposed to any growth at the Airport. The comment identifies concerns associated with noise and dirt from the airplanes, as well as accidents on take-off.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason no further response to this comment is required. However, it should be noted, the General Aviation Improvement Program ("GAIP") is not an expansion of the Airport property or operations. The total number of general aviation based aircraft and general aviation flights would actually be reduced compared to the Baseline 2016. However, as evaluated in the Draft Program EIR, based on the aviation forecasts there would be an increase in turbine aircraft (i.e., turboprop and turbo-jet). The potential impacts associated with noise are evaluated in Section 4.7 and air emissions are addressed in Section 4.2 of the Draft Program EIR.

Given that the GAIP would reduce the number of based aircraft and the number of annual operations, statistically, the potential for an accident on take-off would be reduced compared to current conditions. Additionally, it should be noted, general aviation accidents are very rare. In 2015, the most current year with complete data published by the National Transportation Safety Board ("NTSB"), nationally there were 27 accidents involving general aviation aircraft. When put into context, in that same period there were 17,435,000 general aviation flight hours and 7,611,973,000 miles flown. There were 8,859,000 departures in this period. This equates to an average of 0.155 accidents per 100,000 hours of flight; 0.0035 accidents per 1,000,000 miles flown; and 0.305 accidents per 100,000 departures. It should be noted, none of these accidents involved a fatality.<sup>125</sup>

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<sup>125</sup> [https://www.nts.gov/investigations/data/Documents/2015\\_preliminary\\_aviation\\_statistics.xls](https://www.nts.gov/investigations/data/Documents/2015_preliminary_aviation_statistics.xls)

**Letter 72: Peter Grant  
Dated November 13, 2018**

- PG-1** The commenter expresses a concern regarding the introduction of more business jets and the resultant noise; however, the commenter supports facilities upgrades provided it does not reduce the population of general aviation aircraft.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- PG-2** The commenter inquires how hangars will be allocated if the General Aviation Improvement Plan ("GAIP") is implemented.

The Airport acknowledges this comment. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. For informational purposes, based on the current schedule, the Orange County Board of Supervisors is expected to consider new long-term Fixed Base Operators ("FBOs") leases in 2019, following a competitive bid process within the parameters of the GAIP. The FBOs will be responsible for determining the allocation of the tie-down and hangar spaces within the parameters of the GAIP. To the extent new long-term FBO leases are awarded, those currently renting space from the County of Orange/JWA, may need to contact the FBOs to enter into a new tie-down or hangar rental agreement. The FBOs will continue to maintain the same waitlist for the hangars located at 19471 Campus Drive currently managed by the County. Vacancies will be offered in the same order as provided by the County, and the waitlist will be maintained in a fair and transparent manner.

**Letter 73: Grant Thorton  
Submitted by Alan Herrmann  
Dated November 5, 2018**

- GT-1** The commenter expresses his opposition to the General Aviation Improvement Program (“GAIP”) because it reduces the number of available spaces for general aviation.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- GT-2** The comment expresses the desire to maintain at least the current capacity of 596 general aviation aircraft while increasing the number of hangars on the field.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport currently has capacity of 596 general aviation aircraft, at the end of 2016 (the Baseline for the GAIP), only 482 spaces were occupied. Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act (“CEQA”) Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that included minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

The GAIP attempts to provide facilities that best meets the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use. Additionally, the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in Table 5-3, in 2026 the forecast identifies that piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1.

The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is “to embrace flexibility to allow for technological advances and market trends”. The GAIP (Proposed Project and

Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time. However, it is acknowledged and documented in the Draft Program EIR, that the construction of the hangars would reduce the capacity at the Airport for tie-down space.

- GT-3** The comment recommends the County study the applicability of a waiver from the Federal Aviation Administration (“FAA”) to keep the existing location of the perimeter road to avoid needing to reduce capacity for general aviation.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of FAA design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport’s commitment to providing a safe and secure facility for county aviation.

**Letter 74: Fred Greensite  
Dated November 13, 2018**

- FG-1** The comment states any plan that would eliminate enough tie-down spots such that general aviation pilots would no longer be able to park their planes at John Wayne Airport (“JWA”) would create a hardship on these aircraft owners since other airports are approximately an hour away due to freeway traffic. Additionally, there is no guarantee that feasible replacement airports would have sufficient tie-down spots for the aircraft displaced from JWA.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. The Draft Program EIR did assess the availability of tie-down spaces at nearby airports. As noted on page 4.6-19 of the Draft Program EIR, Fullerton Municipal Airport, also a general aviation airport in Orange County, has capacity for 600 aircraft and at the year ending on October 31, 2017, only 223 aircraft were based at the Fullerton Municipal Airport. Long Beach Airport is identified as having unused capacity as of October 31, 2017. AirNav.com reports that as of September 30, 2018, the number of aircraft based at Fullerton has gone down to 127 and as of November 30, 2018, Long Beach Airport has 344-based aircraft.

- FG-2** The commenter wishes to express to the decision-makers that a plan that terminates tie-down space leases is aircraft owners is a “heartless” plan.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no more specific response is required.



**Letter 75: Joel Hackney  
Dated November 5, 2018**

- JH-1** The comment expresses an opinion that the General Aviation Improvement Program (“GAIP”) does not improve conditions for general aviation. It further states providing more hangars and covered parking at the Airport would be a vast improvement for the general aviation community.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or present a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- JH-2** The comment expresses the desire to maintain at least the current capacity of 596 general aviation aircraft while increasing the number of hangars on the field.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport has capacity of 596 general aviation aircraft, at the end of 2016 (the Baseline for the GAIP), only 482 spaces were occupied. Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act (“CEQA”) Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that included minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

The GAIP attempts to provide facilities that best meets the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use. Additionally, the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in Table 5-3, in 2026 the forecast identifies that piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1.

The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is “to embrace flexibility

to allow for technological advances and market trends”. The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time. However, it is acknowledged and documented in the Draft Program EIR, that the construction of the hangars would reduce the capacity at the Airport for tie-down space.

**JH-3** The comment recommends the County obtain a waiver from FAA to keep the existing location of the perimeter road to avoid needing to reduce capacity for general aviation.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the General Aviation Improvement Program (“GAIP”) will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of FAA design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport’s commitment to providing a safe and secure facility for county aviation.

**Letter 76: Kathy Harbour  
Dated November 21, 2018**

**KH-1** The commenter is expressing her opposition to the expansion of the general aviation hangars, which would allow larger private planes to fly anytime and not be subject to the curfew.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, the General Aviation Improvement Program ("GAIP") is not an expansion of the Airport property or operations. The total number of general aviation based aircraft and general aviation flights would actually be reduced compared to the Baseline 2016. However, as evaluated in the Draft Program EIR, based on the aviation forecasts there would be an increase in turbine aircraft (i.e., turboprop and turbo-jet). The potential impacts associated with noise are evaluated in Section 4.7 of the Draft Program EIR. Additionally, the County's General Aviation Noise Ordinance ("GANO"), which establishes limitations on the maximum single event noise levels, is applicable to general aviation nighttime operations. For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments.

**Letter 77: Bill and Cherie Hart  
Dated November 20, 2018**

**BCH-1** The commenters are expressing their opposition to the General Aviation Improvement Program ("GAIP") because it would allow larger private planes to fly. They are opposed to lifting or modifying the curfew.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, the no further response to this comment is required.

It should be noted, the existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level ("SENEL") limits for general aviation aircraft are identified in the General Aviation Noise Ordinance ("GANO"), which would not be taken away or modified as a result of the proposed GAIP. For additional discussion, please see the Topical Response pertaining to the GANO provided in Section 3.1.3 of these Responses to Comments.

**Letter 78: Sandi Hill**  
**Dated November 21, 2018**

**SH-1** The commenter's are expressing her opposition to the General Aviation Improvement Program ("GAIP") because it would allow larger private planes to fly. She is opposed to lifting or modifying the curfew.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

It should be noted, the existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level ("SENEL") limits for general aviation aircraft are identified in the General Aviation Noise Ordinance ("GANO"), which would not be taken away or modified as a result of the proposed GAIP. For additional discussion, please see the Topical Response pertaining to the GANO provided in Section 3.1.3 of these Responses to Comments.

**Letter 79: Fred Howser  
Dated November 20, 2018**

**FH-1**     The comment expresses an opposition to any increase in noise - both decibel & duration (i.e. extended operating hours) that may be associated with the General Aviation Improvement Plan ("GAIP").

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. The incremental noise increase associated with the GAIP is addressed in Section 4.7 and Appendix H of the Draft Program EIR.

**Letter 80: Libby Huyck  
Dated November 20, 2018**

**LH-1** The commenter, at 11:17 AM, requested the Draft Program Environmental Impact Report (“EIR”) and supporting technical studies be sent to her.

The Airport acknowledged the comment and responded by email on November 20, 2018 at 11:46 AM and provided the link to the requested files. Since the comment does not make any substantive comment about the adequacy of the Draft Program EIR no further response to this comment is required.

**Letter 81: Libby Huyck**  
**Dated November 20, 2018**

**LH 2-1** The commenter, at 11:29 AM, requested the Draft Program Environmental Impact Report ("EIR") and supporting technical studies be placed on line at the County's website.

The Airport acknowledged the comment and responded by email on November 20, 2018, at 11:46 AM. A link to the requested files was provided. It should be noted, the Draft Program EIR and supporting technical studies have been uploaded and available on the County's website beginning on September 20, 2018. Since the comment does not make a substantive comment about the adequacy of the Draft Program EIR no further response to this comment is required.



**Letter 82: Libby Huyck  
Dated November 20, 2018**

- LH 3-1** The comment states the Draft Program Environmental Impact Report (“EIR”) is for the “new project” at the Airport but is not addressing the noise problem at the Airport. The comment also notes the noise from planes has dramatically increased in the last year.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. The comment does not make a substantive comment about the adequacy of the Draft Program EIR; therefore, no further response is required.

The Draft Program EIR addresses the impacts associated with the proposed General Aviation Improvement Program (“GAIP”). Section 21002.1 of the California Environmental Quality Act (“CEQA”), requires that an agency prepare an EIR to identify the significant effects of a project on the environment. The impacts are compared to the existing condition or baseline at the time the EIR is prepared. This Draft Program EIR is identifying the impacts associated with the GAIP.

The comment pertaining to increased noise in the past year would not be associated with the GAIP, because the GAIP has not yet been considered for approval by the Orange County Board of Supervisors. There have been changes to the flight paths due to the Federal Aviation Administration (“FAA”) NextGen program. The GAIP does not propose any changes to the aircraft flight paths. Additionally, the County of Orange, as the proprietor of the Airport, has no authority or control over aircraft in flight. Rather, the FAA has exclusive regulatory jurisdiction over flight paths, and the pilot-in-command of each aircraft is responsible for safely maneuvering the aircraft in accordance with the FAA’s airspace procedures. Please see the Topical Response pertaining to Flight Path Procedures in Section 3.1.2 of these Responses to Comments.

- LH 3-2** The comment reflects the email correspondence with the County pertaining to obtaining the document (See Letters 79 and 80.)

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 83: Benjamin Imai**  
**Received November 20, 2018**

- BI-1** The commenter expresses his concerned about the reduction in tie down spaces proposed by the General Aviation Improvement Program (“GAIP”) for all scenarios except for Alternative 3. The comment asks that the Draft Program Environmental Impact Report (“EIR”) be revised with less drastic reductions that still address the majority of the issues outlined in the EIR.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act (“CEQA”) Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to the Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that included minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

- BI-2** The comment states displacing aircraft does not solve any problems and suggests that the impact of moving the perimeter road has a substantial impact with little benefit.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities, The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of FAA design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport’s commitment to providing a safe and secure facility for county aviation.

- BI-3** The comment states there are other options to consider for the next 50-100 years that are completely missed, for example electric aircraft and stacked hangars.

With regards to assessment of electric aircraft and stacked hangars, the Airport acknowledges this comment. It will be included as part of the Final Program EIR, which

will be considered by the decision-makers. As noted in the comment, improvements such as electric aircraft and stacked hangars may not be common practice at airports for the next 50 to 100 years.

The facility planning study was based on common practice in the industry. The use of equipment for stacking aircraft (such as the AeroLift system) is not commonly used in the industry today. It should be noted, the T-hangars located on the west side of the Airport could not accommodate this equipment because the 25-height requirement for the equipment would exceed the FAA height restrictions at the location on the west side where T-hangars are proposed. On the east side of the Airport, 69 of the 72 T-hangars could be built to accommodate the equipment and still be consistent with the FAA height restrictions. However, this scenario is unlikely to occur because not every hangar tenant owns two aircraft or would otherwise be expected to store two aircraft in their hangar. Additionally, one of the aircraft must be small enough to be lifted and stored in an elevated or “stacked” position (e.g., aircraft storage weight less than 2,500 pounds). As noted, the planning was done consistent with common practice in the industry. Section 15145 of the State CEQA Guidelines do not require a lead agency to speculate.

If at some time in the future a Fixed-Based Operator proposed such a system, the impacts could be assessed at that time. This would allow the County to better define the scope of the changes to the Airport capacity. As noted in Section 3.7 of the Draft Program EIR, subsequent activities, such as the development plan review, would be examined in light of consistency with the parameters of the GAIP and the impacts assessed in the Final Program EIR. Through this process, the County would determine whether additional CEQA documentation would be required pursuant to the requirements of Section 21166 of CEQA (i.e., *California Public Resources Code*, Section 21166) and Sections 15162 and 15168 of the State CEQA Guidelines.

Similarly, electric aircraft are not widely used; therefore, a technical analysis of the environmental impacts of transitioning piston-powered aircraft to electric aircraft cannot effectively be done and is not required pursuant to the requirements of CEQA.

- BI-4** The comment concludes with the recommendation to revise the Draft Program EIR with better options; otherwise consider selecting Alternative 3.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 84: Daniel Jensen**  
**Dated November 5, 2018**

- DJ-1** The comment expresses the desire to maintain at least the current capacity of 596 general aviation aircraft while increasing the number of hangars on the field.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport has capacity of 596 general aviation aircraft, at the end of 2016 (the Baseline for the GAIP), only 482 spaces were occupied. Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act (“CEQA”) Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that included minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

The General Aviation Improvement Program (“GAIP”) attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use. Additionally, the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in Table 5-3, in 2026 the forecast identifies that piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1.

The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is “to embrace flexibility to allow for technological advances and market trends”. The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time. However, it is acknowledged and documented in the Draft Program EIR, that the construction of the hangars would reduce the capacity at the Airport for tie-down space.

- DJ-2** The comment recommends the County study the applicability of a waiver from the Federal Aviation Administration (“FAA”) to keep the existing location of the perimeter road to avoid needing to reduce capacity for general aviation.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of FAA design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport’s commitment to providing a safe and secure facility for county aviation.

**Letter 85: Johnson & Associates  
Submitted by Randal Johnson  
Dated November 6, 2018**

- JA-1** The comment provides background on the commenter's aviation experience and years at the Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- JA-2** The commenter supports having Jay's Aircraft Maintenance on the field because it is integral for the maintenance of private general aviation aircraft.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. It should be noted, that the General Aviation Improvement Program ("GAIP") does provide for a Limited Service Fixed Base Operator ("FBO"), such as Jay's Aircraft Maintenance at the Airport.

- JA-3** The commenter states the Airport currently houses nearly 600 aircraft and it is important to maintain the Airport as a general aviation airport. The suggestion is made to study and identify ways of maintaining the current capacity.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport has capacity of 596 general aviation aircraft, at the end of 2016 (the Baseline year for the GAIP), only 482 spaces were occupied. Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act ("CEQA") Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that included minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use. Additionally, the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast

operations by aircraft engine type for each alternative. As shown in Table 5-3, in 2026 the forecast identifies that piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1.

The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is “to embrace flexibility to allow for technological advances and market trends”. The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time. However, it is acknowledged and documented in the Draft Program EIR, that the construction of the hangars would reduce the capacity at the Airport for tie-down space.

- JA-4** The commenter supports keeping the location of the perimeter road; thereby, reducing the need to reduce the capacity of the general aviation tie-down space.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of Federal Aviation Administration (“FAA”) design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport’s commitment to providing a safe and secure facility for county aviation.

- JA-5** The comment reiterates support for having Jay’s Aircraft Maintenance on the Airport because they are able to service the piston aircraft, whereas others primarily cater to jet aircraft.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any

substantive comment about the adequacy of the Draft Program EIR. As noted in Response to JA-1, the GAIP does provide for a Limited Service FBO on site.



**Letter 86: Jeanne Johnson**  
**Dated November 21, 2018**

**JJ-1** The comment states expansion of facilities that would allow more private jets to fly in and out of JWA would result in noise impacts because the flights would not need to abide by current restrictions on commercial flights. The hours, noise and increased frequency will have a deleterious effect and greatly impact our lives and value of our homes.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, the noise impacts have been addressed in Draft Program EIR in Section 4.7 (and Appendix H). The change in fleet mix has been incorporated into the analysis. Additionally, as stated in Appendix H, page 53, the noise analysis for the General Aviation Improvement Program ("GAIP") assumes the same percent of nighttime general aviation jets operating in the 2016 Baseline would operate in the GAIP alternatives. This results in approximately 3 percent of the general aviation operating during the nighttime period (an average of approximately 0.35 additional nighttime departures per day with the Proposed Project and 0.39 additional nighttime departures with Alternative 1).<sup>126</sup> It should be noted, the actual number of flights would vary each day because this number is based on a mathematical equation that derives a daily number of nighttime operations based on the annual forecast.

Additionally, as a point of clarification, the existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level ("SENEL") limits for general aviation aircraft are identified in the General Aviation Noise Ordinance ("GANO"). Although general aviation operations are permitted 24 hours a day, they are subject to daytime and nighttime noise limits established in the GANO. The existing commercial aircraft curfew and GANO limits would not be taken away or modified as a result of the proposed GAIP. For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments.

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<sup>126</sup> Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. The percent of jet operations is determined by dividing the number of jet operations by the total operations.

The following calculations were done to determine the expected increase in daily nighttime departures:

- The difference between the number of 2016 jet operations and the 2026 jet operations is calculated.
- The change in the number of operations is divided by two, which provides the number of departures (a departure and a landing are calculated as separate operations).
- The number of departures is then multiplied by 0.03 because 3 percent of the flights are projected to be nighttime flights.
- Since the number of operations are given as annual operations, this number is then divided by 365 to come up with a daily average number of nighttime flights.

**Letter 87: Carol Jung**  
**Dated November 21, 2018**

**CJ-1** The comment expresses opposition because it will be allowing new large aircraft to use the Airport. A specific concern expressed is that the aircraft will be able leave at any time of day or night.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

As a point of clarification, the General Aviation Improvement Program (“GAIP”) does not propose improvements to the airfield that would allow larger general aviation aircraft to fly from John Wayne Airport (“JWA”). The size of aircraft accommodated by the General Aviation Improvement Program (“GAIP”) improvements are currently operating at JWA.

Additionally, the GAIP would not modify the County’s General Aviation Noise Ordinance (“GANO”).<sup>127</sup> Although general aviation operations are permitted 24 hours a day, they are subject to daytime and nighttime noise limits established in the GANO. For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments. Overall, the total number of general aviation operations are projected to decrease with the GAIP (either the Proposed Project or Alternative 1). The Draft Program EIR identifies the projected number of general aviation operations by aircraft type in Tables 3-7 and 3-11, for the Proposed Project and Alternative 1, respectively. However, due to the change in projected fleet mix, the Draft Program EIR does identify an incremental increase in the aviation-related noise levels and air emissions.

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<sup>127</sup> The existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level (“SENEL”) limits for general aviation aircraft are identified in the GANO, which would not be taken away or modified as a result of the proposed GAIP.

**Letter 88: Franz Kallao**  
**Dated November 21, 2018**

- FK-1** The comment expresses opposition because of increased noise. Specifically, the comment states a concern about the proposal allowing private aircraft without curfew rules.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. As a point of clarification, the General Aviation Improvement Program ("GAIP") would not modify the County's General Aviation Noise Ordinance ("GANO"). Although general aviation operations are permitted 24 hours a day, they are subject to daytime and nighttime noise limits established in the GANO. For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments. However, due to the change in projected fleet mix, the Draft Program EIR does identify an incremental increase in the aviation-related noise levels.

**Letter 89: Nancy Kirksey  
Dated November 21, 2018**

**NK-1** The comment expresses opposition to any expansion of general aviation activity that would allow flight take off or landings during the current curfew hours.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. As a point of clarification, the General Aviation Improvement Program ("GAIP") would not modify the County's General Aviation Noise Ordinance ("GANO"). Although general aviation operations are permitted 24 hours a day, they are subject to daytime and nighttime noise limits established in the GANO. For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments. However, due to the change in projected fleet mix the Draft Program EIR does identify an incremental increase in the aviation-related noise levels.

**Letter 90: Carolyn and Bill Klein  
Dated November 20, 2018**

**CBK-1** The comment expresses opposition at allowing larger private aircraft at John Wayne Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. As a point of clarification, the General Aviation Improvement Program (“GAIP”) does not propose improvements to the airfield that would allow larger general aviation aircraft to fly from John Wayne Airport (“JWA”). The size of aircraft accommodated by the General Aviation Improvement Program (“GAIP”) improvements are currently operating at JWA. Additionally, the GAIP would not modify the County’s General Aviation Noise Ordinance (“GANO”).<sup>128</sup> Although general aviation operations are permitted 24 hours a day, they are subject to daytime and nighttime noise limits established in the GANO. For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments. Overall, the total number of general aviation operations are projected to decrease with the GAIP (either the Proposed Project or Alternative 1). The Draft Program EIR identifies the projected number of general aviation operations by aircraft type in Tables 3-7 and 3-11, for the Proposed Project and Alternative 1, respectively. However, due to the change in projected fleet mix, the Draft Program EIR does identify an incremental increase in the aviation-related noise levels and air emissions.

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<sup>128</sup> The existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level (“SENEL”) limits for general aviation aircraft are identified in the GANO, which would not be taken away or modified as a result of the proposed GAIP.

**Letter 91: Sheila Koff**  
**Dated November 21, 2018**

**SK-1**     The comment expresses opposition to allowing any “expansion of the airport over OC citizens”.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response is required. However, it should be noted, the General Aviation Improvement Program (“GAIP”) is not an expansion of the Airport property or operations. The area devoted to general aviation uses at JWA would not change, and the total number of general aviation based aircraft and general aviation flights would actually be reduced compared to the Baseline 2016.

**Letter 92: Wayne Lindholm**  
**Dated November 5, 2018**

- WL-1** The comment expresses concern with the reduction of general aviation tie-down space and hangars for the piston aviation community. The comment expresses the desire to see a plan that makes improvements to general aviation facilities, not a plan that reduces the capacity for general aviation at the Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- WL-2** The comment expresses the desire to maintain at least the current capacity of 596 general aviation aircraft while increasing the number of hangars on the field.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport has capacity of 596 general aviation aircraft, at the end of 2016 (the Baseline year for the GAIP), only 482 spaces were occupied. Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act ("CEQA") Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that included minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use. Additionally, the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in Table 5-3, in 2026 the forecast identifies that piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1.

The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is "to embrace flexibility

to allow for technological advances and market trends”. The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time. However, it is acknowledged and documented in the Draft Program EIR, that the construction of the hangars would reduce the capacity at the Airport for tie-down space.

- WL-3** The comment requests effort be made to keep the existing perimeter road in its current location by obtaining a waiver from the FAA. Doing so will prevent displacing or unnecessarily eliminating additional tie-down spaces.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of FAA design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport’s commitment to providing a safe and secure facility for county aviation.



**Letter 93: Andrea Lingle**  
**Dated November 20, 2018**

- AL-1** The comment expresses the opinion that (in Dover Shores) the noise from private jets is often much louder and more annoying than the noise from commercial aircraft. The commenter is concerned that the General Aviation Improvement Plan (“GAIP”) would add more, and larger, private jets and especially about the fact that they are not subject to the same curfew rules and noise rules as the commercial jets. As the commercial jets get quieter and the number of private jets that are not subject to restrictions increases, this is going to become a more intense and harmful problem.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- AL-2** The comment inquires if there any plans to impose noise and curfew limits on private jets.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the Airport cannot place noise and curfew limits on private general aviation operations at the Airport without complying with the requirements of ANCA, including under most circumstances, prior FAA approval.<sup>129</sup> However, the general aviation operations would be required to comply with the General Aviation Noise Ordinance (“GANO”). As discussed in Section 2.6.4 of the Draft Program EIR, the GANO establishes limitations on the maximum single event noise levels, which are applicable to general aviation nighttime operations. For additional discussion of the GANO and Restrictions on General Aviation Operations, please see the Topical Responses provided in Sections 3.1.3 and 3.1.4 of these Responses to Comments.

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<sup>129</sup> Section 2.6.2 of the Draft Program EIR provides a brief summarization of the *Airport Noise and Capacity Act of 1990* (“ANCA”). As a general matter, ANCA precludes the local imposition of noise and access restrictions that are not otherwise in accordance with the national noise policy. JWA does have an exemption to ANCA’s limitations as it applies to JWA’s existing commercial carrier curfew, limitations on the number of annual passengers, number of average daily commercial carrier departures, and related limitations because of the 1985 Settlement Agreement, as amended is grandfathered ANCA. However, the exemption does not extend to limitations on the number of general aviation departures.

**Letter 94: Randall Lipton**  
**Dated November 5, 2018**

- RL-1** The comment states it is important provide additional hangar space and at least as many tie-downs for general aviation aircraft as currently available. The comment states it is important not to cater to just business jets.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, the General Aviation Improvement Program (“GAIP”) attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use. Additionally, the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in Table 5-3, in 2026 the forecast identifies that piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1.

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**Letter 95: Stephen Livingston**  
**Dated October 19, 2018**

- SL-1** The comment raises a concern that an increase in the number of business jets will increase the noise level at the Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. Although this comment does not make any substantive comment about the adequacy of the Draft Program EIR, it should be noted that Section 4.7 evaluates the noise impact associated with the General Aviation Improvement Program ("GAIP") (Proposed Project and Alternative 1). As discussed in Section 3 (Sections 3.5, 3.62, and 3.63) of the Draft Program EIR, as part of the planning effort for the GAIP, a forecast for general aviation activity at the Airport was developed. This analysis takes into consideration data on a variety of indicators, including but not limited to, pilot population, growth in student pilot population, shipment of general aviation aircraft, and projected demand. These forecasts, which reflect the trend of increased business jets, were used in the Noise Analysis provided in Section 4.7 of the Draft Program EIR.

The Proposed Project would result in minor increases in aviation noise levels compared to the Baseline (2016) condition however, none of the increases would exceed the thresholds of significance. The increases would occur at four noise monitoring stations ("NMS") that are within the 65 CNEL contour (NMS 1S, 2S, 3S, and 8N). The largest increase (at NMS 3S) is 0.15 CNEL, which is 0.01 CNEL higher than the Baseline Plus No Project Alternative. Alternative 1 would also result in minor increases in aviation noise levels compared to the Baseline (2016) condition, which would not exceed the thresholds of significance. The increases would occur at four NMS that are within the 65 CNEL contour (NMS 1S, 2S, 3S, and 8N). The largest increase (at NMS 3S) is 0.17 CNEL and is 0.03 CNEL higher than the Baseline Plus No Project Alternative. A person can just barely detect a sound level change of approximately 1 decibel for sounds in the mid-frequency region. When ordinary noises are heard, a young, healthy ear can detect changes of 2 to 3 decibels. This information is summarized in Table 4.7-8 in the Draft Program EIR and the full *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* prepared by Landrum & Brown is included as Appendix H to the Draft Program EIR.

- SL-2** The comment states that nowhere in the GAIP is there a stated limit as to the size and take off times of business jets.

The Airport is not allowed to place a cap on the number, size or take off times of general aviation operations at the Airport without compliance with ANCA restrictions and requirements, including under most circumstances, prior FAA approval.<sup>130</sup> However, the general aviation operations would be required to comply with the General Aviation Noise Ordinance (“GANO”). As discussed in Section 2.6.4 of the Draft Program EIR, the GANO establishes limitations on the maximum single event noise levels, which are applicable to general aviation nighttime operations. For additional discussion of the GANO, ANCA, and Restrictions on General Aviation Operations, please see the Topical Responses provided in Sections 3.1.3 and 3.1.4 of these Responses to Comments.

- SL-3** The comment expresses the opinion that the GAIP is an attempt to circumvent the 1985 Settlement Agreement and increase the number of commercial passengers using John Wayne Airport.

The Settlement Agreement pertains to commercial carrier flights, not general aviation activities.<sup>131</sup> Many of the provisions that govern noise and operational capacity for the commercial carriers are implemented through the JWA Phase 2 Commercial Airline Access Plan and Regulation (“Access Plan”). The Access Plan regulates regularly scheduled commercial passenger and cargo carrier operations at JWA by placing limits on the hours of operation, maximum number of regulated average daily departures and annual passengers, and noise levels, among other regulations. The GAIP only pertains to general aviation facilities and would not change the provisions of the 1985 Settlement Agreement, as amended, or the Access Plan. Therefore, implementation of the GAIP would not circumvent the 1985 Settlement Agreement or have any influence on the number of regulated commercial flights and passenger caps, which are in place through the year 2030. In addition, please see the Topical Response pertaining to Regularly Scheduled Air Service And General Aviation Charter Operations, provided in Section 3.1.5 of these Responses to Comments.

- SL-4** The comment states that the GAIP would significantly increase the number of jet take-offs and landings at all hours of the day and night.

The Draft Program EIR addresses the potential impacts associated with the incremental increase in general aviation jet operations. The noise analysis for the GAIP does take into account the fact that general aviation jets can fly 24 hours a day in compliance with GANO requirements. As stated in Appendix H, page 53, the noise analysis for the GAIP assumes the same percent of general aviation jets operating in the evening and nighttime in the 2016 Baseline would operate in the GAIP alternatives. This results in approximately 9 percent of the business jets operating during the evening period on an average annual day and approximately 3 percent operating during the nighttime period

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<sup>130</sup> Section 2.6.2 of the Draft Program EIR provides a brief summarization of the *Airport Noise and Capacity Act of 1990* (“ANCA”). As a general matter, ANCA precludes the local imposition of noise and access restrictions that are not otherwise in accordance with the national noise policy. JWA does have an exemption to ANCA’s limitations as it applies to JWA’s existing commercial carrier curfew, limitations on the number of annual passengers, number of average daily commercial carrier departures, and related limitations because of the 1985 Settlement Agreement, as amended is grandfathered ANCA. However, the exemption does not extend to limitations on the number of general aviation departures.

<sup>131</sup> Section 2.6.3 of the Draft Program EIR provides the history of the Settlement Agreement and Section 4.0.1 (page 4-6) identifies the number of regulated commercial flights and passenger caps.

on an average day (an average of approximately 0.35 additional nighttime departures per day with the Proposed Project and 0.39 additional nighttime departures with Alternative 1).<sup>132</sup> It should be noted, the actual number of flights would vary each day because this number is based on a mathematical equation that derives a daily number of nighttime operations based on the annual forecast.

**SL-5** The commenter expresses an opposition to GAIP Alternatives 1 and 2.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response is required.

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<sup>132</sup> Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. The percent of jet operations is determined by dividing the number of jet operations by the total operations.

The following calculations were done to determine the expected increase in daily nighttime departures:

- The difference between the number of 2016 jet operations and the 2026 jet operations is calculated.
- The change in the number of operations is divided by two, which provides the number of departures (a departure and a landing are calculated as separate operations).
- The number of departures is then multiplied by 0.03 because 3 percent of the flights are projected to be nighttime flights.
- Since the number of operations are given as annual operations, this number is then divided by 365 to come up with a daily average number of nighttime flights.

**Letter 96: Thomas Logan**  
**Dated November 5, 2018**

**TL-1** The commenter expresses concern at the potential of losing his hangar, which took about 10 years to obtain. He inquires if those with existing hangars will have the first right of refusal when new hangars are constructed. Also, the commenter inquired about what would happen to the aircraft during the construction period.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. As discussed in Section 3.6 of the Draft Program EIR, implementation of the improvements associated with the General Aviation Improvement Program ("GAIP") would be phased to minimize disruption to Airport operations and reduce the need to temporarily relocate based aircraft to other airports in the region.<sup>133</sup> The phasing would require temporary relocation of uses while each area on the Airport is under construction. Given the space limitations on the Airport, small segments of work would need to be conducted at a single time. A 14-phase construction concept has been developed for the Proposed Project and a 15-phase construction concept for Alternative 1. The phases are depicted in Exhibits 3-3a and 3-3b for the Proposed Project and Exhibits 3-5a and 3-5b for Alternative 1. Construction is expected to take over seven years to complete.

It is intended that leases for hangars and tie-downs will be done through the long-term Fixed Base Operators ("FBOs"). The Orange County Board of Supervisors are expected to award new long-term FBOs leases in 2019, following a competitive bid process. The FBOs will be responsible for determining the allocation of the tie-down and hangar spaces within the parameters of the GAIP. For those currently renting space from the County of Orange/JWA, they may need to contact the FBOs to enter into a new tie-down or hangar rental agreement. The FBOs will continue to maintain the same waitlist for the hangars located at 19471 Campus Drive currently managed by the County. Vacancies will be offered in the same order as provided by the County, and the waitlist will be maintained in a fair and transparent manner.

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<sup>133</sup> Phasing for the Proposed Project is discussed in Section 3.6.2 of the Draft Program EIR (page 3-19). The discussion of phasing for Alternative 1 is provided in Section 3.6.3 (page 3-23).

**Letter 97: Karen Love  
Dated November 20, 2018**

**KL-1** The commenter expresses her opposition to the General Aviation Improvement Plan (“GAIP”) and the pollution associated with aviation.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, health effects are discussed in the Draft Program EIR in Section 4.2, Air Quality. Additional detail on this issue is provided in the Topical Response 3.1.6 and in Attachment A of these Responses to Comments.

**Letter 98: Peter Macdonald  
Dated November 12, 2018**

- PM-1** The commenter expresses the desire for John Wayne Airport (“JWA”) to expand the capacity for general aviation fueling, tie-downs, and hangars. The commenter indicates increased hangars would rapidly be filled.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make a substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. Tie-down spaces are addressed below in Response PM-3.

- PM-2** The comment expresses the desire to see a plan that makes improvements to general aviation facilities, not a plan that reduces the capacity for general aviation at the Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- PM-3** The comment expresses the desire to maintain at least the current capacity of 596 general aviation aircraft while increasing the number of hangars on the field.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport has capacity of 596 general aviation aircraft, at the end of 2016 (the Baseline year for the GAIP), only 482 spaces were occupied. Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act (“CEQA”) Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that included minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided.

The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use. Additionally, the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in Table 5-3, in 2026



the forecast identifies that piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1.

The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is “to embrace flexibility to allow for technological advances and market trends”. The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time. However, it is acknowledged and documented in the Draft Program EIR, that the construction of the hangars would reduce the capacity at the Airport for tie-down space.

- PM-4** The comment requests effort be made to keep the existing perimeter road in its current location by obtaining a waiver from the FAA. Doing so will prevent displacing or unnecessarily eliminating additional tie-down spaces.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of FAA design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport’s commitment to providing a safe and secure facility for county aviation.

- PM-5** The comment expresses the opinion that the Airport should be a resource for the citizens of Orange County and local pilots. The comment further states that the basic aim should be to cater to locals that love flying.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The GAIP has been developed in an effort to balance the environmental, social, and economic demands regarding general operations at the Airport. The GAIP is intended to provide the framework for general

aviation improvements at the Airport that would best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at the Airport.

**Letter 99: Bonnie McClellan  
Dated November 21, 2018**

- BM-1** The comment expresses opposition to any reconfiguration of Airport space that would allow large private jets with no curfew hours.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. As a point of clarification, the General Aviation Improvement Program ("GAIP") would not modify the County's General Aviation Noise Ordinance ("GANO"), which is the basis for the existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level ("SENEL") limits for general aviation aircraft. Although general aviation operations are permitted 24 hours a day, they are subject to daytime and nighttime noise limits established in the GANO. For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments.

**Letter 100: Meyer Properties**  
**Submitted by James Hasty**  
**Dated: November 20, 2018**

**MP-1** The comment states the letter reflects the concerns of Meyer Properties.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

**MP-2** The comment identifies Meyer Properties owns property at Koll Center Newport, which is predominately an office park, and at Airway Commerce Center, a business park, on the west side of John Wayne Airport ("JWA"). The comment indicates that these properties are impacted by aircraft noise, air pollution, and vehicular traffic.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis of the General Aviation Improvement Program ("GAIP") in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

A point of clarification, the Koll Center property is outside of the 60 Community Noise Equivalent Level ("CNEL") contour associated with aviation noise under the Baseline (2016) (i.e., existing), the Baseline Plus Proposed Project, and the Baseline Plus Alternative 1 scenarios. Exhibits 4.7-8, 4.7-9, and 4.7-11 in the Draft Program EIR provide a visual depiction of the 60, 65, 70, and 75 CNEL contour for each of the scenarios. Furthermore, this site is outside of the Policy Implementation Line associated with the 1985 Master Plan.<sup>134</sup> Even within the 65 CNEL contour, office uses are considered a compatible land use. With regards to the property at Airway Commerce Center, these are industrial properties and interior noise attenuation has been required to achieve the required interior noise thresholds in recognition of the adjacency of the Airport and to ensure land use compatibility.

**MP-3** The comment expresses the opinion that the CNEL is ineffective in accurately measuring the extent of such harm to humans because the weighted average method of measurement distorts and minimizes the real impact of single event noise during most relevant times of the day.

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<sup>134</sup> The Airport Environs Land Use Plan ("AELUP") is the comprehensive land use plan adopted and administered by the Airport Land Use Commission ("ALUC") for Orange County, as required by Section 21675 of the *California Public Utilities Code*. As discussed on page 4.6-4 of the Draft Program EIR, The AELUP uses a policy implementation line, which was adopted by the Orange County Board of Supervisors in 1985 for establishing the Noise Impact Zones. This line is based on the highest noise level at a given location utilizing noise projections from both the 1990 and 2005 project case contours developed as part of the 1985 John Wayne Airport Master Plan and are used as the basis for planning in the vicinity of JWA. The Policy Implementation Line is also the basis for the 1985 Settlement Agreement, as amended.

The Significance Thresholds adopted by the County of Orange and the Federal Aviation Administration (“FAA”) are based on the CNEL noise metric. CNEL is a measure of the average daily noise exposure which takes into account aircraft single event noise levels along with the number of times those events occur, and the period of day/night in which they occur. The metric logarithmically averages aircraft sound levels at a location over a complete 24-hour period, with a 10-decibel (“dB”) adjustment added to those noise events occurring from 10:00 p.m. and up to 7:00 a.m. the following morning. The 10-dB adjustment has been added because of the increased sensitivity to noise during normal night time hours and because ambient (without aircraft) sound levels during nighttime are typically about 10-dB lower than during daytime hours. CNEL also includes a 4.77-dB adjustment added to noise events occurring during the evening from 7:00 p.m. and up to 10:00 p.m. Research has found that annoyance is best correlated with CNEL noise levels and that SENEL levels are not well correlated with annoyance.

Exhibit 4.7-5 of the Draft Program EIR shows the percentage of persons expected to be highly annoyed based on their Day-Night Noise Level (“DNL”) noise exposure (DNL is the current noise standard used by FAA and is nearly equivalent to CNEL).<sup>135</sup> The exhibit shows that two to four percent of the population would be expected to be highly annoyed by noise that is between 55 and 57 dB DNL. The exhibit also shows that, in many cases, the population is annoyed at a much higher noise level.

The City, County, and FAA assume that approximately 10 percent of persons would be highly annoyed by a residential outdoor noise standard of 65 dB CNEL. When this 65 dB CNEL standard was adopted, it was assumed that it would result in a small percentage of the population being highly annoyed by the noise. Exhibit 4.7-5 shows that noise exposures would need to be less than 40 dB LDN for the percentage of highly annoyed to approach zero percent. However, noise levels in developed areas away from major sources (e.g., an airport or high traffic volume roadway) are typically in the 45 dB CNEL to 55 dB CNEL range. Therefore, even if the Airport were eliminated, some people would still consider the background noise in developed areas to be highly annoying.

The *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report*, included as Appendix H of the Draft Program EIR, provides information regarding single event noise levels. Appendix H, pages 92-93 presents single event departure and arrival noise contours for the common general aviation aircraft operating at the Airport.

**MP-4** The comment states the methodology to measure noise is deficient. As no monitoring systems are present on the east or west sides of the airport or at appropriate heights for the mid-rise and high-rise properties.

The noise analysis prepared for the Draft Program EIR follows the methodologies and criteria included in FAA Order 1050.1F for the assessment of aircraft noise impacts. Order 1050.1F requires the use of the FAA Airport Environmental Design Tool Version2d (“AEDT”) to create noise exposure contours. When modeling future noise

<sup>135</sup> Although the FAA uses the DNL noise exposure metric, because California already had a well-established airport community noise metric in CNEL. FAA Order 1050.1(Section 14.1a) expresses states that the FAA recognizes CNEL as an alternative metric for California. Similar to the DNL metric, the CNEL noise contours are for an average annual day.

contours, “real time” traffic data is not available, therefore a computer model is required to predict the noise levels in each alternative.

The AEDT model computes noise levels at thousands of grid points within the study area around the Airport, and from these grid points the noise mapping software connects the points of equal value as contour lines shown in the Draft Program EIR. This includes areas on the east side and west site of the airport. With regard to “appropriate heights”, the AEDT model conforms to the methods required by the FAA in Order 1050.1F – *Environmental Impacts: Policies and Procedures*. The noise level variation for mid-rise or high-rise properties is imperceptible at the relevant elevations. For example, a small aircraft in the local pattern at 1,000 feet above ground would be 0.2 dB louder on the top floor of a 100 foot high building (0.4 dB for a 200 foot high building) compared to a ground floor noise exposure. This is substantially less than the 3 dB change in noise exposure needed for humans to perceive a difference.

The noise monitors operated by the Airport are not mandated for use in EIRs. The noise monitors are located in the main departure and arrival contours north and south of the airport, and are used to compare to modeling results for existing conditions. Aircraft operations and noise levels have not justified locating noise monitors east and west of the airport where there are no noise-sensitive land uses.

- MP-5** The comment states that atmospheric conditions affect the transmission of sound and no studies have been done to compare sound levels on sunny, cloudy or rainy days.

As required by the FAA, the CNEL noise contours are for an average annual day. The AEDT does include average annual weather (i.e., based on 30-year normals and 10-year averages)<sup>136</sup> for JWA as well as International Standard Atmosphere (“ISA”) conditions.<sup>137</sup>

- MP-6** The comment states accurate distinction between jet noise, combustor noise, turbomachinery noise and aerodynamic noise have not been adequately studied nor have accurate Sound Exposure Levels or Single Event Noise Contours been established.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The methodology used for the GAIP noise analysis has adequately and accurately studied the noise impacts associated with the GAIP. Please see Response MP-4 pertaining to the methodology used evaluating the noise impacts associated with the GAIP.

- MP-7** The comment states that noise is known to have deleterious effects on the health of humans such as sleep deprivation, hearing impairment, high blood pressure, hypertension and coronary heart disease. Without accurate and comprehensive studies which address these conditions the harm to human health cannot be known. And, with the projected increase in private jets this additional noise will only exacerbate these problems.

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<sup>136</sup> Data acquired from NOAA National Climatic Data Center: <http://www.ncdc.noaa.gov/oa/ncdc.html>.

<sup>137</sup> The International Standard Atmosphere is an atmospheric model of how the pressure, temperature, density, and viscosity of the Earth's atmosphere change over a wide range of altitudes.

There is biological plausibility for health impacts of environmental noise. Such health impacts may be the result of sleep disturbance, ‘fight and flight’ physiological response and/or annoyance. Stress associated with noise impacts may be a potential mechanism for some of these health responses. The World Health Organization (“WHO”) Environmental Noise Guidelines for the European Region published late 2018<sup>138</sup> provides a current summary of health effects studies. Addressed in these studies are noise effects on cardiovascular disease, hypertension, ischaemic heart disease, stroke, metabolic effects (diabetes, obesity, waist circumference, metabolic biomarkers), birth outcome and mental health (note: there were very few studies on mental health effects). There is consensus that noise impacts health. Where there is little consensus is with regard to at what level these effects occur (threshold) and how these effects change with changing noise exposure.

The WHO, in developing its recommendations for acceptable levels of environmental noise, considered health effects and annoyance. With the respect to health effects, the WHO based its daytime recommendation on annoyance response only, as it found the studies of ischaemic heart disease ‘very low quality,’ hypertension studies ‘low quality,’ and annoyance studies of ‘moderate quality.’ Note that these ratings of quality used the strictest of interpretations and in particular referred to the few and quality of dose-response relationships not as to whether these effects were plausible. It was the lack of dose-response relationships that caused the WHO recommendation to be based solely on annoyance. This is not inconsistent with the use of annoyance as a precursor to health effects (i.e., using annoyance as the ‘canary in the coal mine’). The assumption is that health impacts are not likely to occur in the absence of annoyance. Or said in the reverse, where there is reported high annoyance there may be corresponding health impacts.

The current national aviation noise policies are presented in Federal Air Regulation Part 150 (Noise Control and Compatibility Planning For Airports) and FAA Order 1050.1F (Environmental Impacts: Policies and Procedures). A brief summary of the policy is that residential land uses are considered compatible with airport noise where the noise exposure is 65 DNL or less. In terms of defining a significant environmental impact from an airport project, any increase in noise greater than 1.5 dB in an area where noise levels exceed 65 DNL is considered significant for purposes of the National Environmental Policy Act (“NEPA”).<sup>139</sup> The main controversies over the current FAA policies lies essentially with these two policies. In simplest terms, many people who live in noise levels below 65 DNL self-identify as significantly impacted and people who have experienced noise increases not considered significant under NEPA are not in agreement with that finding.

In recent years after considerable complaints and lobbying to Congress, there has been a renewed interest in re-evaluating FAA policies that are now over 40 years old. The FAA initiated a study of U.S. airports in 2015 as “the next step in a multi-year effort to update the scientific evidence on the relationship between aircraft noise exposure and its effects on communities around airports.”<sup>140</sup> The survey consist of 20 airports around the U.S. In

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<sup>138</sup> WHO, 2018

<sup>139</sup> As noted in Response MP-3, although the FAA uses the DNL noise exposure metric, the FAA accepts the use of CNEL in California because it is a well-established airport community noise metric similar to the DNL metric.

<sup>140</sup> [https://www.faa.gov/news/press\\_releases/news\\_story.cfm?newsId=18774](https://www.faa.gov/news/press_releases/news_story.cfm?newsId=18774)

order to avoid bias in survey response, the FAA did not announce which airports would be surveyed. As part of the 2018 FAA Reauthorization Act the FAA was directed by Congress to publish the results of the survey along with a revised national aviation noise policy in October 2020.

**MP-8** The comment asserts the failure to study and accurately measure noise would appear to be a violation of the Aviation Safety and Noise Abatement Act, the related Airport Noise Compatibility Planning Regulations, and California Airport Noise Regulations.

The noise analysis prepared for the Draft Program EIR followed the proper federal and state requirements for conducting an airport noise analysis for a proposed project, which are discussed in the Draft Program EIR starting on page 4.7-10, Section 4.7.2 Regulatory Setting. The relevant information from these regulations is also provided in response to this comment.

The purpose of the *Aviation Safety and Noise Abatement Act of 1979* is “To provide assistance to airport operators to prepare and carry out noise compatibility programs”. The law establishes funding for noise compatibility planning and sets the requirements by which airport operators can apply for funding. This is also the law by which Congress mandated that the FAA develop an airport community noise metric to be used by all federal agencies assessing or regulating aircraft noise. The result was DNL. Because California already had a well-established airport community noise metric in CNEL, and because CNEL and DNL are so similar, FAA expressly allows CNEL to be used in lieu of DNL in noise assessments performed for California airports. The law does not require any airport to develop a noise compatibility program. The Draft Program EIR used CNEL to determine noise levels and potential impacts from the Proposed Project and alternatives.

As a means of implementing the *Aviation Safety and Noise Abatement Act*, the FAA adopted Regulations on Airport Noise Compatibility Planning Programs. These regulations are spelled out in FAR Part 150. FAR Part 150 includes noise and land use compatibility charts to be used for land use planning with respect to aircraft noise. Table 4.7-2 in the Draft Program EIR includes relevant data from the FAR Part 150, Appendix A guidelines. These charts were used to determine impacts from the Proposed Project and alternatives in the Draft Program EIR.

California Airport Noise Regulations establishes 65 dB CNEL as a noise impact boundary within which there shall be no incompatible land uses. Airports are responsible for achieving compliance with these regulations. Compliance can be achieved through noise-abatement measures, land acquisition, land use conversion, land use restrictions, or sound insulation of structures. Airports not in compliance can operate under variance procedures established within the regulations. The Draft Program EIR proposed mitigation for incompatible land uses, as applicable.



**Letter 101: Meyer Properties  
Submitted by James Hasty  
Received November 21, 2018**

This letter is the same as the Meyer Properties electronic submittal (Letter 100). Therefore, no additional responses are required. Please see Responses MP-2 through MP-8.<sup>141</sup>

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<sup>141</sup> MP-1 is the email that transmitted the letter; therefore, this response is not applicable to the hard copy submitted to the County.

**Letter 102: Shannon and Jeff Miehe**  
**Dated November 21, 2018**

- SJM-1** The comment expresses opposition to any expansion of large corporate jets under the General Aviation Improvement Program (“GAIP”). The commenters state noise from the Airport has a negative impact on the neighborhood, especially with implementation of the Federal Aviation Administration (“FAA”) NextGen take-off procedures.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. For clarification purposes, the Draft Program EIR does include a discussion of the Federal Aviation Administration (“FAA”) Southern California Metroplex process (i.e., NextGen) (see pages 1-12; 4-6; and 4.7-36). The GAIP does not propose any changes to the aircraft flight paths. Additionally, the County of Orange, as the proprietor of the Airport, has no authority or control over aircraft in flight. Rather, the FAA has exclusive regulatory jurisdiction over flight paths, and the pilot-in-command of each aircraft is responsible for safely maneuvering the aircraft in accordance with the FAA’s airspace procedures. In addition, the Topical Response pertaining to Flight Path Procedures provides additional information on this issue Please see Section 3.1.2 of these Responses to Comments.

- SJM-2** The comment expresses opposition to any expansion of the Airport that would allow large aircraft, especially those not subject to the curfew or current noise abatement regulations.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

As a point of clarification, the existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level (“SENEL”) limits for general aviation aircraft are identified in the General Aviation Noise Ordinance (“GANO”), which would not be taken away or modified as a result of the proposed GAIP. For additional discussion, please see the Topical Response pertaining to the GANO provided in Section 3.1.3 of these Responses to Comments. Although, due to the change in projected fleet mix the Draft Program EIR does identify an incremental increase in the aviation-related noise levels.

- SJM-3** The comment states that the environmental impact of the Airport as it pertains to health effects and property values is being ignored.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Health effects of the GAIP are discussed in the Draft Program EIR in Section 4.2, Air Quality. Additional detail on this

issue is provided in the Topical Response 3.1.6 and in Attachment A of these Responses to Comments.

The California Environmental Quality Act (“CEQA”) (Section 21080(e)), the State CEQA Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project’s potential effects that do not result, directly or indirectly, in a “physical change” to the environment. Indeed, noting that CEQA does not require analysis of impacts that are solely economic in nature.<sup>142</sup>

Although property values reflect socioeconomic rather than environmental values, and therefore, analysis under CEQA is not required, researchers have conducted numerous “valuation” studies in areas around airports in the United States and elsewhere in the world. Understanding the applicability of these studies is complex because it is extremely difficult to isolate airport noise (or even airport proximity) as the causative factor in any conclusions regarding effects on value. Rather, the noise level at a given property location becomes one of many property features and amenities (e.g., number of rooms, crime rate, schools) that make up the total value of that property. Some of the studies make little or no attempt to normalize the data for property-specific factors. Even when an “appraisal” approach to valuation is performed, it is still difficult to isolate aircraft noise or proximity to an airport as the causative effect except when noise levels substantially exceed the noise levels projected for residential areas near an airport.

Of the multiple studies conducted, two studies are worth noting. These are summarized below:

- The Airport Cooperative Research Program (“ACRP”) develops near-term practical solutions to problems faced by airport operators. ACRP is managed by the Transportation Research Board (“TRB”) of the National Academies and sponsored by the Federal Aviation Administration (“FAA”). In September 2008, “Synthesis 9: Effects of Aircraft Noise: Research Update on Selected Topics” was released by the ACRP.<sup>143</sup> The purpose of the synthesis was to update and complement the U.S. Federal Highway Administrations’ 1985 “Aviation Noise Effects” report because, in the decades since the 1985 study was first published, much had changed in the understanding of this complex issue, including increased air travel; new and quieter aircraft; increased awareness of land use planning and aviation noise; and mitigation of previously incompatible land uses. Knowledge of the effects of aviation noise also changed, including knowledge advancements in the areas of health effects, annoyance, sleep disturbance, and potential effects on children’s learning abilities in school. In summary, the 2008 synthesis report concluded that “the studies of the effects of aviation noise on property values are highly complex owing to the differences in methodologies, airport/community environments, market conditions, and demand variables involved.”<sup>144</sup>

<sup>142</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.)

<sup>143</sup> Transportation Research Board of the National Academies (TRB). 2008. *ACRP Synthesis 9: Effects of Aircraft Noise: Research Update on Selected Topics, A Synthesis of Airport Practice*. Washington, D. C.: TRB.

<sup>144</sup> *Ibid.*

- The Orange County real estate industry, in partnership with the Orange County Business Council, commissioned a fact-based study in February 2000 to objectively examine the impact a proposed commercial airport at the closed El Toro Marine Corps Air Station could have on residential property values. The study also surveyed the 2,000 most recent home purchasers in Orange County to measure how the proposed El Toro airport affected their home purchase decision. The study concluded among other things, noise is clearly an important airport factor in relation to property values. However, factors other than the airport were more significant to their home purchase decision.
- A 2018 study developed by Collateral Analytics and the University of San Diego evaluated the impact of airport and highway noise on residential property values in San Diego County.<sup>145</sup> The study collected average noise data from road sources and airport flight paths to estimate if there is a direct correlation between reported noise levels and residential property values. While the study concluded that noise levels are correlated to residential property values, a direct correlation was not established. Moreover, other factors, such as a property's proximity to central urban locations, were found to be more significant to residential property values.

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<sup>145</sup> <https://collateralanalytics.com/wp-content/uploads/2018/10/CA-RESEARCH-The-Impact-of-Noise-on-Residential-Property-Values.pdf>

**Letter 103: Lesley Miller  
Dated November 20, 2018**

- LM-1** The comment is requesting that all possible safeguards be done to protect against noise and waste pollution.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 104: Diane Myers  
Dated September 24, 2018**

- DM-1** The comment raises a concern regarding the placement of helicopters in a location that the commenter does not believe is compatible with surrounding small general aviation airplanes.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, the location referenced in the comment is for helicopters arriving at Atlantic Aviation, a Full Service Fixed Based Operator (“FBO”) currently operating at John Wayne Airport (“JWA” or “Airport”). The placement of the helicopter in close proximity to the small general aviation aircraft is not related to the General Aviation Improvement Program (“GAIP”). The GAIP has been developed in an effort to balance the environmental, social, and economic demands regarding general aviation operations at JWA. The GAIP provides the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. By providing a concept that maximizes the efficiency and safety of facilities, the Airport will be able to prioritize future improvements, and the GAIP can be the basis for the review of potential future improvements.

- DM-2** The comment is forwarding the previous email sent to the Airport regarding the placement of the helicopter by small general aviation aircraft.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Response DM-1. No additional response is required.

**Letter 105: John Nord**  
**Dated November 20, 2018**

An email was received but there was no content or attachment. Therefore, no response is possible or required.

**Letter 106: Oceanfront Jobs  
Submitted by Steve Bunch  
Dated November 7, 2018**

- OJ-1** The comment request that general aviation not be harmed by reducing services and parking. Additionally, the email is used to transmit additional comments.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- OJ-2** The comment asks that aircraft parking space and businesses at the Airport not be reduced. The comment asserts any plan that reduces available space for general aviation businesses and aircraft will be detrimental to businesses in Orange County. The comment asks that a solution that increases the amount of space available for general aviation aircraft and related services be developed.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, background information on the General Aviation Improvement Program (“GAIP”), including the Project Objectives, is provided in Section 3.3 of the Draft Program EIR and will provide a better understanding of the goal of the GAIP.

Although the Airport has capacity of 596 general aviation aircraft, at the end of 2016 (the Baseline year for the GAIP), only 482 spaces were occupied. The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use.

Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act (“CEQA”) Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that included minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in



the number of aircraft that are stored based on the type and size of the aircraft at any given time. However, it is acknowledged and documented in the Draft Program EIR, that the construction of the hangars would reduce the capacity at the Airport for tie-down space.

- OJ-3** The comment states the current proposals will cost Orange County businesses revenue and the County will lose tax revenue because of it.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, the State CEQA Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project's potential effects that do not result, directly or indirectly, in a "physical change" to the environment. Indeed, noting that CEQA does not require analysis of impacts that are solely economic in nature.<sup>146</sup> Therefore, no more specific response is required as it pertains to loss of revenue. However, it should be noted, general aviation revenues at JWA account for approximately 4 percent of the Airport's total revenue stream.<sup>147</sup>

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<sup>146</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.)

<sup>147</sup> *JWA FY 2016-17 Revenue Report* <https://www.ocair.com/investorrelations/financials/revenuereports/FY16-17.pdf>

**Letter 107: Brigid O'Connor**  
**Dated November 20, 2018**

- BO-1** The comment asserts the changes proposed with the General Aviation Improvement Program (“GAIP”) are motivated by the need to increase revenue. The comment expresses a concern about the impact on the communities surrounding the Airport, citing “potentially grave reduction of property values, lifestyle and health.”

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The California Environmental Quality Act (“CEQA”) (Section 21080(e)), the State CEQA Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project’s potential effects that do not result, directly or indirectly, in a “physical change” to the environment. CEQA does not require analysis of impacts that are solely economic in nature.<sup>148</sup> Therefore, no more specific response is required as it pertains to fiscal matters (i.e., increased revenue or property values). However, the following provides some clarification on these issues.

One of the six Project Objectives identified for the General Aviation Improvement Program (“GAIP”) is “To maximize economic, self-sustaining, revenue producing facilities” (the Project Objectives are provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR). However, this is one of six objectives, which are intended to all work in unison. No one objective is considered the primary objective of the Project. It is important for the Airport to have a self-sustaining facility since JWA does not receive any support from Orange County’s general fund. In addition, and importantly, when airport owners or sponsors accept funds from the Federal Aviation Administration (FAA), they must agree to certain obligations (or assurances). These assurances require the recipients to maintain and operate their facilities safely and efficiently and in accordance with specified conditions. One of the Airport’s Grant Assurances with the FAA (Grant Assurance 24, Fee and Rental Structure) requires the Airport to be as financially self-sustaining as possible under the particular circumstances at the Airport. The purpose of the self-sustaining rule is to maintain the utility of the federal investment in the airport. As noted in Section 3.6 of the Draft Program EIR, the intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities (see page 3-5 of the Draft Program EIR). As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. It should be noted, general aviation revenues at JWA account for approximately 4 percent of the Airport’s total revenue stream.<sup>149</sup>

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<sup>148</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.)

<sup>149</sup> *JWA FY 2016-17 Revenue Report* <https://www.ocair.com/investorrelations/financials/revenuereports/FY16-17.pdf>

Although property values reflect socioeconomic rather than environmental values, and therefore, analysis under CEQA is not required, researchers have conducted numerous “valuation” studies in areas around airports in the United States and elsewhere in the world. Understanding the applicability of these studies is complex because it is extremely difficult to isolate airport noise (or even airport proximity) as the causative factor in any conclusions regarding effects on value. Rather, the noise level at a given property location becomes one of many property features and amenities (e.g., number of rooms, crime rate, schools) that make up the total value of that property. Some of the studies make little or no attempt to normalize the data for property-specific factors. Even when an “appraisal” approach to valuation is performed, it is still difficult to isolate aircraft noise or proximity to an airport as the causative effect except when noise levels substantially exceed the noise levels projected for residential areas near an airport.

Of the multiple studies conducted, two studies are worth noting. They are summarized below:

- The Airport Cooperative Research Program (“ACRP”) develops near-term practical solutions to problems faced by airport operators. ACRP is managed by the Transportation Research Board (“TRB”) of the National Academies and sponsored by the Federal Aviation Administration (“FAA”). In September 2008, “Synthesis 9: Effects of Aircraft Noise: Research Update on Selected Topics” was released by the ACRP.<sup>150</sup> The purpose of the synthesis was to update and complement the U.S. Federal Highway Administrations’ 1985 “Aviation Noise Effects” report because, in the decades since the 1985 study was first published, much had changed in the understanding of this complex issue, including increased air travel; new and quieter aircraft; increased awareness of land use planning and aviation noise; and mitigation of previously incompatible land uses. Knowledge of the effects of aviation noise also changed, including knowledge advancements in the areas of health effects, annoyance, sleep disturbance, and potential effects on children’s learning abilities in school. In summary, the 2008 synthesis report concluded that “the studies of the effects of aviation noise on property values are highly complex owing to the differences in methodologies, airport/community environments, market conditions, and demand variables involved.”<sup>151</sup>
- The Orange County real estate industry, in partnership with the Orange County Business Council, commissioned a fact-based study in February 2000 to objectively examine the impact a proposed commercial airport at the closed El Toro Marine Corps Air Station could have on residential property values. The study also surveyed the 2,000 most recent home purchasers in Orange County to measure how the proposed El Toro airport affected their home purchase decision. The study concluded among other things, noise is clearly an important airport factor in relation to property values. However, factors other than the airport were more significant to their home purchase decision.

<sup>150</sup> Transportation Research Board of the National Academies (TRB). 2008. *ACRP Synthesis 9: Effects of Aircraft Noise: Research Update on Selected Topics, A Synthesis of Airport Practice*. Washington, D. C.: TRB.

<sup>151</sup> Ibid.

- A 2018 study developed by Collateral Analytics and the University of San Diego evaluated the impact of airport and highway noise on residential property values in San Diego County.<sup>152</sup> The study collected average noise data from road sources and airport flight paths to estimate if there is a direct correlation between reported noise levels and residential property values. While the study concluded that noise levels are correlated to residential property values, a direct correlation was not established. Moreover, other factors, such as a property's proximity to central urban locations, were found to be more significant to residential property values.

**BO-2** The comment states she bought her home knowing the Airport was there, but the proposed changes are potentially dramatic and unacceptable.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not present any specifics about what the perceived substantial changes would be as a result of the GAIP; therefore, no specific response or clarification can be given. No other issue or substantive comment about the adequacy of the Draft Program EIR is provided. For that reason, no further response to this comment is required.

**BO-3** The comment states that at some near-future-point the Airport revenue's negative impact on surrounding communities will make those communities less attractive and as a result, that other sources of revenue will then decline - tourism, property taxes etc.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, the California Environmental Quality Act ("CEQA") Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project's potential effects that do not result, directly or indirectly, in a "physical change" to the environment. Indeed, noting that CEQA does not require analysis of impacts that are solely economic in nature.<sup>153</sup> Therefore, no more specific response pertaining to revenue streams is required.

**BO-4** The comment questions the findings pertaining to negligible environmental impacts. The comment cites signage at the Airport pertaining to health concerns of jet fuel.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR. For that reason, no further response to this comment is required. For clarification, however, the Draft Program EIR did evaluate the impacts associated with Toxic Air Contaminants (see

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<sup>152</sup> <https://collateralanalytics.com/wp-content/uploads/2018/10/CA-RESEARCH-The-Impact-of-Noise-on-Residential-Property-Values.pdf>

<sup>153</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.)

Section 4.2 of the Draft Program EIR [Threshold 4.2-4]) and no significant impacts were identified. Additionally, this issue is addressed in the Topical Response pertaining to Health Risk provided in Section 3.1.6 of these Responses to Comments.

It should also be noted that the signage regarding health effects from jet fuel are in response to Proposition 65, a law passed by the voters in 1986. Proposition 65 requires businesses to provide warnings to Californians about significant exposures to chemicals that cause cancer, birth defects or other reproductive harm. These chemicals can be in the products that Californians purchase, in their homes or workplaces, or that are released into the environment. As of November 2018 the Proposition 65 List, which is maintained by the Office of Environmental Health Hazard Assessment ("OEHHA"), includes over 900 naturally occurring and synthetic chemicals that include additives or ingredients in pesticides, common household products, food, drugs, dyes, or solvents. Listed chemicals may also be used in manufacturing and construction, or they may be byproducts of chemical processes, such as motor vehicle exhaust.<sup>154</sup>

- BO-5** The comment recommends a more global view of revenue be taken and take careful thought and consideration before pursuing these changes further.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

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<sup>154</sup> <https://oehha.ca.gov/proposition-65/about-proposition-65>

**Letter 108: William J. O'Connor**  
**Dated November 20, 2018**

**WJO-1** The commenter expresses opposition to providing facilities for larger aircraft because of the noise.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report*, which is summarized in Section 4.7 of the Draft Program EIR and included as Appendix H, evaluates the noise impacts associated with the forecasted fleet mix and operational characteristics.

**Letter 109: Lee Pearl**  
**Dated: November 21, 2018**

- LP-1** The comment expresses concern that the General Aviation Improvement Program (“GAIP”) will open the door for the runway expansion, larger planes, more flights and eventually the elimination of the curfew. The comment notes the general aviation flights are not regulated by the curfew. The commenter expresses strong opposition without a long term agreement benefiting the residents of Newport Beach.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

However, it should be noted, the General Aviation Improvement Program (“GAIP”) is not an expansion of the Airport property or operations. The total number of general aviation based aircraft and general aviation flights would actually be reduced compared to the Baseline 2016. However, as evaluated in the Draft Program EIR, based on the aviation forecasts there would be an increase in turbine aircraft (i.e., turboprop and turbo-jet), which would result in an incremental increase in noise and air emissions; however, the increase would not be significant based on the thresholds of significance. Additionally, any projects that would extend the runway or eliminate the curfew would require environmental documentation pursuant to the California Environmental Quality Act (“CEQA”).

As a point of clarification, the existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level (“SENEL”) limits for general aviation aircraft are identified in the General Aviation Noise Ordinance (“GANO”) would not be taken away or modified as a result of the proposed GAIP. The 2014 Settlement Agreement Amendment specifies that the essential terms and conditions of the 1985 Settlement Agreement, with certain capacity enhancing and other modifications, extends through December 31, 2030, and the curfew restrictions extend through December 31, 2035.

The Topical Responses pertaining to the GANO and Restrictions on General Aviation Operations may be of interest to the commenter. These are provided in Section 3.1.3 and Section 3.1.4 of these Responses to Comments, respectively.

- LP-2** The commenter states that she heard of the project two days before the 60-day public review period was over and believes greater outreach should have been done.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The outreach on the GAIP to the community surrounding the Airport is being done through the EIR process. As noted in the Draft Program EIR, a Scoping Meeting was held on April 12, 2017 at the JWA Administrative Office in the Airport Commission Meeting Room to facilitate agency and public review and comment on the Notice of Preparation (“NOP”). The Draft Program EIR was distributed for public review and comment. The documents were provided on the Airport’s website to facilitate easy access ([www.ocair.com/DEIR627](http://www.ocair.com/DEIR627)) and as a means of obtaining input from the community. As part of the public review process, notices were sent (via U.S. mail or email, dependent on the contact information provided) to attendees of the public scoping meeting or parties that had requested the Airport add their contact information to the mailing list. A total of 756 notices were sent to various agencies, elected officials, organizations, businesses, and individuals. In addition, notice of public availability of the Draft Program EIR was published in the Orange County Register. Over 300 letters were received on the Draft Program EIR.<sup>155</sup> A public meeting to review the findings of the document was held on September 26, 2018 at the JWA Administrative Offices in Costa Mesa. At this meeting, the public was also given an opportunity to provide input on the Draft Program EIR and to ask questions about the Project (see the transcript of the public meeting from the September 26, 2018 public meeting in Section 3.7, of these Responses to Comments). Additional opportunities for the public to voice their opinions as stakeholders will be at the Airport Commission meeting and the Board of Supervisors hearing on the GAIP, anticipated to occur in the Spring of 2019. Notices of this meeting will be sent to all those that commented on the Draft Program EIR.

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<sup>155</sup> A total of 290 comment letters/cards/e-mails were received during the 60-day review period. In addition, 28 comment letters/cards/e-mails were received after the end of the public review period, 10 of which are the standardized form letter.



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**Letter 110: Sally Petersen**  
**Received October 22, 2018**

- SP-1** The comment expresses an opinion that the fleet mix assumptions are flawed and that Newport Beach is burdened by general aviation jet traffic.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The aviation forecast prepared for the General Aviation Improvement Program ("GAIP") is appropriate and prepared in accordance with the guidelines and methodologies given in the Federal Aviation Administration ("FAA") Advisory Circulars ("AC") 150/5070-6B Change 1, *Airport Master Plans*, and a report prepared by the FAA's Office of Aviation Policy and Plans (APO-110), *Forecasting Aviation Activity by Airport*, dated July 2001.

Many factors affecting aviation activity (i.e., number of operations and fleet mix) were considered in the preparation of the GAIP forecasting analysis, including socioeconomic data, demographics, disposable income, geographic attributes, aviation-related factors and external factors such as fuel costs (described in Section 4 of Appendix C of the Draft Program EIR). Specific aviation-related factors include changes in aviation industry trends (historical and future industry trends for general aviation were described in Sections 5 and 6 of Appendix C of the Draft Program EIR, respectively), and changes in the general aviation aircraft shipments (described in Section 3 of Appendix C of the Draft Program EIR).

The FAA AC 150/5070-6B also notes that if there are constraints at the airport that could affect the forecasts, it is useful to evaluate both constrained and unconstrained forecasts. Since the planning process for the GAIP developed different alternatives based on the limited space available at the Airport, the forecasts analysis was then updated to include the constrained condition. The physical limitations (i.e., space and type of facilities) at the Airport are an important determining factor in the number of aircraft and fleet mix that could be accommodated at the Airport.

The constrained forecast was developed by using a capacity analysis to estimate the aircraft storage capacity of the GAIP alternatives. Growth estimates from the unconstrained forecast were applied until it reaches the maximum capacity for the available facilities. Once the number of based aircraft demand for each type of aircraft (i.e., engine type and size) reaches the maximum capacity, the growth for that type of aircraft is constrained. Operations generated by based aircraft would be constrained because of limited parking spaces for different types of aircraft. Operations generated by transient aircraft, which is discussed further below, reference the unconstrained forecast model.

Using this approach, based on the facilities proposed under the GAIP, the turboprops and jet aircraft would reach capacity in the near term (i.e., all facilities that could accommodate turbine engine aircraft would be filled and no additional growth for this type of aircraft was assumed). No growth for helicopters is assumed because there would not be additional facilities provided beyond what currently exists. Although multi-engine piston aircraft would have capacity to grow based on the capacity analysis, in 2026 there would be four vacant spaces for multi-engine piston aircraft. Therefore,

the constrained forecast assumed these spaces would be occupied by existing single-engine based aircraft.

For additional discussion on this topic, please see the Topical Response pertaining to Aviation Forecast, provided in Section 3.1.1 of these Responses to Comments.

- SP-2** The comment states that residences in Newport Beach would be exposed to increased air emissions, and requests that an additional fuel tank be installed for less polluting alternative jet fuel.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers.

The current fuel farm serving the Airport's general aviation community provides Jet-A fuel, avgas (also known as 100 low lead), regular unleaded gasoline, and diesel fuel (see discussion on page 4.5-9 of the Draft Program EIR regarding the sizes of the fuel tanks and type of fuel provided). Based on the facilities/products currently provided, the only types of fuel identified in the comment that are not currently available at the Airport are the alternative fuels.

As it pertains to the introduction of alternative fuels, the County, as Airport proprietor, does not have control over the type of fuel the aircraft (either commercial carriers or general aviation) use. The fueling for the general aviation aircraft is managed and operated by the Fixed Based Operators ("FBOs") for general aviation. The fueling facilities serving the commercial airlines are operated by Aircraft Service International Group for a consortium of airlines ("SNAFuel, Inc."). As alternative fuels become more available and there is an interest in usage of alternative fuels, the Airport would work with the providers to accommodate the demand.<sup>156</sup>

As mentioned in Section 6 of the *General Aviation Forecasting and Analysis Technical Report* (Appendix C of the Draft Program EIR), the FAA is working with the Environmental Protection Agency ("EPA") and the general aviation industry on the Piston Aviation Fuels Initiative ("PAFI") to evaluate and identify an acceptable unleaded replacement of the existing aviation gasoline for small airplanes with least impact on the existing fleet. The primary objective of the PAFI program is FAA fleet-wide authorization of general aviation aircraft to operate on the PAFI unleaded fuels. The program is scheduled to be completed by 2018 with the FAA authorization and EPA regulatory action. According to the latest update (September 2018) from the FAA, the testing of the remaining PAFI fuels from Shell and Swift revealed unique issues with each fuel that

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<sup>156</sup> Although the comment does not specify a type of alternative fuel, currently, alternative fuels are being made with biomass materials that result in less air emissions. The Department of Energy ("DOE") has identified a goal to increase the domestic renewable jet fuel supply. The DOE is helping to fund advancing alternative jet biofuels through research and development. The Federal Aviation Administration ("FAA") has approved five bio-based jet fuels for air travel. Some of the commercial carriers in the United States, including a few out of Los Angeles International Airport ("LAX"), have started using a blend of alternative fuels, as discussed in the following websites: (<https://www.energy.gov/eere/bioenergy/aviation-fuels>, <https://www.faa.gov/news/updates/?newsId=85425> and <http://www.petroleum-economist.com/articles/midstream-downstream/at-the-pump/2017/alternative-jet-fuel-slow-to-launch>).

needed to be addressed. The testing completion is delayed from December 2018 to mid-2020.

It should be noted that the long-term air quality impacts associated with the General Aviation Improvement Program (“GAIP”) are less than significant, as discussed in Section 4.2, Air Quality, Draft Program Environmental Impact Report (“EIR”). As shown in Table 4.2-9, the change in the emission levels compared to the Baseline 2016 would be minimal and none of the operational emissions for the Proposed Project would exceed the standards established by the South Coast Air Quality Management District (“SCAQMD”). The carbon monoxide (“CO”) emissions are projected to decrease compared to the Baseline 2016 conditions. This is also applicable to Alternative 1 (see Table 4.2-13).

Even though significant operational impacts were not identified, the County has included two minimization measures, MN AQ-1 and MN AQ-2, that would help to reduce air emissions. These include (1) use of architectural coatings for the East and West Access Roads that have low volatile organic compounds (“VOCs”) content; and (2) FBO use of Zero Emission Vehicle (“ZEV”) ground service equipment where available for 90 percent or greater of the GSE operating hours. Further, MN GHG-1 (page 4.4-31), provided in Draft Program EIR Section 4.4, Greenhouse Gas Emissions, identifies that the general aviation lease agreements will require compliance with the provisions of the *John Wayne Airport Climate Action Plan* (“CAP”), which was developed to reduce the GHG emissions associated with commercial carrier operations.

- SP-3** The comment raises concerns associated with noise impacts and the burden of departure noise will be shifted to Newport Beach. The comment states the impact of increased general aviation jet traffic over Newport Beach is compounded by the fact that general aviation jets can fly 24 hours a day.

Section 4.7 of the Draft Program Environmental Impact Report (“EIR”) summarizes the findings of the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* (Appendix H), which addresses the noise impacts to the City of Newport Beach. Specifically, Table 4.7-7 in the Draft Program EIR provides a comparison of the Community Noise Equivalent Level (“CNEL”) values at each Noise Monitoring Stations (“NMS”)<sup>157</sup> for the Baseline (2016) and the Baseline (2016) Plus Proposed Project, Baseline Plus Alternative 1, and the Baseline Plus No Project scenarios. The analysis, for the General Aviation Improvement Program (“GAIP”), does take into account the fact that general aviation jets can fly 24 hours a day. As stated in Appendix H, page 53, the noise analysis for the GAIP assumes the same percent of general aviation jets operating in the evening and nighttime in the Baseline would operate in the GAIP alternatives. This results in approximately 9 percent of the business jets operating on an average annual day operating during the evening period and approximately 3 percent operating during the nighttime period. However, as discussed in Response SP-4 and in the Topical Response pertaining to the General Aviation Noise Ordinance (“GANO”) (see

<sup>157</sup> The NMS and the data derived are described on page 4.7-22 of the Draft Program EIR. Seven are located in the City of Newport Beach (Terminals 1S through 7S), with three (1S, 2S, and 3S) located in Santa Ana Heights.

Section 3.1.3 of these Responses to Comments), general aviation aircraft are subject to maximum noise levels for nighttime flights.

- SP-4** The comment asserts the general aviation jet fleet has a history of violating the noise limits<sup>158</sup> and cites the number of violations of the County's General Aviation Noise Ordinance ("GANO") by general aviation.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport acknowledges that there are violations, to characterize it that "These numbers demonstrate that this lack of observance of regulations is a chronic problem for this type of aircraft and should be addressed" is not an accurate characterization. In the period cited (July 1, 2017 through June 2018), there was a compliancy rate of 99.9 percent.

As discussed in the Topical Response pertaining to the GANO, provided in Section 3.1.3, when an aircraft exceeds the GANO noise limits at one or more locations, a "Notice of Violation" is issued to the registered owner of the aircraft. The Notice of Violation applies to the aircraft owner, the aircraft operator, and the aircraft. Notices of Violation remain in effect for three years after the violation date. If three GANO violations occur within a three-year period, the aircraft owner, the aircraft operator and the aircraft are subject to denial of use of the Airport for a period of three years. In light of the 99.9 percent compliance rate and the minimal number of repeat offenders, the County has implemented a program that does effectively addresses compliance with the regulations.

- SP-5** The comment indicates that the project objectives are not adequately addressed. The following specific concerns were raised:

- Enhanced safe and secure operations. - The increase in the number of business jet and on-demand flights without adequate advanced security and security screening poses a risk to passengers, the Airport, and the people below.
- Utilize limited land area efficiently and economically and maximize economic, self-sustaining, revenue producing facilities need to be addressed together in a full economic feasibility study. This should have been a part of the fleet mix analysis. Again, the forecast fleet mix does not adequately address the extreme swings in demand for general aviation jets and does not do a cost/benefit analysis comparing No Changes with the fleet mix As Is vs. Proposed.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.3 of the Draft Program EIR, Section 15124(b) of the California Environmental Quality Act ("CEQA") Guidelines requires the identification of a statement of objectives sought by the proposed project. The project objectives are used to help develop a reasonable range of alternatives and compatibility with project objectives is one of the criteria used in selecting a project alternative. As such, all of the project objectives are considered together.

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<sup>158</sup> Presumably the "noise limits" being referenced are the standards in the County GANO.

The following addresses the concerns raised about the specific objectives.

With regard to ensuring there is adequate security and security screening of passengers on business jets, the 2001 *Aviation and Transportation Security Act* (“ATSA”) created the Transportation Security Administration (“TSA”) and transferred aviation security functions from the Federal Aviation Administration (“FAA”) to the TSA. Section 132(a) of ATSA requires the Under Secretary of Transportation for Security to “implement a security program for charter air carriers. . . with a maximum certificated takeoff weight of 12,500 pounds or more.” Regulations also require charter operators (including scheduled or charter service, carrying passengers or cargo or both), conduct criminal history records checks on their flight crew members, and restrict access to the flight deck.<sup>159</sup> The program that outlines the security measures and requirements for these operators is known as the Twelve-Five Standard Security Program (“TFSSP”). TSA updates the requirements to address industry concerns as necessary. The latest version is dated March 5, 2017. The TFSSP is classified as Sensitive Security Information (“SSI”); therefore, the training and information on the plan is only available to those operators that have a TFSSP program established with the TSA.

JWA and its fixed base operators (“FBO”) consistently maintain security levels in accordance with TSA security programs such as the TFSSP, and will continue to do so. Specifically, and as mentioned above, charter operators comply with TSA regulations to conduct criminal history records checks on crew members, restrict access to the flight deck area and, for scheduled public charters, trace detection screening is done on baggage, passengers are vetted through federal databases when a reservation is made, and passenger identification is verified prior to boarding the charter flight. It should also be noted that multiple layers of security screenings are performed at JWA including, but not limited to, initial screening of general aviation users upon entry at security entry gates or through an FBO. Regardless of the GAIP alternative selected, high levels of safety and security compliance will continue to be maintained airport-wide, including measures for general aviation security.

As noted above, the Project Objectives are considered as a whole. The ability to utilize limited land area efficiently and economically and maximize economic, self-sustaining, revenue producing facilities work together. The CEQA Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project’s potential economic effects that do not result, directly or indirectly, in a “physical change” to the environment. Therefore, the Draft Program EIR does not include a fiscal analysis.

One of the six objectives listed in the GAIP is to “to maximize economic, self-sustaining, revenue producing facilities.” It is important for the Airport to have a self-sustaining facility since JWA does not receive any support from Orange County’s general fund. In addition, and importantly, when airport owners or sponsors accept funds from the Federal Aviation Administration (FAA), they must agree to certain obligations (or assurances). These assurances require the recipients to maintain and operate their facilities safely and efficiently and in accordance with specified conditions. One of the Airport’s Grant Assurances with the FAA (Grant Assurance 24, Fee and Rental Structure)

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<sup>159</sup> <https://nbaa.org/aircraft-operations/security/programs/twelve-five-standard-security-program-tfssp/>

requires the Airport to be as financially self-sustaining as possible under the particular circumstances at the Airport. The purpose of the self-sustaining rule is to maintain the utility of the federal investment in the airport. As noted, the intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. As noted in Section 5.5 of the Draft Program EIR, the full utilization of the portion of the Airport dedicated to general aviation aircraft would maximize the area that would support revenue-producing facilities. It should be noted, general aviation revenues at JWA account for approximately 4 percent of the Airport's total revenue stream.<sup>160</sup>

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<sup>160</sup> JWA FY 2016-17 Revenue Report <https://www.ocair.com/investorrelations/financials/revenuereports/FY16-17.pdf>

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**Letter 111: Sandra Petty-Weeks  
Dated November 21, 2018**

**SPW-1** The comment expresses a concern if the General Aviation Improvement Program (“GAIP”) is approved new hangar facilities will be built at John Wayne Airport (“JWA”), that will displace smaller privately owned aircraft in favor of larger privately owned jet aircraft., including corporate jet fleets. Specific issues that were identified include:

The comment expresses a concern if the General Aviation Improvement Program (“GAIP”) is approved new hangar facilities will be built at John Wayne Airport (“JWA”), that will displace smaller privately owned aircraft in favor of larger privately owned jet aircraft., including corporate jet fleets. Specific issues that were identified include:

- General aviation aircraft being able to make international flights.
- Impact on the nighttime curfew resulting from the new mix of general aviation aircraft which may include more large private and corporate jets to depart and fly overhead anytime of the day or night. While the general aviation aircraft would be subject to certain noise requirements, they would not be subject to the curfew.
- Increased air pollution from leaded jet fuel.
- Increases in daily departures.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required; however, the following provides some information on each of the points raised.

International Flights. If the optional General Aviation Facility (“GAF”) is constructed this would allow any general aviation aircraft (not just larger aircraft) to fly internationally. As described on page 3-11 of the Draft Program EIR, the processing of international GAF are normally located at small, low volume airports and provide U.S. Customs and Border Protection (“CBP”) with the ability to process up to 20 passengers and their baggage at one time. The *Forecasting and Analysis Report* has estimated potential international general aviation departures/arrivals if U.S. CBP inspection services were to be provided at JWA.

Although the Airport does not currently provide general aviation CBP services, flights with international origins and destinations currently use the Airport. As noted in the Draft Program EIR, flights with an international origin are required to stop at an airport that offers general aviation CBP services prior to landing at JWA. The *Forecasting and Analysis Report* provides a thorough discussion of how the baseline and forecasts were developed for international operations (see Section 6.4 of the *Forecasting and Analysis Report*). The long-term projected growth rates are comparable to the forecast global economy and represent a reasonable range of potential international activity growth. The Baseline (2016) estimates there are 447 annual general aviation international

departures from John Wayne Airport. The forecast projected an increase to approximately 490 annual international departures by 2026. In addition, please see the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments.

Impact On Nighttime Curfew. The commercial aircraft curfew is controlled by the County's General Aviation Noise Ordinance ("GANO"), which also establishes limitations on the maximum single event noise levels applicable to general aviation nighttime operations (the GANO is discussed in Section 2.6.4 of the Draft Program EIR). As noted on page 53 of the *Noise Analysis Technical Report* (contained in Appendix H), the noise analysis assumes the same percent of general aviation jets operating in the nighttime hours (10:00 PM to 7:00 AM) in the 2016 Baseline would operate in the GAIP alternatives.

Based on the forecasts provided in Table 3-7 of the Draft Program EIR, in the Baseline (2016), 31,800 annual operations were flown by aircraft with jet engines. In 2026, this would increase to 40,400 for the Proposed Project and 41,400 for Alternative 1 (Table 3-11 of the Draft Program EIR). Using the 3 percent nighttime operations factor, this equates to the Proposed Project resulting in approximately 258 additional annual nighttime operations (0.71 additional operations per night) compared to the Baseline (2016). However, each take-off and landing is considered a separate operation. Therefore, it would result in an average of 0.35 additional nighttime departures on a daily basis. For Alternative 1, there would be approximately 288 additional annual nighttime operations (0.79 additional operations per night). Therefore, with Alternative 1 there would be an average of 0.39 additional nighttime departures on a daily basis.<sup>161</sup> It should be noted, the actual number of flights would vary each day because this number is based on a mathematical equation that derives a daily number of nighttime operations based on the annual forecast.

The existing commercial aircraft curfew and GANO limits would not be taken away or modified as a result of the proposed GAIP. For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments.

Increased Air Pollution. The increased air emissions were evaluated in Draft Program EIR Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions. The analysis did identify an incremental increase in air emissions; however, the impacts were identified as less than significant pursuant to the South Coast Air Quality Management District ("SCAQMD") standards. In addition to the analysis in the Draft Program EIR, the Topical Response pertaining to Health Risk provided in Section 3.1.6 of these Responses to

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<sup>161</sup> Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. The following calculations were done to determine the expected increase in daily nighttime departures:

- The difference between the number of 2016 jet operations and the 2026 jet operations is calculated.
- The number of operations is then multiplied by 0.03 because 3 percent of the flights are projected to be nighttime flights. Since the number of operations are given as annual operations, this number is then divided by 365 to come up with a daily average number of nighttime operations.
- The number of nighttime operations is divided by two, which provides the number of nighttime departures.



Comments, provides additional detail on the potential impacts associated with increased air emissions.

Increased Number of Flights. It should be noted, the GAIP is not an expansion of the Airport property or operations. The total number of general aviation based aircraft and general aviation flights would actually be reduced compared to the Baseline 2016. However, as evaluated in the Draft Program EIR, based on the aviation forecasts there would be an increase in turbine aircraft (i.e., turboprop and turbo-jet). Please see the Topical Response pertaining to Aviation Forecast provided in Section 3.1.1 of these Responses to Comments.

- SWP-2** The commenter expresses the opinion that the noise restrictions currently in place have not been adequate for the quality of life in our communities. Further, the increase in nighttime flights would set a dangerous precedent for the future of the JWA curfew, which will be subject to renegotiation in 2035.

The Airport acknowledges this comment. As noted in Response SPW-1, the GAIP would not modify the GANO, which is the basis for the commercial aircraft curfew. With regards to sufficient restrictions, JWA has extensive noise restrictions not available at most airports in the country. The *Airport Noise and Capacity Act of 1990* (“ANCA”) precludes the local imposition of noise and access restrictions that are not otherwise in accordance with the national noise policy. JWA does have an exemption from ANCA’s limitations as it applies to JWA’s existing commercial carrier curfew, limitations on the number of annual passengers, number of average daily commercial carrier departures, and related limitations because the 1985 Settlement Agreement, as amended, which was adopted prior to 1990, is grandfathered under ANCA. However, the exemption does not extend to limitations on the number of general aviation departures. ANCA is discussed in Section 2.6.2 of the Draft Program EIR. Additional information on ANCA is also provided in the Topical Responses pertaining to Restrictions on General Aviation Operations provided in Section 3.1.4 of these Responses to Comments.

A point of clarification, the 2014 Settlement Agreement Amendment specifies that the essential terms and conditions of the 1985 Settlement Agreement, with certain capacity enhancing and other modifications, extend through December 31, 2030, and the curfew restrictions extend through December 31, 2035. The County has no obligation to the settlement parties except as that obligation or restriction is expressly stated in the Settlement Agreement. In conjunction with any possible future Settlement Agreement amendment discussions, the settlement parties will need to review the possibility of amending the Settlement Agreement to extend beyond 2030 and, if so, consider and agree to the terms of any such extension, including consideration of the curfew

- SPW-3** The commenter would like to go on the record as strongly opposing this proposed expansion.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 112: Doug Pham**  
**Received October 15, 2018**

- DP-1** The commenter expresses that there is not a need for three FBOs and states a desire to have enough mechanics and avionics staff to help fix the general aviation aircraft.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted that none of the alternatives would change the function of the FBOs or eliminate the Limited Service Southwest FBO, which provides mechanic services at the Airport.

- DP-2** The comment requests that the tie-down space for small airplanes be maintained.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. Although the General Aviation Improvement Program ("GAIP") (Proposed Project and Alternative 1) would reduce the number of tie-down spaces at the Airport, it does not eliminate them. As shown in Tables 3-4 and 3-8 of the Draft Program EIR, the greatest number of aircraft parking spaces would be tie-down spaces and the single-engine piston aircraft would still be the dominate type of aircraft at the Airport (See Tables 3-5 and 3-9 in the Draft Program EIR).

- DP-3** The comment supports the provisions for a self-serve fueling station.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. It should be noted, the Proposed Project, Alternative 1, and Alternative 2 all incorporate provisions for a self-serve fueling station.

- DP-4** The comment suggests that the tie-downs or hangars be covered to help protect the aircraft.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. For clarification purposes, although the General Aviation Improvement Program ("GAIP") does not specify if covers or shade structures would be provided at the tie-down locations, it does not preclude the development of shade structures where the Federal Aviation Administration safety

design standards and County design requirements can be met. The FBO would make the decision to construct covers or shade structures, which would be evaluated by the County as part of the development review process. Hangars would be enclosed structures so no additional covering would be required.

**Letter 113: Doug Pham  
Dated November 6, 2018**

- DP 2-1** The commenter expresses support for an improvements plan that would not reduce capacity for small aircraft.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- DP 2-2** The comment asks to keep the perimeter road in its current location to minimize the number the number of tie-down spaces that would be lost.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of Federal Aviation Administration (“FAA”) design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport’s commitment to providing a safe and secure facility for county aviation.

**Letter 114: Doug Robinett  
Undated**

- DR-1** The comment asks with the proposed reduction in the number of general aviation aircraft with the implementation of the GAIP, how would it be determined which aircraft would continue to be based at the Airport.

The Airport acknowledges this comment. The Orange County Board of Supervisors is expected to award new long-term Fixed Base Operators (“FBOs”) leases in 2019. To the extent, new long-term FBO leases are awarded, the FBOs will be responsible for determining the allocation of the tie-down and hangar spaces within the parameters of the GAIP. For those currently renting space from the County of Orange/JWA, they may need to contact the FBOs to enter into a new tie-down or hangar rental agreement. The FBOs will continue to maintain the same waitlist for the hangars located at 19471 Campus Drive currently managed by the County. Vacancies will be offered in the same order as provided by the County, and the waitlist will be maintained in a fair and transparent manner.

- DR-2** The comment asks why the FBOs get additional parking spaces.

The General Aviation Improvement Program (“GAIP”) proposes the management of the general aviation facilities be done through the FBOs. With this approach, the FBO funds, develops, and operates the facility in exchange for a long-term land use lease (20 years or more). It should be noted, although the FBO would develop the facilities, as part of the design review process, the County of Orange would be responsible for the approval of the design plans.

**Letter 115: Alice Rosellini**  
**Dated November 21, 2018**

**AR-1** The comment objects to any increase in flights or flights that would occur during the curfew hours. The comment states uncontrolled jet flight due to private and business flights will harm the already impacted residents and surrounding area.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 116: Law Offices of Gary L. Schank**  
**Submitted by Gary L Schank**  
**Undated**

- GLS-1** The comment asks how many light aircraft tie-down spots are there now and how many will exist when the General Aviation Improvement Program (“GAIP”) is fully implemented.

Tables 3-4 and 3-8 in Draft Program Environmental Impact Report (“EIR”) 627 provide a comparison of the existing aircraft parking spaces and the proposed aircraft parking spaces for the Proposed Project and Alternative 1, respectively. These tables include how the spaces are distributed between tie-down spaces and hangars. This information is summarized in Table 8 below, which also reflects the number of spaces that were being used in 2016 when the baseline was developed.

**TABLE 8**  
**FACILITIES COMPARISON OF EXISTING CONDITIONS**  
**AND THE PROPOSED PROJECT**

Facility	Aircraft Parking Spaces			
	Existing Capacity	Currently Used (Baseline 2016)	Proposed Project	Alternative 1
Tie-Down Apron	302	222	135	119
T-Hangars	111	111	96	114
Box Hangars (includes OCSD)	45	45	35	5
FBO/Community Hangars	23	23	47	62
Shade Structures	66	66	0	0
FBO Apron Spaces <sup>a</sup>	49	15	41	56
<b>Total</b>	<b>596</b>	<b>482</b>	<b>354</b>	<b>356</b>
Note: The type and size of aircraft parked at an FBO facility may vary based on demand and can change frequently; therefore, the actual number and type of aircraft at the Airport may differ from what is shown in this table. <sup>a</sup> Includes eight tie-down spaces at Martin Aviation and one tie-down space for the OCSD. Source: Tables 3-4 and 3-8 in Draft Program EIR 627, 2018 (taken from Appendix D to the Draft Program EIR)				

Additionally, Table 1-1, provided in Executive Summary (Section 1) of the Draft Program EIR, provides a comparison of the key design elements for the Proposed Project and alternatives, including the No Project Alternative. Exhibit 2-2 provides a graphic depiction of the location of the existing facilities and number of aircraft that can be accommodated at each of the facilities. Exhibits 3-1 and 3-4 provide this information for the Proposed Project and Alternative 1, respectively.

- GLS-2** The comment asks with the proposed reduction in the number of general aviation aircraft with the implementation of the GAIP, how would it be determined which aircraft would continue to be based at the Airport?

Based on the current schedule, the Orange County Board of Supervisors is expected to consider new long-term Fixed Base Operators (“FBOs”) leases in 2019, following a competitive bid process within the parameters of the GAIP. The FBOs will be responsible for determining the allocation of the tie-down and hangar spaces within the parameters of the GAIP. To the extent new long-term FBO leases are awarded, those currently renting space from the County of Orange/JWA, may need to contact the FBOs to enter into a new tie-down or hangar rental agreement. The FBOs will continue to maintain the same waitlist for the hangars located at 19471 Campus Drive currently managed by the County. Vacancies will be offered in the same order as provided by the County, and the waitlist will be maintained in a fair and transparent manner.

- GLS-3** The comment asks how many light aircraft hangars exist now and how many will exist when the GAIP is fully implemented.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Response GLS-1 (i.e., Table 8), above.

- GLS-4** The comment asks if there will be covered facilities.

The hangars will be enclosed but the GAIP does not provide for or preclude the construction of shade structures provided the design is consistent with applicable Federal Aviation Administration and County design requirements. The FBOs will need to submit and process design plans through the County/Airport as part of the development review process.

- GLS-5** The comment asks what the tie-down fees will be when the GAIP is fully implemented.

Based on the current schedule, the Orange County Board of Supervisors is expected to consider new long-term Fixed Base Operators (“FBOs”) leases in 2019, following a competitive bid process within the parameters of the GAIP. The FBOs will be responsible for determining the allocation of the tie-down and hangar spaces within the parameters of the GAIP. To the extent new long-term FBO leases are awarded, those currently renting space from the County of Orange/JWA, may need to contact the FBOs to enter into a new tie-down or hangar rental agreement.

The FBOs will be responsible for determining the allocation of the tie-down and hangar spaces within the parameters of the GAIP. Rental fees will be set by each FBO and must be applied in a reasonable and a non-unjustly discriminatory manner (FAA Policy regarding Rates and Charges [Grant Assurance 22, Economic Non-Discrimination]).



**Letter 117: Gary Schank  
Dated September 27, 2018**

- GS-1** The comment states since all three proposals (Proposed Project, Alternative 1, and Alternative 2) would result in a reduction in the number of general aviation aircraft that can be accommodated at the Airport, these options are not improvements for those tenants that would be forced off the Airport. The commenter supports Alternative 3 because it would result in the least number of displacements.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 118: Law Offices of Gary L. Schank**  
**Submitted by Gary L Schank**  
**Received November 16, 2018**

**GLS 2-1** The comment express concern that the Draft Program Environmental Impact Report (“EIR”) for the John Wayne Airport General Aviation Improvement Program (“GAIP”) has omitted several issues. The comments focus on the concern of Standard Instrument Departure Procedures (“SIDs”). The comment states, there are numerous restrictions on airline operations at John Wayne Airport (“JWA”). The restrictions are based upon the noise footprint created by those jets. In addition to the restricted volume of departures, airliners are also required to fly very precise departure routes called SIDs, in order to minimize noise levels over residential areas under the departure path.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. It should be noted, that the GAIP does not propose any modifications to the departure paths flown at the Airport. The County of Orange, as the proprietor of the Airport, has no authority or control over aircraft in flight. Rather, the Federal Aviation Administration (“FAA”) has exclusive regulatory jurisdiction over flight paths, and the pilot-in-command of each aircraft is responsible for safely maneuvering the aircraft in accordance with the FAA’s airspace procedures. Because the GAIP does not propose any changes to the SIDs and flight path issues are outside of the County’s jurisdiction, pursuant to the California Environmental Quality Act (“CEQA”) an evaluation of the SIDs would not be required as part of the Draft Program EIR.<sup>162</sup> The Topical Response pertaining to Flight Path Procedures provided in Section 3.1.2 of these Responses to Comments provides additional information on this issue.

The analysis in the Draft Program EIR identifies the flight tracks and runway use developed for the Baseline (2016) has been used for all scenarios. Runway use at JWA is based on aircraft size with commercial aircraft and large general aviation jets using Runway 20R and smaller general aviation aircraft primarily using Runway 20L (see page 4.7-21). As noted in Appendix H (page 38) aircraft primarily using Runway 20L (see page 4.7-21). As noted in Appendix H (page 38) FAA’s Airport Environmental Design Tool (“AEDT”) “requires the input of the physical and operational characteristics of the airport. Physical characteristics include runway coordinates, airport altitude, and temperature, and optionally, topographical data. Operational characteristics include various types of aircraft data. This includes not only the aircraft types and flight tracks, but also departure procedures, arrival procedures and stage lengths (flight distance) that are specific to the operations at the airport. Aircraft data needed to generate noise contours include:

- Number of aircraft operations by type
- Types of aircraft

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<sup>162</sup> Section 15124 of the CEQA Guidelines (California Code of Regulations [“CCR”], Title 14, Chapter 3, Sections 15000, *et seq.*) identifies the required elements that should be included in the project description.

- Day/Evening/Night time distribution by type
- Flight tracks
- Flight track utilization by type
- Flight profiles
- Typical operational procedures
- Average Meteorological Conditions

In addition to not proposing any modifications to the flight paths used by general aviation, the GAIP does not propose any change to the number of air carrier operations, runway use, or flight tracks for the commercial carrier operations. The GAIP is focused on general aviation.

The Airport acknowledges that JWA has a number of restrictions on commercial carrier operations in order to minimize noise levels over residential areas under the departure path. Airport access and noise restrictions for John Wayne Airport are set forth in the County's Phase 2 Commercial Airline Access Plan and Regulation and General Aviation Noise Ordinance.

As discussed in the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* (Appendix H), the noise analysis in the Draft Program EIR uses data from the Baseline flight patterns in the calibration of the noise model (the FAA Airport Environmental Design Tool Version2d ["AEDT"])<sup>163</sup>, which was used to create noise exposure contours (see page 46 of Appendix H). The contours were developed by calibrating the results of AEDT modeling to the measurements from the 10 permanent noise monitoring stations ("NMS") located in the surrounding vicinity of JWA. The locations of the ten permanent NMS are shown in Exhibit 4.7-7 of the Draft Program EIR. Seven of the NMS are located in the City of Newport Beach (Stations 1S through 7S); one is in Irvine (8N); one is in Santa Ana (9N); and one is in Tustin (10N). The seven NMS in Newport Beach are located along the Newport Back Bay, where aircraft have historically flown.

**GLS 2-2** The comment states while business jets are not usually commercially operated, their performance is essentially identical to that of an airliner, and they can be as noisy, or even noisier than modern airliners. Additionally, business jets operate in flight regimes that require that they fly under Instrument Flight Rules (IFR). Consequently, business jets will be required to fly the same departure SIDs as the airliners.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, as noted in Response GLS 2-1, the analysis in the Draft Program EIR uses data from the flight patterns that were used at the time the noise model was being calibrated.

<sup>163</sup> AEDT is a software system that models aircraft performance that estimates fuel consumption, emissions, noise, and air quality emissions data. AEDT has an extensive database of civilian and military aircraft noise characteristics and incorporates advanced plotting features. Noise contour files from AEDT were loaded into the ArcView™ Geographic Information System ("GIS") software for plotting airport noise contours and land use analysis. Additional detail on the AEDT model is provided in Appendix H of the Draft Program EIR.

With regards to the noise characteristics of business jets, Appendix H, Attachment 1 provides Single Event Noise Exposure Level (“SENEL”) noise contours for several general aviation jets and propeller aircraft along with commercial aircraft for comparison of noise emissions.

- GLS 2-3** The comment identifies that JWA has 13 unique SIDs, each of which requires a different flight path and profile. The commenter expresses the opinion that the Draft Program EIR should address the noise environment impact of business jets flying any of these departure procedures. Additionally, the commenter states, “[t]he very purpose of the GAIP is to increase the number of business and private jets at the airport.” The commenter further states that with the increased number of jets at the airport, there will be an increased volume of arrivals and departures. The commenter asserts that the Draft Program EIR does not address the increased volume of aircraft departing via the SIDs nor the associated noise footprint. The commenter also states that the Draft Program EIR does not determine whether the various types of business jets flying these SIDs have the performance and noise levels to maintain the standards with which the Airport has agreed to maintain.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The comment raises a number of issues. The following addresses each of the points raised.

The commenter states, the Draft Program EIR should address each of the 13 SIDs: As noted in Response GLS 2-1, the GAIP does not propose any modifications to the departure paths flown at the Airport. Therefore, since the SIDs are not a component of the GAIP, evaluation of each of the SIDs is not required pursuant to CEQA. It should also be noted, while 13 SID’s have been addressed, there are six primary SID’s, all of which follow the Newport Back Bay. The radar tracking of air carrier and general aviation aircraft is shown in Figure 9 in Appendix H. This figure provides a graphic depiction of the concentration of the aircraft on take-off along set flight paths.

The commenter states, the purpose of the GAIP is to increase the number of business jets at the Airport: The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities (see page 3-5 of the Draft Program EIR). As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. The GAIP is not intended to focus on a single segment of the general aviation users at the Airport. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is “to embrace flexibility to allow for technological advances and market trends”. The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time.

The aviation forecast used in the Draft Program EIR does reflect an increase in general aviation jets at the Airport. The historic trends in general aviation was a component

when developing the aviation forecasts.<sup>164</sup> The Draft Program EIR does provide information on the historical general aviation trends, which at the Airport have shown a consistent decline in single-engine piston aircraft since 1980 (see Section 2.4, Project History). Multi-engine piston aircraft experienced a sharp decline in the early 1990s and have continued to decrease, although at a slower rate. As noted, turbine-powered aircraft (turbo prop and jet) experienced variable growth at the Airport and business jet operations steadily increased from 2003 to 2006, and have remained relatively stable at around 25,000 annual operations since then. This information was included to provide context for the aviation forecasts and demonstrates that the trend in the decline of the piston aircraft is a long-standing trend. The County, in doing the required planning as the Airport proprietor, needs to be cognizant of these trends to ensure the facilities provided at the Airport meet the current and future demands.

The commenter states, the Draft Program EIR does not address the increased volume of aircraft departing via the SID: As noted above, the aviation forecast used in the Draft Program EIR does reflect the increased volume of jet aircraft. Tables 3-5 through 3-7 in the Draft Program EIR provide the constrained aviation forecast data for the Proposed Project. Specifically, Table 3-5 identifies the 2016 baseline information and the projected 2026 forecasts by type of aircraft; Table 3-6 identifies the number of general aviation operations; and Table 3-7 provides the operations forecast by engine type. The aviation forecasts for Alternative 1 are provided in Tables 3-9 through 3-11.<sup>165</sup> These tables clearly show that the increased number of jet aircraft departures were considered in the Draft Program EIR. The *Noise Analysis Technical Study* (Appendix H) and the Draft Program EIR fully addressed the noise impacts associated with the increase in business jets. In conducting the analysis, the general aviation jet aircraft were assigned the appropriate departure path as depicted in Figure 9, referenced above; therefore, the increased number of jets flying over NMS 5, 6, and 7 was fully accounted for.

The commenter states, the Draft Program EIR did not address the ability of business jets to maintain the Airport noise standards: It is unclear what the basis for this concern is. As discussed in the *General Aviation Forecasting and Analysis Technical Report* (Appendix C of the Draft Program EIR), the Design Aircraft (also known as the Critical Aircraft) identified for the facility planning study is a composite aircraft representing a collection of aircraft classified by the three parameters:

- Aircraft Approach Category (“AAC”) – D: Approach speed 141 knots or more but less than 166 knots

<sup>164</sup> The aviation forecasts were developed following the guidelines and methodologies given in the FAA Advisory Circulars (“AC”) 150/5070-6B Change 1, *Airport Master Plans*, and a report prepared by the FAA’s Office of Aviation Policy and Plans (“APO-110”), *Forecasting Aviation Activity by Airport*, dated July 2001. The aviation forecasts are summarized in the Draft Program EIR (Sections 3.6.2 and 3.6.3 for the Proposed Project and Alternative 1, respectively) and discussed in detail in the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts*, which is provided as Appendix D. A summation is provided in the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments.

<sup>165</sup> In addition to the above noted locations, Tables 5-1 through 5-3 provide a comparison of the operational characteristics of the alternatives evaluated in the Draft Program EIR. The Proposed Project and Alternative 1 were evaluated at an equivalent level of detail in the body of the document. In addition, Section 5, Alternatives, evaluated Alternative 2, Alternative 3, and the No Project Alternative.

- Airplane Design Group (“ADG”) – III: Wingspan 79 feet or more but less than 118 feet
- Taxiway Design Group (“TDG”) – 2: Cockpit to main gear 40 feet or more but less than 65 feet, and main gear width 15 feet or more but less than 20 feet

The aircraft used in the forecast would be comparable to aircraft currently operating at the Airport (see Table 5 [Baseline fleet mix] and Table 10 [forecasted GAIP fleet mix] in Appendix H). In addition, any aircraft operating at the Airport would need to comply with the General Aviation Noise Ordinance (“GANO”),<sup>166</sup> which has been adopted by the County of Orange to regulate the hours of operation for commercial carriers and the maximum permitted nighttime noise levels associated with general aviation operations. The GANO also establishes limitations on the maximum single event noise levels, which are applicable to both commercial and general aviation operations. Section 2.6.4 of the Draft Program EIR provides a more detailed discussion of the County’s GANO. In addition, please see the Topical Response pertaining to the GANO, provided in Section 3.1.3 of these Responses to Comments.

**GLS 2-4** The commenter identifies himself as an expert on the subject of Instrument Flight Procedures and offered to discuss this subject in more detail. Further, the commenter states “be sure that all environmental issues are addressed and satisfied before any plan is finalized.” The commenter, requests that a new thorough and accurate Environmental Impact Study be initiated that includes all environmental issues.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see the Responses GLS 2-1 through GLS 2-3 above for specific locations within the Draft Program EIR and technical appendices where information related to the commenter’s concerns can be found. In accordance with CEQA and the CEQA Guidelines, the GAIP environmental impacts are fully and adequately addressed in Draft Program EIR 627. As noted, CEQA does not require an EIR to address issues that are outside of the scope of the project.

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<sup>166</sup> Orange County Municipal Code Article 3 Section 2-1-30

**Letter 119: Schock Boats  
Submitted by Steve Schock  
Dated November 5, 2018**

- SB-1** The comment expresses the desire to maintain at least the current capacity of 596 general aviation aircraft while increasing the number of hangars on the field.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport has capacity of 596 general aviation aircraft, at the end of 2016 (the Baseline for the GAIP), only 482 spaces were occupied. Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act (“CEQA”) Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that included minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use. Additionally, the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in the Table 5-3, in 2026 the forecast identifies that piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1.

The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is “to embrace flexibility to allow for technological advances and market trends”. The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time. However, it is acknowledged and documented in the Draft Program EIR, that the construction of the hangars would reduce the capacity at the Airport for tie-down space.

- SB-2** The comment recommends the County study the applicability of a waiver from the Federal Aviation Administration (“FAA”) to keep the existing location of the perimeter road to avoid needing to reduce capacity for general aviation.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of FAA design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport’s commitment to providing a safe and secure facility for county aviation.



**Letter 120: Signature Flight Support  
Submitted by Julie Broderick  
Dated November 6, 2018**

- SFS-1** The comment is transmitting comments to the County from Signature Flight Support (“SFS”) on the Draft Program Environmental Impact Report (“EIR”) for the General Aviation Improvement Program (“GAIP”).

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- SFS-2** The comment outlines SFS’s knowledge of their understanding of the aviation community and John Wayne Airport (“JWA”).

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- SFS-3** The comment makes a suggestion pertaining to the design of the GAIP. Specifically, the comment identifies the need to provide a balance between aircraft charter and management to improve opportunities for single aircraft owners and providing a more gradual approach for implementation.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- SFS-4** The comment states that SFS has extensive experience with Customs and Border Protection (“CBP”) for General Aviation Facilities (GAF”). The comment makes the observation that the current trend is to establish only one GAF at a neutral location and that recent GAF design demands a large allotment of ramp space.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, that the design assumed the construction of only one GAF, not multiple facilities (see page 3-9 of the Draft Program EIR).

- SFS-5** The comment expresses the opinion that Fixed Based Operator (“FBO”) amenities such as conference rooms, pilot showers and restaurants often go unutilized.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**SFS-6** The comment provides a summation of SFS's success at JWA.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 121: Frank Singer  
Dated November 7, 2018**

- FS-1** The comment provides personal experience of securing hangar space at John Wayne Airport and states that the "improvement plan" is not an improvement for the general aviation community. Any new plan should increase general aviation tie down and hangar space, not reduce it by relocating the perimeter road further from the runway.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of Federal Aviation Administration ("FAA") design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport's commitment to providing a safe and secure facility for county aviation.

- FS-2** The comment states the general aviation community at John Wayne Airport is growing and should have capacity far in excess of 600 planes, which would attract more pilots to Orange County.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport has a current capacity of 596 general aviation aircraft, at the end of 2016 (the Baseline year for the GAIP), only 482 spaces were occupied. Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act ("CEQA") Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that included minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided.

The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use. Additionally, the majority of based aircraft space at the Airport would

remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in Table 5-3, in 2026 the forecast identifies that piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1.

The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is “to embrace flexibility to allow for technological advances and market trends”. The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time. However, it is acknowledged and documented in the Draft Program EIR, that the construction of the hangars would reduce the capacity at the Airport for tie-down space.

**Letter 122: Susan Skinner  
Dated November 21, 2018**

**SK-1** The comment express a concern regarding the possible expansion of private jet hangers at John Wayne Airport (“JWA”). The comment states the opinion that doing so undermines the noise curfew that protects the residents of Newport Beach because private jets are not subject to the noise curfew. Thus, building more capacity for larger private jets, which can fly at any time creates the opportunity for more noise impacts to the community below.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

It should be noted, the existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level (“SENEL”) limits for general aviation aircraft are identified in the General Aviation Noise Ordinance (“GANO”) would not be taken away or modified as a result of the proposed GAIP. The noise analysis provided in the Draft Program EIR (Section 4.7) and in the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* (Appendix H) does evaluate the noise impacts with the assumption the same percent of general aviation jets operating in the evening and nighttime in the 2016 Baseline would operate in the GAIP alternatives. Therefore, the incremental noise increase identified in the Draft Program EIR already reflects that business jets are not restricted by the curfew. For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments.

**Letter 123: Michael C. Smith**  
**Dated November 20, 2018**

**MCS-1** The comment expresses opposition to adding larger private/corporate jets to the current fleet at John Wayne Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

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**Letter 124: Pauline L. Smith**  
**Dated November 20, 2018**

- PLS-1** The comment states the additional noise and pollution associated with the General Aviation Improvement Program (“GAIP”) would be intolerable. The commenter does not want Airport operations outside of the existing 7 a.m. – 11 p.m. hours.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report*, which is summarized in Section 4.7 of the Draft Program EIR and included as Appendix H, evaluates the noise impacts associated with the forecasted fleet mix and operational characteristics. The air quality impacts, including air emissions, were evaluated in Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions. The technical studies supporting the air quality and greenhouse gas emissions are included in Appendices E and G, respectively.

The increased air emissions were evaluated in the Draft Program EIR in Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions. The analysis did identify an incremental increase in air emissions and greenhouse gas emissions; however, the impacts were identified as less than significant pursuant to the South Coast Air Quality Management District (“SCAQMD”) standards.

The Proposed Project would result in minor increases in aviation noise levels compared to the Baseline (2016) condition; however, none of the increases would exceed the thresholds of significance. The increases would occur at four noise monitoring stations (“NMS”) that are within the 65 CNEL contour (NMS 1S, 2S, 3S, and 8N). The largest increase (at NMS 3S) is 0.15 CNEL, which is 0.01 CNEL higher than the Baseline Plus No Project Alternative. Alternative 1 would also result in minor increases in aviation noise levels compared to the Baseline (2016) condition, which would not exceed the thresholds of significance. The increases would occur at four NMS that are within the 65 CNEL contour (NMS 1S, 2S, 3S, and 8N). The largest increase (at NMS 3S) is 0.17 CNEL and is 0.03 CNEL higher than the Baseline Plus No Project Alternative. A person can just barely detect a sound level change of approximately 1 decibel for sounds in the mid-frequency region. When ordinary noises are heard, a young, healthy ear can detect changes of 2 to 3 decibels. This information is summarized in Table 4.7-8 in the Draft Program EIR and the full *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* prepared by Landrum & Brown is included as Appendix H to the Draft Program EIR. Please see the Topical Response pertaining to the General Aviation Noise Ordinance provided in Section 3.1.3 of these Responses to Comments.

**Letter 125: Triad Investment Management  
Submitted by David Hutchison  
Dated November 21, 2018**

**TIM-1** The comment expresses opposition to larger private jets, which would not be subject to the curfew. It also expresses the opinion that increases in nighttime flights would set a dangerous precedent for the future of the JWA curfew, which will be subject to renegotiation in 2035.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response is required. However, as a point of clarification, the County's General Aviation Noise Ordinance ("GANO") establishes limitations on the maximum single event noise levels, which are applicable to general aviation nighttime operations. The existing commercial aircraft curfew and GANO limits would not be taken away or modified as a result of the proposed General Aviation Improvement Program ("GAIP"). For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments.

As a point of clarification, the 2014 Settlement Agreement Amendment specifies that the essential terms and conditions of the 1985 Settlement Agreement, with certain capacity enhancing and other modifications, extend through December 31, 2030, and the curfew restrictions extend through December 31, 2035. The County has no obligation to the settlement parties except as that obligation or restriction is expressly stated in the Settlement Agreement. In conjunction with any possible future Settlement Agreement amendment discussions, the settlement parties will need to review the possibility of amending the Settlement Agreement to extend beyond 2030 and, if so, consider and agree to the terms of any such extension, including consideration of the curfew.



**Letter 126: Martha Unickel**  
**Dated: November 21, 2018**

- MU-1** The comment expresses the opinion that the pollutions from the planes flying over Newport Beach is endangering the health of the community and expresses opposition to the General Aviation Improvement Program, specifically any expansion of the facilities.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, the General Aviation Improvement Program ("GAIP") is not an expansion of the Airport property or operations. The area devoted to general aviation uses at JWA would not change, and the total number of general aviation based aircraft and general aviation flights would actually be reduced compared to the Baseline 2016.

The increased air emissions were evaluated in the Draft Program EIR in Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions. The analysis did identify an incremental increase in air emissions and greenhouse gas emissions; however, the impacts were identified as less than significant pursuant to the South Coast Air Quality Management District ("SCAQMD") standards. Additionally, health effects of the GAIP are discussed in the Draft Program EIR in Section 4.2, Air Quality. Additional detail on this issue is provided in the Topical Response 3.1.6 and in Attachment A of these Responses to Comments.

**Letter 127: U.S. Fasteners  
Submitted by Kevin Halliburton  
Dated November 5, 2018**

**USF-1** The comment states the study should include ways to maintain the 596 general aviation spaces and increase the number of hangars at John Wayne Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. Although the Airport has capacity of 596 general aviation aircraft, at the end of 2016 (the Baseline for the GAIP), only 482 spaces were occupied. Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act (“CEQA”) Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that included minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided.

The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use. Additionally, the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in Table 5-3, in 2026 the forecast identify piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1.

The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is “to embrace flexibility to allow for technological advances and market trends”. The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time. However, it is acknowledged and documented in the Draft Program EIR, that the construction of the hangars would reduce the capacity at the Airport for tie-down space.

- USF-2** The comment recommends the County study the applicability of a waiver from the Federal Aviation Administration (“FAA”) to keep the existing location of the perimeter road to avoid needing to reduce capacity for general aviation tie downs and hangars.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Section 3.6 of the Draft Program EIR, the GAIP will provide the framework for general aviation improvements at the Airport by providing a concept that maximizes the efficiency and safety of facilities. The enhancement of safe and secure operations is one of the Project Objectives established for the GAIP (see Section 3.3 of the Draft Program EIR for the full list of Project Objectives). An important component of aviation safety is the application of Federal Aviation Administration (“FAA”) design standards. Since the GAIP is providing for updating the general aviation facilities, this is when FAA clearance standard dimensions must be applied to the airfield, including the correction of nonstandard conditions where they exist. The FAA does not permit the modification of standards (i.e., a waiver or an exemption to the design standard) unless it can be sufficiently demonstrated that there is no practicable alternative to correct the deficiency and that safety can be maintained. To avoid potential incursions between aircraft and ground vehicles, perimeter vehicle service roads (VSRs) must be adequately separated from runways, taxiways and apron taxilanes. Requesting an exemption from a FAA safety requirement for any of the GAIP alternatives is inconsistent with the Project Objectives and the Airport’s commitment to providing a safe and secure facility for county aviation.

**Letter 128: Polly and David Verfaillie**

**Dated: November 21, 2018**

**PDV-1** The comment expresses opposition to adding larger private/corporate jets to the current fleet at John Wayne Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. As a point of clarification, the General Aviation Improvement Program ("GAIP") does not propose improvements to the airfield that would allow larger general aviation aircraft to fly from John Wayne Airport ("JWA"). The size of aircraft accommodated by the General Aviation Improvement Program ("GAIP") improvements are currently operating at JWA.

**Letter 129: Dan Vogt**  
**Dated: November 20, 2018**

**DV-1** The comment expresses opposition to the proposed General Aviation Improvement Program.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 130: Peggy Vombaur**  
**Dated: November 20, 2018**

**PV-1** The comment expresses opposition to the Project.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 131: Grant Whitcher**  
**Dated: November 21, 2018**

- GW-1** The commenter states that his neighborhood is affected by noise from daily flights. The commenter states “we need to clean up the sky. This must be done every couple of days to prevent staining and build up.” Additionally, he states “the last thing we need is more traffic and larger planes with extended operating hours.” He is opposed to the project.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

As a point of clarification, the General Aviation Improvement Program (“GAIP”) does not propose improvements to the airfield that would allow larger general aviation aircraft to fly from John Wayne Airport (“JWA”). The size of aircraft accommodated by the General Aviation Improvement Program (“GAIP”) improvements are currently operating at JWA. The existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level (“SENEL”) limits for general aviation aircraft are identified in the General Aviation Noise Ordinance (“GANO”) would not be taken away or modified as a result of the proposed GAIP. For additional discussion, please see the Topical Response pertaining to the GANO provided in Section 3.1.3 of these Responses to Comments.

The increased air emissions associated with the change in fleet mix were evaluated in the Draft Program EIR in Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions. The analysis did identify an incremental increase in air emissions and greenhouse gas emissions; however, the impacts were identified as less than significant pursuant to the South Coast Air Quality Management District (“SCAQMD”) standards.

**Letter 132: Christina and Alan White**  
**Dated November 20, 2018**

**CAW-1** The comment expresses opposition to the Project due to impacts on the quality of life. The comment states they are trying to reduce noise and pollution in Newport Beach.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

However, it should be noted, the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report*, which is summarized in Section 4.7 of the Draft Program EIR and included as Appendix H, evaluates the noise impacts associated with the forecasted fleet mix and operational characteristics. The air quality impacts, including air emissions, were evaluated in Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions. The technical studies supporting the air quality and greenhouse gas emissions are included in Appendices E and G, respectively.

The increased air emissions were evaluated in the Draft Program EIR in Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions. The analysis did identify an incremental increase in air emissions and greenhouse gas emissions; however, the impacts were identified as less than significant pursuant to the South Coast Air Quality Management District ("SCAQMD") standards.

The Proposed Project would result in minor increases in aviation noise levels compared to the Baseline (2016) condition; however, the increase would not exceed the thresholds of significance. The increases would occur at four noise monitoring stations ("NMS") that are within the 65 CNEL contour (NMS 1S, 2S, 3S, and 8N). The largest increase (at NMS 3S) is 0.15 CNEL, which is 0.01 CNEL higher than the Baseline Plus No Project Alternative. Alternative 1 would also result in minor increases in aviation noise levels compared to the Baseline (2016) condition, which would not exceed the thresholds of significance. The increases would occur at four NMS that are within the 65 CNEL contour (NMS 1S, 2S, 3S, and 8N). The largest increase (at NMS 3S) is 0.17 CNEL and is 0.03 CNEL higher than the Baseline Plus No Project Alternative. A person can just barely detect a sound level change of approximately 1 decibel for sounds in the mid-frequency region. When ordinary noises are heard, a young, healthy ear can detect changes of 2 to 3 decibels. This information is summarized in Table 4.7-8 in the Draft Program EIR and the full *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* prepared by Landrum & Brown is included as Appendix H to the Draft Program EIR.

Please see the Topical Response pertaining to the General Aviation Noise Ordinance provided in Section 3.1.3 of these Responses to Comments.



**Letter 133: Dana White  
Dated November 21, 2018**

- DW-1** The comment states opposition to adding larger private and corporate aircraft that would be to allowed to operate outside of the curfew hours and would be disruptive to residents.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. It should be noted, the existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level ("SENEL") limits for general aviation aircraft are identified in the General Aviation Noise Ordinance ("GANO") would not be taken away or modified as a result of the proposed GAIP. For additional discussion, please see the Topical Response pertaining to the General Aviation Noise Ordinance provided in Section 3.1.3 of these Responses to Comments.

**Letter 134: Karol Wilson**  
**Dated: November 20, 2018**

**KW-1** The comment is opposed to the General Aviation Improvement Program (“GAIP”) because of perceived ground and air traffic impacts.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. It should be noted, the Proposed Project and Alternative 1 would generate overall fewer automobile trips than the No Project Alternative (see Section 4.8 of the Draft Program EIR). Exhibit 4.8-5 graphically depicts the locations where the Proposed Project would increase the number of automobile trips (west side of the Airport) and the locations where trip reductions are anticipated (east side of the Airport). This same information is shown for Alternative 1 in Exhibit 4.8-7.

**Letter 135: Simone Wilson  
Dated November 20, 2018**

- SW-1** The comment expresses concern about impacts associated with the proposed General Aviation Improvement Project (“GAIP”), especially as it pertains to noise, security and pollution impacts these proposed changes could have, especially when it seems one of the main parties to benefit would be companies running nonresident corporate jet aircraft. The commenter further expresses the opinion that local and smaller privately owned small aircraft would be decreased or priced out from use of their current space.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. The comment is providing an overview of the commenter’s concerns, which are itemized in the subsequent comments. Any specific questions pertaining to the Draft Program EIR are addressed in the subsequent responses. This comment does not present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- SW-2** The comment states that changes of this nature, with so many potential impacts to residents, should be considered and discussed in the community and before the city council over a longer period of time, so more people are aware of what is going on and can become involved in the process.

The outreach on the GAIP to the community surrounding the Airport is being done through the EIR process. As noted in the Draft Program EIR, a Scoping Meeting was held on April 12, 2017 at the JWA Administrative Office in the Airport Commission Meeting Room to facilitate agency and public review and comment on the Notice of Preparation (“NOP”) of the Draft Program EIR. Additionally, and subsequent to the NOP comment period, the Draft Program EIR was distributed for public review and comment. The documents were provided on the Airport’s website to facilitate easy access ([www.ocair.com/DEIR627](http://www.ocair.com/DEIR627)) and as a means of obtaining input from the community. In response to requests for additional time to review the Draft Program EIR, the review period was extended from the 45-day review period identified in the California Environmental Quality Act (“CEQA”) to a 60-day public review period.

As part of the public review process, notices were sent (via U.S. mail or email, dependent on the contact information provided) to attendees of the public scoping meeting or parties that had requested the Airport add their contact information to the mailing list. A total of 756 notices were sent to various agencies, elected officials, organizations, businesses, and individuals. In addition, a notice of public availability of the Draft Program EIR was published in the Orange County Register. Over 300 letters were received on the Draft Program EIR. A public meeting to review the findings of the document was held on September 26, 2018 at the JWA Administrative Offices in Costa Mesa. At this meeting, the public was also given an opportunity to provide input on the Draft Program EIR and to ask questions about the Project (see the transcript from the September 26, 2018 public meeting in Section 3.7, of these Responses to Comments). The County of Orange is the lead agency on the GAIP, which means the Board of

Supervisors will be the decision-makers on the Project.<sup>167</sup> As noted in Section 2.3.3, additional opportunities for the public to voice their opinions as stakeholders will be at the Airport Commission and Board of Supervisors hearings on the GAIP, which is anticipated in the Spring of 2019. Notices of these meeting will be sent to all those that commented on the Draft Program EIR. As noted in the Draft Program EIR, the Board of Supervisors is the decision-making body for the GAIP.

**SW-3** The comment asks if has been determined how many additional general aviation jet aircraft departures will occur in a 24-hour period under the GAIP.

The aviation forecast are summarized in the Draft Program EIR (Sections 3.6.2 and 3.6.3 for the Proposed Project and Alternative 1, respectively) and discussed in detail in the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendix D to the Draft Program EIR). The forecast are characterized by the number of annual operations. Table 9, below, reflects the information in the Draft Program EIR and provides a comparison of the number of operations by aircraft engine type for the Baseline (2016) condition to the constrained forecast for the Proposed Project, Alternative 1, and the No Project Alternative. As noted in the table, an operation is defined as either a takeoff or landing, each counting as one operation; therefore, the number of departures would be half of the numbers shown in the table.

The forecast referenced in the Draft Program EIR and these reports, projects the number of annual operations categorized by aircraft type (including general aviation jets). Although the forecast is prepared for annual operations, a daily average for general aviation jets, derived from the annual operations, could be calculated by dividing the annual number by 365. Based on this calculation, the Proposed Project on average would result in 111 jets operations per day (approximately 56 departures), which is an increase of 24 jets operations per day compared to the Baseline (approximately 12 departures). Alternative 1 on average would result in 113 jets operations per day (approximately 57 departures), which is an increase of 26 jets operations per day compared to the Baseline (approximately 13 departures). However, the actual number of flights would vary each day.

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<sup>167</sup> The role of the lead agency is described in Section 3.4 of the Draft Program EIR.

**TABLE 9**  
**JWA FORECAST OPERATIONS BY AIRCRAFT ENGINE TYPE**  
**COMPARISON OF ALTERNATIVES**

Year	Piston	Turbine	Jet	Helicopter/Other	Total Operations <sup>a</sup>
<b>Existing Conditions</b>					
2016	147,300	9,800	31,800	3,900	<b>192,800</b>
<b>Proposed Project</b>					
2026	111,000	11,700	40,400	4,800	<b>167,900</b>
<b>Alternative 1</b>					
2026	111,600	10,800	41,400	4,800	<b>168,600</b>
<b>No Project (Constrained Forecasts)</b>					
2026	147,000	10,900	38,300	4,800	<b>201,000</b>
Note: Numbers may not add up due to rounding.					
<sup>a</sup> An operation is defined as either a takeoff or landing, each counting as one operation.					
Source: AECOM 2018b (Appendix D to this Program EIR). Taken from Table 5-3 in the Draft Program EIR.					

**SW-4** The comment asks if will there be a cap or a maximum number of general aviation jet aircraft departures allowable during a 24-hour period.

For clarification, the Airport is not allowed to place a cap on the number of general aviation operations at the Airport without complying with the requirements of ANCA, including under most circumstances, prior Federal Aviation Administration (“FAA”) approval. Please see the Topical Response pertaining to Restrictions on General Aviation Operations, which also addresses ANCA, provided in Section 3.1.4 of these Responses to Comments.<sup>168</sup> However, the general aviation operations would be required to comply with the General Aviation Noise Ordinance (“GANO”). As discussed in Section 2.6.4 of the Draft Program EIR, the GANO establishes limitations on the maximum single event noise levels, which are applicable to both commercial and general aviation operations. For additional discussion of the GANO and Flight Restrictions, please see the Topical Responses provided in Sections 3.1.3 and 3.1.4 of these Responses to Comments.

**SW-5** The comment asks how does the GAIP, with its goal of accommodating large corporate jet aircraft at Airport through building additional hangars, benefit Newport Beach and other neighboring communities.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or present any

<sup>168</sup> Section 2.6.2 of the Draft Program EIR provides a brief summarization of the *Airport Noise and Capacity Act of 1990* (“ANCA”). As a general matter, ANCA precludes the local imposition of noise and access restrictions that are not otherwise in accordance with the national noise policy. JWA does have an exemption from ANCA’s limitations as it applies to JWA’s existing curfew, limitations on the number of annual passengers, number of average daily commercial carrier departures, and related limitations because the 1985 Settlement Agreement, as amended, is grandfathered under ANCA. However, the exemption does not extend to limitations on the number of general aviation departures. Please also reference the topical relating to ANCA.

issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, to clarify, the goal of the GAIP is not to accommodate large corporate jets. The GAIP objectives include, but are not limited to, maximizing the efficiency of the facilities at the Airport, providing the necessary infrastructure to support general aviation, enhancing safety, and providing the flexibility to respond to technological advances and market trends. The Draft Program EIR does not purport the GAIP will benefit the City of Newport Beach or the neighboring communities. Although the Draft Program EIR does identify measures that would reduce potential impacts and would provide benefit to the larger community, the focus of the project is on the Airport, not the surrounding community.

- SW-6** The comment asks if the GAIP result in an increase of international flights to JWA via general aviation jet aircraft.

The *General Aviation Forecasting and Analysis Technical Report* (Appendix C of the Draft Program EIR) has estimated potential international general aviation departures/arrivals if U.S. Customs and Border Protection (“CBP”) inspection services were to be provided at JWA. Although the Airport does not currently provide general aviation CBP services, flights with international origins and destinations currently use the Airport. As noted in the Draft Program EIR, flights with an international origin are required to stop at an airport that offers general aviation CBP services prior to landing at the Airport. The Forecasting and Analysis Report provides a thorough discussion of how the baseline and forecasts were developed for international operations (see Section 6.4 of the Forecasting and Analysis Report). The long-term projected growth rates are comparable to the forecast global economy and represent a reasonable range of potential international activity growth. The Baseline (2016) estimates there are 447 annual international departures from John Wayne Airport. The forecast projected an increase to approximately 490 annual international departures by 2026. For additional information on the international flights, please see the Topical Response on Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments.

- SW-7** The comment asks if the GAIP increases the number of international flights in and out of JWA, will there be a cap or maximum number allowed during any a 24-hour period.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As discussed in Response SW-4, the Airport would not be allowed to place a cap on the general aviation activities, including international flights.

- SW-8** The comment asks how many international flights are anticipated to arrive at JWA on a daily or weekly basis.

The aviation forecasts provide the flights on an annual basis. As noted in Response SW-6, the estimated annual international departures from John Wayne Airport is projected to increase from 447 flights established for the Baseline (2016) to approximately 490 annual international departures by 2026.

- SW-9** The comment asks what type of Transportation Security Administration (“TSA”)-type security screening will be conducted regarding the increasing numbers of larger international general aviation aircraft if the GAIP is approved.

As noted on page 3-9 of the Draft Program EIR, the provision of space to accommodate a General Aviation Facility (“GAF”) to permit international arrivals is an optional improvement under the GAIP. The Full Service FBOs have been sized such that the GAF could be accommodated at any of the Full Service FBOs. However, it is assumed that the facility would be part of one of the full service FBOs.

The description of the GAF (see page 3-11) identifies the processing of international passengers would be conducted in accordance with federal guidelines. CBP defines a GAF as facilities provided at airports for specialized functions such as processing of corporate and private aircraft, cargo planes with passengers, and charter aircraft. GAF facilities are normally located at small, low volume airports and provide U.S. CBP with the ability to process up to 20 passengers and their baggage at one time. Facilities would be designed in compliance with the CBP Airport Technical Design Standards (“ATDS”) and would comply with all applicable Department of Homeland Security requirements.

With regard to ensuring there is adequate security and security screening of passengers on business jets, the 2001 *Aviation and Transportation Security Act* (“ATSA”) created the TSA and transferred aviation security functions from the FAA to the TSA. Section 132(a) of ATSA requires the Under Secretary of Transportation for Security to “implement a security program for charter air carriers. . . with a maximum certificated takeoff weight of 12,500 pounds or more.” Regulations also require charter operators (including scheduled or charter service, carrying passengers or cargo or both), conduct criminal history records checks on their flight crew members, and restrict access to the flight deck.<sup>169</sup> The program that outlines the security measures and requirements for these operators is known as the Twelve-Five Standard Security Program (“TFSSP”). TSA updates the requirements to address industry concerns as necessary. The latest version is dated March 5, 2017. The TFSSP is classified as Sensitive Security Information (“SSI”); therefore, the training and information on the plan is only available to those operators that have a TFSSP program established with the TSA.

JWA and its fixed base operators (“FBO”) consistently maintain security levels in accordance with TSA security programs such as the TFSSP, and will continue to do so. Specifically, and as mentioned above, charter operators comply with TSA regulations to conduct criminal history records checks on crew members, restrict access to the flight deck area and, for scheduled public charters, trace detection screening is done on baggage, passengers are vetted through federal databases when a reservation is made, and passenger identification is verified prior to boarding the charter flight. It should also be noted that multiple layers of security screenings are performed at JWA including, but not limited to, initial screening of general aviation users upon entry at security entry gates or through an FBO. Regardless of the GAIP alternative selected, high levels of safety and security compliance will continue to be maintained airport-wide, including measures for general aviation security.

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<sup>169</sup> <https://nbaa.org/aircraft-operations/security/programs/twelve-five-standard-security-program-tfssp/>

- SW-10** The comment asks what is the predicted net average daily change in aircraft departures and arrivals if the GAIP is approved.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Response SW-3 for information on the total number of flights in each of the various scenarios. As shown in Table 9, provided in Response SW-3, the total number of aircraft operations would decrease compared to Baseline (2016) but the decrease is not across all aircraft type.

- SW-11** The comment asks if how many general privately owned jets will the Airport be capable of handling during a 24-hour period if the GAIP is approved.

The number of jets that can be accommodated in a 24-hour period is a theoretical question and is dependent on multiple factors (e.g., airfield capacity, weather conditions, etc.). Therefore, the commenter is referred to the aviation forecast, summarized in the Draft Program EIR (Sections 3.6.2 and 3.6.3 for the Proposed Project and Alternative 1, respectively) and discussed in detail in the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendix D of the Draft Program EIR). The forecasts, as well as the average number of daily operations based on the annual forecasts is provided in Response SW-3 provides the aviation forecast operations for the GAIP.

- SW-12** The comment asks if how many overnight hangers or other spaces will be made available for general aviation privately owned jet aircraft if the GAIP is approved.

Tables 3-4 and 3-8 in Draft Program EIR provide a comparison of the existing aircraft parking spaces and the proposed aircraft parking spaces for the Proposed Project and Alternative 1, respectively. These tables include how the spaces are distributed between tie-down spaces and hangars. This information is summarized in Table 10 below, which also reflects the number of spaces that were being used in 2016 when the baseline was developed. The characteristics of each type of the aircraft storage facilities is provided in Section 3.6.1 of the Draft Program EIR. As noted in the Draft Program EIR, the Box Hangars and Community Hangars can accommodate business aircraft, including jets; however, the actual aircraft that would be accommodated would be determined by the FBOs.



**TABLE 10**  
**FACILITIES COMPARISON OF EXISTING CONDITIONS**  
**AND THE PROPOSED PROJECT**

Facility	Aircraft Parking Spaces			
	Existing Capacity	Currently Used (Baseline 2016)	Proposed Project	Alternative 1
Tie-Down Apron	302	222	135	119
T-Hangars	111	111	96	114
Box Hangars (includes OCSD)	45	45	35	5
FBO/Community Hangars	23	23	47	62
Shade Structures	66	66	0	0
FBO Apron Spaces <sup>a</sup>	49	15	41	56
<b>Total</b>	<b>596</b>	<b>482</b>	<b>354</b>	<b>356</b>
Note: The type and size of aircraft parked at an FBO facility may vary based on demand and can change frequently; therefore, the actual number and type of aircraft at the Airport may differ from what is shown in this table. <sup>a</sup> Includes eight tie-down spaces at Martin Aviation and one tie-down space for the OCSD. Source: Tables 3-4 and 3-8 in Draft Program EIR 627, 2018 (taken from Appendix D to the Draft Program EIR)				

The *General Aviation Opportunities Facilities Layout Report*, which was provided as Appendix B to the Draft Program EIR evaluated low, medium and high density scenarios. Under these scenarios, FBO hangar capacity would range from three jets to seven jets. The low density scenario would accommodate three large jets; medium density would accommodate three large jets plus two smaller jets (for a total of five jets); and the high density scenario would accommodate seven smaller jets. The medium density scenario (five jets per hangar) was used for planning purposes because:

- Five aircraft is the median/average density factor;
- This scenario has a mix of large and medium/small jets, which best represents normal or average daily FBO operations;
- Priority is typically offered to the largest aircraft that fits within the space available until the hangar is full, which results in a mix of aircraft sizes; and
- Generally, the five aircraft scenario is assumed to maximize FBO revenue generating potential.

Although it may be possible to load every hangar with up to seven small jets, that scenario is unlikely to occur because it dismisses the presence of the larger global jets, which is not a reasonable assumption because the larger jets will always be present at JWA. These assumptions are reasonable and the most appropriate for the disclosure of potential environmental impacts.

**SW-13** The comment asks if what will be the economic benefit to JWA if the GAIP is approved.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. The economic effects are not addressed in the Draft Program EIR. CEQA (Section 21080(e)), the State CEQA Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project's potential effects that do not result, directly or indirectly, in a "physical change" to the environment. Indeed, noting that CEQA does not require analysis of impacts that are solely economic in nature.<sup>170</sup>

Section 2.5.1, of the Draft Program EIR (General Setting) does provides some general information on the Airport's contribution, as a whole (commercial and general aviation), to the regional economy, including general revenues through fees and charges, and taxes paid by passengers, employers and employees. General aviation revenues at JWA account for approximately 4 percent of the Airport's total revenue stream.<sup>171</sup>

As noted in Section 5.5 of the Draft Program EIR, the full utilization of the portion of the Airport dedicated to general aviation aircraft would maximize the area that would support revenue-producing facilities.

**SW-14** The comment asks if the GAIP is approved, will existing flight schools be permitted to continue their operations. Further the comment asks if not, will flight school(s) specializing in jet aircraft flight instruction replace existing flight schools.

Provisions for three flight schools is specifically called out under description of the facilities improvements (Section 3.6.1 of the Draft Program EIR). The Draft Program EIR states the evaluation of facilities required to service flight schools included consolidation of schools into one location resulting in some efficiencies because the flight schools could share classroom space and other common use areas, such as the pilot shop and testing center, restrooms, and a break room. The combined office space, which includes the classrooms, flight simulator rooms, and testing room, for the three schools would be an estimated 9,342 square feet. The combined apron area would be approximately 142,566 square feet, which would accommodate 47 tie-down spaces. Additionally, there would be space to accommodate approximately 52 vehicle parking spaces. The location of the flight schools is shown on the Conceptual Facilities Layout Plans (see Exhibit 3-1 for the Proposed Project and Exhibit 3-4 for Alternative 1). The facilities would be able to accommodate both fixed-wing and rotor wing aircraft. The GAIP would not preclude a flight school in offering jet aircraft flight instruction.

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<sup>170</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.)

<sup>171</sup> *JWA FY 2016-17 Revenue Report* <https://www.ocair.com/investorrelations/financials/revenuereports/FY16-17.pdf>

- SW-15** The comment asks if any flight schools specializing in jet aircraft flight instruction are anticipated, will a cap or maximum number of training departures and arrivals during a 24-hour period be established.

The GAIP identifies the facilities that would be allocated to accommodate the flight schools. The facilities would be able to accommodate both fixed-wing and rotary wing aircraft. The GAIP would not preclude a flight school in offering jet aircraft flight instruction; however, currently the flight schools at the Airport are predominately piston-engine fixed wing aircraft, and rotorcraft users. As noted above, in Response SW-4, the Airport is not allowed to place a cap on the number of general aviation operations at the Airport without complying with the requirements of ANCA, including under most circumstances, prior FAA approval. However, the operations associated with the flight school would be required to comply with the GANO. Please see the Topical Response pertaining to Restrictions on General Aviation Operations, which also addresses ANCA, provided in Section 3.1.4 of these Responses to Comments.

- SW-16** The comment asks if any flight schools specializing in jet aircraft flight instruction are anticipated, will hours for their operation and training flights be established.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Response SW-15, above.

- SW-17** The comment expresses the opinion that the conclusion in the Draft Program EIR that there would not be a significant impact in terms of noise, air quality, hazardous materials, etc., is unrealistic. The comment further states there has been insufficient consideration of the additional noise and pollution that will be created; especially considering the leaded fuel mixture used by private general aviation jet aircraft and their exemption from curfew hours under general aviation regulations.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not provide any evidence that the analysis of potential noise, air quality, and hazardous materials impacts in the Draft Program EIR is insufficient.

Section 4.7 (Noise) of the Draft Program EIR summarizes the applicable regulatory setting; provides qualitative and quantitative information regarding the existing noise environment; quantifies and identifies the incremental increase in noise attributable to the GAIP; and discloses the significance of that incremental increase by reference to noise thresholds established by the County of Orange.<sup>172</sup> The noise analysis prepared for the Draft Program EIR, used the data from the aviation forecasts and follows the methodologies and criteria included in FAA Order 1050.1F for the assessment of aircraft

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<sup>172</sup> Although the City of Newport Beach Noise Thresholds would not be applicable to the GAIP, the Draft Program EIR did identify the City's thresholds and none of the changes in noise levels between the 2016 Baseline and the 2026 cumulative condition at NMS in the City of Newport Beach would exceed the City's thresholds. Additionally, the Sound Insulation Program adopted as part of the 2014 Settlement Agreement Amendment include the City of Newport Beach thresholds for sensitive receptors in the City of Newport Beach.

noise impacts. Order 1050.1F requires the use of the FAA Airport Environmental Design Tool Version2d ("AEDT") to create noise exposure contours.

The operational emissions resulting from the GAIP (Proposed Project and Alternative 1) were calculated using the required FAA AEDT model. Due to the change in projected fleet mix, the Draft Program EIR does identify an incremental increase in the aviation-related air emissions. The increased air emissions were discussed in Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions. However, the impacts were identified as less than significant pursuant to the South Coast Air Quality Management District ("SCAQMD") standards. In addition to the analysis in the Draft Program EIR, the Topical Response pertaining to Health Risk provided in Section 3.1.6 of these Responses to Comments, provides additional detail on the potential impacts associated with increased air emissions.

As noted above, without more specific information on the perceived inadequacies of the analysis in the Draft Program EIR, no further response to this comment is possible.

**SW-18** There have been numerous studies reported in many peer-reviewed scholarly journals that airport noise and pollution have serious health impacts for neighboring communities. It is unrealistic to conclude that if the GAIP is approved that there will be no significant negative environmental impact to Newport Beach and other neighboring communities.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Again the comment does not provide any evidence that the analysis of potential impacts in the Draft Program EIR is insufficient. However, the following does provide more information on the issue raised.

There is biological plausibility for health impacts of environmental noise. Such health impacts may be the result of sleep disturbance, 'fight and flight' physiological response and/or annoyance. Stress associated with noise impacts may be a potential mechanism for some of these health responses. The World Health Organization ("WHO") Environmental Noise Guidelines for the European Region published late 2018<sup>173</sup> provides a current summary of health effects studies. Addressed in these studies are noise effects on cardiovascular disease, hypertension, ischaemic heart disease, stroke, metabolic effects (diabetes, obesity, waist circumference, metabolic biomarkers), birth outcome and mental health (note: there were very few studies on mental health effects). There is consensus that noise impacts health. Where there is little consensus is with regard to at what level these effects occur (threshold) and how these effects change with changing noise exposure.

The WHO, in developing its recommendations for acceptable levels of environmental noise, considered health effects and annoyance. With the respect to health effects the WHO based its daytime recommendation on annoyance response only, as it found the studies of ischaemic heart disease 'very low quality,' hypertension studies 'low quality,' and annoyance studies of 'moderate quality.' Note that these ratings of quality used the strictest of interpretations and in particular referred to the few and quality of a dose-

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<sup>173</sup> WHO, 2018

response relationships not as to whether these effects were plausible. It was the lack of dose-response relationships that caused the WHO recommendation to be based solely on annoyance. This is not inconsistent with the use of annoyance as a precursor to health effects (i.e., using annoyance as the ‘canary in the coal mine’). The assumption is that health impacts are not likely to occur in the absence of annoyance. Or said in the reverse, where there is reported high annoyance there may be corresponding health impacts.

The current national aviation noise policies are presented in Federal Air Regulation Part 150 (Noise Control and Compatibility Planning For Airports) and FAA Order 1050.1F (Environmental Impacts: Policies and Procedures). A brief summary of the policy is that residential land uses are considered compatible with airport noise where the noise exposure is 65 DNL or less. In terms of defining a significant environmental impact from an airport project, any increase in noise greater than 1.5 dB in an area where noise levels exceed 65 DNL is considered significant for purposes of the National Environmental Policy Act (“NEPA”). The main controversies over the current FAA policies lies essentially with these two policies. In simplest terms, many people who live in noise levels below 65 DNL self-identify as significantly impacted and people who have experienced noise increases not considered significant under NEPA are not in agreement with that finding.

In recent years after considerable complaints and lobbying to Congress, there has been a renewed interest in re-evaluating FAA policies that are now over 40 years old. The FAA initiated a study of US airports in 2015 as “the next step in a multi-year effort to update the scientific evidence on the relationship between aircraft noise exposure and its effects on communities around airports.”<sup>174</sup> The survey consist of 20 airports around the US. In order to avoid bias in survey response, the FAA did not announce which airports would be surveyed. As part of the 2018 FAA Reauthorization Act the FAA was directed by Congress to publish the results of the survey along with a revised national aviation noise policy in October 2020.

**SW-19** The comment asserts the assumptions supporting the noise analysis are flawed and unrealistic. The comment identifies the assumptions for the cumulative analysis that assumes increased usage of the quieter 737-MAX and Airbus A320-NEO. The comment states this is speculation and is in conflict with the 2014 Settlement Agreement EIR noise modeling.<sup>175</sup>

Final EIR 617 did not include MAX and NEO aircraft types in the noise analysis because it was too speculative at that time. However, since the certification of Final EIR 617 in 2014, the airlines have begun to integrate aircraft with the MAX and NEO engines into their fleet mix. In order to provide an accurate and realistic noise analysis, this Draft Program EIR has included MAX and NEO aircraft types based, in part, on the data of orders of the MAX and NEO by airlines and the expectations relating to the airlines continuing to utilize MAX and NEO aircraft types, as discussed in more detail below. This

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<sup>174</sup> [https://www.faa.gov/news/press\\_releases/news\\_story.cfm?newsId=18774](https://www.faa.gov/news/press_releases/news_story.cfm?newsId=18774)

<sup>175</sup> The comment incorrectly states that the projection in the Draft Program EIR assumes that by 2016, 40 percent of the Boeing 737 and Airbus A320 aircraft using JWA will include the quieter 737-MAX and Airbus A320-NEO. This assumption was made for the 2026 cumulative analysis, which incorporates the increased commercial carrier activity allowed by the 2014 Settlement Agreement Amendment, not the 2016 analysis. It is assumed this was a typographical error.

information was not available at the time of preparation of EIR 617. Therefore, the assumptions in the Draft Program EIR are different than the 2014 EIR 617. However, it should be noted, a comment received on the Notice of Preparation (“NOP”) for EIR 617 from Boeing Company requested that the analysis in EIR 617 be conducted using newer and next generation aircraft, such as the 737-900ERW, 787, 737-MAX, or comparable aircraft by other manufacturers into the fleet mix at the Airport. At that time, the 737-900ERW and 787 were in use at other airports and the 737-MAX was still in production.<sup>176</sup> EIR 617 acknowledged that these newer aircraft may generate less noise and have fewer air emissions compared to the current fleet at the Airport. In addition, since several of these aircraft accommodate more passengers than aircraft in the current fleet, EIR 617 stated it may be possible to serve more passengers (within the passenger cap) with fewer operations. EIR 617 also acknowledged that given the length of the planning timeframe for the Settlement Agreement Amendment (through 2030), it was reasonable to assume that there will be interest in introducing newer and next generation aircraft (EIR 617, page 1-19).

In all predictive and forecast modeling, there are assumptions that must be made regarding future variables. These assumptions are not guarantees or commitments for these aircraft to fly at John Wayne Airport (“JWA”), but rather estimates made from the best available data and using professional judgment and technical expertise. The impact of those variables related to these two aircraft types are fully understood, taken into account in the Draft Program EIR environmental analysis, and believed to be a conservative estimate so as not to overstate the benefits of these aircraft in 2026.

The assumptions made for purposes of the Draft Program EIR analysis are based on airline orders, statements by airlines regarding the use of the MAX and NEO, and factors that affect airlines decision-making on aircraft purchases. All of these indicate a high utilization of the MAX and NEO at the Airport in the future. The following items provide additional documentation to support the assumptions for the MAX and NEO in this Draft Program EIR.

- The aircraft are currently operating at the Airport by Southwest (Boeing 737 MAX) and Frontier Airlines (Airbus 320 NEO).
- Other airlines operating at the Airport are currently utilizing these aircraft or have orders with Boeing and Airbus for these aircraft within the next 8 years. These airlines include: Alaska (Airbus 320 NEO), American (Boeing 737 MAX and Airbus 320 NEO), WestJet (Boeing 737 MAX), and Delta (Airbus 320-NEO).
- Gary Kelly, Southwest CEO stated that he expects 60 percent of the Southwest fleet will eventually be the Boeing 737 MAX. According to the airline, Boeing will deliver 15 of the 737 MAX in 2019, 25 in 2020, 23 in 2023 and 11 in 2024.<sup>177</sup>

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<sup>176</sup> Several of the aircraft, such as the 737-900WRW and the 787 would potentially require physical modifications to the Airport facilities, which was not a component of EIR 617.

<sup>177</sup> <https://leehamnews.com/2018/03/01/southwest-ceo-sees-60-fleet-becoming-737-7/>

- Southwest's current fleet of 737-700s, which includes more than 500 aircraft, will start to retire in 2022 and Southwest has stated they are replacing them with 737-MAX aircraft.<sup>178</sup>
- Delta agreed to an order of 100 Airbus 321NEOs and expects to take delivery of its first A321NEO in the first quarter of 2020 with new aircraft arriving through 2023.<sup>179</sup>
- The Boeing 737 MAX aircraft use the CFM International LEAP-1B® engine and the Airbus NEO aircraft uses the CFM International LEAP-1A or Pratt & Whitney PW1000G engines with winglets. These engines offer operators a 12-15 percent reduction in fuel consumption. This factor makes this aircraft/engine combination appealing to airlines as fuel cost is a major factor in airline decisions regarding aircraft purchases. In addition, the fuel taxes in California make operating a more fuel efficient aircraft more appealing and it is assumed airlines will use the MAX and NEO aircraft more in higher fuel price areas.<sup>180</sup>

In addition, and importantly, this assumption applies *only* to the cumulative analysis in the Draft Program EIR and modification of the fleet mix would not change the finding of significance of the cumulative noise impacts. As noted in Section 4.7.8 of the Draft Program EIR 627, the 2014 Final EIR 617 identified significant unavoidable impacts for noise and associated land use compatibility, for which a Statement of Overriding Considerations was adopted. However, as stated in the Draft Program EIR 627 on page 4.7-40, Table 4.7-13, the GAIP's contribution to the cumulative impact is not substantial. The proposed GAIP would change only the general aviation operations and fleet mix at JWA. The Proposed Project and Alternative 1 do not change the number of air carrier operations, runway use, or flight tracks for the commercial carrier operations. Therefore, even if the fleet assumptions for the commercial carriers was modified, the GAIP contribution to the cumulative noise contours would not change. The air carrier operations at JWA are the greatest influence on the size and shape of the noise contours, while the general aviation traffic contributes only a small amount to the contour size and shape. The assumptions for commercial operations are consistent for each of the GAIP scenarios evaluated. Therefore, conducting further analysis of cumulative noise impacts with different fleet mix assumptions for the commercial carrier operations would not change the findings presented in Draft Program EIR 627. No additional analysis is warranted.

**SW-20** The comment states general aviation jet aircraft have a long history of violating noise limits. The comment asks how will this be better controlled, especially given the current lack of regulation of the general aviation jet aircraft fleet.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport acknowledges that there are violations, to characterize it as a history of violating the

<sup>178</sup> <https://www.cnn.com/2018/01/03/southwest-airlines-wants-larger-boeing-737-max-8s-soon.html>

<sup>179</sup> <https://news.delta.com/delta-selects-airbus-a321neo-narrowbody-fleet-renewal>

<sup>180</sup> <https://www.cfmaeroengines.com/engines>

noise limits does not consider the data in the full context. In the period from July 1, 2017 through June 2018, there was a compliancy rate of 99.9 percent.

As discussed in the Topical Response pertaining to the GANO, provided in Section 3.1.3, when an aircraft exceeds the GANO noise limits at one or more locations, a “Notice of Violation” is issued to the registered owner of the aircraft. The Notice of Violation applies to the aircraft owner, the aircraft operator, and the aircraft. Notices of Violation remain in effect for three years after the violation date. If three GANO violations occur within a three-year period, the aircraft owner, the aircraft operator and the aircraft are subject to denial of use of the Airport for a period of three years. In light of the 99.9 percent compliance rate and the minimal number of repeat offenders, the County has implemented a program that does effectively addresses compliance with the regulations.

**SW-21** The comment asks if there would be an increase in the number of general aviation jet aircraft nighttime arrivals and departures and how many.

As stated in Appendix H, page 53, the noise analysis for the GAIP assumes the same percent of general aviation jets operating in the evening and nighttime in the 2016 Baseline would operate in the GAIP alternatives. This results in approximately 9 percent of the business jets operating on an average annual day operating during the evening period and approximately 3 percent operating during the nighttime period.

Based on the forecasts provided in Table 3-7 of the Draft Program EIR, in the Baseline (2016), there were 31,800 annual operations were flown by aircraft with jet engines. In 2026, this would increase to 40,400 for the Proposed Project and 41,400 for Alternative 1. Using the 3 percent nighttime operations factor, this equates to the Proposed Project resulting in approximately 258 additional nighttime operations (0.71 additional operations per night) compared to the Baseline (2016). However, each take-off and landing is considered a separate operation. Therefore, it would result in an average of 0.35 additional nighttime departures on a daily basis. For Alternative 1, there would be approximately 288 additional nighttime operations (0.79 additional operations per night). Therefore, with Alternative 1 there would be an average of 0.39 additional nighttime departures on a daily basis.<sup>181</sup> It should be noted, the actual number of flights would vary each day because this number is based on a mathematical equation that derives a daily number of nighttime operations based on the annual forecast.

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<sup>181</sup> Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. The following calculations were done to determine the expected increase in daily nighttime departures:

- The difference between the number of 2016 jet operations and the 2026 jet operations is calculated.
- The number of operations is then multiplied by 0.03 because 3 percent of the flights are projected to be nighttime flights. Since the number of operations are given as annual operations, this number is then divided by 365 to come up with a daily average number of nighttime operations.
- The number of nighttime operations is divided by two, which provides the number of nighttime departures.



- SW-22** The comment asks if the Airport will place a limit on the number of nighttime arrivals and departures of general aviation jet aircraft. Further, they ask what limitations will be or if no limitation will be set, why not.

The Airport acknowledges this comment. The GAIP is not proposing to modify the GANO, which is the basis for the curfew. JWA has extensive noise restrictions not available at most airports in the country. The *Airport Noise and Capacity Act of 1990* (“ANCA”) precludes the local imposition of noise and access restrictions that are not otherwise in accordance with the national noise policy. JWA does have an exemption ANCA’s limitations as it applies to JWA’s existing commercial carrier curfew, limitations on the number of annual passengers, number of average daily commercial carrier departures, and related limitations because the 1985 Settlement Agreement, as amended is grandfathered under ANCA. However, the exemption does not extend to limitations on the number of general aviation departures. ANCA is discussed in Section 2.6.2 of the Draft Program EIR. Additional information is also provided in the Topical Response pertaining to Restrictions on General Aviation Operations provided in Section 3.1.4 of these Responses to Comments.

- SW-23** The comment asks if there will be a limitation on large general aviation jet departures, especially during the existing curfew hours. The comment further asks if there will be what will they be and if not why not.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Response SW-22, which addresses this issue.

- SW-24** The comment asks if the GAIP conclusions of no significant noise or pollution impact take into consideration the Next-Gen satellite-precision concentrated flight paths that have clearly has a significant negative impact on Newport Beach.

The purpose of the Draft Program EIR is to evaluate the impacts associated with the GAIP. As such, the impact analysis is focused on the impacts associated with implementation of the GAIP compared to the Baseline (2016).

As stated in the Draft Program EIR, Section 1.9, the FAA began implementation of Metroplex procedures in late 2016 (arrivals from the north) and continued through December 2017. The Baseline condition for the Draft Program EIR is 2016, which was the latest year with full data at the time of the release of the Notice of Preparation (“NOP”) and the initiation of the technical studies.

When the Baseline was established, the FAA was (and currently still is) reviewing procedures for possible implementation of the City-requested procedure that would utilize satellite guidance to more accurately direct aircraft along the middle of the Upper Newport Bay. If a modified departure pattern is approved, it is anticipated that implementation of Newport Beach’s requested procedure could result in minor modifications to the noise contours provided in this Program EIR; however, any modifications would not be as a result of or related to the GAIP. Any environmental impacts associated with the change, would be addressed by the FAA as part of their action changing the flight path in the context of the National Environmental Policy Act

(“NEPA”) process. It should be noted, the County of Orange, as the proprietor of the Airport, has no authority or control over aircraft in flight. Rather, the FAA has exclusive regulatory jurisdiction over flight paths, and the pilot-in-command of each aircraft is responsible for safely maneuvering the aircraft in accordance with the FAA’s airspace procedures. The Topical Response pertaining to Flight Path Procedures provided in Section 3.1.2 of these Responses to Comments provides additional information on this issue.

The identification of the cumulative projects (Section 4.0.1 of the Draft Program EIR) and the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* (Appendix H, page 86), clearly state due to the uncertainty of the final departure pattern, the cumulative noise analysis does not assume different flight paths than what are currently being used because it would be speculative. Section 15145 of the CEQA Guideline does not require a lead agency to speculate on potential impacts. For additional discussion on this issue, please see the Topical Response pertaining to Flight Path Procedures provided in Section 3.1.2 of these Responses to Comments.

**SW-25** The comments expresses the opinion that the Health Risk Analysis (“HRA”) conclusions in Section 4 of the Draft Program EIR are complicated and confusing. The commenter states that the Draft Program EIR relies heavily on the analysis conducted for the 2014 Settlement Agreement (“EIR 617”), which was conducted prior to the implementation of the FAA Next Gen flight patterns that are flown today. The commenter states the opinion that the Draft Program EIR does not anticipate the different emissions anticipated from the expected increase in general aviation jet aircraft if the GAIP is approved or discussion of the potential health impacts to more sensitive members of the community, especially the impact on children. The comment references “numerous studies conducted and published in peer-reviewed scholarly journals about the serious health issues caused by airports, . . . from airport pollution are present within 10 miles of an airport.”

**SW-26** The comment states although the Draft Program EIR states there will be no change in flight patterns, it is unclear as to the flight patterns that were used for its analysis. It is also unclear what flight patterns would be followed by general aviation jet aircraft upon approval of the GAIP. Clarification is needed to assess the differences between general aviation and commercial aircraft departure patterns and how they might change upon approval of the GAIP.

Page 42 of Appendix H describes the flight patterns and Figure 9 shows the existing flight patterns. These together describe the current flight patterns. Section 6.1.1 on page 53 of Appendix H, states the assumption that no change in flight paths would occur. Further it explains “Flight tracks into and out of JWA are well established, particularly with the Airport’s noise abatement procedures.” The noise analysis properly modeled the appropriate flight paths for the type of aircraft in forecasts for each of the scenarios. This assumption applies to both commercial and general aviation. For additional information please see the Topical Response pertaining to Flight Path Procedures provided in Section 3.1.2 of these Responses to Comments.

**SW-27** The commenter requested to be kept informed of all developments related to this Draft Program EIR, including public notices in regards to the GAIP and the Notice of Availability of the Final Program EIR.

The Airport acknowledges this comment. Consistent with County policy, the Airport will notify you when the Responses to Comments are available and of upcoming hearings.

**Letter 136: Mike Wolf**  
**Dated: October 7, 2018**

- MW-1** The comment identifies a concern about increased noise levels that would be generated by an increased number of business jets operating at the Airport. Therefore, the commenter supports Alternative 3 because it would result in the reduction of the least number of spaces for small aircraft.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

Although this comment does not raise any specific issue regarding the analysis in the Draft Program EIR, it should be noted that Section 4.7 evaluates the noise impact associated with the GAIP (Proposed Project and Alternative 1). The Proposed Project would result in minor increases in aviation noise levels compared to the Baseline (2016) condition however, none of the increases would exceed the thresholds of significance. The increases would occur at four noise monitoring stations ("NMS") that are within the 65 CNEL contour (NMS 1S, 2S, 3S, and 8N). The largest increase (at NMS 3S) is 0.15 CNEL, which is 0.01 CNEL higher than the Baseline Plus No Project Alternative. Alternative 1 would also result in minor increases in aviation noise levels compared to the Baseline (2016) condition, which would not exceed the thresholds of significance. The increases would occur at four NMS that are within the 65 CNEL contour (NMS 1S, 2S, 3S, and 8N). The largest increase (at NMS 3S) is 0.17 CNEL and is 0.03 CNEL higher than the Baseline Plus No Project Alternative. A person can just barely detect a sound level change of approximately 1 decibel for sounds in the mid-frequency region. When ordinary noises are heard, a young, healthy ear can detect changes of 2 to 3 decibels. This information is summarized in Table 4.7-8 in the Draft Program EIR and the full *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* prepared by Landrum & Brown is included as Appendix H to the Draft Program EIR.

**Letter 137: Kenneth A. Wong  
November 21, 2018**

- KAW-1** The comment, which was also a comment sent to a larger distribution list, identified the County's "regrettable rejection of the Federal government's intended gift of the entire El Toro Airbase for dedicated-use as Orange County International Airport."

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, the County's decision to not accept the Marine Corps Air Station ("MCAS") El Toro was based on the voters' approval in 2002 of Measure W, which designated the base for the development of the Orange County Great Park and eliminated planned aviation uses for the site.

- KAW-2** The comment states John Wayne Airport ("JWA") was designed and intended solely for small, private, single-engine, propeller aircraft operations only.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

It should be clarified, John Wayne Airport ("JWA") has a history of commercial aviation. In 1952, Bonanza Airlines started the first regularly scheduled airline service. In 1963, the Orange County Board of Supervisors adopted the first master plan for the development of JWA. By 1968, jet aircraft served the Airport (the Douglas DC-9, with the Boeing 737 being added in 1969) and the terminal building was handling nearly 750,000 annual passengers. In 1985, over 3.2 million passengers were served at JWA.

- KAW-3** The comment expresses opposition to adoption of the General Aviation Improvement Program ("GAIP"), or any actions that cause or contribute to an increased change in the type, size, or jet engine size of permitted aircraft, and fleets that would increase or expand the existing curfew on take-offs and landings at JWA.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. It should be noted, the existing commercial aircraft curfew and nighttime specified Single Event Noise Exposure Level ("SENEL") limits for general aviation aircraft are identified in the General Aviation Noise Ordinance ("GANO") would not be taken away or modified as a result of the proposed GAIP. For additional discussion, please see the Topical Response pertaining to the GANO provided in Section 3.1.3 of these Responses to Comments.

**Letter 138: Allen Yourman**

**Dated: November 6, 2018**

**AY-1** The comment does not feel that the Proposed Project or Alternative 1 have sufficient general aviation tie-down spaces; therefore, supports the selection of Alternatives 2 or 3.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Standardized Letter**

### 3.6 STANDARDIZED LETTER

A standardized letter was submitted by 151 commenters prior to the close of the public review period on the Draft Program Environmental Impact Report ("EIR"). A duplicate of the standardized letter is bracketed and provided in full for reference in Section 3.6.1 below. For those parties that relied on the standardized letter for their submission, the responses to the comments are provided in Section 3.6.2, below. To avoid confusion, the numbering of the comments and the respective responses, corresponds to the numbering provided in the standardized letter (i.e., the comments were not renumbered as part of the bracketing process).

Some commenters provided additional comments beyond those presented in the standardized letter. For those letters, the supplemental comments are bracketed and the responses are provided on the page corresponding to their letter. The comments with supplemental comments are noted with a **(sc)** in the listing below. Several people submitted the standardized letter more than once. Both copies of the letter are included and there is a number next to the persons' name that indicates more than one copy of the standardized letter was submitted. The standardized letter was submitted by the following entities during the public review period:

<b>A</b>	<b>C (cont.)</b>	<b>F</b>
Brian Alters and Kim BeDell	Kim James Charney, MD (1)	Ronda Fay
Ashwill and Associates, submitted by Greg Ashwill	Kim James Charney, MD (2)	Marsha Ferrall
	Min Chu (1)	Mary Finlay
Marc Atkin	Min Chu (2)	Robert Finlay
Marj Austin	Min Chu (3)	Rebecca and Jason Finney
Alan Ayria	Min Chu (4)	Barbara Foley
<b>B</b>	Mary Citrano	Dan Foley
Lu Baker	Daniel Clark	J.D. Fox
Thomas Baker	Jean G. Clark	Shirley Fox and Charles C. Deandorff
Balboa Financial, submitted by Scott Duntley <b>(sc)</b>	Teryn Clarke, MD	
	Paul Cohen	Alistair and Fiona Fraser
Liz and Bob Barman	Terri Cohen	Adrienne Frederiksen <b>(sc)</b>
Martha Beauchamp	Judy Cooper	Torben Frederiksen <b>(sc)</b>
Robert and Linda Boyd <b>(sc)</b>	John Cotton	Carlita and Win Fuller
Cynthia and David Bright <b>(sc)</b>	Carol and Gary Crane	Stacie Fults
Edwina Broderick <b>(sc)</b>	Victoria Cubeiro	<b>G</b>
Anita Brown <b>(sc)</b>	Tamara and Jeff Current	Matt Galt
Nancy Brown	<b>D</b>	Annette Giermann (1)
Sean and Monica Burke	Chris and Ed Danoff	Annette Giermann (2)
J. Robert Eagan and Kimberly Burrows-Egan	Mary Allyn Dexter	Kenny and Nyna Goldberg <b>(sc)</b>
Nicolas Burtnyk	<b>E</b>	Patrick Gormley
<b>C</b>	Mary Jane Edalatpour	Barbara Griffith
Heather Carlino	Julia Edwards	<b>H</b>
Astrid Carlson	Marilyn Elmer	Nancy Halvorsen



<b>H (cont.)</b>	<b>O</b>	<b>S (cont.)</b>
Walter Harriman	Carey L. O'Bryan IV, MD	Gregory and Joyce Smith
Kathy Harrison <b>(sc)</b>	Margo O'Connor <b>(sc)</b>	Marion Smith <b>(sc)</b>
Tabitha May Hasin	Ann O'Neil	Dr. F. Soulati and Mrs. G. Soulati
George Hauser	Bonnie and Dan O'Neil	
William W. Hughes Jr.	Firooz R. Oskooi, MD	Tracy Specter
<b>J</b>	<b>P</b>	Lisa Stanton
Carolyn G. Johnson	Peggy and Michael Palmer <b>(sc)</b>	Joani Stavale
Julie Johnson	Jon B. Patton	Louis J. Stavale
Clifton and Gail Jones	William R. Patton (1)	Julie Stephenson
James Jordan	William R. Patton (2)	Rick Strack (1)
<b>K</b>	Lorian K. Petry	Rick Strack (2)
Marsha and Pat Kendall	Darcy Post	Louise J. Stuart and Craig S. Davis
Ray and Elizabeth Kennedy	Edward Post <b>(sc)</b>	
Linda Geller Kensey	Nrapendra Prasad	Vikki Swanson <b>(sc)</b>
Mark Knaeps <b>(sc)</b>	Janet H. Probst <b>(sc)</b>	<b>T</b>
Stacy Kramer and Nathanael Singer	<b>R</b>	Shannon Tarnutzer
	Stephanie, Steve, Lauren, and Chase Rados	Karen Taylor
<b>L</b>		Elizabeth Thamer
Michele Lovenduski	Dale Ransom	Laura Thomson
<b>M</b>	Drs. Gail and Sorel Reisman	Shelly Trainor (1)
Linda J. Martin	Nicole F. Reynolds	Shelly Trainor (2)
Nicole D. Martin	Catherine Richards	<b>V</b>
James E. and Alison L. McCormick III	Janni Richardson	Fini Van Natta
McMonigle Group, submitted by Manal Bozarth <b>(sc)</b>	Ginny Riley	Earl Votolato
	Vicki and Don Ronaldson	Kimberly Votolato
John Meindl	Paul Root	<b>W</b>
Susan Menning <b>(sc)</b>	John C. and Kristin H. Rowe <b>(sc)</b>	Ronnie and Cathy Weinstein
Whitney Moad	<b>S</b>	Portia Weiss
Beverly Blais Moosmann	Elisabeth and Andrew Schutz	Richard Weiss
Bob Moosmann	Christina Schwindt <b>(sc)</b>	Thomas and Laura White
Robert Murphy	Mr. and Mrs. John M. Sciarra	Kammi and Steve Wilson
<b>N</b>	Matthew Shaw	Steve and Kammi Wilson
Nautical Luxuries, submitted by Daisy Cathcart	Terry P. Shea	
	Terry A. Sheward	
David and Jan New	Carrie Slayback	
Randall and Carol Nunnelly	Brad Smith	

In addition to the commenters listed above, ten people submitted the standardized letter after the end of the public review period. These individuals are listed in Section 3.8.

### 3.6.1 STANDARDIZED LETTER SUBMITTED<sup>182</sup>

#### 1. DEIR Complexity and Length Relative to Time Limitations for Comment:

The DEIR was made available for public review on September 20, 2018, with comments due on November 6, 2018, with an extension until November 21, 2018.

Comment: This is an incredibly complex and detailed document that is over 600 pages in length, with 2,200 pages of appendices. Although members of the general public are invited to “comment” on the DEIR, it is submitted that most members of the general public are ill equipped to read through the entirety of the document, sufficiently understand it and respond to it with their comments and questions in the time allotted. 1

Question: Why can’t additional time be provided for the review and comment to the DEIR?

#### 2. Project Objectives (Section 3).

This section lists separate objectives of the GAIP, which appear only to benefit airport operations and profitability.

Comment: As you are surely aware, under the recently enacted FAA Reauthorization Act of 2018, there are numerous sections that address community concerns regarding the impact of noise and pollution on health. The Project Objectives clearly pertain the efficiency and economical benefits of the GAIP with no indication of concerns for the communities impacted by noise and pollution emanating from JWA. 2

#### Questions:

- |   |     |
|---|-----|
| a. Is the GAIP for the benefit of nonresident corporate jet aircraft?   | 2-a |
| b. Is the GAIP for the benefit of local corporate jet aircraft?   | 2-b |
| c. Have local corporations been surveyed regarding their interest in housing their jets at JWA? If no, why not? If yes, what have been their responses?   | 2-c |
| d. Does the GAIP benefit the exiting [sic] fleet of privately owned piston-powered driven aircraft owners who have historically based their aircraft at JWA? If yes, how?                           | 2-d |
| e. Will the GAIP result in a decrease of smaller privately owned piston-powered aircraft at JWA?  | 2-e |
| f. How does a decrease in the number of smaller privately owned piston- powered aircraft based at JWA and an increase in larger GA jet aircraft, benefit Newport Beach and neighboring communities? | 2-f |
| g. What is the basis for the assumptions of daily departure and arrival of GA jet traffic, including larger corporate aircraft, which will be displacing smaller GA private planes?                 | 2-g |

<sup>182</sup> As noted above, the standardized letter has been duplicated in this section. This allows the bracketing of comments and eliminates the need for the commenter to reference back to their actual comment letter. The actual letters have been reproduced in Volume 1B of these Responses to Comments.

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*Responses to Comments*

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h.	Has it been determined how many additional GA jet aircraft departures will occur in a 24-hour period under the GAIP? If yes, how many? If no, why not?	2-h
i.	Will there be a cap or a maximum number of GA jet aircraft departures allowable during a 24-hour period? If yes, how many? If no, why not?	2-i
j.	How does the GAIP, with its goal of accommodating large corporate jet aircraft at JWA through building additional hangars, benefit Newport Beach and other neighboring communities?	2-j
k.	Will the GAIP result in an increase of international flights to JWA via GA jet aircraft?	2-k
l.	If the GAIP increases the number of international flights in and out of JWA, will there be a cap or maximum number allowed during any a 24-hour period? If yes, what will be the maximum number? If no, why not?	2-l
m.	How many international flights are anticipated to arrive at JWA on a daily or weekly basis?	2-m
n.	What type of TSA-type security screening will be conducted regarding the increasing numbers of larger international GA aircraft if the GAIP is approved? Please describe in detail.	2-n
o.	What is the predicted net average daily change in aircraft departures and arrivals if the GAIP is approved?	2-o
p.	How many GA privately owned jets will JWA be capable of handling during a 24-hour period if the GAIP is approved?	2-p
q.	How many overnight hangars or other spaces will be made available for GA privately owned jet aircraft if the GAIP is approved?	2-q
r.	What will be the economic benefit to JWA if the GAIP is approved?	2-r
s.	If the GAIP is approved, will existing flight schools be permitted to continue their operations? If not, will flight school(s) specializing in jet aircraft flight instruction replace existing flight schools?	2-s
t.	If any flight schools specializing in jet aircraft flight instruction are anticipated, will a cap or maximum number of training departures and arrivals during a 24-hour period be established? If yes, what will be the maximum number? If no, why not?	2-t
u.	If any flight schools specializing in jet aircraft flight instruction are anticipated, will hours for their operation and training flights be established? If yes, what will be the hours? If no, why not?	2-u

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### 3. **DEIR Conclusions that Environmental Impacts are Insignificant (Section 4).**

Comment: The DEIR conclusion that the GAIP will be not significantly cause a negative impact to the community in terms of noise, air quality, hazardous materials, etc., is unrealistic. It is submitted that there has been an insufficient consideration of the additional noise and pollution that will be created; especially considering the leaded fuel mixture used by private GA jet aircraft and their exemption from curfew hours under GA regulations. There have been numerous studies reported in many peer-reviewed scholarly journals that airport noise and pollution have serious health impacts for neighboring communities. It is unrealistic to conclude that if the GAIP is approved that there will be no significant negative environmental impact to Newport Beach and other neighboring communities.

3-1

Furthermore, the assumptions supporting the noise analysis are flawed and unrealistic. The projection that by 2016, 40% of the Boeing 737 and Airbus A320 aircraft using JWA will include the quieter 737-MAX and Airbus A320-NEO is sheer speculation and is in conflict with the 2014 Settlement Agreement EIR noise modeling.

3-2

#### Questions:

a. As GA jet aircraft have a long history of violating noise limits, how will this be better controlled, especially given the current lack of regulation of the GA jet aircraft fleet?

3-a

b. Is an increase in GA jet aircraft nighttime arrivals and departures anticipated? If yes, how many nighttime arrivals and departures are anticipated?

3-b

c. Will JWA place a cap or limit on the number of nighttime arrivals and departures of GA jet aircraft? If yes, what limitations will be established? If no, why not?

3-c

d. Why wasn't the negative impact of an additional 5-10% noise generating Back Bay departure pattern by the large corporate jets on the same neighborhood impacted by commercial departures considered in the Noise Impact section of the Appendix? As this would have the same impact as a net increase in commercial departures that would replace aircraft that were previously fanning after takeoff and not impacting these neighbors, why wasn't this considered?

3-d

e. If the GAIP is approved, what would be the largest GA jet aircraft that would be accommodated by JWA?

3-e

f. How would the noise from departing large GA jet aircraft compare with the noise emitted from the commercial jet fleet currently using JWA? If this analysis has been done, what is the basis for the analysis?

3-f

g. Will there be a limitation on large GA jet departures? Will there be any such limitation specifically during the existing curfew hours? If yes, what will be the limitations? If no, why not?

3-g

h. Do the GAIP conclusions of no significant noise or pollution impact take into consideration the Next-Gen satellite-precision concentrated flight paths that have clearly has a significant negative impact on Newport Beach? If yes, what conclusions have been drawn? If no, why not?

3-h

#### 4. **Health Risk Analysis (Section 4).**

Comment: Although related to the above comment, the health risk analysis (“HRA”) in Section 4 of the DEIR is extremely complicated and confusing. The DEIR also relies heavily on the EIR submitted during the 2014 Settlement Agreement (“EIR 617”) for its health risk analysis (“HRA”). It is submitted that reliance on the previous EIR is misplaced. EIR 617 relied on existing 2014 flight patterns prior to the implementation of the FAA Next Gen concentrated satellite driven precision flight patterns that are flown today. Furthermore, the DEIR does not anticipate the different emissions anticipated from the expected increase in GA jet aircraft if the GAIP is approved. To suggest that there will be a minimal increase in emissions is unrealistic and unsupported by any evidence.

Comment: The DEIR is also woefully deficient in its discussion of the potential health impacts to more sensitive members of the community, especially the impact on children. The DEIR discusses “sensitive receptors” and “sensitive populations” noting only those closest to the boundary of JWA, specifically mentioning a residential development approximately 855 feet from the boundary of JWA and airport workers. In response, there have been numerous studies conducted and published in peer-reviewed scholarly journals about the serious health issues caused by airports, over flights, departures and arrivals on children and adults in communities under the flight paths. These studies have confirmed that children suffer cognitive deficits and respiratory illnesses, while the general population suffers undue stress, heart disease, high blood pressure, cognitive decline, auditory problems, heart attacks, strokes and greater cancer risk. Similarly, research studies have concluded that the adverse health affects from airport pollution are present within 10 miles of an airport. There are thousands of children in schools well within a distance of 10 miles from the JWA departure paths and thousands of people who live under the flight paths.

4

#### Questions:

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| a. In arriving at the conclusion that the environmental impact of the GAIP is “less than significant,” what consideration has been given to the schools, athletic fields, parks and residential areas located within a close proximity and under the flight paths of JWA? If the impact these populations have not been considered, why not? | 4-a |
| b. Although noise is discussed in the Sensitive Receptors section of the DEIR, including the impact to schools, why isn’t there an in depth discussion of health concerns especially as they relate to children?   | 4-b |
| c. Did the County in the preparation of the DEIR review and consider recent research concerning the health and welfare of populations living within a close proximity of airports? Within 10 miles of JWA?   | 4-c |
| d. What is the true net increase in pollutants from the new aircraft population departures from JWA as the fuel mixture is different and heavier in carbon and particulate pollutants?   | 4-d |
| e. In preparing the DEIR, was there any consideration of the added pollution that would result from the increase in GA jet aircraft combined with the existing commercial fleet? If no, why not?   | 4-e |

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| f. In preparing the DEIR, was there any consideration of the impact of increased noise levels that would result from nighttime flights of GA jet aircraft? If no, why not? | 4-f |
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### 5. Flight Patterns.

<p><u>Comment:</u> Although the DEIR states there will be no change in flight patterns, it is unclear as to the flight patterns that were used for its analysis. It is also unclear what flight patterns would be followed by GA jet aircraft upon approval of the GAIP. Clarification is needed to assess the differences between GA and commercial aircraft departure patterns and how they might change upon approval of the GAIP.</p>	5
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#### Questions:

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| a. Will the GA jet aircraft added to JWA through the GAIP follow the existing flight patterns presently used by commercial jets as mandated by the SoCal Metroplex? | 5-a |
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| b. If the GA jet aircraft added through the GAIP will follow the flight patterns mandated under the SoCal Metroplex, has there been any consideration as to the impact that will be caused by the increase in air traffic over Newport Beach? If no, why not? | 5-b |
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| c. Will there be any changes in GA flight patterns if the GAIP is approved? If yes, what will be the changes? | 5-c |
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## 3.6.2 RESPONSES TO STANDARDIZED LETTER

Many of the comments in the standardized letter do not identify any environmental issues or questions on the adequacy of the Draft Program EIR; therefore, no response is required pursuant to CEQA. The responses provided are intended to enhance the commenters' understanding of the GAIP. The majority of this information is provided in the Draft Program EIR; therefore, page numbers or section numbers have been included in a number of the responses should the reader desire additional detail on the topics.

**Response 1**     The comment inquires about having a longer public review period for the Draft Program EIR.

The Airport acknowledges this comment. As noted in the comment, the Airport did extend the public review period until November 21, 2018. This resulted in a 60-day public review period. The 60-day review period is more than is required by the California Environmental Quality Act ("CEQA") Guidelines (Section 15105) and is longer than the standard 45-day review period required by CEQA. The 60-day review period allows agencies and the public an opportunity to provide input on the environmental document. Although it is acknowledged that many of the issues are technical and complex, the Draft Program EIR has summarized the technical studies with the understanding that the document is being reviewed by members of the public and decision makers that may not have the technical expertise to fully understand all the complexities of the analyses. Every attempt has been made to simplify vocabulary and provide definitions where terminology may not be known by the general public. Additionally, as noted in the Draft Program EIR and at the public meeting held on September 26,

2018, there are other opportunities to provide input, such as at the Board of Supervisors meeting on the project.

**Response 2** The comment states that the objectives of the General Aviation Improvement Program (“GAIP”) appear only to benefit Airport operations and profitability. The comment cites the Federal Aviation Administration (“FAA”) Reauthorization Act of 2018 as addressing community concerns regarding the impact of noise and pollution on health.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers.

It should be noted, that while the FAA Reauthorization Act does recognize that airport noise can adversely impact nearby communities, it is a broad legislation (approximately 1,200 pages) that includes, but is not limited to, provisions for funding, airline regulations, airport standards, use of drones, and modernization of airport infrastructure. It is not intended to give specific project related guidance.

With regards to the scope of the Project Objectives, pursuant to CEQA (Section 15124), “[t]he statement of objectives should include the underlying purpose of the project and may discuss the project benefits.” As such, the objectives are project specific. The GAIP does include objectives that pertain to the operation and fiscal aspects for the Airport; however, they are not limited to the economic benefit of the Airport. The objectives, which are listed below (as well as in in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR), are structured to support the role of the GAIP as providing the framework for future general aviation improvements at the Airport. As noted in the Draft Program EIR (page 1-3), the GAIP is intended to be the basis for the review of potential future improvements proposed either by the County or its tenants as part of the leases at the Airport. By conducting a comprehensive evaluation of the general aviation facilities and evaluating the current and projected demands on the Airport, the County can determine the most efficient use of the space at the Airport to serve the diverse demands. The role of the Draft Program EIR is to assess what the environmental impacts, including the impacts on the community, would be as a result of the implementation of the GAIP.

The two Project Objectives which pertain to economic considerations must be considered in light of the full set of Project Objectives. The second Project Objective (To utilize limited land area efficiently and economically), is a recognition of the need to respond to the trends in aviation by providing the type of facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at John Wayne Airport (“JWA”). The fifth Project Objective (To maximize economic, self-sustaining, revenue producing facilities) is an acknowledgement of the importance for the Airport to have a self-sustaining facility because JWA does not receive any support from Orange County’s general fund. In addition, and importantly, when airport owners or sponsors accept funds from the Federal Aviation Administration (“FAA”), they must agree to certain obligations (or assurances). These assurances require the

recipients to maintain and operate their facilities safely and efficiently and in accordance with specified conditions. One of the Airport's Grant Assurances with the FAA (Grant Assurance 24, Fee and Rental Structure) requires the Airport to be as financially self-sustaining as possible under the particular circumstances at the Airport. The purpose of the self-sustaining rule is to maintain the utility of the federal investment in the airport. As noted the intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. As noted in Section 5.5 of the Draft Program EIR, the full utilization of the portion of the Airport dedicated to general aviation aircraft would maximize the area that would support revenue-producing facilities.

As part of the decision-making process, the Board of Supervisors will consider the environmental impacts addressed in the Draft Program EIR and balance them with the long-term vision for the Airport. This requirement to weigh these factors is required by CEQA. Section 15021 of the State CEQA Guidelines states that "CEQA recognizes that in determining whether and how a project should be approved, a public agency has an obligation to balance a variety of public objectives, including economic, environmental, and social factors . . ." Whenever an agency approves a project that would have significant unavoidable impacts, the rationale for approving the project is outlined in the statement of overriding considerations. It is through this process that competing public objectives, interests and concerns are balanced.

#### GAIP Objectives

The objectives for the proposed GAIP have been defined as follows:

- To enhance safe and secure operations
- To utilize limited land area efficiently and economically
- To enhance compatibility between general and commercial aviation operations
- To embrace flexibility to allow for technological advances and market trends
- To maximize economic, self-sustaining, revenue producing facilities
- To assess the ability of existing infrastructure to support general aviation facilities

**Response 2-a** The question asks if the GAIP is for the benefit of nonresident corporate jet aircraft.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. This comment does not raise a specific question regarding the analysis in the Draft Program EIR



or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, for clarification, the GAIP is not intended to focus on a single segment of the general aviation users at the Airport. The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at the Airport. (Please see Response 1, above, pertaining to the GAIP Objectives).

The facilities proposed under the GAIP are based on the aviation forecasts, recognizing the Airport's inability to meet the full demand due to physical constraints.<sup>183</sup> The forecasts identify an increase in the number of jet operations at the Airport in 2026 even under the No Project Alternative. This is reflective of the historical general aviation trends at the Airport, which have shown a consistent decline in single-engine piston aircraft since 1980 and multi-engine piston aircraft since the early 1990s. Business jet operations have steadily increased. This is generally consistent with national trends (discussed in Section 5 of Appendix C, *General Aviation Forecasting and Analysis Technical Report*). As noted in the Draft Program EIR, the GAIP may result in an incremental increase in certain types of general aviation flights and facilitate the transition to newer aircraft operating at the Airport. However, this trend is expected to occur as part of a natural progression as the aircraft currently at the Airport ages.

The GAIP would provide facilities for based aircraft (i.e., aircraft that identify John Wayne Airport as their home-base). Most of the based aircraft at the Airport are registered to owners in Orange County.<sup>184</sup> As discussed in the *General Aviation Forecasting and Analysis Technical Report*, which is Appendix C of the Draft Program EIR, Orange County is one of the most rapidly growing urban areas in the U.S. Its growth has been fueled by significant investments in technology, corporate facilities, residential, and commercial developments. The knowledge-based industry, a potential incubator of high income employment, is becoming an essential element of the Orange County economy. The strong knowledge-based economy generates aviation demand.

It should also be noted, general aviation aircraft that are not based at JWA would still be permitted to use the Airport. These aircraft, which are identified as transient aircraft, would be accommodated at one of the FBOs (likely tied-down on the FBO apron area).

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<sup>183</sup> The aviation forecasts are summarized in the Draft Program EIR (Sections 3.6.2 and 3.6.3 for the Proposed Project and Alternative 1, respectively) and discussed in detail in the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts*, which is provided as Appendix D. Comparison tables for each of the alternatives evaluated, including the No Project Alternative, are provided in Tables 5-1 through 5-3 (Section 5, Alternatives) of the Draft Program EIR. Information on the unconstrained aviation forecasts can be found in the *General Aviation Forecasting and Analysis Technical Report*, which is Appendix C of the Draft Program EIR.

<sup>184</sup> According to the *General Aviation Forecasting and Analysis Technical Report*, which is Appendix C of the Draft Program EIR, over 86 percent of the based aircraft at JWA are registered in California and over 90 percent are from the Orange County (AECOM 2018).

For additional detail, please see the Topical Response pertaining to Aviation Forecasts in Section 3.1.1 of these Responses to Comments.

**Response 2-b** The question asks if the GAIP is for the benefit of local corporate jet aircraft.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Responses 1 and 2-a, above.

**Response 2-c** The question asks if local corporations have been surveyed regarding their interest in housing their jets at JWA.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. This comment does not raise a specific question regarding the analysis in the Draft Program EIR or present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

For clarification, and as discussed in Section 7 of the Draft Program EIR, as part of the preliminary effort for the GAIP, Airport staff met with the general aviation tenants and stakeholders to identify issues the general aviation community would like addressed and priorities for making improvements. As part of that effort, one of the questions that was asked was “Are your business/client needs currently being accommodated according to the high standards upheld by your company and by JWA? If not, what can JWA do in its future planning (the general aviation Airport Layout Plan Update) to restore and maintain those high standards?” (see page 7-1 of the Draft Program EIR). The Airport did not contact non-aviation companies that may own or lease aircraft to solicit input on what facilities would be needed to encourage them to base their aircraft at JWA. It should also be noted, the Airport (County) manages leases for tie-down areas but the majority of the leasing of the hangars is managed by the FBOs. The corporate jet owners generally desire hangar space for protection of the aircraft. Currently, there is a wait list for hangar space at the Airport.

**Response 2-d** The question asks if the GAIP benefits the existing fleet of privately owned piston-powered driven aircraft owners who have historically based their aircraft at JWA.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. This comment does not raise a specific question regarding the analysis in the Draft Program EIR or present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, for clarification, the GAIP is not intended to focus on a single segment of the general aviation users at the Airport. The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. These facilities would be phased in to minimize operational disruption at the Airport. The leasing of tie-

down spaces will be done through the FBOs. For those piston-powered driven aircraft remaining at the Airport as the GAIP improvements are implemented there will be new facilities, which would be improved over the current facilities.

**Response 2-e** The question asks if the GAIP would result in a decrease of smaller privately owned piston-powered aircraft at the Airport.

The GAIP would reduce the number of piston-powered aircraft at the Airport. The facilities and operational characteristics are discussed in the Sections 3.6.2 and 3.6.3 of the Draft Program EIR for the Proposed Project and Alternative 1, respectively. Table 11, below, provides a comparison of the Baseline (2016) condition to the constrained forecast for the Proposed Project, Alternative 1, and the No Project Alternative.

**TABLE 11  
COMPARISON OF ALTERNATIVES  
CAPACITY AND OPERATION FORECASTS BY AIRCRAFT TYPE**

Year	Fixed Wing Piston <sup>a</sup>		Fixed Wing Turbine		Helicopter	Total Based Aircraft
	Single Engine	Multi-Engine	Turboprop	Turbo Jet		
Existing Conditions (Operations in 2016)						
2016	339	35	26	65	17	482
Proposed Project						
2026	198	37	30	72	17	354
Alternative 1						
2026	200	37	26	76	17	356
No Project						
2026	360	37	26	65	17	505
<sup>a</sup> The based aircraft totals for single engine include one glider. Source: AECOM 2018b (Appendix D to the Draft Program EIR). Taken from Table 5-1 in the Draft Program EIR.						

**Response 2-f** The question asks how a decrease in the number of smaller privately owned piston-powered aircraft based at JWA and an increase in larger general aviation jet aircraft, benefits Newport Beach and neighboring communities.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

For clarification, the Draft Program EIR does not discuss whether the GAIP will benefit the City of Newport Beach or the neighboring communities. Rather, and in accordance with Section 15168 of the State CEQA Guidelines, the Draft Program EIR addresses the potential environmental impacts associated with the

adoption and implementation of the GAIP. The GAIP is focused on improvements on the Airport that would facilitate improved operational efficiency based on the aviation forecasts. Although the Draft Program EIR does identify measures that would reduce potential impacts and would provide benefit to the larger community (as required by CEQA), the focus of the proposed project is on the Airport.

**Response 2-g** The question asks the basis for the assumptions of daily departure and arrival of general aviation operations.

The process and methodology for aviation forecasts are contained in the *General Aviation Forecasting and Analysis Technical Report*, which is included as Appendix C of the Draft Program EIR. This information is summarized in Section 3.5 of the Draft Program EIR. Briefly, the forecasts take into consideration data on a variety of indicators, including but not limited to, pilot population, growth in student pilot population, shipment of general aviation aircraft, and projected demand. The study provides the general aviation demand forecasts for based aircraft, annual operations, daily and peak hour operations, and international operations at the Airport. As part of the process, unconstrained forecasts were prepared for general aviation based aircraft and annual operations. The unconstrained forecasts would not be met because of the physical space limitations at the Airport. Recognizing these space limitations, the GAIP forecasts were limited, or constrained, to the design capacity of the general aviation portion of the airfield for each alternative. The constrained forecasts are discussed in *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendix D of the Draft Program EIR) and summarized in the Draft Program EIR (Sections 3.6.2 and 3.6.3 for the Proposed Project and Alternative 1, respectively).

For additional detail, please see the Topical Response on Aviation Forecasting provided in Section 3.1.1 of these Responses to Comments.

**Response 2-h** The question asks whether it has been determined how many additional general aviation jet aircraft departures will occur in a 24-hour period under the GAIP.

As noted in Responses 2e and 2g, aviation forecasts for the GAIP are summarized in the Draft Program EIR (Sections 3.6.2 and 3.6.3 for the Proposed Project and Alternative 1, respectively) and discussed in detail in the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendix D of the Draft Program EIR). The forecasts are characterized by the number of annual operations. Table 12, below, provides a comparison of the number of operations by aircraft engine type for the Baseline (2016) condition, to the constrained forecast for the Proposed Project, Alternative 1, and the No Project Alternative. As noted in the table below, an operation is defined as either a takeoff or landing, each counting as one operation; therefore, the number of departures would be half of the numbers shown in the table.

**TABLE 12**  
**JWA FORECAST OPERATIONS BY AIRCRAFT ENGINE TYPE**  
**COMPARISON OF ALTERNATIVES**

Year	Piston	Turbine	Jet	Helicopter/Other	Total Operations <sup>a</sup>
<b>Existing Conditions</b>					
2016	147,300	9,800	31,800	3,900	<b>192,800</b>
<b>Proposed Project</b>					
2026	111,000	11,700	40,400	4,800	<b>167,900</b>
<b>Alternative 1</b>					
2026	111,600	10,800	41,400	4,800	<b>168,600</b>
<b>No Project (Constrained Forecasts)</b>					
2026	147,000	10,900	38,300	4,800	<b>201,000</b>
Note: Numbers may not add up due to rounding.					
<sup>a</sup> An operation is defined as either a takeoff or landing, each counting as one operation.					
Source: AECOM 2018b (Appendix D to this Program EIR). Taken from Table 5-3 in the Draft Program EIR.					

Although the forecast is prepared for annual operations, a daily average for general aviation jets, derived from the annual operations, could be calculated by dividing the annual number by 365. Based on this calculation, the Proposed Project on average would result in 111 jets operations per day (approximately 56 departures), which is an increase of 24 jets operations per day compared to the Baseline (approximately 12 departures). Alternative 1 on average would result in 113 jets operations per day (approximately 57 departures), which is an increase of 26 jets operations per day compared to the Baseline (approximately 13 departures). However, the actual number of flights would vary each day because this number is based on a mathematical equation that derives a daily number of nighttime operations based on the annual forecast.

**Response 2-i** The question asks if there will be a cap or a maximum number of general aviation jet aircraft departures allowable during a 24-hour period.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

For clarification, the Airport is not allowed to place a cap on the number of general aviation operations at the Airport without complying with the requirements of ANCA, including under most circumstances, prior FAA approval. Please see the Topical Response pertaining to Restrictions on General Aviation Operations, which also addresses ANCA, provided in Section 3.1.4 of these

Responses to Comments.<sup>185</sup> However, the general aviation operations would be required to comply with the General Aviation Noise Ordinance (“GANO”). As discussed in Section 2.6.4 of the Draft Program EIR, the GANO establishes limitations on the maximum single event noise levels, which are applicable to both commercial and general aviation operations. For additional discussion of the GANO and Flight Restrictions, please see the Topical Responses provided in Sections 3.1.3 and 3.1.4 of these Responses to Comments.

**Response 2-j** The question asks how does the GAIP, with its goal of accommodating large corporate jet aircraft at JWA through building additional hangers, benefit Newport Beach and other neighboring communities.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

For clarification, the Draft Program EIR does not discuss whether the GAIP will benefit the City of Newport Beach or the neighboring communities. Rather, and in accordance with Section 15168 of the State CEQA Guidelines, the Program EIR addresses the potential environmental impacts associated with the adoption and implementation of the GAIP. The GAIP is focused on improvements on the Airport that would facilitate improved operational efficiency based on the aviation forecasts. Although the Draft Program EIR does identify measures that would reduce potential impacts and would provide benefit to the larger community (as required by CEQA), the focus of the proposed project is on the Airport.

For further clarification, the goal of the GAIP is not to accommodate large corporate jets. As discussed in Response 2, above, the GAIP objectives include, but are not limited to, maximizing the efficiency of the facilities at the Airport, providing the necessary infrastructure to support general aviation, enhancing safety, and providing the flexibility to respond to technological advances and market trends.

**Response 2-k** The question asks if the GAIP would result in an increase of international flights to JWA via general aviation jet aircraft.

The *Forecasting and Analysis Report* (Appendix C) has estimated potential international general aviation departures/arrivals if U.S. Customs and Border

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<sup>185</sup> Section 2.6.2 of the Draft Program EIR provides a brief summarization of the *Airport Noise and Capacity Act of 1990* (“ANCA”). As a general matter, ANCA precludes the local imposition of noise and access restrictions that are not otherwise in accordance with the national noise policy. JWA does have an exemption from ANCA’s limitations as it applies to JWA’s existing curfew, limitations on the number of annual passengers, number of average daily commercial carrier departures, and related limitations because the 1985 Settlement Agreement, as amended, is grandfathered under ANCA. However, the exemption does not extend to limitations on the number of general aviation departures. Please also reference the topical relating to ANCA.

Protection (“CBP”) inspection services were provided at JWA. Although the Airport does not currently provide general aviation CBP services, flights with international origins and destinations currently use the Airport. As noted in the Draft Program EIR, flights with an international origin are required to stop at an airport that offers general aviation CBP services prior to landing at the Airport. The *Forecasting and Analysis Report* provides a thorough discussion of how the baseline and forecasts were developed for international operations (see Section 6.4 of the *Forecasting and Analysis Report*). The long-term projected growth rates are comparable to the forecast global economy and represent a reasonable range of potential international activity growth. The Baseline (2016) estimates there are 447 annual international departures from John Wayne Airport. The forecast projected an increase to approximately 490 annual international departures by 2026. For additional information on the international flights, please see the Topical Response on Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments.

**Response 2-l** The question asks if the GAIP increases the number of international flights in and out of JWA, will there be a cap or maximum number allowed during any a 24-hour period.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As discussed in Response 2-i, the Airport is not allowed to place a cap on the general aviation international flights without complying with the requirements of ANCA, including under most circumstances, prior FAA approval. Please see the Topical Response pertaining to Restrictions on General Aviation Operations, which also addresses ANCA, provided in Section 3.1.4 of these Responses to Comments.

**Response 2-m** The question asks how many international flights are anticipated to arrive at JWA on a daily or weekly basis.

The aviation forecasts provide the flights on an annual basis. As noted in Response 2-k, the estimated annual international departures from John Wayne Airport is projected to increase from 447 flights established for the Baseline (2016) to approximately 490 annual international departures by 2026. This would equate to approximately 9.4 international departures a week (i.e., 490 annual international departures divided by 52 weeks). For additional information on the international flights, please see the Topical Response on Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments.

**Response 2-n** The question asks what type of TSA security screening will be conducted regarding the increasing numbers of larger international general aviation aircraft if the GAIP is approved.

As noted on page 3-9 of the Draft Program EIR, the provision of space to accommodate a General Aviation Facility (“GAF”) to permit international arrivals is an optional improvement under the GAIP. The Full Service FBOs have been sized such that the GAF could be accommodated at any of the Full Service FBOs.

However, it is assumed that the facility would be part of one of the full service FBOs.

The description of the GAF (see page 3-11) identifies the processing of international passengers would be conducted in accordance with federal guidelines. CBP defines a GAF as facilities provided at airports for specialized functions such as processing of corporate and private aircraft, cargo planes with passengers, and charter aircraft. GAF facilities are normally located at small, low volume airports and provide U.S. Customs and Border Protection (“CBP”) with the ability to process up to 20 passengers and their baggage at one time. Facilities would be designed in compliance with the CBP Airport Technical Design Standards (“ATDS”) and would comply with all applicable Department of Homeland Security requirements.

With regard to ensuring there is adequate security and security screening of passengers on business jets, the 2001 *Aviation and Transportation Security Act* (“ATSA”) created the Transportation Security Administration (“TSA”) and transferred aviation security functions from the Federal Aviation Administration (“FAA”) to the TSA. Section 132(a) of ATSA requires the Under Secretary of Transportation for Security to “implement a security program for charter air carriers. . . with a maximum certificated takeoff weight of 12,500 pounds or more.” Regulations also require charter operators (including scheduled or charter service, carrying passengers or cargo or both), conduct criminal history records checks on their flight crew members, and restrict access to the flight deck.<sup>186</sup> The program that outlines the security measures and requirements for these operators is known as the Twelve-Five Standard Security Program (“TFSSP”). TSA updates the requirements to address industry concerns as necessary. The latest version is dated March 5, 2017. The TFSSP is classified as Sensitive Security Information (“SSI”); therefore, the training and information on the plan is only available to those operators that have a TFSSP program established with the TSA.

JWA and its fixed base operators (“FBO”) consistently maintain security levels in accordance with TSA security programs such as the TFSSP, and will continue to do so. Specifically, and as mentioned above, charter operators comply with TSA regulations to conduct criminal history records checks on crew members, restrict access to the flight deck area and, for scheduled public charters, trace detection screening is done on baggage, passengers are vetted through federal databases when a reservation is made, and passenger identification is verified prior to boarding the charter flight. It should also be noted that multiple layers of security screenings are performed at JWA including, but not limited to, initial screening of general aviation users upon entry at security entry gates or through an FBO. Regardless of the GAIP alternative selected, high levels of safety and security compliance will continue to be maintained airport-wide, including measures for general aviation security.

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<sup>186</sup> <https://nbaa.org/aircraft-operations/security/programs/twelve-five-standard-security-program-tfssp/>



**Response 2-o** The question asks what is the predicted net average daily change in aircraft departures and arrivals if the GAIP is approved.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Response 2-h.

**Response 2-p** The question asks how many general aviation privately owned jets will JWA be capable of handling during a 24-hour period if the GAIP is approved.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The number of jets that can be accommodated in a 24-hour period is a theoretical question and is dependent on multiple factors (e.g., airfield capacity, weather conditions, etc.). Therefore, the commenter is referred to the aviation forecast, summarized in the Draft Program EIR (Sections 3.6.2 and 3.6.3 for the Proposed Project and Alternative 1, respectively) and discussed in detail in the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendix D of the Draft Program EIR).

The forecast referenced in the Draft Program EIR and these reports, projects the number of annual operations categorized by aircraft type (including general aviation jets). Table 12, provided in Response 2-h, reflects the information in the Draft Program EIR and provides a comparison of the number of operations by aircraft engine type for the Baseline (2016) condition to the constrained forecast for the Proposed Project, Alternative 1, and the No Project Alternative. As noted in the table, an operation is defined as either a takeoff or landing, each counting as one operation; therefore, the number of departures would be half of the numbers shown in the table. As noted in Response 2-h, a daily average for general aviation jets (derived from the annual operations, divided by 365) would 111 jets operations per day (approximately 56 departures) for the Proposed Project and 113 jets operations per day (approximately 57 departures ) with Alternative 1. However, the actual number of flights would vary each day because this number is based on a mathematical equation that derives a daily number of nighttime operations based on the annual forecast.<sup>187</sup>

**Response 2-q** The question asks how many overnight hangers or other spaces will be made available for general aviation privately owned jet aircraft if the GAIP is approved.

Tables 3-4 and 3-8 in the Draft Program EIR provide a comparison of the existing aircraft parking spaces and the proposed aircraft parking spaces for the Proposed Project and Alternative 1, respectively. These tables include how the spaces are distributed between tie-down spaces and hangars. This information is summarized in Table 13 below, which also reflects the number of spaces that were being used in 2016 when the baseline was developed. The characteristics

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<sup>187</sup> With the Proposed Project this an increase of 12 jets departures per day compared to the Baseline (2016). For Alternative 1 it would an increase of 13 jets departures per day compared to the Baseline (2016).

of each type of the aircraft storage facilities is provided in Section 3.6.1 of the Draft Program EIR. As noted in the Draft Program EIR, the Box Hangars and Community Hangars can accommodate business aircraft, including jets; however, the actual aircraft that would be accommodated would be determined by the individual FBOs.

**TABLE 13  
FACILITIES COMPARISON OF EXISTING CONDITIONS  
AND THE PROPOSED PROJECT**

Facility	Aircraft Parking Spaces			
	Existing Capacity	Currently Used (Baseline 2016)	Proposed Project	Alternative 1
Tie-Down Apron	302	222	135	119
T-Hangars	111	111	96	114
Box Hangars (includes OCSD)	45	45	35	5
FBO/Community Hangars	23	23	47	62
Shade Structures	66	66	0	0
FBO Apron Spaces <sup>a</sup>	49	15	41	56
<b>Total</b>	<b>596</b>	<b>482</b>	<b>354</b>	<b>356</b>
Note: The type and size of aircraft parked at an FBO facility may vary based on demand and can change frequently; therefore, the actual number and type of aircraft at the Airport may differ from what is shown in this table. <sup>a</sup> Includes eight tie-down spaces at Martin Aviation and one tie-down space for the OCSD. Source: Tables 3-4 and 3-8 in Draft Program EIR 627, 2018 (taken from Appendix D to the Draft Program EIR)				

The *General Aviation Opportunities Facilities Layout Report*, which was provided as Appendix B to the Draft Program EIR, evaluated low, medium and high density scenarios. Under these scenarios, FBO hangar capacity would range from three jets to seven jets. The low density scenario would accommodate three large jets; medium density would accommodate three large jets plus two smaller jets (for a total of five jets); and the high density scenario would accommodate seven smaller jets. The medium density scenario (five jets per hangar) was used for planning purposes because:

- Five aircraft is the median/average density factor;
- This scenario has a mix of large and medium/small jets, which best represents normal or average daily FBO operations;
- Priority is typically offered to the largest aircraft that fits within the space available until the hanger is full, which results in a mix of aircraft sizes; and

- Generally, the five aircraft scenario is assumed to maximize FBO revenue generating potential.

Although it may be possible to load every hangar with up to seven small jets, that scenario is unlikely to occur because it dismisses the presence of the larger global jets, which is not a reasonable assumption because, and as reflected in the forecasts, the larger jets will be present at JWA for the foreseeable future. These assumptions are reasonable and the most appropriate for the disclosure of potential environmental impacts.

**Response 2-r** The question asks what will be the economic benefit to JWA if the GAIP is approved.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. The economic effects are not addressed in the Draft Program EIR. CEQA (Section 21080(e)), the State CEQA Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project's potential effects that do not result, directly or indirectly, in a "physical change" to the environment. Indeed, noting that CEQA does not require analysis of impacts that are solely economic in nature.<sup>188</sup>

Section 2.5.1, of the Draft Program EIR (General Setting) does provides some general information on the Airport's contribution, as a whole (commercial and general aviation), to the regional economy, including general revenues through fees and charges, and taxes paid by passengers, employers and employees. General aviation revenues at JWA account for approximately 4 percent of the Airport's total revenue stream.<sup>189</sup>

As noted in Section 5.5 of the Draft Program EIR, the full utilization of the portion of the Airport dedicated to general aviation aircraft would maximize the area that would support revenue-producing facilities.

**Response 2-s** The question asks if the GAIP is approved, will existing flight schools be permitted to continue their operations or will flight schools specializing in jet aircraft instruction replace them.

Provisions for three flight schools is specifically called out under description of the facilities improvements for the GAIP (Section 3.6.1 of the Draft Program EIR). The Draft Program EIR states the evaluation of facilities required to service flight schools included consolidation of schools into one location resulting in some

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<sup>188</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.)

<sup>189</sup> *JWA FY 2016-17 Revenue Report* <https://www.ocair.com/investorrelations/financials/revenuereports/FY16-17.pdf>

efficiencies because the flight schools could share classroom space and other common use areas, such as the pilot shop and testing center, restrooms, and a break room. The combined office space, which includes the classrooms, flight simulator rooms, and testing room, for the three schools would be an estimated 9,342 square feet. The combined apron area would be approximately 142,566 square feet, which would accommodate 47 tie-down spaces. Additionally, there would be space to accommodate approximately 52 vehicle parking spaces. The proposed location of the flight schools is shown on the Conceptual Facilities Layout Plans (see Exhibit 3-1 for the Proposed Project and Exhibit 3-4 for Alternative 1). The facilities would be able to accommodate both fixed-wing and rotor wing aircraft. The GAIP would not preclude a flight school in offering jet aircraft flight instruction.

**Response 2-t** The question asks if any flight schools specializing in jet aircraft flight instruction are anticipated and if there would be a cap or maximum number of training departures and arrivals during a 24-hour period be established.

The GAIP identifies the facilities that would be allocated to accommodate the flight schools. The facilities would be able to accommodate both fixed-wing and rotor wing aircraft. The GAIP would not preclude a flight school offering jet aircraft flight instruction; however, currently the flight schools at the Airport are predominately piston-engine fixed wing aircraft, and rotorcraft users. As noted above, in Response 2-i, the Airport is not allowed to place a cap on the number of general aviation operations at the Airport without complying with the requirements of ANCA, including under most circumstances, prior FAA approval. Please see the Topical Response pertaining to Restrictions on General Aviation Operations, which also addresses ANCA, provided in Section 3.1.4 of these Responses to Comments. However, the operations associated with the flight school would be required to comply with the GANO.

**Response 2-u** The question asks if any flight schools specializing in jet aircraft flight instruction are anticipated and if the hours for their operation and training flights been established.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Response 2-t, above.

**Response 3-1** The question expresses the opinion that the conclusions in the Draft Program EIR that the GAIP will not cause a negative impact to the community in terms of noise, air quality, hazardous materials, etc., are unrealistic. The commenters' state there has been an insufficient consideration of the additional noise and pollution that will be created; especially considering the leaded fuel mixture used by private general aviation jet aircraft and their exemption from curfew hours under existing regulations. The commenters state that there have been numerous studies reported in many peer-reviewed scholarly journals that airport noise and pollution have serious health impacts for neighboring communities.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. To facilitate the clarity of the response to this comment, the discussion has been provided under two separate subheadings—noise and pollution.

### **Noise**

Section 4.7 (Noise) of the Draft Program EIR summarizes the applicable regulatory setting; provides qualitative and quantitative information regarding the existing noise environment; quantifies and identifies the incremental increase in noise attributable to the GAIP; and discloses the significance of that incremental increase by reference to noise thresholds established by the Federal Aviation Administration and the County of Orange.<sup>190</sup>

There is biological plausibility for health impacts of environmental noise. Such health impacts may be the result of sleep disturbance, ‘fight and flight’ physiological response and/or annoyance. Stress associated with noise impacts may be a potential mechanism for some of these health responses. The World Health Organization (“WHO”) Environmental Noise Guidelines for the European Region published late 2018<sup>191</sup> provides a current summary of health effects studies. Addressed in these studies are noise effects on cardiovascular disease, hypertension, ischaemic heart disease, stroke, metabolic effects (diabetes, obesity, waist circumference, metabolic biomarkers), birth outcome and mental health (note: there were very few studies on mental health effects). There is consensus that noise impacts health. Where there is little consensus is with regard to at what level these effects occur (threshold) and how these effects change with changing noise exposure.

The WHO, in developing its recommendations for acceptable levels of environmental noise, considered health effects and annoyance. With the respect to health effects, the WHO based its daytime recommendation on annoyance response only, as it found the studies of ischaemic heart disease ‘very low quality,’ hypertension studies ‘low quality,’ and annoyance studies of ‘moderate quality.’ Note that these ratings of quality used the strictest of interpretations and in particular referred to the few and quality of dose-response relationships not as to whether these effects were plausible. It was the lack of dose-response relationships that caused the WHO recommendation to be based solely on annoyance. This is not inconsistent with the use of annoyance as a precursor to health effects (i.e., using annoyance as the ‘canary in the coal mine’). The assumption is that health impacts are not likely to occur in the absence of annoyance. Or said in the reverse, where there is reported high annoyance there may be corresponding health impacts.

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<sup>190</sup> Although the City of Newport Beach Noise Thresholds would not be applicable to the GAIP, the Draft Program EIR did identify the City’s thresholds and none of the changes in noise levels between the 2016 Baseline and the 2026 cumulative condition at NMS in the City of Newport Beach would exceed the City’s thresholds. Additionally, the Sound Insulation Program adopted as part of the 2014 Settlement Agreement Amendment included the City of Newport Beach thresholds for sensitive receptors in the City of Newport Beach.

<sup>191</sup> WHO, 2018

The current national aviation noise policies are presented in Federal Air Regulation Part 150 (Noise Control and Compatibility Planning For Airports) and FAA Order 1050.1F (Environmental Impacts: Policies and Procedures). A brief summary of the policy is that residential land uses are considered compatible with airport noise where the noise exposure is 65 DNL or less. In terms of defining a significant environmental impact from an airport project, any increase in noise greater than 1.5 dB in an area where noise levels exceed 65 DNL is considered significant for purposes of the National Environmental Policy Act (“NEPA”).<sup>192</sup> The main controversies over the current FAA policies lies essentially with these two policies. In simplest terms, many people who live in noise levels below 65 DNL self-identify as significantly impacted and people who have experienced noise increases not considered significant under NEPA are not in agreement with that finding.

In recent years after considerable complaints and lobbying to Congress, there has been a renewed interest in re-evaluating FAA policies that are now over 40 years old. The FAA initiated a study of U.S. airports in 2015 as “the next step in a multi-year effort to update the scientific evidence on the relationship between aircraft noise exposure and its effects on communities around airports.”<sup>193</sup> The survey consist of 20 airports around the U.S. In order to avoid bias in survey response, the FAA did not announce which airports would be surveyed. As part of the 2018 FAA Reauthorization Act the FAA was directed by Congress to publish the results of the survey along with a revised national aviation noise policy in October 2020.

### **Pollution**

As part of the Air Quality analysis in Section 4.2 of the Draft Program EIR, provided an evaluation the impacts associated with toxic air contaminants (“TAC”) associated with the GAIP (see Threshold 4.2-4) and no significant impacts were identified. To further substantiate the findings in Section 4.2 of the Draft Program EIR, a GAIP-specific Health Risk Assessment (“HRA”) has been prepared and is provided in Attachment A of these Responses to Comments. This analysis is also summarized in the Topical Response pertaining to the Health Risk Assessment, provided in Section 3.1.6 of these Responses to Comments.

The results of the GAIP-specific HRA affirm the impact conclusion presented in EIR 627; specifically, the Proposed Project and Alternative 1 would not expose sensitive or worker receptors to substantial TAC concentrations – impacts would be less than significant. The GAIP-specific HRA is consistent with various recommendations presented in this comment, such as:

- The HRA is based on fleet mix assumptions specific to the GAIP;
- The HRA utilizes agency-approved methodologies, such as those issued by the South Coast Air Quality Management District (“SCAQMD”) and the

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<sup>192</sup> Although the FAA uses the DNL noise exposure metric, the FAA accepts the use of CNEL in California because it is a well-established airport community noise metric similar to the DNL metric.

<sup>193</sup> [https://www.faa.gov/news/press\\_releases/news\\_story.cfm?newsId=18774](https://www.faa.gov/news/press_releases/news_story.cfm?newsId=18774)

California Office of Environmental Health Hazard Assessment (“OEHHA”);

- The HRA incorporates dispersion modeling that takes into account variances in distances and directions between new proposed sources of emissions to nearby off-site receptors; and
- The HRA studies the incremental increase in health risk impacts attributable to the Proposed Project and Alternative 1 on sensitive and worker receptors.

**Response 3-2** The comment questions the assumptions that by 2026, 40 percent of the Boeing 737 and Airbus A320 aircraft using JWA will include the quieter 737-MAX and Airbus A320-NEO and states this is in conflict with the 2014 Settlement Agreement EIR noise modeling.

Final EIR 617 did not include MAX and NEO aircraft types in the noise analysis because it was too speculative at that time. However, since the certification of Final EIR 617 in 2014, the airlines have begun to integrate aircraft with the MAX and NEO engines into their fleet mix. In order to provide an accurate and realistic noise analysis, this Draft Program EIR has included MAX and NEO aircraft types based, in part, on the data of orders of the MAX and NEO by airlines and the expectations relating to the airlines continuing to utilize MAX and NEO aircraft types, as discussed in more detail below. This information was not available at the time of preparation of EIR 617. Therefore, the assumptions in the Draft Program EIR are different than the 2014 EIR 617. However, it should be noted, a comment received on the Notice of Preparation (“NOP”) for EIR 617 from Boeing Company requested that the analysis in EIR 617 be conducted using newer and next generation aircraft, such as the 737-900ERW, 787, 737-MAX, or comparable aircraft by other manufacturers into the fleet mix at the Airport. At that time, the 737-900ERW and 787 were in use at other airports and the 737-MAX was still in production.<sup>194</sup> EIR 617 acknowledged that these newer aircraft may generate less noise and have fewer air emissions compared to the current fleet at the Airport. In addition, since several of these aircraft accommodate more passengers than aircraft in the current fleet, EIR 617 stated it may be possible to serve more passengers (within the passenger cap) with fewer operations. EIR 617 also acknowledged that given the length of the planning timeframe for the Settlement Agreement Amendment (through 2030), it was reasonable to assume that there will be interest in introducing newer and next generation aircraft (EIR 617, page 1-19).

In all predictive and forecast modeling, there are assumptions that must be made regarding future variables. These assumptions are not guarantees or commitments for these aircraft to fly at JWA, but rather estimates made from the best available data and using professional judgment and technical expertise. The impact of those variables related to these two aircraft types are fully understood, taken into account in the Draft Program EIR environmental analysis, and

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<sup>194</sup> Several of the aircraft, such as the 737-900WRW and the 787 would potentially require physical modifications to the Airport facilities, which was not a component of EIR 617.

believed to be a conservative estimate so as not to overstate the benefits of these aircraft in 2026.

The assumptions made for purposes of the Draft Program EIR analysis are based on airline orders, statements by airlines regarding the use of the MAX and NEO, and factors that affect airlines decision-making on aircraft purchases. All of these indicate a high utilization of the MAX and NEO at the Airport in the future. The following items provide additional documentation to support the assumptions for the MAX and NEO in this Draft Program EIR.

- The aircraft are currently operating at the Airport by Southwest (Boeing 737 MAX) and Frontier Airlines (Airbus 320 NEO).
- Other airlines operating at the Airport are currently utilizing these aircraft or have orders with Boeing and Airbus for these aircraft within the next 8 years. These airlines include: Alaska (Airbus 320 NEO), American (Boeing 737 MAX and Airbus 320 NEO), WestJet (Boeing 737 MAX), and Delta (Airbus 320-NEO).
- Gary Kelly, Southwest CEO stated that he expects 60 percent of the Southwest fleet will eventually be the Boeing 737 MAX. According to the airline, Boeing will deliver 15 of the 737 MAX in 2019, 25 in 2020, 23 in 2023 and 11 in 2024.<sup>195</sup>
- Southwest's current fleet of 737-700s, which includes more than 500 aircraft, will start to retire in 2022 and Southwest has stated they are replacing them with 737-MAX aircraft.<sup>196</sup>
- Delta agreed to an order of 100 Airbus 321NEOs and expects to take delivery of its first A321NEO in the first quarter of 2020 with new aircraft arriving through 2023.<sup>197</sup>
- The Boeing 737 MAX aircraft use the CFM International LEAP-1B® engine and the Airbus NEO aircraft uses the CFM International LEAP-1A or Pratt & Whitney PW1000G engines with winglets. These engines offer operators a 12-15 percent reduction in fuel consumption. This factor makes this aircraft/engine combination appealing to airlines as fuel cost is a major factor in airline decisions regarding aircraft purchases. In addition, the fuel taxes in California make operating a more fuel efficient aircraft more appealing and it is assumed airlines will use the MAX and NEO aircraft more in higher fuel price areas.<sup>198</sup>

In addition, and importantly, this assumption applies *only* to the cumulative analysis in the Draft Program EIR and modification of the fleet mix would not change the finding of significance of the cumulative noise impacts. As noted in Section 4.7.8 of the Draft Program EIR 627, the 2014 Final EIR 617 identified

<sup>195</sup> <https://leehamnews.com/2018/03/01/southwest-ceo-sees-60-fleet-becoming-737-7/>

<sup>196</sup> <https://www.cnn.com/2018/01/03/southwest-airlines-wants-larger-boeing-737-max-8s-soon.html>

<sup>197</sup> <https://news.delta.com/delta-selects-airbus-a321neo-narrowbody-fleet-renewal>

<sup>198</sup> <https://www.cfmaeroengines.com/engines>



significant unavoidable impacts for noise and associated land use compatibility, for which a Statement of Overriding Considerations was adopted. However, as stated in the Draft Program EIR 627 on page 4.7-40, Table 4.7-13, the GAIP's contribution to the cumulative impact is not substantial. The proposed GAIP would change only the general aviation operations and fleet mix at JWA. The Proposed Project and Alternative 1 do not change the number of air carrier operations, runway use, or flight tracks for the commercial carrier operations. Therefore, even if the fleet assumptions for the commercial carriers was modified, the GAIP contribution to the cumulative noise contours would not change. The air carrier operations at JWA are the greatest influence on the size and shape of the noise contours, while the general aviation traffic contributes only a small amount to the contour size and shape. The assumptions for commercial operations are consistent for each of the GAIP scenarios evaluated. Therefore, conducting further analysis of cumulative noise impacts with different fleet mix assumptions for the commercial carrier operations would not change the findings presented in Draft Program EIR 627. No additional analysis is warranted.

**Response 3-a** The comment states general aviation jet aircraft have a history of violating noise limits and asks how will this be better controlled, especially given the current lack of regulation of the general aviation jet aircraft fleet.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although the Airport acknowledges that there are violations, to characterize it as a history of violating the noise limits does not consider the data in the full context. In the period from July 1, 2017 through June 2018, there was a compliancy rate of 99.9 percent.

As discussed in the Topical Response pertaining to the GANO, provided in Section 3.1.3, when an aircraft exceeds the GANO noise limits at one or more locations, a "Notice of Violation" is issued to the registered owner of the aircraft. The Notice of Violation applies to the aircraft owner, the aircraft operator, and the aircraft. Notices of Violation remain in effect for three years after the violation date. If three GANO violations occur within a three-year period, the aircraft owner, the aircraft operator and the aircraft are subject to denial of use of the Airport for a period of three years. In light of the 99.9 percent compliance rate and the minimal number of repeat offenders, the County has implemented a program that does effectively addresses compliance with the regulations.

**Response 3-b** The comment asks if there would be an increase in the number of general aviation jet aircraft nighttime arrivals and departures and how many.

As stated in Appendix H, page 53, the noise analysis for the GAIP assumes the same percent of general aviation jets operating in the evening and nighttime in the 2016 Baseline would operate in the GAIP alternatives. This results in approximately 9 percent of the business jets operating on an average annual day operating during the evening period and approximately 3 percent operating during the nighttime period.

Based on the forecasts provided in Table 3-7 of the Draft Program EIR, in the Baseline (2016), 31,800 annual operations were flown by aircraft with jet engines. In 2026, this would increase to 40,400 for the Proposed Project and 41,400 for Alternative 1 (Table 3-11 of the Draft Program EIR). Using the 3 percent nighttime operations factor, this equates to the Proposed Project resulting in approximately 258 additional nighttime operations (0.71 additional operations per night) compared to the Baseline (2016). However, each take-off and landing is considered a separate operation. Therefore, it would result in an average of 0.35 additional nighttime departures on a daily basis. For Alternative 1, there would be approximately 288 additional nighttime operations (0.79 additional operations per night). Therefore, with Alternative 1 there would be an average of 0.39 additional nighttime departures on a daily basis.<sup>199</sup>

**Response 3-c** The comment asks if the Airport will place a limit on the number of nighttime arrivals and departures of general aviation jet aircraft. Further, they ask what limitations will be or if no limitation will be set, why not.

The Airport acknowledges this comment. The GAIP is not proposing to modify the GANO, which is the basis for the commercial carrier curfew. JWA has extensive noise restrictions not available at most airports in the country. The *Airport Noise and Capacity Act of 1990* (“ANCA”) precludes the local imposition of noise and access restrictions that are not otherwise in accordance with the national noise policy. JWA does have an exemption to ANCA’s limitations as it applies to JWA’s existing commercial air carrier curfew, limitations on the number of annual passengers, number of average daily commercial carrier departures, and related limitations because the 1985 Settlement Agreement, as amended is grandfathered under ANCA. However, the exemption does not extend to limitations on the number of general aviation departures. ANCA is discussed in Section 2.6.2 of the Draft Program EIR. Additional information is also provided in the Topical Response pertaining to Restrictions on General Aviation Operations provided in Section 3.1.4 of these Responses to Comments.

**Response 3-d** The comment asks “why wasn’t the negative impact of an additional 5-10% noise generating Back Bay departure pattern by the large corporate jets on the same neighborhood impacted by commercial departures considered in the Noise Impact section of the Appendix? As this would have the same impact as a net increase in commercial departures that would replace aircraft that were previously fanning after takeoff and not impacting these neighbors, why wasn’t this considered?”

<sup>199</sup> Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. The following calculations were done to determine the expected increase in daily nighttime departures:

- The difference between the number of 2016 jet operations and the 2026 jet operations is calculated.
- The number of operations is then multiplied by 0.03 because 3 percent of the flights are projected to be nighttime flights. Since the number of operations are given as annual operations, this number is then divided by 365 to come up with a daily average number of nighttime operations.
- The number of nighttime operations is divided by two, which provides the number of nighttime departures.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The Draft Program EIR analyzes and fully addresses the noise impacts associated with increased business jets. In conducting the analysis, the general aviation jet aircraft were assigned the appropriate departure path; therefore, the increased number of jets flying over Noise Monitoring Stations (“NMS”) 5, 6, and 7 was fully accounted for in the noise analysis. The *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Study* (Appendix H) addresses the incremental impacts associated with the projected noise increases associated with the GAIP. Tables 16 (page 70 of Appendix H) identifies the projected noise levels for the Existing Condition (Baseline 2016), the Future (2026) No Project Alternative, the Future (2026) Proposed Project, and the Future (2026) Alternative 1 scenarios. Table 17 shows the change in noise levels compared to the Existing Condition (Baseline 2016) for each of the alternatives. The change presented in Table 17 is the incremental increase in noise that would be attributable to the GAIP alternatives. This is then compared to the significance thresholds presented on page 71 of Appendix H.<sup>200</sup> The incremental noise increase associated with the GAIP did not exceed the noise thresholds; therefore, the impacts were identified as less than significant. The associated land uses impacts associated with the Cumulative (2026) 65 CNEL and greater noise contours is presented in the Draft Program EIR in Section 4.6.8, starting on page 4.6-49.

**Response 3-e** The comment asks what would be the largest general aviation jet aircraft that would be accommodated by JWA if the GAIP is approved.

The *General Aviation Forecasting and Analysis Technical Report* (Appendix C of the Draft Program EIR), provides descriptions of the Design Aircraft (also known as the Critical Aircraft) identified for the facility planning study, which is a composite aircraft representing a collection of aircraft classified by the three parameters:

- Aircraft Approach Category (“AAC”) – D: Approach speed 141 knots or more but less than 166 knots
- Airplane Design Group (“ADG”) – III: Wingspan 79 feet or more but less than 118 feet
- Taxiway Design Group (“TDG”) – 2: Cockpit to main gear 40 feet or more but less than 65 feet, and main gear width 15 feet or more but less than 20 feet

Based on the existing operations at JWA, the largest general aviation jet aircraft evaluated in the GAIP include models with the classification of AAC/ADG/TDG of

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<sup>200</sup> The *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Study* (Appendix H) identifies the County of Orange and the City of Newport Beach significance threshold for increased noise. As noted in the technical study, the County of Orange is the lead agency for the CEQA approval therefore; the noise analysis presents the Newport Beach thresholds for disclosure and information purposes only.

D/III/2, which include the GLF5-Gulfstream V and GLF6-Gulfstream G650 models.

**Response 3-f** The comment asks how would the noise from the departing large general aviation jet aircraft compare with the noise emitted from the commercial jet fleet currently using JWA. The comment further asks what is the basis for analysis.

Appendix H, *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report*, Attachment 1 of the Draft Program EIR provides Single Event Noise Exposure Level ("SENEL") noise contours for several general aviation jets and propeller aircraft along with commercial aircraft for comparison of noise levels. The contours are reflective of the aircraft types operating at JWA, which is also consistent with the fleet mix in the aviation forecasts.

**Response 3-g** The comment asks if there will be a limitation on large general aviation jet departures, especially during the existing curfew hours. The comment further asks if there will be limitations, what will they be and if not why not.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Response 3-c, which addresses this issue.

**Response 3-h** The comment asks if the GAIP conclusions of no significant noise or pollution impact take into consideration the Next-Gen satellite-precision concentrated flight paths that have clearly had a significant negative impact on Newport Beach.

The purpose of the Draft Program EIR is to evaluate the impacts associated with the GAIP. As such, the impact analysis is focused on the impacts associated with implementation of the GAIP compared to the Baseline (2016) conditions consistent with CEQA.

As stated in the Draft Program EIR, Section 1.9, the FAA began implementation of Metroplex procedures in late 2016 (arrivals from the north) and continued through December 2017. The Baseline condition for the Draft Program EIR is 2016, which was the latest year with full data at the time of the release of the Notice of Preparation ("NOP") and the initiation of the technical studies.

When the Baseline was established, the FAA was (and currently still is) reviewing procedures for possible implementation of the City of Newport Beach-requested procedure that would utilize satellite guidance to more accurately direct aircraft along the middle of the Upper Newport Bay. If a modified departure pattern is approved, it is anticipated that implementation of Newport Beach's requested procedure could result in minor modifications to the noise contours provided in the Draft Program EIR; however, any modifications would not be as a result of or related to the GAIP. Any environmental impacts associated with the change, would be addressed by the FAA as part of its action changing the flight path in the context of the National Environmental Policy Act ("NEPA") process. It should be noted, the County of Orange, as the proprietor of the Airport, has no authority

or control over aircraft in flight. Rather, the FAA has exclusive regulatory jurisdiction over flight paths, and the pilot-in-command of each aircraft is responsible for safely maneuvering the aircraft in accordance with the FAA's airspace procedures. The Topical Response pertaining to Flight Path Procedures provided in Section 3.1.2 of these Responses to Comments provides additional information on this issue.

The identification of the cumulative projects (Section 4.0.1 of the Draft Program EIR) and the *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* (Appendix H, page 86), clearly state due to the uncertainty of the final departure pattern, the cumulative noise analysis does not assume different flight paths than what are currently being used because it would be speculative. Section 15145 of the CEQA Guideline does not require a lead agency to speculate on potential impacts. For additional discussion on this issue, please see the Topical Response pertaining to Flight Path Procedures provided in Section 3.1.2 of these Responses to Comments.

**Response 4** The comment objects to the methodological approach set forth in Draft Program EIR 627 for health risk evaluation, mentioning concerns regarding flight patterns and the change in emissions with general aviation aircraft. The second paragraph of this comment raises concerns regarding the scope of sensitive receptors evaluated, focusing on children. The comment also refers to uncited studies.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As to the comment's concerns regarding the health risk evaluation, as stated in Section 4.2, Air Quality (page 4.2-24 through page 4.2-29) of Draft Program EIR 627, a methodological approach that involved comparatively assessing the incremental increase in emissions from the 2014 Settlement Agreement Amendment project (Final EIR 617) with those emissions attributable to the GAIP (Draft Program EIR 627) was used in Draft Program EIR 627. Because the GAIP would result in substantially smaller incremental emission increases than the 2014 Settlement Agreement Amendment project, Draft EIR 627 concluded that the health risk impacts of the GAIP would be less than significant. This approach to assessing the GAIP's TAC-related health risk impacts is allowed by CEQA, which does not mandate the preparation of project-specific HRAs. Instead, under CEQA, lead agencies are authorized to exercise their discretion when selecting methodological approaches for evaluating impacts, provided such decisions are supported by substantial evidence. In this case, substantial evidence, such as the similarities in project location and activity types, supports using certified EIR 617's HRA to comparatively evaluate the magnitude of likely impacts under the GAIP.

Nevertheless, in response to comment, a GAIP-specific HRA was prepared to quantitatively identify potential impacts to off-site sensitive and worker receptors as result of the Project. The HRA was prepared in accordance with the latest guidance provided by OEHHA and SCAQMD. The HRA accounts for the anticipated changes in the aircraft fleet and the flight patterns specific to general aviation aircraft. The HRA also studies impacts to receptors, including children,

at locations closest to the boundary of the Airport. Ultimately, the results of this analysis corroborate the conclusion presented in Draft Program EIR 627 – the GAIP would result in less than significant health impacts. (Because impacts to receptors within 1,000 meters of the Airport would be less than significant, receptors at more distant locations also would not be significantly impacted by the GAIP.) Please refer to the Topical Response pertaining to the Health Risk Assessment, provided in Section 3.1.6 of these Responses to Comments, for further discussion of the HRA. A copy of the HRA is provided as Attachment A to these Responses to Comments.

As it pertains to the second paragraph, which referenced uncited studies, after searching, studies matching the descriptions provided in the comment were not identified. Therefore, no more specific response can be provided regarding the studies mentioned in the comment.

**Response 4-a** The comment asks in arriving at the conclusion that the environmental impact of the GAIP is “less than significant,” what consideration has been given to the schools, athletic fields, parks and residential areas located within a close proximity and under the flight paths of JWA.

The HRA incorporates an assessment of impacts to sensitive receptors, as defined by OEHHA and SCAQMD guidance, from Project emissions. More specifically, the following types of sensitive receptors were considered in the GAIP-specific HRA: residential communities, public and private K-12 schools, public and private day care centers, convalescent homes and elderly residential facilities, hospitals and long-term care facilities, and parks and athletic facilities. As described in the HRA, receptors were analyzed out to 1,000 meters from the Airport fence line, including under flight paths. Please see Figure 3.5-1, Receptor Locations, of the GAIP-specific HRA, which is included as Attachment A to these Responses to Comments.

**Response 4-b** The comment asks although noise is discussed in the sensitive receptors section of the Draft Program EIR, including the impact to schools, why isn’t there an in depth discussion of health concerns especially as they relate to children.

The HRA analyzes health risk impacts to sensitive populations, including children. As discussed in the GAIP-specific HRA, for residential exposure, the total exposure duration analyzed is 30 years, in accordance with OEHHA guidance default assumptions, and begins in the third trimester to accommodate the increased susceptibility of exposures in early life. These exposure assumptions, designed to be protective of children younger than age 16, are assumed to be adequately protective of residents older than 30 years of age as well, including the elderly. (See Section 3.5.1, Sensitive Receptors, and Section 4.3.3, Exposure Assumptions, of the GAIP-specific HRA, provided as Attachment A to these Responses to Comments.)

**Response 4-c** The comment asks if the County considered recent research concerning the health and welfare of populations living within a close proximity of airports, including within 10 miles of JWA.

The preparation of an HRA, in accordance with OEHHA and SCAQMD guidance, is one of the standard methods for addressing health risk impacts from projects under CEQA. Further, the modeling tools and inputs used to conduct HRAs account for scientific research and literature pertaining to public health impacts. Based on the analysis performed, the health risk results continue to decrease beyond the modeling domain included. Therefore, the results of the HRA reported in the Topical Response pertaining to the Health Risk Assessment, provided in Section 3.1.6 of these Responses to Comments, represent the maximum impacts for receptors within 10 miles.

**Response 4-d** The comment asks the “true net increase in pollutants from the new aircraft population departures from JWA as the fuel mixture is different and heavier in carbon and particulate matter.”

The text of the comment is not entirely clear on the comparative concern expressed. Notably, the GAIP will not result in new aircraft that uses different fuel from those aircraft that currently operate at Airport. Nevertheless, the Draft Program EIR has already disclosed the net change in emissions from the change in aircraft population as a part of the GAIP.

The net emissions values from general aviation operations associated with the GAIP are presented in Section 4.2, Table 4.2-7 on page 4.2-19 of the Draft Program EIR. The FAA’s Airport Environmental Design Tool Version2d (“AEDT”) model was used to calculate these emissions and takes into account the different types of fuels used by each aircraft forecasted for the GAIP.

The GAIP-specific HRA, prepared in in conjunction with these Responses to Comments, also incorporates emissions associated with the general aviation aircraft fleet mix for the GAIP. Please see Appendix A of the GAIP-specific HRA, which is provided as Attachment A to these Responses to Comments.

**Response 4-e** The comment asks if consideration was given to the added pollution that would result from the increase in general aviation jet aircraft combined with the existing commercial fleet that operates at JWA.

Yes; the cumulative impacts of the Proposed Project and Alternative 1 were considered in Draft Program EIR 627, in accordance with CEQA. The pertinent guidance from SCAQMD states that: “As Lead Agency, the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR”. This indicates that the cumulative significance thresholds are the same as project-specific significance thresholds. As such, projects that exceed that project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively considerable. (The SCAQMD Guidance on the evaluation of cumulative impacts was discussed in the Draft Program EIR under Threshold 4.2-3 (see page 4.2-25).)

In this instance, the GAIP-specific HRA shows that the Project does not exceed the project-specific health risk thresholds, such that impacts are less than significant. Indeed, the GAIP-related incremental contributions to health risk are well below the SCAQMD's thresholds. In fact, the GAIP is expected to reduce cancer risk at sensitive and residential receptor locations when compared to existing conditions. Therefore, based on guidance from SCAQMD, the GAIP's contribution would not be considered cumulatively considerable.

As discussed in Section 4.2.8, the DEIR does consider the combined health risk of the Project with existing health risk in the region, which includes the existing commercial fleet. An interactive map showing model-calculated cancer risks, based on SCAQMD's MATES-IV study, estimated that TAC-related cancer risk in the Project area ranges from 748 to 887 in a million. Based on this SCAQMD study, the health risk in the area is cumulatively significant. However, based on the evaluation of the GAIP (Proposed Project and Alternative 1) and SCAQMD methodology, the project does not have a cumulatively considerable contribution to this cumulative impact.

**Response 4-f** The comment asks if there was consideration of the impact of increased noise levels that would result from nighttime flights of general aviation jet aircraft.

As stated in the Draft Program EIR, Appendix H, page 53, the noise analysis for the GAIP assumes the same percentage of GA jets operating in the evening and nighttime in the 2016 Baseline would operate in the GAIP alternatives. This results in approximately 9 percent of the business jets operating on an average annual day would operate during the evening period and approximately 3 percent would operate during the nighttime period. These percentages have been applied to the forecasts for general aviation jet aircraft. Please see Response 3b, provided above.

**Response 5** The comment states although the Draft Program EIR states there will be no change in flight patterns, it is unclear as to the flight patterns that were used for its analysis. It is also unclear what flight patterns would be followed by general aviation jet aircraft upon approval of the GAIP. Clarification is needed to assess the differences between general aviation and commercial aircraft departure patterns and how they might change upon approval of the GAIP.

The Draft Program EIR, Appendix H, page 42, describes the existing flight patterns and Figure 9 shows the existing flight patterns. These together describe the current flight patterns. As indicated in Section 6.1.1 on page 53 of Appendix H, the analysis assumes that no change in the existing flight paths would occur with the GAIP because "[f]light tracks into and out of JWA are well established, particularly with the Airport's noise abatement procedures." The noise analysis properly modeled the appropriate flight paths for the type of aircraft in forecasts for each of the scenarios. This assumption applies to both commercial and general aviation departure patterns. For additional information please see the Topical Response pertaining to Flight Path Procedures provided in Section 3.1.2 of these Responses to Comments.



**Response 5a** The comment asks if the general aviation jet aircraft added to JWA through the GAIP follow the existing flight patterns presently used by commercial jets as mandated by the SoCal Metroplex.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Responses 3-h and 5, above.

**Response 5b** The comment asks if the general aviation jet aircraft added through the GAIP will follow the flight patterns mandated under the SoCal Metroplex, has there been any consideration as to the impact that will be caused by the increase in air traffic over Newport Beach.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Responses 3-h and 5, above.

**Response 5c** The comment asks if there would be any changes in general aviation flight patterns if the GAIP is approved.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Please see Responses 3-h and 5, above.

### **3.6.3 RESPONSES TO SUPPLEMENTAL COMMENTS SUBMITTED WITH STANDARDIZED LETTER**

The following letters included supplemental comments in addition to the standardized letter:

- Balboa Financial, submitted by Scott Duntley (Letter 146)
- Robert and Linda Boyd (Letter 149)
- Cynthia and David Bright(Letter 150)
- Edwina Broderick (Letter 151)
- Anita Brown (Letter 152)
- Adrienne Frederiksen (Letter 191)
- Torben Frederiksen (Letter 192)
- Kenny and Nyna Goldberg (Letter 198)
- Kathy Harrison (Letter 203)
- Mark Knaeps (Letter 214)
- McMonigle Group, submitted by Manal Bozarth (Letter 220)
- Susan Menning (Letter 222)
- Margo O'Connor (Letter 231)
- Peggy and Michael Palmer (Letter 235)
- Edward T. Post (Letter 241)
- Janet H. Probst (Letter 243)
- John C. and Kristin H. Rowe (Letter 253)
- Christina Schwindt (Letter 255)
- Marion Smith (Letter 263)
- Vikki Swanson (Letter 273)

**Letter 146: Balboa Financial  
Submitted by Scott Duntley  
Dated November 20, 2018**

- BF-1** The comment transmits the standardized letter. In addition, the comment expresses concern related to the change in facilities that would support more corporate jets, which are not subject to the curfew. The opinion was expressed that the increase in nighttime flights would set a dangerous precedent for the future of the JWA curfew, which will be subject to renegotiation in 2035

The Airport acknowledges and appreciates this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, as a point of clarification, the 2014 Settlement Agreement Amendment specifies that the essential terms and conditions of the 1985 Settlement Agreement, with certain capacity enhancing and other modifications, extend through December 31, 2030, and the curfew restrictions extend through December 31, 2035. The County has no obligation to the settlement parties except as that obligation or restriction is expressly stated in the Settlement Agreement. In conjunction with any possible future Settlement Agreement amendment discussions, the settlement parties will need to review the possibility of amending the Settlement Agreement to extend beyond 2030 and, if so, consider and agree to the terms of any such extension, including consideration of the curfew.

The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments. The County's General Aviation Noise Ordinance ("GANO") establishes the maximum permitted noise levels associated with general aviation nighttime operations. This would continue to apply to all general aviation activity in the future.

The GANO is discussed in more detail in Section 2.6.4 of the Draft Program EIR and in the Topical Response pertaining to the GANO provided in Section 3.1.3 of these Responses to Comments.

- BF-2** The comment wishes to express the commenter's feeling regarding the negative impact the General Aviation Improvement Program ("GAIP") will have on the quality of life.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 149: Robert and Linda Boyd  
Dated November 21, 2018**

**RLB-1** The comment transmits the standardized letter. In addition, the commenters express the opinion that they feel a substantial impact in the quality of their lives with the continued expansion the John Wayne Airport. They state they are impacted daily with pollution from airplane takeoff and landing and that curfew hours must be maintained for all General Aviation aircraft using John Wayne Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments. However, as a point of clarification, the General Aviation Improvement Program ("GAIP") does not propose any changes to the curfew. The curfew is only applicable to the commercial carriers. The County's General Aviation Noise Ordinance ("GANO") regulates the hours of operation for commercial carriers and establishes the maximum permitted noise levels associated with general aviation nighttime operations. The GANO is discussed in more detail in Section 2.6.4 of the Draft Program EIR and in the Topical Response pertaining to the GANO provided in Section 3.1.3 of these Responses to Comments.

**Letter 150: Cynthia and David Bright  
Dated November 20, 2018**

**CDB-1** The comment transmits the standardized letter. In addition, the comment states the expansion of the Airport is a terrible idea and would impact the surrounding communities.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments. However, as a point of clarification, the General Aviation Improvement Program ("GAIP") is not an expansion of the Airport facilities or operations. The total number of general aviation based aircraft and general aviation flights would actually be reduced compared to the Baseline year of 2016. As evaluated in the Draft Program EIR, based on the aviation forecasts there would be an increase in turbine aircraft (i.e., turboprop and turbo-jet) compared to the Baseline, which would result in an incremental increase in noise levels. The potential impacts associated with changes in fleet mix have been addressed in the Draft Program EIR.

**Letter 151: Edwina Broderick**  
**Dated November 20, 2018**

- EB-1** The comment transmits the standardized letter and requests to be kept informed regarding developments related to the Draft Program Environmental Impact Report ("EIR").

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, this comment does not present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments. Consistent with County policy, the Airport will notify you when the Responses to Comments are available and of upcoming hearings.

**Letter 152 Anita Brown  
Dated November 20, 2018**

- AB-1** The comment transmits the standardized letter. In addition, it expresses concern regarding the expansion of the Airport and the impacts associated with the NextGen flight paths.

The Airport acknowledges comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments. However, as a point of clarification, the General Aviation Improvement Program (“GAIP”) is not an expansion of the Airport facilities or operations. The total number of general aviation based aircraft and general aviation flights would actually be reduced compared to the Baseline year of 2016. As evaluated in the Draft Program EIR, based on the aviation forecasts there would be an increase in turbine aircraft (i.e., turboprop and turbo-jet), which would result in an incremental increase in noise levels. The potential impacts associated with changes in fleet mix have been addressed in the Draft Program EIR.

The comment identifies the perceived impacts of the NextGen flight path. The GAIP would not change flight path patterns. The County of Orange, as the proprietor of the Airport, has no authority or control over aircraft in flight. Rather, the Federal Aviation Administration (“FAA”) has exclusive regulatory jurisdiction over flight paths, and the pilot-in-command of each aircraft is responsible for safely maneuvering the aircraft in accordance with the FAA’s airspace procedures. The Draft Program EIR (Section 1.9) did identify the FAA Southern California Metroplex (i.e., NextGen) program, although it was identified as an Airport issue not related to the GAIP. The Topical Response pertaining to Flight Path Procedures, provided in Section 3.1.2 of these Responses to Comments, provides a more in depth discussion of this issue.

- AB-2** The comment states money may be an underlying factor in the Board of Supervisors’ decision. The comment cites factors to be considered of reduced property values with associated reduction in property taxes and reduction in tourism due to aircraft noise and pollution as fiscal issues to consider.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The six Project Objectives included in Section 1.4, 3.3 and 5.2 of the Draft Program EIR do include two that are fiscally related because it is recognized that it is important for the Airport to have a self-sustaining facility because JWA does not receive any support from Orange County’s general fund. In addition, and importantly, when airport owners

or sponsors accept funds from the FAA, they must agree to certain obligations (or assurances). These assurances require the recipients to maintain and operate their facilities safely and efficiently and in accordance with specified conditions. One of the Airport's Grant Assurances with the FAA (Grant Assurance 24, Fee and Rental Structure) requires the Airport to be as financially self-sustaining as possible under the particular circumstances at the Airport. The purpose of the self-sustaining rule is to maintain the utility of the federal investment in the airport. As noted in Section 1.5 of the Draft Program EIR, the intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. Consistent with the project objectives, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport.

It should be noted, the California Environmental Quality Act ("CEQA") (Section 21080(e)), the State CEQA Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project's potential effects that do not result, directly or indirectly, in a "physical change" to the environment. Indeed, noting that CEQA does not require analysis of impacts that are solely economic in nature.<sup>201</sup> Therefore, no more specific response is required as it pertains to fiscal issues.

**AB-3** The comment states lawsuits associated with health issues will be inevitable and the potential concerns related to an airplane crash in one of the adjacent neighborhoods. Additionally, the comment states, "Fingers will all point to those on the Board of Supervisors that voted to increase airplane departures."

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. The commenter is also directed to the Topical Response pertaining to Health Risk Assessment provided in Section 3.1.6 of these Responses to Comments. Furthermore, it should be noted, the GAIP would reduce the number of general aviation operations, not increase them. The aviation forecast are discussed in the Project Description (Section 3.6 of the Draft Program EIR. Additionally, Table 5-3 of the Draft Program EIR provides a comparison of forecast operations by aircraft engine type for the GAIP alternatives. In the Baseline (2016) there were 192,800 annual operations. For the Proposed Project this would be reduced to 167,900 annual operations. Alternative 1 is forecast to have 168,600 annual operations.

Given that the GAIP would reduce the number of based aircraft and the number of annual operations, statistically, the potential for an accident on take-off would be reduced compared to current conditions. Additionally, it should be noted, general aviation accidents are very rare. In 2015, the most current year with complete data published by

<sup>201</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.)



the National Transportation Safety Board (“NTSB”), nationally there were 27 accidents involving general aviation aircraft. When put into context, in that same period there were 17,435,000 general aviation flight hours and 7,611,973,000 miles flown. There were 8,859,000 departures in this period. This equates to an average of 0.155 accidents per 100,000 hours of flight; 0.0035 accidents per 1,000,000 miles flown; and 0.305 accidents per 100,000 departures. It should be noted, none of these accidents involved a fatality.<sup>202</sup>

All general aviation aircraft owners are responsible for maintenance and inspections of their aircraft in compliance with FAA regulations. The County does not have jurisdiction or enforcement authority on this matter.

**AB-4** The comment recommends working with the FAA to reduce noise and create efficient transportation to Ontario International Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. It should be noted that the Airport regularly coordinates with FAA on Airport projects. Additionally, although FAA’s primary responsibilities include regulation of aircraft and flight procedures, FAA does not generally coordinate ground transportation projects. The GAIP is focused on general aviation aircraft and facilities.

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<sup>202</sup> [https://www.nts.gov/investigations/data/Documents/2015\\_preliminary\\_aviation\\_statistics.xls](https://www.nts.gov/investigations/data/Documents/2015_preliminary_aviation_statistics.xls)

**Letter 191: Adrienne Frederiksen  
Dated November 20, 2018**

- AF-1** The comment expresses concern that the community is already exposed to the change in flight patterns associated with the Federal Aviation Administration's ("FAA's") Southern California Metroplex (i.e., NextGen). To increase the impact by locating more and larger private jets at John Wayne Airport is irresponsible.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments.

It should be noted, the County of Orange, as the proprietor of the Airport, has no authority or control over aircraft in flight. Rather, the FAA has exclusive regulatory jurisdiction over flight paths, and the pilot-in-command of each aircraft is responsible for safely maneuvering the aircraft in accordance with the FAA's airspace procedures. The Draft Program EIR (Section 1.9) did identify the FAA Southern California Metroplex (i.e., NextGen) program, although it was identified as an Airport issue not related to the GAIP. The Topical Response pertaining to Flight Path Procedures, provided in Section 3.1.2 of these Responses to Comments, provides a more in depth discussion of this issue.

**Letter 192: Torben Frederiksen**  
**Dated November 20, 2018**

**TF-1** The comment states the community is exposed to increased pollutants and noise since the implementation of the Federal Aviation Administration's ("FAA's") Southern California Metroplex (i.e., NextGen) flight patterns. Introduction of more and larger private jets at John Wayne Airport, "the already disproportionate number of resident cancer victims will escalate and a study will be done to show a direct correlation to the concentration of aviation fuel pollutants. . ."

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments.

It should be noted, the County of Orange, as the proprietor of the Airport, has no authority or control over aircraft in flight. Rather, the FAA has exclusive regulatory jurisdiction over flight paths, and the pilot-in-command of each aircraft is responsible for safely maneuvering the aircraft in accordance with the FAA's airspace procedures. The Draft Program EIR (Section 1.9) did identify the FAA Southern California Metroplex (i.e., NextGen) program, although it was identified as an Airport issue not related to the GAIP. The Topical Response pertaining to Flight Path Procedures, provided in Section 3.1.2 of these Responses to Comments, provides a more in depth discussion of this issue.

The Draft Program EIR evaluates the noise and air quality impacts associated with the General Aviation Improvement Program ("GAIP"). The noise analysis presented in Section 4.7, identified the GAIP would result in minor increases in aviation noise levels compared to the Baseline (2016) condition however, none of the increases would exceed the thresholds of significance. This information is summarized in Table 4.7-8 in the Draft Program EIR and the full *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* prepared by Landrum & Brown is included as Appendix H to the Draft Program EIR.

With regards to increased pollution, the increased air emissions, evaluated in Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions did identify an incremental increase in air emissions; however, the impacts were identified as less than significant pursuant to the South Coast Air Quality Management District ("SCAQMD") standards. As shown in Table 4.2-9, the change in the emission levels compared to the Baseline 2016 would be minimal and none of the operational emissions for the Proposed Project would exceed the standards established by the South Coast Air Quality Management District ("SCAQMD"). The carbon monoxide ("CO") emissions are projected to decrease compared to the Baseline 2016 conditions. This is also applicable to Alternative 1 (see Table 4.2-13).

Even though significant operational impacts were not identified, the County has included two minimization measures that would help to reduce air emissions. These include (1) use of architectural coatings for the East and West Access Roads that have low volatile organic compounds (“VOCs”) content; and (2) FBO use of Zero Emission Vehicle (“ZEV”) ground service equipment where available for 90 percent or greater of the GSE operating hours. Further, MN GHG-1 (page 4.4-31), provided in Section 4.4, Greenhouse Gas Emissions, identifies that the general aviation lease agreements will require compliance with the provisions of the *John Wayne Airport Climate Action Plan* (“CAP”), which was developed to reduce the GHG emissions associated with commercial carrier operations.

The comment cites “already disproportionate number of resident cancer victims” but does not give any evidence of this claim. As discussed on page 4.2-26, GAIP-related impacts associated with toxic air contaminants (“TAC”) were found to be less than significant. In addition to the analysis in the Draft Program EIR, the Topical Response pertaining to Health Risk provided in Section 3.1.6 of these Responses to Comments, provides additional detail on the potential impacts associated with increased air emissions.

**Letter 198: Kenny and Nyna Goldberg**  
**Dated November 20, 2018**

**KNG-1** The comment transmits the standardized letter and states the noise pollution from the Airport has been getting worse to the point of the inability to listen to the television. The commenter urges not to pass the proposed changes.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments.

**Letter 203: Kathy Harrison  
Dated November 21, 2018**

**KH-1** In transmitting the standardized letter, the email chain from the Citizens Against Airport Noise and Pollution (“CAANP”) was included. Through the email chain, the comment indicates that the CAANP is concerned about impacts on the nighttime curfew, increased pollution from leaded jet fuel, and increase in daily departures.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments. These responses address the specific issues raised in the email chain included as part of the transmittal of the standardized letter.

As noted in the responses to the standardized letter, the Draft Program EIR evaluated the potential impacts associated with the General Aviation Improvement Program’s (“GAIP’s”) contribution to increased noise and pollution.

The Draft Program EIR evaluates the noise and air quality impacts associated with the General Aviation Improvement Program (“GAIP”). The noise analysis presented in Section 4.7, identified the GAIP would result in minor increases in aviation noise levels compared to the Baseline (2016) condition however, none of the increases would exceed the thresholds of significance. This information is summarized in Table 4.7-8 in the Draft Program EIR and the full *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* prepared by Landrum & Brown is included as Appendix H to the Draft Program EIR.

Although general aviation operations are permitted 24 hours a day, they are subject to daytime and nighttime noise limits. As noted in Appendix H, on page 53, the noise analysis for the GAIP assumes the same percent of general aviation jets operating in the evening and nighttime in the Baseline would operate in the GAIP alternatives. This results in approximately 3 percent operating during the nighttime period. Based on the forecasts provided in Table 3-7 of the Draft Program EIR, in the Baseline (2016), there were 31,800 annual operations were flown by aircraft with jet engines. In 2026, this would increase to 40,400 for the Proposed Project and 41,400 for Alternative 1. Using the 3 percent nighttime operations factor, this equates to the Proposed Project resulting in approximately 258 additional nighttime operations annually (0.71 additional operations per night) compared to the Baseline (2016). However, each take-off and landing is considered a separate operation. Therefore, the total number of departures would be approximately half that number (i.e., 129), which would result in an average of 0.35 additional daily nighttime departures. For Alternative 1 (see Table 3-11 of the Draft Program EIR), there would be approximately 288 additional nighttime operations

annually. Therefore, with Alternative 1 there would be an average of 0.39 additional nighttime departures on a daily basis.<sup>203</sup>

It should be noted, the GAIP is not proposing to modify the General Aviation Noise Ordinance (“GANO”), which is the basis for the commercial carrier curfew. For additional discussion, please see the Topical Response pertaining to the GANO (see Section 3.1.3 of these Responses to Comments).

With regards to increased pollution, the increased air emissions, evaluated in Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions did identify an incremental increase in air emissions; however, the impacts were identified as less than significant pursuant to the South Coast Air Quality Management District (“SCAQMD”) standards. As shown in Table 4.2-9, the change in the emission levels compared to the Baseline 2016 would be minimal and none of the operational emissions for the Proposed Project would exceed the standards established by the South Coast Air Quality Management District (“SCAQMD”). The carbon monoxide (“CO”) emissions are projected to decrease compared to the Baseline 2016 conditions. This is also applicable to Alternative 1 (see Table 4.2-13).

Even though significant operational impacts were not identified, the County has included two minimization measures that would help to reduce air emissions. These include (1) use of architectural coatings for the East and West Access Roads that have low volatile organic compounds (“VOCs”) content; and (2) FBO use of Zero Emission Vehicle (“ZEV”) ground service equipment where available for 90 percent or greater of the GSE operating hours. Further, MN GHG-1 (page 4.4-31), provided in Section 4.4, Greenhouse Gas Emissions, identifies that the general aviation lease agreements will require compliance with the provisions of the *John Wayne Airport Climate Action Plan* (“CAP”), which was developed to reduce the GHG emissions associated with commercial carrier operations.

For additional discussion regarding health risks, please see the Topical Response pertaining to the Health Risk Assessment, provided in Section 3.1.6 of these Responses to Comments.

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<sup>203</sup> Tables 3-7 and 3-11 reflect the annual operations forecast by aircraft engine type for the Proposed Project and Alternative 1, respectively. The following calculations were done to determine the expected increase in daily nighttime departures:

- The difference between the number of 2016 jet operations and the 2026 jet operations is calculated.
- The number of operations is then multiplied by 0.03 because 3 percent of the flights are projected to be nighttime flights. Since the number of operations are given as annual operations, this number is then divided by 365 to come up with a daily average number of nighttime operations.
- The number of nighttime operations is divided by two, which provides the number of nighttime departures.

**Letter 214: Mark Knaeps  
Dated November 20, 2018**

**MK-1** The comment transmits the standardized letter and expresses concerns about the health impacts of the General Aviation Improvement Program (“GAIP”). The comment expresses the opinion that “these types of programs violate our rights we obtained when purchasing our house.”

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments.

Section 4.2. Air Quality of the Draft Program EIR (see page 4.2-26) discusses the GAIP-related impacts associated with toxic air contaminants (“TAC”). Impacts were found to be less than significant. In addition to the analysis in the Draft Program EIR, the Topical Response pertaining to Health Risk provided in Section 3.1.6 of these Responses to Comments, provides additional detail on the potential impacts associated with increased air emissions.

Section 4.7 (Noise) of the Draft Program EIR summarizes the applicable regulatory setting; provides qualitative and quantitative information regarding the existing noise environment; quantifies and identifies the incremental increase in noise attributable to the GAIP; and discloses the significance of that incremental increase by reference to noise thresholds established by the County of Orange.<sup>204</sup> The noise analysis prepared for the Draft Program EIR, used the data from the aviation forecasts and follows the methodologies and criteria included in FAA Order 1050.1F for the assessment of aircraft noise impacts. Order 1050.1F requires the use of the FAA Airport Environmental Design Tool Version 2d (“AEDT”) to create noise exposure contours. As noted, The current noise standards used in California for assessing impacts is the 65 Community Noise Equivalent Level (“CNEL”).

Exhibit 4.7-9 provides a graphic representation of the change in noise contours between the Baseline (2016) and the Proposed Project (i.e., the 75, 70 65, and 60 CNEL contours). This same information is shown in Exhibit 4.7-11 for Alternative 1. Additionally, Exhibits 4.7-10 and 4.7-12 provide the 65 CNEL contour, along with the 1985 Master Plan 65 CNEL contour, for the departure path at a larger scale. It should be noted, the address provided on the letter is in the 55-60 CNEL. Therefore, based on federal, state, and local standards, this property is not located in the noise impact area.

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<sup>204</sup> Although the City of Newport Beach Noise Thresholds would not be applicable to the GAIP, the Draft Program EIR did identify the City’s thresholds and none of the changes in noise levels between the 2016 Baseline and the 2026 cumulative condition at NMS in the City of Newport Beach would exceed the City’s thresholds. Additionally, the Sound Insulation Program adopted as part of the 2014 Settlement Agreement Amendment include the City of Newport Beach thresholds for sensitive receptors in the City of Newport Beach.



**Letter 220: McMonigle Group  
Submitted by Manal Bozarth  
Dated November 20, 2018**

- MG-1** The comment transmits the standardized letter and references the Marine Corps Air Station (“MCAS”) El Toro that was planned to be an international airport and is being used as the “great park.”

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments.

It should be noted, the decision to not develop MCAS El Toro as an international airport was based on the voter-approved Measure W in 2002, which designated the base for the development of the Orange County Great Park and eliminated planned aviation uses for the site.

- MG-2** The comment provides a citation from an unknown source that references adverse health effects from airport pollution present within 10 miles of an airport.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. It should be noted, the Draft Program EIR did address increased air emissions in Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions. Although an incremental increase in air emissions was identified, the impacts were identified as less than significant pursuant to the South Coast Air Quality Management District (“SCAQMD”) standards. In addition to the analysis in the Draft Program EIR, the Topical Response pertaining to Health Risk provided in Section 3.1.6 of these Responses to Comments, provides additional detail on the potential impacts associated with increased air emissions.

**Letter 222: Susan Menning  
Dated November 20, 2018**

**SM-1** The comment transmits the standardized letter and states the residents under the departure path have experienced a drastic increase in noise associated with the NextGen flight paths. The comment further states not to inflict more noise or health/safety issues in the interest of generating additional income for John Wayne Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments. The comment identifies the impacts of the NextGen flight path. The General Aviation Improvement Program ("GAIP") would not change flight path patterns. The County of Orange, as the proprietor of the Airport, has no authority or control over aircraft in flight. Rather, the Federal Aviation Administration ("FAA") has exclusive regulatory jurisdiction over flight paths, and the pilot-in-command of each aircraft is responsible for safely maneuvering the aircraft in accordance with the FAA's airspace procedures. The Draft Program EIR (Section 1.9) did identify the FAA Southern California Metroplex (i.e., NextGen) program, although it was identified as an Airport issue not related to the GAIP. The Topical Response pertaining to Flight Path Procedures, provided in Section 3.1.2 of these Responses to Comments, provides a more in depth discussion of this issue.

The comment states the GAIP is in the interest of generating more income for the Airport. The six Project Objectives, identified in Section 1.4, 3.3 and 5.2 of the Draft Program EIR, do include two objectives that are fiscally related because it is recognized that it is important for the Airport to have a self-sustaining facility, since JWA does not receive any support from Orange County's general fund. In addition, and importantly, when airport owners or sponsors accept funds from the Federal Aviation Administration (FAA), they must agree to certain obligations (or assurances). These assurances require the recipients to maintain and operate their facilities safely and efficiently and in accordance with specified conditions. One of the Airport's Grant Assurances with the FAA (Grant Assurance 24, Fee and Rental Structure) requires the Airport to be as financially self-sustaining as possible under the particular circumstances at the Airport. The purpose of the self-sustaining rule is to maintain the utility of the federal investment in the airport. As noted in Section 1.5 of the Draft Program EIR, the intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport.

It should also be noted, the California Environmental Quality Act ("CEQA") (Section 21080(e)), the State CEQA Guidelines (e.g., Sections 15064(e) and 15131), and

established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project's potential effects that do not result, directly or indirectly, in a "physical change" to the environment. Indeed, noting that CEQA does not require analysis of impacts that are solely economic in nature.<sup>205</sup> Therefore, no more specific response is required as it pertains to fiscal issues.

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<sup>205</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.)

**Letter 231: Margo O'Connor  
Dated November 20, 2018**

**MO-1** The comment transmits the standardized letter. The comment expresses a concern about increasing noise and pollution from jet aircraft flying over the commenter's residence. An opinion is expressed that the proposed General Aviation Improvement Program ("GAIP") is no "improvement" to those residing in Newport Beach because larger private aircraft would not be subject to the present curfew. The commenter requests to be kept informed as to future developments.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments. Consistent with County policy, the Airport will notify you when the Responses to Comments are available and of upcoming hearings.

**Letter 235: Peggy and Michael Palmer  
Dated November 20, 2018**

**PMP-1** The comment transmits the standardized letter. The comment expresses an opposition to larger aircraft. The comment expresses concerns pertaining to noise, pollution and health issues impacting our children, schools and neighborhoods.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments.

**Letter 241 Edward T. Post  
Dated November 20, 2018**

**ETP-1** In addition to transmitting the standardized letter, the commenter states John Wayne Airport (“JWA”) should serve the residents of Orange County in a non-intrusive manner that preserves the lifestyle, health and comfort the residents expect and deserve. JWA should serve the residents who live here and not the companies or corporate entities based here. The comment further expresses an opinion regarding the county taxes the residents pay.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments. As stated in Section 1.5 of the Draft Program EIR, the intent of the General Aviation Improvement Program (“GAIP”) is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. As reflected in the project objectives (Sections 1.4, 3.3 and 5.2 of the Draft Program EIR, the GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. As a public airport, JWA is required to serve all users, including the business community.

**Letter 243: Janet H. Probst**  
**Dated November 20, 2018**

**JP-1** The comment transmits the standardized letter and indicates the contents of the standardized letter are of major concern to the residents who live under the John Wayne Airport (“JWA”) flight pattern and live in close proximity to the Airport and need to be addressed by the County. Additionally, the comment expresses the opinion that it appears from the EIR that the County is completely ignoring the noise, health, and safety of the residents who live under and near the flights taking-off from and landing at JWA.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

Further, it is unclear by the comment which issues pertaining to noise, health, and safety of the residents who live under the flight paths the commenter believes were not addressed in the Draft Program EIR. The potential noise impacts associated with the General Aviation Improvement Program (“GAIP”) are addressed in Section 4.7. Air quality impacts are addressed in Section 4.2, greenhouse gas emissions are addressed in Section 4.4, and hazardous materials are addressed in Section 4.5. For additional discussion on this issue, please see the Topical Response pertaining to the Health Risk Assessment, provided in Section 3.1.6 of these Responses to Comments.

Given that the GAIP would reduce the number of based aircraft and the number of annual operations, statistically, the potential for an accident on take-off would be reduced compared to current conditions. Additionally, it should be noted, general aviation accidents are very rare. In 2015, the most current year with complete data published by the National Transportation Safety Board (“NTSB”), nationally there were 27 accidents involving general aviation aircraft. When put into context, in that same period there were 17,435,000 general aviation flight hours and 7,611,973,000 miles flown. There were 8,859,000 departures in this period. This equates to an average of 0.155 accidents per 100,000 hours of flight; 0.0035 accidents per 1,000,000 miles flown; and 0.305 accidents per 100,000 departures. It should be noted, none of these accidents involved a fatality.<sup>206</sup>

For clarification, the County, as the Airport proprietor, has limited capacity to place limitations on aircraft operations. The County is not allowed to place a cap on the number of general aviation operations at the Airport without complying with the requirements of *Airport Noise and Capacity Act of 1990* (“ANCA;” 49 U.S.C. Section 47521 et seq.), including under most circumstances, prior FAA approval. As discussed in Section 2.6.2 of the Draft Program EIR, ANCA is a federal law enacted by Congress in 1990 to establish a national aviation noise policy. The purpose of this law is to constrain, at the federal level, the ability of local airport operators to restrict the use of their airports due to noise concerns. However, the County’s General Aviation Noise Ordinance (“GANO”) does prohibit general aviation operations exceeding specified Single Event

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<sup>206</sup> [https://www.nts.gov/investigations/data/Documents/2015\\_preliminary\\_aviation\\_statistics.xls](https://www.nts.gov/investigations/data/Documents/2015_preliminary_aviation_statistics.xls)

Noise Exposure Level ("SENEL") from taking off between the hours of 10:00 PM and 7:00 AM (8:00 AM on Sundays) and from landing between 11:00 PM and 7:00 AM (8:00 AM on Sundays). For additional detail, please see the Topical Responses pertaining to the GANO and to Restrictions on General Aviation Operations, which also addresses ANCA, provided in Sections 3.1.3 and 3.1.4, respectively, of these Responses to Comments. Additionally, general aviation aircraft owners are responsible for maintenance and inspections of their aircraft in compliance with FAA regulations. The County does not have jurisdiction or enforcement authority on this matter.

The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments. As noted, the Draft Program EIR contains the information raised by the questions in the standardized letter. Further clarification is provided in the responses to the standardized letter.



**Letter 253: John C. and Kristin H. Rowe**  
**Dated November 20, 2018**

- JKR-1** The comment transmits the standardized letter and identifies the first paragraph is different than other standardized letters that have been sent.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. A response to the additional comments provided in the first paragraph of the standardized letter have been bracketed as Comment JKR-2, and is responded to below.

The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments.

- JKR-2** The commenter states they have observed regular pollution from jet fuel that adheres to our decks, driveways, and other outdoor surfaces. This pollution is not the same as what is associated with automobile and truck traffic. It is a sticky substance that adheres to surfaces, rather than the black, carbon-like material identifiable with the exhaust from vehicles. Never does this form of air pollution get recognized in EIRs.

The air quality impacts, including air emissions, were evaluated in Section 4.2, Air Quality and Section 4.4, Greenhouse Gas Emissions. The technical studies supporting the air quality and greenhouse gas emissions are included in Appendices E and G, respectively. The air analyses are based on the aviation forecasts. The operational emissions for the Proposed Project and Alternative 1, are presented in Tables 4.2-9 and 4.2-13 of the Draft Program EIR, respectively, (and Table 31 of Appendix E, *Air Quality Technical Report*), demonstrate the GAIP would result in emissions below the applicable SCAQMD thresholds. Because the construction and operational emissions were below the applicable SCAQMD thresholds, the implementation of the Proposed Project or Alternative 1 would not result in a violation of the state air quality standards.

It should be noted, Final EIR 617, prepared for the 2014 Settlement Agreement Amendment, included a detailed discussion on air pollution that could be characterized as black dust, and is frequently termed "black carbon."<sup>207</sup> It is a constituent of PM<sub>2.5</sub>. Airborne particulate matter is discussed on page 4.2-2 of the Draft Program EIR. As noted, PM<sub>2.5</sub> is either directly emitted in combustion exhaust or is formed in atmospheric reactions between various gaseous pollutants including NO<sub>x</sub>, sulfur oxides ("SO<sub>x</sub>"), and VOCs. PM<sub>2.5</sub> can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

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<sup>207</sup> Final EIR 617 is located on the Airport's website at: <https://www.ocair.com/communityrelations/settlementagreement/deir617>. The Responses to Comments, which contains the discussion on black carbon can be found at: [https://www.ocair.com/communityrelations/settlementagreement/docs/Responses\\_to\\_Comments\\_DEIR%20No.%20617-August2014.pdf](https://www.ocair.com/communityrelations/settlementagreement/docs/Responses_to_Comments_DEIR%20No.%20617-August2014.pdf)

While operations at JWA may result in PM<sub>2.5</sub> emissions and thus black carbon emissions, given the varied sources of black carbon emissions, the black dust in the surrounding area is likely not solely due to JWA due to the proximity of other likely sources of black carbon (e.g., diesel-powered trucks on Route 1 and marine vessels such as ferries, commercial fishing boats, tour boats, and other motor, as well as on-road vehicles operating along I-405 and SR-73). According to USEPA's "Report to Congress on Black Carbon", transportation/mobile sources accounted for 52.3 percent of the black carbon emitted in the United States in 2005.<sup>208</sup> This category of sources includes on-road vehicles, non-road vehicles, locomotives, commercial marine vessels, aircraft, and tire and brake wear. In comparison, aircraft-related black carbon emissions only accounted for only 0.06 percent of total U.S. black carbon emissions. Moreover, SCAQMD's 2012 Air Quality Management Plan (AQMP) indicates that near-roadway studies have found the highest concentrations of black carbon in the immediate vicinity (i.e., within 17 meters) of freeways frequently traveled by heavy-duty diesel trucks (i.e., the I-710 freeway), with black carbon concentrations decreasing exponentially with increasing distance downwind from the freeway.<sup>209</sup>

The relationship between emissions and air concentrations is complex. Numerous factors influence the dispersion and transport of emissions. These factors include emission source location, parameters of the source of emissions (e.g., exit velocity), emissions magnitude, and atmospheric conditions (e.g., mixing height, wind direction, and wind speed).

The small particle size of black carbon also influences how emissions may "deposit." Specifically, black carbon is considered to be smaller than 2.5 microns in diameter (i.e., PM<sub>2.5</sub>). Particles of this size behave more like a gas and do not deposit like larger particles.<sup>210</sup> Thus, the presence of aircraft overhead may appear to lead to deposition of emissions straight down, but the small particle sizes likely do not deposit or settle straight down. Rather, the meteorology will disperse the black carbon over a wider area leading to low concentrations by the time it reaches ground level.<sup>211</sup>

Moreover, the "mixing height" is another important factor in the dispersion of air pollutants. According to the Federal Aviation Administration's ("FAA") Aviation Environmental Design Tool ("AEDT") Technical Manual, the mixing height is "the height at the top layer of atmosphere where relatively vigorous mixing of pollutants and other gases will take place for the airport in a given month."<sup>212</sup> Stated somewhat more simply, the mixing height is the "depth through which atmospheric pollutants are typically

<sup>208</sup> USEPA, 2012 (March). *Report to Congress on Black Carbon* (EPA-450/R-12-001). Research Triangle Park, NC: USEPA. <http://www.epa.gov/blackcarbon/2012report/fullreport.pdf>.

<sup>209</sup> South Coast Air Quality Management District (SCAQMD). 2013 (February). *Final 2012 Air Quality Management Plan* (page 9-12). Diamond Bar, CA: SCAQMD. <http://aqmd.gov/home/library/clean-air-plans/air-quality-mgt-plan/final-2012-air-quality-management-plan>.

<sup>210</sup> Seinfeld, J.H. and S.N. Pandis. 1994. *Atmospheric Chemistry and Physics: From Air Pollution to Climate Change* (Chapter 2, Section 2.7.4). Hoboken, NJ: Wiley & Sons, Inc.

<sup>211</sup> USEPA. 2012d (January 5, last update). *The Particle Pollution Report: Current Understanding of Air Quality and Emissions through 2003* (Understanding Particle Pollution, page 6). Research Triangle Park, NC: USEPA. [http://www.epa.gov/airtrends/aqtrnd04/pmreport03/pmunderstand\\_2405.pdf](http://www.epa.gov/airtrends/aqtrnd04/pmreport03/pmunderstand_2405.pdf).

<sup>212</sup> Federal Aviation Administration (FAA). 2017 (September). *Aviation Environmental Design Tool. Version 2d. Technical Manual* (Page 10). Washington, D.C.: FAA. [https://aedt.faa.gov/documents/aedt2d\\_techmanual.pdf](https://aedt.faa.gov/documents/aedt2d_techmanual.pdf)

mixed by dispersive processes.”<sup>213</sup> The AEDT default standard for the mixing height for airport air dispersion modeling is 3,000 feet. Any aircraft emissions above this level will have a negligible effect on ground level concentrations. While aircraft in approach or on take-off may appear to be a primary source of black carbon emissions for those beneath the flight path, the combination of the factors discussed above (location, particle size, and atmospheric conditions) all lead to the dispersion and dilution of emissions before they ever reach ground level (if at all).

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<sup>213</sup> USEPA. 2004 (September). User’s Guide for the AMS/EPA Regulatory Model – AERMOD (EPA-454/B-03-001, page GLOSSARY-3). Research Triangle Park, NC: USEPA. <http://www.epa.gov/scram001/7thconf/aermod/aermodugb.pdf>.

**Letter 255: Christina Schwindt  
Dated November 20, 2018**

- CS-1** The comment transmits the standardized letter and expresses opposition to the expansion of John Wayne Airport ("JWA").

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, this comment does not present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments. However, as a point of clarification, the General Aviation Improvement Program ("GAIP") is not an expansion of the Airport facilities or operations. The total number of general aviation based aircraft and general aviation flights would actually be reduced compared to the Baseline 2016. As evaluated in the Draft Program EIR, based on the aviation forecasts there would be an increase in turbine aircraft (i.e., turboprop and turbo-jet). The potential impacts associated with changes in fleet mix have been addressed in the Draft Program EIR.

**Letter 263: Marion Smith  
Dated November 20, 2018**

- MS-1** The comment transmits the standardized letter and expresses opposition to allowing non-commercial flights/general aviation to utilize John Wayne Airport (“JWA”) any time of the day and night because it will impact the neighborhoods in the flight path.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments. However, as a point of clarification, the General Aviation Improvement Program (“GAIP”) would not change the regulations that allow general aviation aircraft to fly during nighttime hours. As discussed in Section 2.6.4 of the Draft Program EIR, the GANO (County Ordinance 3505) establishes limitations on the maximum single event noise levels, which are applicable to both commercial and general aviation operations. The GANO prohibits general aviation operations exceeding specified Single Event Noise Exposure Level (“SENEL”) from taking off between the hours of 10:00 PM and 7:00 AM (8:00 AM on Sundays) and from landing between 11:00 PM and 7:00 AM (8:00 AM on Sundays). For additional detail on this issue, please see the Topical Response pertaining to the GANO provided in Section 3.1.3 of these Responses to Comments. Additionally, the commenter is directed to the Topical Response pertaining to Restrictions on General Aviation Operations provided in Section 3.1.4 of these Responses to Comments. This Topical Response also provides a discussion on the regulatory framework that limits the County’s ability to restrict the hours of operation for general aviation aircraft.

**Letter 273: Vikki Swanson  
Dated November 21, 2018**

- VS-1** The comment transmits the standardized letter and expresses opposition to changes to the rules pertaining to private jets at John Wayne Airport (“JWA”).

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments. However, as a point of clarification, the General Aviation Improvement Program (“GAIP”) would not change the regulations pertaining to general aviation aircraft. As noted in Section 1.5 of the Draft Program EIR, the intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As discussed in the Draft Program EIR (Section 3.6, Project Description), the GAIP provides for the replacement of the current general aviation facilities. The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. Recognizing the trends in general aviation, the GAIP provides facilities that would accommodate more private jets. The impacts of this change in fleet mix was addressed in the Draft Program EIR.

The commenter is directed to the Topical Response pertaining to Restrictions on General Aviation Operations provided in Section 3.1.4 of these Responses to Comments for a discussion on the regulatory framework that limits the County’s ability to restrict the hours of operation for general aviation aircraft.

**Comments Made at the  
September 26, 2018 Public Meeting**

## **3.7 COMMENTS MADE AT THE SEPTEMBER 26, 2018 PUBLIC MEETING**

The County of Orange conducted a public meeting during the public review period on the Draft Program Environmental Impact Report (“EIR”). The meeting was held on September 26, 2018, in the City of Costa Mesa at the John Wayne Airport Commission Hearing Room. There were a total of 8 speakers who made a total of 28 comments during the comment period of the public meeting. In addition, 18 comments were made by members of the audience during the public presentation portion of the meeting, for a total of 46 comments. The meeting was recorded and a transcript made, including the recorded comments provided by the public at the meeting. As with the comment letters, the transcript is bracketed and numbered to identify each comment, with the corresponding responses provided after the transcript.

For those comments made during the formal comment period of the public meeting (Responses 19 through 46), the name of the speaker is listed under the response number. For those comments made during the public presentation portion of the meeting, the names of the commenters are not known because it was not the designated portion of the meeting for making comments. As a result, these speakers did not introduce themselves; however, these audience speaker comments are bracketed in the meeting transcript in Volume 1B as Comments 1-18, and responded to below in Responses 1-18.

### **3.7.1 PUBLIC MEETING RESPONSES TO COMMENTS**

#### **Comments Made During the Public Presentation**

##### **Response 1**

The comment was made during the portion of the presentation identifying the facilities that would potentially be provided as part of the GAIP. The comment was specifically asking about the optional customs facility (i.e., General Aviation Facility or “GAF”) for Customs and Board Protection (“CBP”). The question asked if customs agents serving the commercial carrier operations in the main terminal building cannot also service general aviation.

As noted at the public meeting, the CBP staff that serve the commercial carrier operations do not service international general aviation operations. To provide additional detail on this issue, as mentioned in Appendix C of the Draft Program EIR, if CBP inspection is available for general aviation aircraft, those international departures which originated at JWA would likely return to JWA for custom clearance.

##### **Response 2**

The comment, which was made during the presentation portion of the meeting, was not audible on the tape so no transcription is possible. However, based on the response provided at the meeting, it would appear to be asking a question about the capacity that would be provided under the GAIP.



As noted at the public meeting, currently there is a capacity for 596 general aviation aircraft at the Airport and in 2016, which is the Baseline year for the Draft Program EIR, there were 482 general aviation aircraft based at the Airport. At the presentation there was a PowerPoint slide that identified the proposed capacity of the Proposed Project and Alternative 1. Both the Proposed Project and Alternative 1 would result in a reduction from current capacity compared to the number of aircraft currently based at the Airport. The information presented at the public meeting was taken from the Draft Program EIR. Tables 3-4 and 3-8 present the information by facility type for the Proposed Project and Alternative 1, respectively. Tables 3-5 and 3-9 present the information by aircraft engine type for the Proposed Project and Alternative 1, respectively.

**Response 3**

The comment, which was made during the presentation portion of the meeting focused on the aviation forecasts, specifically, the discussion on the reduction in the capacity for based general aviation aircraft. The commenter states “a consultant did the preliminary (outreach) with the GA (general aviation) community, so 200 aircraft.”

The response provided at the public meeting indicated that the consultant that prepared the concept plans conducted these meetings to understand the needs of the general aviation community. These meetings are summarized in Table 7-1 of the Draft Program EIR. The meetings not only included the Airport tenants but the Southern California Pilots Association. Based on the needs identified and the aviation forecasts, the concept plans were developed to best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. As noted, the capacity for general aviation to be based at JWA would decrease from 596 spaces in 2016 to 354 with the Proposed Project and 356 with Alternative 1. Although there is capacity for 596 based aircraft, in 2016 only 482 spaces were occupied.

**Response 4**

The comment, which was made during the presentation portion of the meeting, was made as a comment on Response 3, above. The commenter states, “That was in the introduction that you consulted” on the GAIP.

As noted at the public meeting, the firm AECOM consulted to the Airport on the concept designs for the GAIP and the aviation forecasts. Both AECOM and JWA staff met with stakeholders at the Airport early in the GAIP process. The meetings are summarized in Table 7-1 of the Draft Program EIR. The person presenting at the public meeting is with Psomas, the CEQA consultant for the GAIP. It should be noted, the comment does not raise a specific question regarding the analysis in

the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR.

**Response 5**

The comment, which was made during the presentation portion of the meeting, was made as a comment on Response 4, above. The commenter, when referring to the GAIP concept design, questions that “somehow that (the current plans) came up as desirable?”

The Airport acknowledges this comment. It will be included as part of the Final EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

However, it should be noted, the GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is “to embrace flexibility to allow for technological advances and market trends.” The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively).

Consistent with Section 15126.6(a)–(b) of the State of California Environmental Quality Act (“CEQA”) Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addresses alternatives that range from minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

**Response 6**

The comment, which was made during the presentation portion of the meeting, asks “what is the difference between a full service FBO (Fixed Based Operator ) and a limited service FBO?”

A brief explanation was provided at the public meeting, which explained that it has to do with level of service provided. A more in-depth discussion is provided in the Draft Program EIR (see pages 3-8 and 3-9 for a description of a Full Service FBO and pages 3-11 and 3-12 for a description of a Limited Service FBO). A full service FBO provides a greater range of services for the general aviation community. At JWA, this includes, but may not be limited to, aircraft storage, aircraft fueling services, air charter services, aircraft rental, aircraft maintenance, flying lessons, and sale of aircraft and aviation-related supplies. Other services may include ground transportation and catering. FBOs also provide office space for aviation-related companies and terminal space for passengers and crew of general aviation aircraft. A Limited Service FBO may be focused on just one or two services, such as aircraft maintenance.

**Response 7**

The comment was made during the presentation portion of the meeting after a reference to residences exposed to the 65 Community Noise Equivalent Level (“CNEL”) that have not taken advantage of the sound insulation program. The commenter asked if “those two programs were upgrading the housing for noise impacts with windows?”

At the public meeting, the question was answered; however, only to affirm that the program being referenced did provide upgrading of windows. Additional detail on the sound insulation programs is provided in the Draft Program EIR. Section 4.7, Noise (page 4.7-9) discusses the Santa Ana Heights Acoustical Insulation Program (“AIP”) which was extensively implemented at JWA as a mitigation measure for the 1985 Master Plan EIR. AIP eligibility was based on the future 65-CNEL contour predicted in the 1985 Master Plan. The AIP was being referenced at the public meeting in the discussion about residences that had not taken advantage of the sound insulation program. A second program identified in the Draft Program EIR (page 4.7-10) is the Sound Insulation Program (“SIP”), which was adopted in conjunction with the 2014 Settlement Agreement Amendment. The SIP would be available to the residents in the future, as a result of increased aviation activity, if interior noise impact thresholds are exceeded.

**Response 8**

The comment, which was made during the presentation portion of the meeting when the findings of the Draft Program EIR for Aesthetics were being discussed. The comment states “Just to be clear your document indicates you did not consider Aesthetics.”

The discussion immediately preceding this comment was providing an overview of the findings for aesthetics. At the meeting, the point was clarified that aesthetics was addressed in the Draft Program EIR. Section 4.1 of the Draft Program EIR provides the impact analysis for Aesthetics. As part of the scoping process for the Draft Program EIR, the Initial Study for the Notice of Preparation (“NOP”) did identify two questions under Aesthetics on the CEQA Environmental Checklist (provided in Appendix G of the State CEQA Guidelines) that did not apply and, therefore, did not require further analysis. These pertained to impacts to scenic vistas or scenic highways and impacts to historic buildings. Such resources are not located on or surrounding the Airport.<sup>214</sup> The other aesthetics questions from the CEQA Environmental Checklist were fully evaluated in the Draft Program EIR. The Aesthetics section is 24 pages, including photographs from key viewpoints. It should be noted, the CEQA Guidelines focuses the aesthetics evaluation from public vantage points.

**Response 9**

The comment, which was made during the presentation portion of the meeting when the findings of the Draft Program EIR for Aesthetics were being discussed. The commenter states, “But you did not provide an Aesthetics study?”

As noted at the public meeting, a separate standalone technical study was not prepared, but aesthetic issues, including analysis of views from various public vantage points, were fully evaluated in the Draft Program EIR. CEQA does not require standalone technical studies for any of the topical areas. The Aesthetics analysis evaluated the Proposed Project and Alternative 1 using established CEQA thresholds, found in Section 4.1.4 of the Draft Program EIR.

**Response 10**

The comment, which was made during the presentation portion of the meeting as a comment on Response 9, states: “There is general confusion.”

At the public meeting, the commenter was directed to look at the Draft Program EIR because there is a substantial discussion on aesthetics. Additionally, it was pointed out that the document is a Program EIR and there are no detailed design plans at this point in the process.

The comment will be included as part of the Final EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

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<sup>214</sup> In addition to providing substantial evidence in the NOP why there would be no impacts for these issues, the findings were summarized in Section 2.3.2 of the Draft Program EIR.

**Response 11**

The comment, which was made during the presentation portion of the meeting as a comment on Response 10, asks, “Can you tell us why you chose not to do an Aesthetics study?”

At the public meeting, it was reiterated that the EIR has been prepared as a Program EIR, and that an aesthetics analysis was included in the programmatic analysis provided in the EIR. Section 4.1 of the Draft Program EIR fully and adequately analyzes aesthetics related to the Proposed Project and Alternative 1, in accordance with CEQA and the CEQA Guidelines.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required. Please see Response 8 through Response 10, above.

**Response 12**

The comment, which was made during the presentation portion of the meeting as a comment on Response 11 states, “So you will do an Aesthetics study?”

The Airport acknowledges this comment. It will be included as part of the Final EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required. At the public meeting, it was explained that as individual improvements are proposed, they will be reviewed as part of the site development process.

Consistent with CEQA requirements, Section 4.1 of the Draft Program EIR addressed sensitive viewsheds. CEQA focuses on views from publicly accessible vantage points. Private views do not have view protection. Additionally, the applicable CEQA threshold is if the Project would substantially degrade the existing visual character or quality of the site and its surroundings. The standard is not if a view will be changed. (Also, refer to Response 9 above.) As noted in the Draft Program EIR, the GAIP would not result in substantial changes to the visual character of Airport. The area dedicated to general aviation would remain as general aviation. Older facilities would be replaced with newer facilities that are generally consistent in nature. The Draft Program EIR did note the Project would result in some intensification as the amount of tie-down area, which visually is just a paved area, is replaced with hangars (see page 4.1-8). However, hangars are consistent with the overall visual character of the Airport.

**Response 13**

The comment, which was made during the presentation portion of the meeting as a comment on Response 12, expresses the opinion, “That is up for debate, at this stage of the game you have not addressed any of the viewsheds whatsoever.”

The Airport acknowledges this comment. It will be included as part of the Final EIR, which will be considered by the decision-makers. Please see Response 12 regarding the CEQA requirements as it pertains to Aesthetics. Additionally, please refer to Draft Program EIR Exhibits 4.1-1a through Exhibit 4.1-1e and Exhibits 4.1-2a through Exhibit 4.1-3b for photographs of views from west, east, north and south of the Airport, and to the corresponding analysis in Section 4.1.6. As noted above, CEQA focuses on views from publicly accessible vantage points. Private views do not have view protection. Additionally, the applicable CEQA threshold is if the Project would substantially degrade the existing visual character or quality of the site and its surroundings. The standard is not if a view will be changed.

**Response 14**

The comment, which was made during the presentation portion of the meeting as a comment on Response 13, the commenter states “I actually have some of the photographs from the existing conditions that you have provided and yet several of the items you didn’t address as part of those findings.”

The commenter is referring to the 14 photographs included in the Aesthetics section of the Draft Program EIR. As noted these are representative views from public vantage points and provide the existing conditions context for the evaluation of Aesthetics. Each of these photographs are then discussed in the impacts evaluation provided in Section 4.1.6 (see Threshold 4.1-1). As noted above, CEQA focuses on views from publicly accessible vantage points. Additionally, the applicable CEQA threshold is not if the public view will be changed but if it will be substantially degraded. Additionally, it was suggested the commenter submit the comments in writing

**Response 15**

The comment, which was made during the presentation portion of the meeting as a comment on Response 14, where it was recommended that the comments be submitted in writing, the commenter states, “We’d like to do that.”

The Airport acknowledges this comment. It will be included as part of the Final EIR, which will be considered by the decision-makers. However, this comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment can be provided or is required.

**Response 16**

The comment, which was made during the portion of the presentation when air quality was being reviewed, asks, “In regards to air quality, when you are looking at the fuel farm, are you looking at the impact on unleaded fuel?”

One point to clarify, the GAIP does not propose any changes to the fuel farms at the Airport. The current fuel farm serving the Airport’s general aviation community provides Jet-A fuel, avgas (also known as 100 low lead), regular unleaded gasoline, and diesel fuel (see discussion on page 4.5-9 of the Draft Program EIR regarding the sizes of the fuel tanks and type of fuel provided).

The air quality analysis is presented in Section 4.2 of the Draft Program EIR and Appendix E (*Air Quality Technical Report*). Air emissions associated with the operations and fleet mix for the general aviation operations was developed based on the *Orange County/JWA GAIP Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts*, which were included as Appendix D to the Draft Program EIR. The FAA-required Aviation Environmental Design Tool (“AEDT”) model was used to evaluate potential impacts.<sup>215</sup>

**Response 17**

The comment was made during the presentation portion of the meeting when noise impacts were being reviewed. The comment asked, “Is that a change in your measurement or the type of aircraft?”

Section 4.7 and Appendix H (*John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report*) of the Draft Program EIR discuss the methodology used for the noise analysis. The FAA-required AEDT model was used for calculating the noise levels with the forecasted operations and fleet mix. AEDT requires the input of the physical and operational characteristics of the airport. Physical characteristics include runway coordinates, airport altitude, and temperature, and optionally, topographical data. Operational characteristics include various types of aircraft data. This includes not only the aircraft types and flight tracks, but also departure procedures, arrival procedures and stage lengths (flight distance) that are specific to the operations at the airport.

The noise increase associated with the GAIP is the difference between the Baseline (2016) noise levels and the projected noise levels based on the AEDT output. The impact analyses are conducted using the projected fleet mix and operational characteristics (e.g., flight path patterns associated with the forecasted aircraft). This provides data that allows a comparison of the noise and emissions levels that would occur with the change in fleet mix (one that includes a higher forecasted ratio of jet aircraft) with the current baseline. The

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<sup>215</sup> AEDT is a software system that models aircraft performance that estimates fuel consumption, emissions, noise, and air quality emissions data.

incremental change in noise and emissions projected with the forecasted fleet mix from the Baseline (2016) condition allows the identification the impacts associated with the GAIP.

**Response 18**

The comment was made during the presentation portion of the meeting when noise impacts were being reviewed. The commenter asked for clarification regarding how annually there would be “30,000 less flights and an increase in noise levels”.

The reason for the noise increase is based on the fleet mix assumptions. The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. Although the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft, there would be an increase in the number of general aviation jets. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. Therefore, even though the overall total number of operations would decrease, the noise levels associated with the increase in the number of general aviation jets results in a projected increase in aviation noise.

**Comments Made During the Comment Period of the Meeting**

**Response 19**

(Daniel Freedman)

The commenter expressed concerned about the displacement of general aviation aircraft and asked if those impacts had been addressed in the Draft Program EIR.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although at the meeting a summary response was provided to indicate the impacts were addressed (please see transcript), a more detailed response is provided below.

The displacement of general aviation aircraft was clearly identified in sections and tables throughout the Draft Program EIR, including the project descriptions (in both the Executive Summary and Section 3). The displacement of aircraft was identified as a key issue that will need to be considered by the Board of Supervisors when determining whether to approve the General Aviation Improvement Program (“GAIP”) and select an alternative. Section 1.8, Areas of Controversy/Issues to be Resolved, states:

Though other local airports have capacity, this would be a disruption for local pilots that have historically based their aircraft at JWA. The



reduction of based aircraft would be accomplished through the lease process (i.e., leases would not be renewed for tie-down locations or the limitations would be reflected in the leases with the FBOs). The effect of reducing the number of based aircraft needs to be balanced with the need to respond to the trend in aviation by providing the type of facilities that best meets the future needs of the broad spectrum of people wishing to utilize the limited space available at JWA.

The aircraft displacement issue was also discussed as it pertains to land use in Section 4.6. The Draft Program EIR identified that displaced aircraft could be accommodated elsewhere in the region. Fullerton Municipal Airport, also a general aviation airport in Orange County, has capacity for 600 aircraft and at the year ending on October 31, 2017, only 223 aircraft were based at the Fullerton Municipal Airport. Long Beach Airport is also identified as having capacity. As of October 31, 2017, Long Beach Airport had 380-based aircraft and historically has accommodated higher numbers of general aviation aircraft (AirNav.com 2018). Although the Land Use and Planning section identified the loss of aircraft parking spaces as adverse because it reduces the overall capacity at the Airport; it was not identified as a significant land use impact because it would not result in an incompatible land use or conflict with any applicable land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect (see Draft Program EIR Threshold 4.6-1 on page 4.6-17). The aircraft are accommodated on the Airport through lease agreements, which have established expiration dates or provisions for cancelation of the lease. Therefore, the reduction in the overall number of aircraft based at JWA would not result in significant environmental land use impacts (see Draft Program EIR page 4.6-19).

The displacement of aircraft was also evaluated in the traffic analysis, with the evaluation having a separate heading in the evaluation for the Proposed Project and Alternative 1 under Draft Program EIR Threshold 4.8-1 on page 4.8-8. The General Aviation Improvement Program Traffic Impact Analysis ("TIA") (Appendix I) addressed this as a Special Issue. As part of this evaluation, a discussion is provided on the methodology for calculating vehicle miles traveled ("VMT") associated with travel to alternative airports (see pages 4.8-15 and 4-8-22 in the Draft Program EIR and Section 5.2 of the TIA). However, the distribution of aircraft to alternative airports in the "Competitive Market Area" is unknown; therefore, the analysis is done based on VMT. Therefore, specific trip assignment would be speculative and is not required pursuant to the California Environmental Quality Act ("CEQA"). Section 15145 of the State CEQA Guidelines does not require a lead agency to speculate on potential impacts.

**Response 20**  
(Gary Schank)

The commenter indicated that the identification of desirable facilities should look at all users of the Airport. The general aviation is a large group that includes business jets and small airplane users. Business jets are in effect commercial aircraft. That is not the same as the small airplanes.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers.

As stated in Section 1.5 of the Draft Program EIR, the intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. The GAIP attempts to provide facilities that best meet the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport.

It should be noted, the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in the table, in 2026 the forecast identifies that piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1.

**Response 21**  
(Gary Schank)

As part of the Airport overview, Runway 20 Right was identified for use by the commercial airplanes and Runway 20 Left was identified for use by general aviation aircraft. The commenter wanted to clarify that if a general aviation airplane has to use an instrument approach, then Runway 20 Right is for general aviation use too.

The commenter is correct. This was acknowledged at the public meeting and as part of these Responses to Comments. The comment does not raise a specific question regarding the analysis in the Draft Program EIR or present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. The comment will be included as part of the Final Program EIR, which will be considered by the decision-makers.

**Response 22**  
(Gary Schank)

The commenter stated the project is called a general aviation improvement program but the 242 aircraft owners that get displaced, would not think of it as an improvement.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Response 23**  
(Gary Schank)

The commenter asked how it would be determined which aircraft get displaced.

The Airport acknowledges this comment. Based on the current schedule, the Orange County Board of Supervisors is expected to consider new long-term Fixed Base Operators (“FBOs”) leases in 2019, following a competitive bid process within the parameters of the GAIP. The FBOs will be responsible for determining the allocation of the tie-down and hangar spaces within the parameters of the GAIP. The FBOs will be responsible for determining the allocation of the tie-down and hangar spaces. For those currently renting space from the County of Orange/JWA, they will need to contact the FBOs to enter into a new tie-down or hangar rental agreement. The FBOs will continue to maintain the same waitlist for the hangars located at 19471 Campus Drive currently managed by the County. Vacancies will be offered in the same order as provided by the County, and the waitlist will be maintained in a fair and transparent manner.

**Response 24**  
(Fred Fourcher,  
Orange County Pilots  
Association)

The commenter stated that the general aviation needs are not to reduce the number of aircraft parking spaces but to provide more hangars. The commenter supports optimizing the space on the field based upon the heights that are allowed in areas and setbacks. However, the space could be optimized to benefit both the turbine and the piston communities. The plans evaluated do not provide improvements for both.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The Draft Program EIR evaluated a range of alternatives, including two alternatives (Alternative 3 and the No Project Alternative) that would result in minimal to no loss of general aviation capacity. A more detailed response on this issue is provided in response to the written

comments submitted by the commenter. Please see Response SCPA 3-6 (Letter 25).

**Response 25**  
(Kreg Groat,  
CPF Airway  
Associates)

The commenter, citing the length of the Draft Program EIR, stated an extension of the public review period should be granted.

In response to this and other requests, the Airport did extend the public review period, resulting in a 60-day public review period. The Airport sent notices of the extension to all parties that received the Draft Program EIR or the Notice of Availability, as well as published a notice in the Orange County Register and posted the notice of extension on the Airport website.

**Response 26**  
(Kreg Groat,  
CPF Airway  
Associates)

The commenter identifies that several of the existing conditions were not addressed. The CPF Airway property has the only freight gate that currently serves John Wayne Airport but based on the dimensions and plans it would appear the plan intends to eliminate the gate, which serves the commercial aviation market as well as provides access for all of the tenants at the Airport. Nothing was mentioned about the existing heliport on one of the buildings and what impact airport structures would have on those general aviation activities.

As noted in Response CPF-3 (Letter 56), it is acknowledged that the secured gate at 3000 Airway Avenue serves an important function for the Airport's efficient operation. There is no intention to eliminate the gate at this location. It must be recognized that the analysis is being done at a program level and the scale and level of specificity shown in the concept plans for the Proposed Project and Alternative 1 (Exhibits 3-1 and 3-4, respectively) is not intended to represent actual design plans. To ensure that as the GAIP moves forward the gate is protected, an acknowledgement of the gate and inclusion of a minimization measure has been added to the Land Use and Planning discussion. The full text of the minimization measure is provided in Response CPF-3 and the revisions to the text of the Draft Program EIR are provided in Section 4.1 of these Responses to Comments.

With regards to the rooftop heliport, the comment does not specify what elements of the GAIP would potentially have an adverse effect on the continued helicopter operations. None of the changes proposed by the GAIP (Proposed Project or Alternative 1) would have an impact on the continued operation of the heliport (i.e., HeliStream). As noted in Response CPF-4 (Letter 56) all proposed improvements would comply with Federal Aviation Administration ("FAA") design requirements. The Proposed Project and Alternative 1 do identify T-hangars adjacent to the building in question; however, the T-hangars would not be an obstruction that would impact the continued

helicopter operations at HeliStream. The GAIP does not propose a use that would be considered incompatible with the heliport.

**Response 27**  
(Kreg Groat,  
CPF Airway  
Associates)

The commenter questioned the evaluation of aesthetics. Buildings in front of other adjacent property owners that have window views and not in front of properties that do not have any window views.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The California Environmental Quality Act ("CEQA") thresholds of significance considers if a project would "substantially degrade the existing visual character." As noted in the Draft Program EIR (page 4.1-2), in making the determination if the GAIP would degrade the visual character, factors considered included the viewer groups of the site, and the extent to which the GAIP (Proposed Project and Alternative 1) would disrupt natural visual resources, or a visually cohesive environment. The evaluation recognized the urbanized context of the Airport and that the surrounding uses immediately adjacent to the Airport are light industrial and commercial uses. Additionally, CEQA focuses on views from public locations. Evaluation of private views from each adjacent building is not required pursuant to CEQA. As noted in the Draft Program EIR, on the west side of the Airport public views of the Airport are generally obscured by office buildings.<sup>216</sup> Although the placement of hangars may obscure views from the adjacent buildings, none of these buildings have view easements or other view protections. Additionally, the changes associated with the GAIP would not be considered a substantial degradation of the visual character.

**Response 28**  
(Kreg Groat,  
CPF Airway  
Associates)

The commenter raised a question about a characterization of the GAIP resulting in "slightly fewer trips for general aviation." The commenter referenced that the number of general aviation operations would be approximately 20 percent less and questioned if that was a slight reduction.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The slight reduction in trips was referring to automobile trips. This clarification was also provided at the meeting (see transcript). However, as noted by the commenter, the GAIP would result in a reduction in general aviation aircraft operations. The GAIP

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<sup>216</sup> Lyon Air Museum was identified as a public view due to its expansive views of the airfield and that it is open to the public.

(Proposed Project and Alternative 1) would result in an approximately 13 percent reduction in operations.<sup>217</sup>

**Response 29**

(Kreg Groat,  
CPF Airway  
Associates)

The commenter expressed the opinion that it is important to continue to support general aviation but more attention should be given to some of the placement where those hangars and general aviation aircraft are being located so as to utilize the space more efficiently. Additionally, the commenter asked if it is accurate that the GAIP proposes the removal of shade structures but does not identify replacement of similar facilities.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although not specified, covered tie-down areas may be provided by FBOs where the Federal Aviation Administration (“FAA”) safety design standards and County design requirements can be met. The FBO would make the decision to construct covers or shade structures, which would be evaluated by the County as part of the development review process.

**Response 30**

(Kreg Groat,  
CPF Airway  
Associates)

The commenter indicated they will provide their comments and hopes the Airport will be reasonable in granting additional time to review the documents.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted in Response 25, above, an extension of the public review period was granted.

**Response 31**

(Joe Daicheidt,  
ACI Jet)

The commenter provided an overview of his connection to JWA and expressed his opinion general aviation is critical for the success of Orange County and that the Airport remains as the front door to business aviation.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response is required.

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<sup>217</sup> The Baseline, which reflects the number of general aviation operation in 2016, is 192,800 annual operations. In 2026, the Proposed Project is forecast to have 167,900 annual operations and Alternative 1 would have 168,600 annual operations.

**Response 32**  
(Joe Daicheidt,  
ACI Jet)

The commenter states the aviation forecasts are inaccurate. The two years of data since the baseline was established shows they are wrong. The number of general aviation aircraft is increasing so the GAIP should not be reducing general aviation capacity at the Airport. It needs to be maintained or increased. For the business side, new hangars are needed and tie-downs for piston aircraft are filling up again.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The general aviation forecast used several approaches to project the anticipated demand in different planning horizons, as described in Appendix C of the Draft Program EIR, with a resulting range of annual forecast activity levels.

This approach is used to avoid over- or under-sizing facilities based on year-to-year fluctuations in demand due to economic cycles, fuel prices, or other factors. For example, while historically the long-term trend in the number of general aviation aircraft based at JWA has been declining, the year-to-year changes have varied widely around the trend (see Table 9 of Appendix C), generally following economic cycles, fluctuations in fuel prices, and other factors.

The future trend will continue to base on economic, socioeconomic, competitive, and other factors considered in the GAIP unconstrained forecast. Similarly, year-to-year variations around the forecast are also expected to continue due to the factors described above, and the long-term outlook is considered the most reasonable approach to projecting future unconstrained demand at JWA.

Please see the Topical Response pertaining to Aviation Forecasts provided in Section 3.1.1 of these Responses to Comments for additional detail on the aviation forecast process.

**Response 33**  
(Joe Daicheidt,  
ACI Jet)

The commenter stated it is important the Airport have self-service fuel farms and full-service fueling at a very low cost.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. The GAIP does provide for a self-service fueling station. The FBOs, not the Airport provide the full-service fueling and set the price accordingly.

**Response 34**  
(Joe Daicheidt,  
ACI Jet)

The commenter stated the completion of the GAIP has already been delayed and was concerned implementation could get further delayed. He expressed that he would like to see a quicker and clearer approach to the completion of the process. He would like to have a process with three phases, and two FBOs. He prefers to not waste

space where airplanes can be parked inside not outside. The Airport does not need to triplicate places when things can be done more efficiently.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. As noted on page 3-19 of the Draft Program EIR, the phasing concept was developed to minimize disruption to Airport operations and reduce the need to temporarily relocate based aircraft to other airports in the region. The phasing would require temporary relocation of uses while each area on the Airport is under construction. Given the space limitations on the Airport, small segments of work would need to be conducted at a single time. If too large of an area needs to be cleared for construction at any given time, there would not be sufficient area on the Airport to accommodate the aircraft elsewhere on the Airport. However, as the various improvements are implemented the phasing concept can be reviewed to determine if there are more efficient approaches to construction.

**Response 35**  
(Joe Finnell,  
Southern California  
Pilots Association)

The commenter provided background on his personal experience at the Airport to provide context. Over the years some people moved their plane off the Airport due to costs. The convenience of the location is important to him.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Response 36**  
(Joe Finnell,  
Southern California  
Pilots Association)

The commenter indicates that they have issues with the Draft Program EIR but was not going to go through those concerns at the meeting.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, Mr. Finnell submitted a comment letter on behalf of the Southern California Pilots Association (see Letter 23, Responses SCPA-1 through 7), which has been responded to.



**Response 37**  
(Joe Finnell,  
Southern California  
Pilots Association)

The commenter indicates the Southern California Pilots Association is very much aware of what is going on and have been involved in some of the early meetings for the GAIP as it was being developed; however, he believes they have been left out of some of those meetings. He expressed they would like to be more involved and would like to have a say in what is happening at the Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Table 7-1 provides a listing of the meetings conducted as part of the GAIP. Although multiple meetings were held, these meetings were conducted to understand the operation and needs of the various users. Each of these meetings were focused on an individual entity at the Airport. A meeting was held with the Southern California Pilots Association. AECOM, the firm that prepared the forecasts and concepts for the GAIP did have subsequent meetings with the FBOs to understand the current operations. The Airport will include the Southern California Pilots Association on future meetings on the GAIP, as appropriate.

The input from the Southern California Pilots Association is appreciated. The letters (Letters 23, 24, and 25) expressing the Association's concerns on the GAIP will be provided to the Board of Supervisors, who are the ultimate decision-makers on the Project.

**Response 38**  
(Joe Finnell,  
Southern California  
Pilots Association)

The commenter indicated the Association actually made a move to get those shade structures (located on the west side of the Airport) built. The commenter also indicated that the Association was very happy when that occurred and essentially it would really be a blow to the Association to see those shades torn down.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although not specified, covered tie-down areas may be provided by FBOs where the Federal Aviation Administration ("FAA") safety design standards and County design requirements can be met. The FBO would make the decision to construct covers or shade structures, which would be evaluated by the County as part of the development review process.

**Response 39**  
(Jim Mosher)

The commenter indicated he lives near the flight path for the commercial planes. His concern is about how this improvement project is going to affect the number of business jets here. He is not sure if the number of flights are constrained and if they use the same flight paths as the commercial ones (i.e., NextGen) or not.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-

makers. This comment touches on three related issues: the aviation forecasts, constraints on general aviation operations, and the flight path used for business jets. Each of these issues are addressed separately below.

Aviation Forecasts: The aviation forecasts do project an increase in the number of business jets. Based on the forecasts provided in the Draft Program EIR, in the Baseline (2016), there were 31,800 annual operations were flown by aircraft with jet engines. In 2026, this would increase to 40,400 for the Proposed Project and 41,400 for Alternative 1. (See Table 3-7 for the Baseline and Proposed Project data and Table 3-11 for Alternative 1),

Constraints on General Aviation Operations: There are no constraints on the number of general aviation flights at the Airport. As discussed in the Topical Response pertaining to Restrictions on General Aviation Operations, provided in Section 3.1.4 of these Responses to Comments, the County, as the Airport proprietor, is not allowed to place a cap on the number of general aviation operations at the Airport without complying with the requirements of ANCA, including under most circumstances, prior FAA approval. As discussed in Section 2.6.2 of the Draft Program EIR, a key federal regulation governing the operation of airports is the *Airport Noise and Capacity Act of 1990* (“ANCA;” 49 U.S.C. Section 47521 et seq.). ANCA is a federal law enacted by Congress in 1990 to establish a national aviation noise policy. The purpose of this law is to constrain, at the federal level, the ability of local airport operators to restrict the use of their airports due to noise concerns. However, the County’s General Aviation Noise Ordinance (“GANO”) does prohibit general aviation operations exceeding specified Single Event Noise Exposure Level (“SENEL”) from taking off between the hours of 10:00 PM and 7:00 AM (8:00 AM on Sundays) and from landing between 11:00 PM and 7:00 AM (8:00 AM on Sundays). For additional detail, please see the Topical Responses pertaining to the GANO and to Restrictions on General Aviation Operations, which also addresses ANCA, provided in Sections 3.1.3 and 3.1.4, respectively, of these Responses to Comments.

Flight Path Procedures: Business jets would generally follow the flight path used by the commercial carriers. Page 42 of *John Wayne Airport General Aviation Improvement Program Noise Analysis Technical Report* (Appendix H) describes the flight patterns and Figure 9 shows the existing flight patterns. These together describe the flight patterns. The GAIP would not change flight path patterns. The Topical Response pertaining to Flight Path Procedures, provided in Section 3.1.2 of these Responses to Comments, provides a more in depth discussion of this issue, including NextGen. It should be noted, not all business jets would have the necessary equipment to follow the NextGen departure path. The FAA and the pilot in command of each

aircraft have sole jurisdiction and responsibility for flight paths, and only the FAA has enforcement capability over issues related to flight paths.

**Response 40**  
(Jim Mosher)

The commenter referenced that the Airport's current quarterly report identifies there are about 3,000 general aviation business jet operations per month, which is approximately one hundred per day, which equates to about 50 departures per day. The commenter asks if in the Draft Program EIR analyzes how many of those 50 departures per day are coming from the based aircraft here and how many are coming from visiting jets.

The aviation forecast (discussed below) does provide information on the number of transient and based aircraft. This is an important element of the forecast because the transient operations represent a substantial number of the total operations (slightly more than 50 percent of the total operations). However, when assessing the potential impacts, whether operations are associated with based or transient aircraft is immaterial. The air quality, noise, and traffic analysis evaluates the impacts of all of the flights regardless if the aircraft is based at John Wayne Airport or is a transient aircraft.

Sections 3.5 and 3.6 provide a discussion on the aviation forecast data used in the Draft Program EIR. The detailed information on the forecasting methodology is provided in *General Aviation Forecasting and Analysis Technical Report* and the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts*, which have been included in the Draft Program EIR as Appendices C and D, respectively. The unconstrained forecast for general aviation activity takes into consideration data on a variety of indicators, including but not limited to, pilot population, growth in student pilot population, shipment of general aviation aircraft, and projected demand. The constrained forecasts were developed to identify the maximum projected general aviation facilities and operations that can be accommodated by JWA's limited footprint. The total based aircraft numbers and annual general aviation operations include breakdowns by engine type, including piston, turbine, jet, and helicopter.<sup>218</sup>

<sup>218</sup> This information is given in Tables 14 and 17 of Appendix C and Tables 13 to 30 of Appendix D. The information is summarized in the Draft Program EIR in the following tables:

Unconstrained Forecast Unconstrained Forecast Based Aircraft by Type (Table 3-1)

Unconstrained Forecast Operations by Aircraft Engine Type (Table 3-3)

Constrained Forecast Based Aircraft by Type – Proposed Project (Table 3-5)

**Response 41**  
(Jim Mosher)

The commenter asked what the implications of the GAIP beyond 2026 are. The commenter asked if given the historic fluctuation in general aviation operations, how will the GAIP affect the ultimate number of business jets that will be based at the Airport, as well as transient operations. Additionally, how will it affect the likely frequency at which they will operate?

The aviation forecast provided in Appendix C does provide unconstrained projections to 2040. As noted in Response 40, the unconstrained forecast for general aviation activity takes into consideration data on a variety of indicators, including but not limited to, pilot population, growth in student pilot population, shipment of general aviation aircraft, and projected demand. However, given the space limitations at the Airport, it was recognized that the growth provided in the unconstrained forecast could not be accommodated at the Airport. Therefore, the constrained forecasts were developed (Appendix D). Reasonably, there will be fluctuations in future years in response to factors beyond the physical facilities located at the Airport (e.g., economics); however, the constrained forecast reflects a reasonable long-term projection for aviation operations, absent a major change in technology, because the GAIP facilities maximize the space at the Airport.

**Response 42**  
(Jim Mosher)

The commenter asked about the delay in the release of the Draft Program EIR. The commenter asked for clarification on a statement made by the Airport Director indicating that the delay was related to the noise modeling.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. Although at the meeting a summary response was provided to indicate the noise impacts were appropriately addressed, a more detailed response is provided below.

The noise analysis was prepared using the aviation forecast prepared for the GAIP project, contained in the *Orange County/John Wayne Airport (JWA) General Aviation Improvement Program (GAIP) Based Aircraft Parking—Capacity Analysis and General Aviation Constrained Forecasts* (Appendix D of the Draft Program EIR). The Aviation Environmental Design Tool (“AEDT”) model was used to model the noise environment at JWA, as required by the FAA since May 2015 for aircraft noise analysis at airports. The AEDT model replaced the legacy noise model, FAA’s Integrated Noise Model (“INM”), which had been used for all previous noise analyses conducted at JWA. Initial results of the noise analysis using AEDT were not consistent with previous noise analyses prepared for JWA using the INM. Therefore, additional time was needed to work with FAA to validate the input data, to verify that the unique characteristics of JWA were reflected

accurately in the FAA AEDT model, and to provide the necessary and important quality assurance/quality control to the output of the AEDT model runs for the GAIP project.

**Response 43**  
(Bob Lange)

The commenter states the GAIP is not about general aviation, this is about corporate aviation. When tie-downs for smaller aircraft are removed it is unrealistic to think that somebody who lives in South County or anywhere near this Airport is going to get in their car and drive to Long Beach or Fullerton. So really it means they are being eliminated from general aviation.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers.

Long Beach Airport is located approximately 23 miles northwest of John Wayne Airport. The Fullerton Airport is located approximately 18 miles north of John Wayne Airport. The Corona Airport is located approximately 30 miles northeast of John Wayne Airport. As discussed in Section 4.8 of the Draft Program EIR, approximately 77 percent of JWA registered aircraft owners are in Orange County, with the remainder in adjacent counties.<sup>219</sup> It is estimated that the average trip distance for JWA-related general aviation vehicle trips is 15.25 miles. Therefore, the distance for a pilot to commute to one of the alternative airports would vary from their point of origin.

The reasonableness of the commute would be a personal judgment. The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. However, the comment does not present any issue or For that reason, no further response to this comment is required.

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<sup>219</sup> The *General Aviation Forecasting and Analysis Report* (page 9) identifies that based on the address of the registered owner of the aircraft, over 86 percent of the aircraft owners are located within California, 90 percent of which are from the Orange County.

**Response 44**  
(Bob Lange)

The commenter states when looking at fuel service, not looking at unleaded gasoline is in conflict with the environmental warning at the gate of the Airport, which warns leaded gasoline is toxic.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, it should be noted unleaded fuel is available at the Airport. As noted in Section 4.5, Hazards and Hazardous Materials, there are three underground tanks for unleaded fuel. These include:

One 12,000-gallon underground tank of unleaded operated by the current Full Service Southeast FBO

One split underground tank with 8,000 gallons of avgas and 4,000 gallons of unleaded/motor gas to service own vehicles and some airline equipment operated by the current Full Service Northeast FBO

One 6,000-gallon underground tank of unleaded fuel owned and operated by the Airport

The County, as Airport proprietor, does not have control over the type of fuel the aircraft (either commercial carriers or general aviation) use. The fueling for the general aviation aircraft will be managed and operated by the Fixed Based Operators ("FBOs") for general aviation.

As mentioned in the Draft Program EIR, Appendix C (*General Aviation Forecasting and Analysis Technical Report*), the FAA is working with the Environmental Protection Agency ("EPA") and the general aviation industry on the Piston Aviation Fuels Initiative ("PAFI") to evaluate and identify an acceptable unleaded replacement of the existing aviation gasoline for small airplanes with least impact on the existing fleet. The primary objective of the PAFI program is FAA fleet wide authorization of general aviation aircraft to operate on the PAFI unleaded fuels. The program is scheduled to be completed by 2018 with the FAA authorization and EPA regulatory action. According to the latest update (September 2018) from the FAA, the testing of the remaining PAFI fuels from Shell and Swift revealed unique issues with each fuel that needed to be addressed. The testing completion is delayed from December 2018 to mid-2020.

**Response 45**  
(Bob Lange)

The commenter made a statement that in Europe, two bladed prop aircraft are illegal because they put out about a third more noise than a three-bladed prop. To not look at the noise impact of our two-bladed props in this area and to look at where we have a phase for clean idle trucks during construction is looking at a grain of sand on the beach and is avoiding the 500 pound gorilla in the room.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-

makers. However, it should be noted the Draft Program EIR evaluated the environmental impacts associated with the GAIP. In accordance with the Section 15125 of the CEQA Guidelines, a proposed project's impacts are assessed based on a comparison to the existing environmental setting. Therefore, the project impacts are defined as the difference between the baseline conditions (i.e., existing condition) compared to the Baseline Plus Proposed Project (or Plus Alternative 1). The GAIP's impacts are not the collective of noise generated by the Airport.<sup>220</sup> Additionally, Section 21002 of CEQA requires an agency to adopt feasible mitigation measures within its powers that would substantially lessen or avoid any significant effect the project would have on the environment. Based on these directives, the County is required to adopt the MM AQ-1 (use of Tier 4 construction equipment) to reduce construction air emissions because it is a feasible measure that reduces an impact of the GAIP. Taking an action to eliminate all two-bladed propeller aircraft from the Airport does not address a potentially significant project-related impact (i.e., an impact associated with the GAIP) and is outside of the jurisdiction of the County. Regulations defining what a legal aircraft is, would be the purview of the FAA.

**Response 46**  
(Bob Lange)

The commenter indicated the customs facilities is not about 30 pilots a month that are going to go down to Mexico or fly home from Cuba and want to go through customs facilities here. This is about having customs facilities here so "we can piggyback on international flights on the other side of the Airport."

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

The precise point of the comment is not clear; however, the following clarifies how the U.S. Custom and Border Protection ("CBP") would function and the interface with commercial carrier international flights already operating at the Airport.

Although the Airport does not currently provide general aviation CBP services, flights with international origins and destinations currently use the Airport. As noted in the Draft Program EIR, flights with an international origin are required to stop at an airport that offers

<sup>220</sup> As noted, CEQA requires Project's potential environmental impacts be evaluated against the required CEQA baseline, which is the "existing condition" at the time the Notice of Preparation ("NOP") for this EIR was prepared. The NOP was published and circulated in March 2017. Both the NOP and the Draft Program EIR identify that 2016 was the most recent year with complete information that could be used as the basis for aviation forecasts. Having a complete annual data source for the analysis is required to be able to prepare accurate forecasts.

general aviation CBP services prior to landing at the Airport (see page 3-11). The General Aviation Facility (“GAF”) would permit processing international arrivals in accordance with federal guidelines (page 3-6). The facility would provide CBP with the ability to process up to 20 passengers and their baggage at one time.

If the comment is asking if the CBP officers currently serving the commercial carrier operations would be able to also serve the general aviation activity, the decision on how the GAF would be staffed would be up to the Department of Homeland Security, of which CBP is a part. The GAIP is identifying provisions for the facilities that would be required to meet (i.e., CBP Airport Technical Design Standards [“ATDS”]).

If the comment is asking if passengers arriving on international general aviation flights would be able to connect with international commercial carrier operations, the answer is yes. Once the arriving passengers have cleared customs through the GAF, they would then need to check into their commercial carrier flight in the main terminal. As a passenger on a commercial carrier operation, they would be included in the count of passengers allowed under the Phase 2 Access Plan.



## **Comments Received After the Public Review Period**

### 3.8 COMMENTS RECEIVED AFTER THE PUBLIC REVIEW PERIOD

After the public review period ended on November 21, 2018, the County received 28 additional comment letters/emails. Although the State CEQA Guidelines do not require that the County respond to these late comments, the County has elected to prepare written responses because they were received within the timeframe when responses were being prepared. The names of those submitting late comments are listed below.

It should be noted, of the 28 comment letters received after the public review period, 10 are the standardized letter. The bracketed standardized letter is included in Section 3.6.1 and responded to in Section 3.6.2 of these responses to comments. In the listing below, those with **(sl)** after the name submitted the standardized letter. As noted, the responses to these letters are provided in Section 3.6.2. As with the standardized letters in Section 3.6, if supplemental comments were included, a response to those comments is provided. Those with supplemental comments are noted with **(sc)** after their name.

Kathryn Anderson **(sl)** (Letter 289)  
Susan and Sam Anderson (Letter 290)  
Camille and Matthew Beehler (Letter 291)  
Matthew Christensen **(sl)(sc)** (Letter 292)  
CPF Airway Associates (Letter 293)  
CPF Airway Associates (Letter 294)  
Scott Fischer **(sl)** (Letter 295)  
Marilynn Henry (Letter 296)  
Roger Hughes **(sl)** (Letter 297)  
Janssen **(sl)**<sup>221</sup> (Letter 298)  
Julie Johnson (Letters 299 through 306)  
Holly Kincaid **(sl)** (Letter 307)  
David and Cathy Lichodziejewski (Letter 308)  
Beverly Blais Moosmann (Letter 309)  
Beverly Blais Mossmann (Letter 310)  
Christine Northridge **(sl)** (Letter 311)  
Bonnie and Dan O'Neil **(sl)** (Letter 312)  
City of Santa Ana (Letter 313)  
SCL Equipment Finance submitted by Barbara Griffith (Letter 314) **(sl)**  
Myriam Shapiro (Letter 315)  
Veronica Sheward (Letter 316) **(sl)**

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<sup>221</sup> The letter is not signed and only what appears to be a last name is indicated on the envelope.

**Letter 290: Susan and Sam Anderson**

**Dated: November 22, 2018**

- SSA-1** The comment states departing planes impact the quality of life and most of the residential neighborhoods were established prior to the initial expansion of the Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

It is not clear if the comment is referencing all aviation activity as impacting the quality of life or whether the comment is more focused on commercial aviation. It should be clarified, John Wayne Airport ("JWA") has a history of commercial aviation. In 1952, Bonanza Airlines started the first regular scheduled airline service. In 1963, the Orange County Board of Supervisors adopted the first master plan for the development of JWA. By 1968, jet aircraft were serving the Airport (the Douglas DC-9, with the Boeing 737 being added in 1969) and the terminal building was handling nearly 750,000 annual passengers. In 1985, over 3.2 million passengers were served at JWA.

- SSA-2** The comment expresses an opposition regarding any expansion or additions to the Airport, especially in the private plane area allowing corporate jets.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

Corporate jets are currently operating at the Airport. The General Aviation Improvement Program ("GAIP") provides for replacement of facilities serving general aviation uses. As a point of clarification, the GAIP would not provide for an expansion of the Airport facilities or operations. The total number of general aviation based aircraft and general aviation flights would actually be reduced compared to the Baseline year of 2016. However, as evaluated in the Draft Program EIR, based on the aviation forecasts, there would be an increase in turbine aircraft (i.e., turboprop and turbo-jet).

- SSA-3** The comment states all planes departing the Airport should adhere and be required to honor the time restrictions of no departures after 11PM or prior to 7 AM.<sup>222</sup>

The GAIP would not make any changes to the existing curfew, which applies only to commercial carrier operations. Although general aviation operations are permitted 24 hours a day, they are subject to daytime and nighttime noise limits. All general aviation activities would be required to comply with the General Aviation Noise Ordinance ("GANO"). As discussed in Section 2.6.4 of the Draft Program EIR, the GANO (County

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<sup>222</sup> The curfew for commercial carrier operations prohibits departures between 10:00 PM and 7:00 AM (8:00 AM on Sundays) and from landing between 11:00 PM and 7:00 AM (8:00 AM on Sundays).

Ordinance 3505) establishes limitations on the maximum single event noise levels, which are applicable to both commercial and general aviation operations. The GANO prohibits general aviation operations exceeding specified Single Event Noise Exposure Level ("SENEL") from taking off between the hours of 10:00 PM and 7:00 AM (8:00 AM on Sundays) and from landing between 11:00 PM and 7:00 AM (8:00 AM on Sundays). For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments.

**SSA-4** The commenter states JWA is not an international airport.

The Airport acknowledges this comment. Although, the comment does not raise a specific question regarding the analysis in the Draft Program EIR and no further response to this comment is required, it should be noted, that JWA is an international airport.

**Letter 291: Camille and Matthew Beehler**  
**Dated November 29, 2018**

- CMB-1** The comment states departing planes impacts the quality of life and most of the residential neighborhoods were established prior to the initial expansion of the Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

It is not clear if the comment is referencing all aviation activity as impacting the quality of life or if the comment is more focused on commercial aviation. It should be clarified, John Wayne Airport (“JWA”) has a history of commercial aviation. In 1952, Bonanza Airlines started the first regular scheduled airline service. In 1963, the Orange County Board of Supervisors adopted the first master plan for the development of JWA. By 1968, jet aircraft was serving the Airport (the Douglas DC-9, with the Boeing 737 being added in 1969) and the terminal building was handling nearly 750,000 annual passengers. In 1985, over 3.2 million passengers were served at JWA.

- CMB-2** The comment expresses an opposition regarding any expansion or additions to the Airport, especially in the private plane area allowing corporate jets.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

Corporate jets are currently operating at the Airport. The General Aviation Improvement Program (“GAIP”) provides for replacement of facilities serving general aviation uses. As a point of clarification, the GAIP would not provide for an expansion of the Airport facilities or operations. The total number of general aviation based aircraft and general aviation flights would actually be reduced compared to the Baseline 2016. However, as evaluated in the Draft Program EIR, based on the aviation forecasts there would be an increase in turbine aircraft (i.e., turboprop and turbo-jet).

- CMB-3** The comment states all planes departing the Airport should adhere and be required to honor the time restrictions of no departures after 11PM or prior to 7 AM.<sup>223</sup>

The GAIP would not make any changes to the existing curfew, which applies only to commercial carrier operations. Although general aviation operations are permitted 24 hours a day, they are subject to daytime and nighttime noise limits. All general aviation activities would be required to comply with the General Aviation Noise Ordinance (“GANO”). As discussed in Section 2.6.4 of the Draft Program EIR, the GANO (County

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<sup>223</sup> The curfew for commercial carrier operations prohibits departures between 10:00 PM and 7:00 AM (8:00 AM on Sundays) and from landing between 11:00 PM and 7:00 AM (8:00 AM on Sundays).

Ordinance 3505) establishes limitations on the maximum single event noise levels, which are applicable to both commercial and general aviation operations. The GANO prohibits general aviation operations exceeding specified Single Event Noise Exposure Level ("SENEL") from taking off between the hours of 10:00 PM and 7:00 AM (8:00 AM on Sundays) and from landing between 11:00 PM and 7:00 AM (8:00 AM on Sundays) For additional discussion of the GANO, please see the Topical Response provided in Section 3.1.3 of these Responses to Comments.

**CMB-4** The commenter states JWA is not an international airport.

The Airport acknowledges this comment. Although, the comment does not raise a specific question regarding the analysis in the Draft Program EIR and no further response to this comment is required, it should be noted, that JWA is an international airport.

**Letter 292: Matthew Christensen  
Dated November 26, 2018**

**MC-1** The comment transmits the standardized letter and notes there has been a large increase in aircraft noise. The commenter observes, airline departure patterns off Runway 20R are incredibly inconsistent, noting some properly depart heading over the Back Bay and offsetting correctly whereas many pilots ignore the offset flying directly over the commenter's house.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR, which is focused on the General Aviation Improvement Program ("GAIP"). For that reason, no further response to this comment is required.

It should be noted, the GAIP does not propose any changes to the aircraft flight paths. Additionally, the County of Orange, as the proprietor of the Airport, has no authority or control over aircraft in flight. Rather, the Federal Aviation Administration ("FAA") has exclusive regulatory jurisdiction over flight paths, and the pilot-in-command of each aircraft is responsible for safely maneuvering the aircraft in accordance with the FAA's airspace procedures. For more detail on this issue, please see the Topical Response pertaining to Flight Path Procedures, provided in Section 3.1.2 of these Responses to Comments.

The responses to the standardized letter are provided in Section 3.6.2 of these Responses to Comments.

**Letter 293: CPF Airway Associates**  
**Prepared by Matthew C. Henderson, with Miller Starr Regalia**  
**Dated February 27, 2019**

**CPF 5-1** The comment is the email transmitting the comment letter on behalf of Matthew C. Henderson.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**CPF 5-2** The comment provides background on previous letters submitted on behalf of CPF Airways Associates, providing comments on the Draft Program EIR and a Public Records Act request (i.e., Letters 56 through 59). The comment states there is continued concern regarding the adequacy of the Draft Program EIR because the General Aviation Improvement Program ("GAIP") does not address the secured entry gate from CPF Airways Associates and the operations at HeliStream. The commenter expresses the opinion that this lapse raises concerns relating to traffic, air traffic, airport operations, noise, air pollution, and other potential impacts relating to any proposed changes or potential cessation of use of the heliport and/or gate. The commenter further expresses the opinion that the absence of these features in the Draft Program EIR means that its project description and baseline analysis are incomplete.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers.

As noted in the responses to Letters 56 through 59, the Airport acknowledges that the secured gate at 3000 Airway Avenue serves an important function for the Airport's efficient operation. There is no intention to eliminate the gate at this location. It must be recognized that the General Aviation Improvement Program ("GAIP") analysis is being done at a program level of detail and the scale and level of specificity shown in the concept plans for the Proposed Project and Alternative 1 (Exhibits 3-1 and 3-4, respectively) is not intended to represent actual project design plans.

As noted in Response CPR-3 (Letter 56), additional text has been added to the Final Program EIR in multiple locations acknowledging the secured gate as an existing use and adding a provision (Minimization Measure MN LU-1) that requires in conjunction with the review of design and construction plans for GAIP facilities adjacent to 3000 Airway Avenue, that a secured gate access be maintained for an adequate connection to Perimeter Road. The measure further states the precise location and configuration of the gate may be modified but the function of the gate shall not be compromised. The inclusion of this measure, which will be incorporated into the Mitigation Monitoring and Reporting Program ("MMRP") developed for the GAIP, is recommended to ensure that access through the secured gate on the west side of the Airport is maintained.



The comment regarding the potential impacts to the HeliStream operations is addressed in Response CPF-4 (Letter 56). HeliStream is acknowledged as an off-Airport operation. However, as noted in Response CPF-4, the comment does not specify what elements of the GAIP would potentially have an adverse effect on the continued helicopter operations. None of the changes proposed by the GAIP would have an impact on the continued operation of the heliport. As noted in the Draft Program EIR, all proposed improvements would comply with Federal Aviation Administration ("FAA") design requirements. The Proposed Project and Alternative 1 do identify T-hangars adjacent to the building in question; however, the T-hangars would not be an obstruction that would impact the continued helicopter operations at HeliStream. The GAIP does not propose a use that would be considered incompatible with the heliport.

The fact that the GAIP would not adversely affect the secured gate access or the HeliStream operations, should address the concern by the commenter that the Draft Program EIR did not properly evaluate the traffic, air traffic, airport operations, noise, air pollution, and other potential impacts relating to any proposed changes or potential cessation of use of the heliport and/or access gate. As noted above, there would be no functional change to these off-site uses as a result of the GAIP. The traffic, air quality, and noise impacts associated with the CPF Airway Associates and HeliStream operations would be reflected in the Baseline (2016) condition. Since there would be no change to these operations associated with the GAIP, the analysis in the Draft Program EIR would not change. Therefore, the concerns expressed pertaining to the adequacy of the Draft Program EIR in evaluating the impacts associated with GAIP and informing the public and decision-makers as to the effects of the GAIP are not warranted.

**Letter 294: CPF Airway Associates**  
**Prepared by Matthew C. Henderson, with Miller Starr Regalia**  
**Dated February 27, 2019**

This letter is the same as the CPF Airway Associates' electronic submittal of the February 27, 2019 letter (Letter 294). Therefore, no additional responses are required. Please see Responses CPF 5-1 and CPF 5-2.

**Letter 296: Marilyn Henry**  
**Submitted November 24, 2018**

**MH-1** The commenter expresses her opposition to the General Aviation Improvement Program ("GAIP") because it would build more hangars to allow jets to fly over Newport Beach, resulting in increased pollution and noise.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 299: Julie Johnson**  
**Dated: January 29, 2019**

- JJ 2-1** The commenter asks if the commercial airlines operating at John Wayne Airport (“JWA”) provided comments on the General Aviation Improvement Program (“GAIP”) Draft Program Environmental Impact Report (“EIR”).

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, the JWA staff provided a response by email to Ms. Johnson on January 29, 2019, indicating that the commercial carriers did not comment on the GAIP Draft Program EIR.

**Letter 300: Julie Johnson**

**Dated: January 30, 2019**

- JJ 3-1** The commenter asks what the Federal Aviation Administration (“FAA”) standards are for Alternative #3, and believe it involves building heights, clearing spaces and widening taxi areas. The commenter asks if there is a FAA.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. Alternative 3 is evaluated in Section 5.4.2 of the Draft Program EIR. The improvements to correct the non-standard design features are identified as:

Relocate the Vehicle Service Road (also known as Perimeter Road) along Taxiway A to comply with FAA clearance standard dimensions for Group V aircraft

Remove obstructions (two community hangars from the Full Service Southeast Fixed Based Operator [“FBO”]) to comply with FAA height restrictions

Remove 31 transient aircraft apron parking spaces from within the extended object-free area (“OFA”) in the approach to Runway 2L

The following are links FAA references related to those nonstandard conditions:

FAA Advisory Circular AC 150/5300-13A discusses OFA (see Chapter 3 Runway Design).

[https://www.faa.gov/documentLibrary/media/Advisory\\_Circular/draft\\_150\\_5300\\_13a.pdf](https://www.faa.gov/documentLibrary/media/Advisory_Circular/draft_150_5300_13a.pdf)

FAA Federal Aviation Regulation (“FAR”) Part 77 Safe and Efficient Use, and Preservation of the Navigable Airspace (Subpart C discusses obstructions).

<https://www.govinfo.gov/content/pkg/CFR-2012-title14-vol2/xml/CFR-2012-title14-vol2-part77.xml>

- JJ 3-2** The comment, in reference to a phone conversation with Ms. Lea Choum of Airport staff, asks with Alternative 3 if there are new community hangars, and if so, how many and where are they located.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. Alternative 3 only corrects the nonstandard design conditions identified in Response JJ 3-1, above. It does not provide any additional improvements, such as new community hangars. As shown in the Draft Program EIR in Table 5-12, the capacity of the community hangars at the Airport would be reduced compared to the Baseline (2016). Community hangars accommodate 23 aircraft in the Baseline condition. With Alternative 3 this would be reduced to 11 aircraft. Exhibit 5-3 in the Draft Program EIR provides a graphic depiction of conceptual layout of facilities for Alternative 3. The existing community hangars are shown in purple and are located at the Full Service Southeast FBO and the

Full Service Northeast FBO. As noted in Response JJ 3-1, the community hangars that would be removed are located at the Full Service Southeast FBO.

**Letter 301: Julie Johnson**

**Dated: February 4, 2019**

**JJ 4-1** The comment asks when the commenter would receive a response to an earlier email. The comment included the questions asked in the previously email (Letter 301).

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. Ms. Lea Choum, of Airport staff, did reply to the commenter with the requested information. Please see Responses JJ 3-1 and JJ 3-2 (Letter 301) for the information provided.

**Letter 302: Julie Johnson**  
**Dated: February 5, 2019**

**JJ 5-1** The commenter is responding to an earlier email (Letter 302) thanking Ms. Choum for the requested information.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.



**Letter 303: Julie Johnson**

**Dated: February 5, 2019**

**JJ 6-1** The commenter asks if the two community hangars in Alternative 3 are new or existing and if the hangars would be remodeled to accommodate larger jets.

The two hangars shown in Alternative 3 are existing facilities and the General Aviation Improvement Program ("GAIP") does not propose any modifications. Alternative 3 only corrects the nonstandard design conditions identified in the Draft Program EIR (see Section 5.4.2) and included in Response JJ 3-1 (Letter 301).

**Letter 304: Julie Johnson**  
**Dated: February 7, 2019**

**JJ 7-1** The commenter asks if it is known when the comments will be submitted in the Board of Supervisors for an action.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. For informational purposes, action by the Board of Supervisors on the General Aviation Improvement Program ("GAIP"), including consideration of the comments submitted on the Draft Program EIR, is anticipated in April 2019.

**Letter 305: Julie Johnson**

**Dated: February 27, 2019**

- JJ 8-1** The comment asked the County to provide or refer the commenter to a list of all the consultants and law firms that the County has used for the General Aviation Improvement Program (“GAIP”).

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

It should be noted, the County responded directly to Ms. Johnson and provided the requested information via email. In addition, the names of the consultants working on the GAIP, and their respective firms are provided in the Draft Program EIR in Section 8.0, List of Preparers. The law firm providing outside counsel to the County is Gatzke Dillon and Ballance LLP.

**Letter 306: Julie Johnson**  
**Dated: February 7, 2019**

**JJ 9-1** The commenter is responding to an earlier email (Letter 306) thanking Ms. Choum for the requested information.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 308: David and Cathy Lichodziejewski**  
**Dated November 25, 2018**

- DCL-1** The commenter expresses concern about the loss of general aviation tie-down capacity and covered parking areas. He expresses the opinion that the planned General Aviation Improvements (“GAIP”) are not improvements for what is typically called general aviation but are improvements optimized for business jet aircraft. The commenter further expresses that business jets function as small commercial aircraft and should not displace the vibrant general aviation community at John Wayne Airport (“JWA”).

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

- DCL-2** The commenter states an understanding that revenue is important to Orange County and some expansion and improvements to the Airport are overdue. Further, the comment asks that the improvements include all interested parties not to favor small commercial jet operations disguised as “General Aviation”. Please retain enough “General Aviation” parking to include the current general aviation tenants.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

However, for clarification purposes, as noted in Section 3.6 of the Draft Program EIR, the intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements.

One of the six objectives listed in the GAIP (Section 3.3 of the Draft Program EIR) is “to maximize economic, self-sustaining, revenue producing facilities.” It is important for the Airport to have a self-sustaining facility since JWA does not receive any support from Orange County’s general fund. In addition, and importantly, when airport owners or sponsors accept funds from the Federal Aviation Administration (“FAA”), they must agree to certain obligations (or assurances). These assurances require the recipients to maintain and operate their facilities safely and efficiently and in accordance with specified conditions. One of the Airport’s Grant Assurances with the FAA (Grant Assurance 24, Fee and Rental Structure) requires the Airport to be as financially self-sustaining as possible under the particular circumstances at the Airport. The purpose of the self-sustaining rule is to maintain the utility of the federal investment in the airport.

**Letter 309: Beverly Blais Moosmann**  
**Dated December 5, 2018**

**BBM 2-1** The commenter was inquiring about the timing of responses to comments submitted on behalf of Citizens Against Airport Noise and Pollution (“CAANP”).

The Airport staff responded to the inquiry and indicated that due to the volume of comments received, response to comments would be released within the next few months. Any updates will be provided on the Airport’s web page for the General Aviation Improvement Program (“GAIP”) at:

<http://www.ocair.com/deir627>> <http://www.ocair.com/deir627>.

**Letter 310: Beverly Blais Moosmann  
Dated December 5, 2018**

**BBM 3-1** The commenter responded to the email from the Airport informing her of the anticipated timeframe and process for the responses to comments on the General Aviation Improvement Program.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Letter 313: City of Santa Ana  
Received December 3, 2018**

- SA-1** The comment indicates the City of Santa Ana has no comments on the Draft Program Environmental Impact Report at this time but would like to kept apprised of any proposed changes or developments at John Wayne Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. Consistent with County policy, the Airport will notify you when the Responses to Comments are available and of upcoming hearings.



**Letter 315: Myriam Shapiro**  
**Dated November 23, 2018**

**MS-1** The commenter requests an expansion of private corporate jets not be allowed at the Airport because it adversely affects the quality of life and makes the community less desirable to live in. The commenter expresses the opinion that such expansion is not a wise decision and requests the decision-makers vote against it.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report ("EIR"), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**Comments on the  
Environmental Impact Report  
Sent to Others**

### **3.9 COMMENTS ON THE ENVIRONMENTAL IMPACT REPORT SENT TO OTHERS**

To ensure all comments on the Draft Program Environmental Impact Report (“EIR”) are properly responded to, the directions on the website, all hand-out materials, and in the Draft Program EIR identified that comments were to be directed to Ms. Lea Choum at the Airport or submitted to the Airport email address [EIR627@ocair.com](mailto:EIR627@ocair.com). This allowed there to be a central location at the County for all comments. There was one letter sent directly to Supervisor Bartlett and the Airport was not copied. Supervisor Bartlett forwarded the comment letter to the Airport. Although it may not have been intended as a comment on the Draft Program EIR, because the County received it during the public review period, written responses have been prepared to the issues raised in the comment letter.

**Letter 317: Andy Couch<sup>224</sup>**  
**Dated November 21, 2018**

**AC 2-1** The comment states to name of the project the “General Aviation Improvement Program” is misleading. The comment expresses the opinion it can more accurately be described as a “Business Jet Improvement Program” because the primary result of the implementation of the Proposed Project, or Alternatives 1 or 2, will be a substantial increase in the number of business jet operations at John Wayne Airport (“JWA”). The comment further states the business jet operations will not be limited by the airline curfew or the other restrictions on commercial airline operations.

The Airport acknowledges this comment. It will be included as part of the Final Program Environmental Impact Report (“EIR”), which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

**AC 2-2** The comment acknowledges it may be necessary to update the 30-year old plan for John Wayne Airport, to modify parts of the Airport to comply with Federal Aviation Administration (“FAA”) regulations or changing needs. It is not necessary to substantially increase the number of facilities for business jets, which will result in an increase in business jet operations and noise.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted that the facilities proposed are in recognition of the existing underutilization of the tie-down space for piston-powered aircraft and the aviation forecasts, which reflect a continuing increase in business jets.

**AC 2-3** The comment acknowledges that under current federal statutes, there may be restrictions upon the limits that can be imposed upon business jet aircraft; however, one of the limits that can be imposed is to limit the business jet facilities.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

However, it should also be noted, although the Airport has capacity of 596 general aviation aircraft, at the end of 2016 (the Baseline for the GAIP), only 482 spaces were occupied. Consistent with Section 15126.6(a)–(b) of the State of California

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<sup>224</sup> Mr. Couch did provide comments on the Draft Program EIR, which are included as Letter 55. That comment reflects many of the same concerns identified in this letter. The numbering of the comments on this letter is to reflect that it is a second letter submitted by Mr. Couch.

Environmental Quality Act (“CEQA”) Guidelines, the Draft Program EIR evaluated a reasonable range of alternatives to a Proposed Project. In addition to addressing the Proposed Project and Alternative 1 at an equivalent level of detail, Section 5 addressed alternatives that ranged from minimal displacement of general aviation aircraft. Alternative 3 would provide sufficient capacity to serve the piston-powered aircraft based at the Airport in the Baseline condition but would require some turbine engine aircraft to be displaced. The No Project Alternative would not alter the capacity compared to the Baseline because no improvements would be provided; therefore, it would retain the capacity for 596 general aviation aircraft.

The GAIP attempts to provide facilities that best meets the future needs of the broad spectrum of people wishing to utilize the limited space available at Airport. All of the physical space currently allocated for general aviation would be retained for general aviation use. Additionally, the majority of based aircraft space at the Airport would remain dedicated to fixed wing piston aircraft, and specifically single-engine fixed wing piston aircraft. Table 5-1 in the Draft Program EIR provides a comparison of the capacity and aviation forecasts for each of the alternatives evaluated in the Draft Program EIR. Similarly, Table 5-3, in the Draft Program EIR, provides a comparison of the forecast operations by aircraft engine type for each alternative. As shown in the table, in 2026 the forecast identify piston-powered aircraft would account for slightly more than 66 percent of the total operations for the Proposed Project and Alternative 1.

The intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements. One of the Project Objectives (provided in Sections 1.4, 3.3, and 5.5 of the Draft Program EIR) clearly states an objective of the GAIP is “to embrace flexibility to allow for technological advances and market trends”. The GAIP (Proposed Project and Alternative 1) would increase the number of aircraft that could be accommodated in community hangars (see Tables 3-4 and 3-8 in Draft Program EIR 627 for the number of hangar spaces for the Proposed Project and Alternative 1, respectively). Community hangars have an advantage of being flexible in the number of aircraft that are stored based on the type and size of the aircraft at any given time. However, it is acknowledged and documented in the Draft Program EIR, that the construction of the hangars would reduce the capacity at the Airport for tie-down space.

**AC 2-4** The comment states the benefit from the proposed GAIP will be for the wealthy who fly in business jets. The comment further states the County will benefit as indicated by the various business jet revenue streams identified in the Draft Program Environmental Report 627.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or present any issue or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required.

As a point of clarification, the Draft Program EIR does not include data on various business jet revenue streams. Section 2.5.1, of the Draft Program EIR (General Setting) provides some general information on the Airport's contribution to the regional economy. However, this is not revenue to the Airport. As noted in the Draft Program EIR, the regional economy figures include the annual direct impacts of ongoing operations at JWA and of spending by visitors arriving at JWA.

The State CEQA Guidelines (e.g., Sections 15064(e) and 15131), and established case law in California interpreting CEQA have made it clear that CEQA does not require analysis of a project's potential effects that do not result, directly or indirectly, in a "physical change" to the environment. Indeed, noting that CEQA does not require analysis of impacts that are solely economic in nature.<sup>225</sup> However, it should be noted, Section 2.5.1, of the Draft Program EIR (General Setting) provides some general information on the Airport's contribution, as a whole (commercial and general aviation), to the regional economy, including general revenues through fees and charges, and taxes paid by passengers, employers and employees. Notably, general aviation revenues at JWA account for approximately 4 percent of the Airport's total revenue stream.<sup>226</sup>

One of the six objectives listed in the GAIP (Section 3.3 of the Draft Program EIR) is "to maximize economic, self-sustaining, revenue producing facilities." It is important for the Airport to have a self-sustaining facility since JWA does not receive any support from Orange County's general fund. In addition, and importantly, when airport owners or sponsors accept funds from the Federal Aviation Administration ("FAA"), they must agree to certain obligations (or assurances). These assurances require the recipients to maintain and operate their facilities safely and efficiently and in accordance with specified conditions. One of the Airport's Grant Assurances with the FAA (Grant Assurance 24, Fee and Rental Structure) requires the Airport to be as financially self-sustaining as possible under the particular circumstances at the Airport. The purpose of the self-sustaining rule is to maintain the utility of the federal investment in the airport. As noted in Section 3.6 of the Draft Program EIR, the intent of the GAIP is to provide the framework for general aviation improvements at the Airport by conducting a comprehensive evaluation of the general aviation facilities. As such, the GAIP was developed to provide a concept that maximizes the efficiency and safety of facilities and allows the Airport to prioritize future improvements.

**AC 2-5** The comment indicates required updates to John Wayne Airport can be accomplished with Alternative 3, which would not require the eviction of a substantial numbers of piston engine airplanes from the Airport.

The Airport acknowledges this comment. It will be included as part of the Final Program EIR, which will be considered by the decision-makers. However, the comment does not raise a specific question regarding the analysis in the Draft Program EIR or make any substantive comment about the adequacy of the Draft Program EIR. For that reason, no further response to this comment is required. However, it should be noted, Alternative 3

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<sup>225</sup> *Porterville Citizens for Responsible Hillside Development v. City of Porterville* (2007) 157 Cal.App.4th 885; *Gray v. County of Madera* (2008) 167 Cal.App.4th 1099.)

<sup>226</sup> *JWA FY 2016-17 Revenue Report* <https://www.ocair.com/investorrelations/financials/revenuereports/FY16-17.pdf>

does not provide for updated facilities. The improvements in Alternative 3 are limited to the correction of FAA non-standard design features.

## 4.0 CLARIFICATIONS AND REVISIONS AS PART OF THE FINAL PROGRAM EIR

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Revisions and clarifications have been made to the Draft Program EIR based on input received during the public review period and while preparing the responses to comments on the Draft Program EIR. Some are County-identified revisions. None of these clarifications and revisions reflect a substantial change to the Project description, nor would any of the changes result a new impact or intensification of an impact already identified in the Draft Program EIR. None of the changes are in response to comments that raise significant environmental issues. Additions to the Draft Program EIR are shown in *red italicized* text and deletions are shown in ~~red strikethrough~~ text.

### 4.1.1 DRAFT PROGRAM EIR

#### Section 1.0 Executive Summary

The base map for Exhibit 1-2 (Local Vicinity Map) has been revised to remove the designation for Webster University Irvine. The revised Exhibit 1-2 graphic is located at the end of this Section.

The following text is added to Table 1-2, Summary of Potential Impacts, Mitigation Measures and Level of Significance under Land Use, in the fourth column in the row for Threshold 4.6-1 on page 1-28:

*Although a significant impact has not been identified, the following MN is recommended to ensure the access through the secured gate on the west side of the Airport is maintained:*

*MN LU-1 In conjunction with the review of development construction plans for facilities adjacent to 3000 Airway Avenue, Costa Mesa, California, the applicant shall ensure, and the JWA Deputy Airport Director, Facilities, or designee, shall verify, that secured gate access used to facilitate the movement of cargo and other items into and out of the Airport is maintained for an adequate connection to Perimeter Road. The precise location and configuration of the gate may be modified within this parcel but the function of the gate shall not be compromised.*

#### Section 3.7 Intended Uses of the Environmental Impact Report

To ensure that it is clear that these regulations are applicable to the aboveground fuel tank, the permit requirements outlined in Section 3.7 of the Draft Program EIR (page 3-25) is hereby modified (*red italics* shows the additional text):

- **South Coast Air Quality Management District.** Issuance of permits, *including provisions in Rule 201 (Permit to Construct); Rule 203 (Permit to Operate), and Rule 1401 (New Source Review of Toxic Air Contaminants), would be applicable* for the self-serve fueling station.



## Section 4.2 Air Quality

Tables have been revised to reflect corrected emissions data. The original data is not shown in strike-out format to maintain the readability of the tables, however, as noted above, the revisions to each table are shown in *red italicized* text.

The following revision has been made to Table 4.2-3 on page 4.2-12:

**TABLE 4.2-3  
EMISSIONS INVENTORY FOR GENERAL AVIATION ACTIVITIES  
BASELINE (2016)**

Source	Daily Emissions (pounds per day)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Total	3,250.0	<i>184.5</i>	187.3	28.4	7.9	7.9
CO: carbon monoxide; VOC: volatile organic compound; NO <sub>x</sub> : nitrogen oxides; SO <sub>x</sub> : sulfur oxides; PM <sub>10</sub> : respirable particulate matter with a diameter of 10 microns or less; PM <sub>2.5</sub> : fine particulate matter with a diameter of 2.5 microns or less						
Note: Numbers may not sum to subtotals as shown, due to rounding. Section 3 of Appendix E also provides Airport-wide existing conditions data for 2016. Because the GAIP exclusively pertains to and affects general aviation operations at JWA, the inventory data presented in this Section of the Program EIR is focused on general aviation-related emissions. For additional information on Airport-wide emissions that accounts for commercial aircraft, please see Appendix E.						
Source: Landrum & Brown, 2018. (Appendix E).						

The following revision has been made to Table 4.2-8 on page 4.2-20:

**TABLE 4.2-8  
EMISSIONS INVENTORY—BASELINE (2016) PLUS PROPOSED PROJECT**

Source	Emissions (pounds per day)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Total General Aviation Emissions	2,884.3	<i>217.5</i>	226.5	34.6	8.7	8.7
VOC: volatile organic compounds; NO <sub>x</sub> : nitrogen oxides; CO: carbon monoxide; SO <sub>x</sub> : sulfur oxides; PM <sub>10</sub> : respirable particulate matter 10 microns or less in diameter; PM <sub>2.5</sub> : fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District.						
Note: Some totals do not add due to rounding. Section 3 of Appendix E also provides Airport-wide existing conditions data for 2016. Because the GAIP exclusively pertains to and affects general aviation operations at JWA, the inventory data presented in this Section of the Program EIR is focused on general aviation-related emissions. For additional information on Airport-wide emissions that accounts for commercial aircraft, please see Appendix E.						
Source: Landrum & Brown 2018. CalEEMod model data sheets are included in Appendix E.						

The following revisions have been made to Table 4.2-9 on page 4.2-21:

**TABLE 4.2-9  
TOTAL NET OPERATIONAL EMISSIONS  
FOR THE PROPOSED PROJECT**

Scenarios	Emissions (pounds per day)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Baseline (2016) Conditions (Table 4.2-3)	3,250.0	184.5	187.3	28.4	7.9	7.9
Baseline Plus Proposed Project (Table 4.2-8)	2,884.3	217.5	226.5	34.6	8.7	8.7
<b>Baseline Plus Proposed Project Net Operational Emissions</b>	<b>-365.7</b>	<b>33.0</b>	<b>39.2</b>	<b>6.3</b>	<b>0.8</b>	<b>0.8</b>
<i>SCAQMD Mass Daily Threshold (Table 4.2-4)</i>	<i>550</i>	<i>55</i>	<i>55</i>	<i>150</i>	<i>150</i>	<i>55</i>
<b>Exceed Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
<i>SCAQMD Localized Significance Threshold (Table 4.2-5)</i>	<i>3,888</i>	<i>N/A</i>	<i>223</i>	<i>N/A</i>	<i>21</i>	<i>9</i>
<b>Exceed Localized Significance Threshold?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
VOC: volatile organic compound; NO <sub>x</sub> : nitrogen oxides; CO: carbon monoxide; SO <sub>x</sub> : sulfur oxides; PM <sub>10</sub> : respirable particulate matter with a diameter of 10 microns or less; PM <sub>2.5</sub> : fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District; EIR: Environmental Impact Report; CEQA: California Environmental Quality Act. Note: Operational emissions for all pollutants, except for CO, are anticipated to increase with the Proposed Project due to an increase in turbo jet and business jet operations from the Baseline (2016) Condition. The decrease in CO is attributed to the decrease in prop operations estimated for the Proposed Project. Source: Landrum & Brown 2018. Emissions calculations can be found in Appendix E.						

The following revision has been made to Table 4.2-12 on page 4.2-24:

**TABLE 4.2-12  
EMISSIONS INVENTORY—BASELINE (2016) PLUS ALTERNATIVE 1**

Source	Emissions (pounds per day)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Total General Aviation Emissions	2,904.2	221.7	229.9	35.2	8.8	8.8
VOC: volatile organic compounds; NO <sub>x</sub> : nitrogen oxides; CO: carbon monoxide; SO <sub>x</sub> : sulfur oxides; PM <sub>10</sub> : respirable particulate matter 10 microns or less in diameter; PM <sub>2.5</sub> : fine particulate matter 2.5 microns or less in diameter; SCAQMD: South Coast Air Quality Management District. Note: Some totals do not add due to rounding. Section 3 of Appendix E also provides Airport-wide existing conditions data for 2016. Because the GAIP exclusively pertains to and affects general aviation operations at JWA, the inventory data presented in this Section of the Program EIR is focused on general aviation-related emissions. For additional information on Airport-wide emissions that accounts for commercial aircraft, please see Appendix E. Source: Landrum & Brown 2018. CalEEMod model data sheets are included in Appendix E.						

The following revisions have been made to Table 4.2-13 on page 4.2-24:

**TABLE 4.2-13  
TOTAL NET OPERATIONAL EMISSIONS  
FOR ALTERNATIVE 1**

Scenarios	Emissions (pounds per day)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Baseline (2016) Conditions (Table 4.2-3)	3,250.0	184.5	187.3	28.4	7.9	7.9
Baseline Plus Alternative 1 (Table 4.2-12)	2,904.2	221.7	229.9	35.2	8.8	8.8
Baseline Plus Alternative 1 Net Operational Emissions	-345.8	37.2	42.6	6.8	0.9	0.9
<i>SCAQMD Mass Daily Threshold (Table 4.2-4)</i>	550	55	55	150	150	55
<i>SCAQMD Localized Significance Threshold (Table 4.2-5)</i>	3,888	N/A	223	N/A	21	9
<b>Baseline Plus Alternative 1 Exceed Significance Threshold?</b>	No	No	No	No	No	No
lbs/day: pounds per day; VOC: volatile organic compound; NO <sub>x</sub> : nitrogen oxides; CO: carbon monoxide; SO <sub>x</sub> : sulfur oxides; PM <sub>10</sub> : respirable particulate matter with a diameter of 10 microns or less; PM <sub>2.5</sub> : fine particulate matter with a diameter of 2.5 microns or less; SCAQMD: South Coast Air Quality Management District; EIR: Environmental Impact Report; CEQA: California Environmental Quality Act.						
Source: Landrum & Brown 2018. Emissions calculations can be found in Appendix E.						

The following revisions have been made to Table 4.2-14 on page 4.2-29:

**TABLE 4.2-14  
NET OPERATIONAL EMISSIONS COMPARISON  
2014 SETTLEMENT AGREEMENT AMENDMENT AND THE  
BASELINE PLUS GAIP SCENARIOS**

Scenarios	Emissions (pounds per day)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
2014 Settlement Agreement Amendment Emissions <sup>a</sup>	-5,343	111	758	78	164	43
Baseline + Proposed Project Net Operational Emissions (Table 4.2-9)	-365.7	33.0	39.2	6.3	0.8	0.8
<b>GAIP Emissions as a Percentage of the 2014 Settlement Agreement Amendment Emissions</b>	6.8% <sup>b</sup>	29.7%	5.2%	8.1%	0.5%	1.9%
Baseline + Alternative 1 Net Operational Emissions (Table 4.2-13)	-345.8	37.2	42.6	6.8	0.9	0.9
<b>GAIP Emissions as a Percentage of the 2014 Settlement Agreement Amendment Emissions</b>	6.5% <sup>b</sup>	33.5%	5.6%	8.7%	0.5%	2.1%
VOC: volatile organic compound; NO <sub>x</sub> : nitrogen oxides; CO: carbon monoxide; SO <sub>x</sub> : sulfur oxides; PM <sub>10</sub> : respirable particulate matter with a diameter of 10 microns or less; PM <sub>2.5</sub> : fine particulate matter with a diameter of 2.5 microns or less.						
<sup>a</sup> Data presented in Table 4.1-8 of Final EIR 617. Values reflect Phase 3 emissions, which represent the highest values.						
<sup>b</sup> Both the 2014 Settlement Agreement Amendment and the Proposed Project would reduce CO emissions.						
Source: Landrum & Brown 2018 for the GAIP data; Final EIR 617 for the 2014 Settlement Agreement Amendment data.						

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## Section 4.6 Land Use and Planning

The following text has been added to the Land Use and Planning Regulatory Setting discussion on page 4.6-9 (City of Irvine General Plan):

### Noise Element

*The Noise Element provides guidelines for minimizing noise impacts from various sources. The Community Noise Equivalent Level ("CNEL"), commonly used by California local governments, is used by the City of Irvine to quantify community noise levels and standards. Interior and exterior noise standards are identified by land use category. As it pertains to John Wayne Airport, the Noise Element states:*

*The John Wayne Airport noise contour map, prepared annually by the Noise Abatement Center of John Wayne Airport, is used for the assessment of aircraft noise impacts. Annual updates of the original 1980 John Wayne Airport noise contour map, are used for planning analysis (Irvine 1999, last updated 2015).*

### Irvine Business Complex

*Recognizing that transition in land use was contemplated in the original entitlement program for the IBC, the IBC Element formally establishes the goals and objectives for future planning for residential and mixed use developments in the IBC based on the IBC Vision Plan and the Mixed Use Overlay Zoning Code Planning Process conducted by the City of Irvine between 2005-2010. The IBC area is located on the southwestern edge of the City of Irvine and adjacent to the cities of Tustin, Santa Ana and Newport Beach. John Wayne Airport forms the northwestern boundary of the IBC. The IBC Element states:*

*The IBC benefits from its close proximity to the John Wayne Airport, which provide an important transportation hub for the region. The airport has a service area of three million people with an annual volume of over nine million passengers. To keep up with population growth, the County has approved plans to expand facilities at the airport. (Irvine 1999, last updated 2015).*

The following text has been added to the Land Use and Planning Existing Conditions, Non-General Aviation Facilities, on page 4.6-15:

*Currently, there are license agreements for perimeter fence access for freight, cargo, and maintenance operations, incidental to the transportation of passengers into the Airport from 3000 Airway Avenue in Costa Mesa (located immediately north of the Limited Service Southwest FBO). The agreements were initially entered into in 1999 to provide support for American, Alaska, United and Delta Airlines. In 2003, a license was granted for Southwest Airlines. The parcel is not part of the Airport; however, the entry gate provides access to the secured portion of the airfield pursuant to "through the gate" license agreements with the County.*

On page 4.6-20, Impact Analysis, Threshold 4.6-1, Compatibility with Surrounding Land Uses, the following text is added for the Proposed Project.

*As noted in Existing Conditions, licenses have been granted for a secured entry gate into the Airport from 3000 Airway Avenue in Costa Mesa (located north of the Limited Service Southwest FBO) to facilitate the movement of cargo and other items into and out of the Airport. The Proposed Project identifies T-hangars located between the gate and Perimeter Road, on the Airport. The Proposed Project does not intend to eliminate or impede the function of the secured gate at this location. Therefore, no impacts to offsite land uses are anticipated at this location. However, Minimization Measure (MN) LU-1 is recommended to ensure as development occurs in this location that full access between the gate and Perimeter Road is maintained.*

The following text is added to the Impact Analysis for Alternative 1 on page 4.6-45:

*Similar to the Proposed Project, Alternative 1 identifies T-hangars located north of the Limited Service Southwest FBO in proximity to the secured gate used for the pass through of cargo and other items to the Airport. Alternative 1 does not intend to eliminate or impede the function of the secured gate at this location. Therefore, no impacts to offsite land uses are anticipated at this location. MN LU-1 is recommended to ensure as development occurs in this location that full access between the gate and Perimeter Road is maintained.*

The following text is added to Section 4.6.9, Mitigation Program on page 4.6-52:

*As noted above, the GAIP does not intend to eliminate or impede the function of the secured gate located on the west side of the Airport. Although no significant impacts have been identified, MN LU-1 is recommended to ensure that during the development review process the design of the facilities adjacent to 3000 Airway Avenue maintains access between the secured gate and Perimeter Road, located on the Airport.*

*MN LU-1 In conjunction with the review of development construction plans for facilities adjacent to 3000 Airway Avenue, Costa Mesa, California, the applicant shall ensure, and the JWA Deputy Airport Director, Facilities, or designee, shall verify, that secured gate access used to facilitate the movement of cargo and other items into and out of the Airport is maintained for an adequate connection to Perimeter Road. The precise location and configuration of the gate may be modified within this parcel but the function of the gate shall not be compromised.*

## Section 4.9 Tribal Cultural Resources

The following revision has been made to the Tribal Cultural Resources Mitigation Program on page 4.9-10:

**MN TCR-1 Tribal Cultural Resources Observation and Salvage.** Prior to the issuance of any grading permit in which native soil is disturbed, the applicant shall provide written evidence to the Manager, Permit Services, that a Native American monitor has been retained to observe grading activities in native sediment and to salvage and catalogue tribal cultural resources as

necessary. The Native American monitor, *which shall be a representative of a tribe with ancestral connection to the land*, shall be present at the pre-grade conference, shall establish procedures for tribal cultural resource surveillance, and shall establish, in cooperation with the County, procedures for temporarily halting or redirecting work to permit the sampling, identification, and evaluation of the tribal cultural resource as appropriate. If the tribal cultural resources are found to be significant, the Native American observer shall determine appropriate actions, in cooperation with the County for exploration and/or salvage.

## Section 5.0 Alternatives

The following revisions have been made to Table 5-22 on page 5-48:

**TABLE 5-22**  
**EMISSIONS INCREASES BETWEEN BASELINE AND THE NO PROJECT ALTERNATIVE**  
**FOR GENERAL AVIATION OPERATIONS (2026)**

Source	Daily Emissions (pounds per day)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Net No Project Emissions	<del>244.1</del> 189.9	<del>48.3</del> 31.1	<del>39.3</del> 33.2	<del>7.3</del> 5.2	<del>1.3</del> 1.1	<del>1.3</del> 1.1
SCAQMD Mass Daily Significance Threshold	550	55	55	150	150	55
SCAQMD Localized Significance Threshold	3,888	N/A	223	N/A	21	9
<b>Exceedance of the SCAQMD Significant Threshold</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>
Numbers may not sum to subtotals as shown, due to rounding.						
Source: Landrum & Brown 2018						

## Section 6.4 Energy Analysis

Tables 6-2 and 6-3 (Construction Energy Consumption for the Proposed Project and Alternative 1 respectively) have been revised to reflect the corrected data for vehicle miles traveled during construction. The original data is not shown in strike-out format to maintain the readability of the tables. These tables are hereby replaced with the following tables.

**TABLE 6-2**  
**PROPOSED PROJECT CONSTRUCTION ENERGY CONSUMPTION**

Source	HP (hours)	VTM	Diesel Fuel (gallons)	Gasoline (gallons)	MWh
Off-road Construction Equipment	89,976		4,499		
Worker commute		31,252		1,530	
Vendors		4,858	852		
On-road haul		174,280	30,575		
Water - dust control					3,188
<b>Totals</b>	<b>89,976</b>	<b>210,390</b>	<b>35,926</b>	<b>1,530</b>	<b>3,188</b>
HP: horsepower; VMT: vehicle miles traveled; MWh: megawatt hours					
Source: <i>Revised using</i> CalEEMod output (from <i>Air Quality Technical Report</i> , Landrum & Brown 2018)					

**TABLE 6-3**  
**ALTERNATIVE 1 CONSTRUCTION ENERGY CONSUMPTION**

Source	HP (hours)	VTM	Diesel Fuel (gallons)	Gasoline (gallons)	MWh
Off-road Construction Equipment	93,301		4,665		
Worker commute		37,514		1,837	
Vendors		4,782	839		
On-road haul		188,620	33,091		
Water - dust control					3,149
<b>Totals</b>	<b>93,301</b>	<b>230,916</b>	<b>38,595</b>	<b>1,837</b>	<b>3,149</b>
HP: horsepower; VMT: vehicle miles traveled; MWh: megawatt hours					
Source: <i>Revised using</i> CalEEMod output (from <i>Air Quality Technical Report</i> , Landrum & Brown 2018)					







## 4.1.2 TECHNICAL APPENDICES

### Appendix E, Air Quality Technical Report

Tables have been revised to reflect corrected emissions data. The original data is not shown in strike-out format to maintain the readability of the tables.

The following revisions have been made to Table 9 on page 26:

**Table 9 Emissions Inventory – Existing (2016) Conditions**

SOURCE	DAILY EMISSIONS (POUNDS PER DAY)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Aircraft	5,239.9	492.2	2,274.0	234.8	23.3	23.3
GSE	890.6	32.3	111.1	4.7	5.0	4.8
APU	87.1	6.0	97.5	13.9	11.3	11.3
<b>Total</b>	<b>6,217.6</b>	<b>530.5</b>	<b>2,482.6</b>	<b>253.3</b>	<b>39.6</b>	<b>39.4</b>

Note: APU and GSE usage is largely limited to commercial aircraft

Source: AEDT version 2d, Landrum & Brown analysis, 2018.

The following revisions have been made to Table 17 on page 42:

**Table 17 Emissions Inventory – Existing Plus No Project**

SOURCE	DAILY EMISSIONS (POUNDS PER DAY)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Aircraft	5,423.4	523.1	2,305.1	239.7	24.1	24.1
GSE	892.2	32.4	111.8	4.7	5.1	4.8
APU	91.9	6.1	98.9	14.1	11.4	11.4
<b>Total</b>	<b>6,407.6</b>	<b>561.7</b>	<b>2,515.8</b>	<b>258.5</b>	<b>40.7</b>	<b>40.4</b>

Note: APU and GSE usage is largely limited to commercial aircraft

Source: AEDT version 2d, Landrum & Brown analysis, 2018.

The following revisions have been made to Table 20 on page 45:

**Table 20 Emissions Inventory – Existing Plus Proposed Project**

SOURCE	DAILY EMISSIONS (POUNDS PER DAY)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Aircraft	4,872.9	525.4	2,313.5	240.7	24.0	24.0
GSE	885.5	32.0	109.0	4.7	4.9	4.7
APU	93.5	6.2	99.3	14.1	11.5	11.5
<b>Total</b>	<b>5,851.9</b>	<b>563.6</b>	<b>2,521.8</b>	<b>259.5</b>	<b>40.5</b>	<b>40.2</b>

Note: APU and GSE usage is largely limited to commercial aircraft

Source: AEDT version 2d, Landrum & Brown analysis, 2018.

The following revisions have been made to Table 23 on page 48:

**Table 23 Emissions Inventory – Existing Plus Alternative 1**

SOURCE	DAILY EMISSIONS (POUNDS PER DAY)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Aircraft	4,891.9	529.6	2,316.6	241.2	24.1	24.1
GSE	885.7	32.0	109.1	4.7	4.9	4.7
APU	94.2	6.2	99.5	14.2	11.5	11.5
<b>Total</b>	<b>5,871.8</b>	<b>567.8</b>	<b>2,525.2</b>	<b>260.1</b>	<b>40.5</b>	<b>40.3</b>

Note: APU and GSE usage is largely limited to commercial aircraft

Source: AEDT version 2d, Landrum & Brown analysis, 2018.

The following revisions have been made to Table 24 on page 49:

**Table 24 Total Daily Operational Emissions – Existing and Existing Plus Scenarios**

SCENARIOS	TOTAL DAILY EMISSIONS (POUNDS PER DAY)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Existing (2016) Conditions	6,217.6	530.5	2,482.6	253.3	39.6	39.4
Existing plus No Project	6,407.6	561.7	2,515.8	258.5	40.7	40.4
Existing plus Proposed Project	5,851.9	563.6	2,521.8	259.5	40.5	40.2
Existing plus Alternative 1	5,871.8	567.8	2,525.2	260.1	40.5	40.3

Note: APU and GSE usage is largely limited to commercial aircraft

Source: AEDT version 2d, Landrum & Brown analysis, 2018.

The following revisions have been made to Table 25 on page 50:

**Table 25 Daily Net Impact of Operational Emissions – Existing Plus Alternative Scenarios Compared to Existing (2016) Conditions**

SCENARIOS	DAILY OPERATIONAL EMISSIONS					
	(LBS PER DAY)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Significance Threshold</b>	<b>550</b>	<b>55</b>	<b>55</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Localized Significance Threshold</b>	<b>3,888</b>	<b>N/A</b>	<b>223</b>	<b>N/A</b>	<b>21</b>	<b>9</b>
Existing plus No Project Net Impact Operational Emissions	190.0	31.1	33.2	5.2	1.1	1.1
Existing plus Proposed Project Net Impact Operational Emissions	-365.6	33.0	39.2	6.3	0.9	0.8
Existing plus Alternative 1 Net Impact Operational Emissions	-345.8	37.2	42.6	6.8	0.9	0.9
<b>Existing plus No Project Exceed Significance Threshold?</b>	NO	NO	NO	NO	NO	NO
<b>Existing plus Proposed Project Exceed Significance Threshold?</b>	NO	NO	NO	NO	NO	NO
<b>Existing plus Alternative 1 Exceed Significance Threshold?</b>	NO	NO	NO	NO	NO	NO

Note: Numbers may not sum to subtotals as shown, due to rounding. SCAQMD threshold exceedances are in bold.

Source: AEDT ver. 2d, Landrum & Brown analysis, 2018.

The following revisions have been made to Table 26 on page 53:

**Table 26 Net Operational Emissions Comparison – 2014 Settlement Agreement Amendment and the Existing Plus Proposed Project and Existing Plus Alternative 1 Scenarios**

SCENARIOS	DAILY EMISSIONS (POUNDS PER DAY)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
2014 Settlement Agreement Amendment Emissions <sup>a</sup>	-5,343	111	758	78	164	43
Existing Plus Proposed Project Net Operational Emissions	-365.6	33.0	39.2	6.3	0.8	0.8
<b>GAIP Emissions as a Percentage of the 2014 Settlement Agreement Amendment Emissions</b>	<b>6.8%<sup>b</sup></b>	<b>29.7%</b>	<b>5.2%</b>	<b>8.1%</b>	<b>0.5%</b>	<b>1.9%</b>
Existing Plus Alternative 1 Net Operational Emissions	-345.8	37.2	42.6	6.8	0.9	0.9
<b>GAIP Emissions as a Percentage of the 2014 Settlement Agreement Amendment Emissions</b>	<b>6.5%<sup>b</sup></b>	<b>33.5%</b>	<b>5.6%</b>	<b>8.7%</b>	<b>0.5%</b>	<b>2.1%</b>
<sup>a</sup> Data presented in Table 4.1-8 of Final EIR 617. Values reflect Phase 3 emissions, which represent the highest values.						
<sup>b</sup> Both the 2014 Settlement Agreement Amendment and the Proposed Project would reduce CO emissions.						

Source: Landrum & Brown, 2018 for the Existing Plus scenario data; Final EIR 617 for the 2014 Settlement Agreement Amendment data.

The following revisions have been made to Table 27 on page 54:

**Table 27 Emissions Inventory – General Aviation Only Existing (2016) Conditions**

SOURCE	DAILY EMISSIONS (POUNDS PER DAY)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Aircraft	3,187.6	181.4	164.0	27.2	6.1	6.1
GSE	39.2	2.5	16.5	0.1	1.0	0.9
APU	23.2	0.6	6.8	1.1	0.9	0.9
<b>Total</b>	<b>3,250.0</b>	<b>184.5</b>	<b>187.3</b>	<b>28.4</b>	<b>7.9</b>	<b>7.9</b>

Note: Numbers may not sum to subtotals as shown, due to rounding.

Source: AEDT version 2d, Landrum & Brown analysis, 2018.

The following revisions have been made to Table 28 on page 54:

**Table 28 Emissions Inventory – No Project General Aviation Only (2026)**

SOURCE	DAILY EMISSIONS (POUNDS PER DAY)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Aircraft	3,371.1	212.3	195.1	32.2	6.9	6.9
GSE	40.8	2.6	17.2	0.1	1.0	1.0
APU	28.0	0.7	8.2	1.3	1.1	1.1
<b>Total</b>	<b>3,439.9</b>	<b>215.6</b>	<b>220.5</b>	<b>33.6</b>	<b>9.0</b>	<b>9.0</b>

Note: Numbers may not sum to subtotals as shown, due to rounding.

Source: AEDT version 2d, Landrum & Brown analysis, 2018.

The following revisions have been made to Table 29 on page 55:

**Table 29 Emissions Inventory – Proposed Project General Aviation Only (2026)**

SOURCE	DAILY EMISSIONS (POUNDS PER DAY)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Aircraft	2,820.6	214.6	203.5	33.2	6.8	6.8
GSE	34.1	2.2	14.4	0.1	0.8	0.8
APU	29.5	0.7	8.6	1.3	1.1	1.1
<b>Total</b>	<b>2,884.3</b>	<b>217.5</b>	<b>226.5</b>	<b>34.6</b>	<b>8.7</b>	<b>8.7</b>

Note: Numbers may not sum to subtotals as shown, due to rounding.

Source: AEDT version 2d, Landrum & Brown analysis, 2018.

The following revisions have been made to Table 30 on page 55:

**Table 30 Emissions Inventory – Alternative 1 General Aviation Only (2026)**

SOURCE	DAILY EMISSIONS (POUNDS PER DAY)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Aircraft	2,839.6	218.8	206.6	33.7	6.8	6.8
GSE	34.3	2.2	14.5	0.1	0.8	0.8
APU	30.3	0.7	8.9	1.4	1.2	1.2
<b>Total</b>	<b>2,904.2</b>	<b>221.7</b>	<b>229.9</b>	<b>35.2</b>	<b>8.8</b>	<b>8.8</b>

Note: Numbers may not sum to subtotals as shown, due to rounding.

Source: AEDT version 2d, Landrum & Brown analysis, 2018.

The following revisions have been made to Table 31 on page 56:

**Table 31 Daily Net Impact of Operational Emissions - Existing Condition (2016) General Aviation Only Compared to the General Aviation Only (2026) Scenarios**

SCENARIOS	TOTAL DAILY EMISSIONS (POUNDS PER DAY)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Significance Threshold</b>	<b>550</b>	<b>55</b>	<b>55</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Localized Significance Threshold</b>	<b>3,888</b>	<b>N/A</b>	<b>223</b>	<b>N/A</b>	<b>21</b>	<b>9</b>
Existing (2016) Conditions General Aviation Only Total	3,250.0	184.5	187.3	28.4	7.9	7.9
No Project General Aviation Only Total	3,439.9	215.6	220.5	33.6	9.0	9.0
Proposed Project General Aviation Only Total	2,884.3	217.5	226.5	34.6	8.7	8.7
Alternative 1 General Aviation Only Total	2,904.2	221.7	229.9	35.2	8.8	8.8
<b>No Project General Aviation Only Net Impact Operational Emissions:</b>	189.9	31.1	33.2	5.2	1.1	1.1
<b>Proposed Project General Aviation Only Net Impact Operational Emissions:</b>	-365.7	33.0	39.2	6.3	0.8	0.8
<b>Alternative 1 General Aviation Only Net Impact Operational Emissions:</b>	-345.8	37.2	42.6	6.8	0.9	0.9
<b>No Project General Aviation Only Exceed Significance Threshold?</b>	NO	NO	NO	NO	NO	NO
<b>Proposed Project General Aviation Only Exceed Significance Threshold?</b>	NO	NO	NO	NO	NO	NO
<b>Alternative 1 General Aviation Only Exceed Significance Threshold?</b>	NO	NO	NO	NO	NO	NO

Note: Numbers may not sum to subtotals as shown, due to rounding.

Source: AEDT ver. 2d, CalEEMod, Landrum & Brown analysis, 2018.

The following revisions have been made to Table 33 on page 60:

**Table 33 Daily Net Impact of Operational Emissions - Existing (2016) Condition compared to the Minimized Existing Plus Scenarios**

SCENARIOS	TOTAL DAILY EMISSIONS (POUNDS PER DAY)					
	CO	VOC	NO <sub>x</sub>	SO <sub>x</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
<b>Significance Threshold</b>	<b>550</b>	<b>55</b>	<b>55</b>	<b>150</b>	<b>150</b>	<b>55</b>
<b>Localized Significance Threshold</b>	<b>3,888</b>	<b>N/A</b>	<b>223</b>	<b>N/A</b>	<b>21</b>	<b>9</b>
Existing (2016) Conditions General Aviation Only Total	6,217.6	530.5	2,482.6	253.3	39.6	39.4
No Project General Aviation Only Total	6,370.8	559.3	2,500.3	258.4	39.8	39.5
Proposed Project General Aviation Only Total	5,821.2	561.6	2,508.8	259.5	39.7	39.4
Alternative 1 General Aviation Only Total	5,840.9	565.8	2,512.2	260.0	39.7	39.5
<b>No Project General Aviation Only Net Impact Operational Emissions:</b>	153.2	28.8	17.7	5.1	0.2	0.2
<b>Proposed Project General Aviation Only Net Impact Operational Emissions:</b>	-396.3	31.1	26.2	6.2	0.1	0.1
<b>Alternative 1 General Aviation Only Net Impact Operational Emissions:</b>	-376.6	35.3	29.6	6.7	0.1	0.2
<b>No Project General Aviation Only Exceed Significance Threshold?</b>	NO	NO	NO	NO	NO	NO
<b>Proposed Project General Aviation Only Exceed Significance Threshold?</b>	NO	NO	NO	NO	NO	NO
<b>Alternative 1 General Aviation Only Exceed Significance Threshold?</b>	NO	NO	NO	NO	NO	NO

Note: Numbers may not sum to subtotals as shown, due to rounding.

Source: AEDT ver. 2d, CalEEMod, Landrum & Brown analysis, 2018.

## **Attachment A**

### **Health Risk Assessment Technical Report**



Prepared for  
**John Wayne Airport**  
**Orange County, California**

Prepared by  
**Ramboll US Corporation**  
**Irvine, CA**

Project Number  
**1690011174**

Date  
**March 2019**

# **HEALTH RISK ASSESSMENT TECHNICAL REPORT**

## **JOHN WAYNE AIRPORT ORANGE COUNTY, CALIFORNIA**

## CONTENTS

	Page
<b>1. INTRODUCTION</b>	<b>3</b>
1.1 Proposed Project	3
1.2 Alternative 1	3
<b>2. EMISSIONS ESTIMATION</b>	<b>4</b>
2.1 Aircraft	4
2.2 Auxiliary Power Units	5
2.3 Ground Support Equipment	5
2.4 Aviation Gas Storage Tank	5
<b>3. AIR DISPERSION MODELING METHODOLOGY</b>	<b>7</b>
3.1 Model Selection	7
3.2 Source Characterization	8
3.2.1 Source Parameters	8
3.2.2 Temporal Factors	9
3.2.3 Emission Rates	9
3.3 Meteorology	9
3.4 Land Use and Terrain Data	10
3.5 Receptors	10
3.5.1 Sensitive Receptors	11
<b>4. HEALTH RISK ASSESSMENT</b>	<b>13</b>
4.1 Chemicals of Potential Concern	13
4.2 Exposure Assessment	13
4.2.1 Identification of Potentially Exposed Populations	13
4.2.2 Estimation of Exposure Point Concentrations	13
4.3 Dose Response Assessment	14
4.3.1 Toxicity Criteria	14
4.3.2 Exposure Pathways	14
4.3.3 Exposure Assumptions	15
4.4 Risk Characterization Methodology	15
<b>5. RISK CHARACTERIZATION RESULTS</b>	<b>17</b>
5.1 Project Impacts	17
<b>6. UNCERTAINTIES</b>	<b>18</b>

## TABLES

Table 2.2-1	VOC and PM <sub>2.5</sub> Emissions from Auxiliary Power Units
Table 2.3-2	PM <sub>10</sub> Emissions from Diesel-Fueled Ground Support Equipment
Table 2.4-3	VOC Emissions from the Aviation Gas Storage Tank
Table 3.2-1	Source Group Descriptions
Table 3.2-2	AERMOD Source Parameters for Area Sources
Table 3.2-3	AERMOD Source Parameters for Volume Sources
Table 3.2-4	AERMOD Source Parameters for Point Sources
Table 3.2-5	Hourly Operational Profiles
Table 3.5-1	Sensitive Receptor Locations
Table 4.1-1	Speciation Profiles for Chemicals of Potential Concern

Table 4.1-2	Lead Emissions from Aviation Gasoline Exhaust
Table 4.4-1	Health Risk Assessment Options used in HARP2 ADMRT Tool
Table 5.1-1	Health Risk Assessment Results
Table A-1	VOC and PM <sub>2.5</sub> Emissions from Aircraft (Baseline)
Table A-2	VOC and PM <sub>2.5</sub> Emissions from Aircraft (Proposed Project)
Table A-3	VOC and PM <sub>2.5</sub> Emissions from Aircraft (Alternative 1)
Table C-1	Emission Rates for Speciated COPC (Baseline)
Table C-2	Emission Rates for Speciated COPC (Baseline)
Table C-3	Emission Rates for Speciated COPC (Proposed Project)
Table E-1	Health Risk Assessment Results for All Receptors

## FIGURES

Figure 3.2-1:	Location of On-Site Emission Sources
Figure 3.2-2:	Location of Flight Path Emission Sources
Figure 3.3-1:	Wind Rose for KSNA Meteorological Station
Figure 3.5-1:	Receptor Locations
Figure 5.1-1:	Maximum Impacted Receptors (Proposed Project)
Figure 5.1-2:	Maximum Impacted Receptors (Alternative 1)

## APPENDICES

Appendix A:	Aircraft Emissions
Appendix B:	Air Dispersion Model Files (Electronic)
Appendix C:	Speciated Chemicals of Potential Concern
Appendix D:	HARP2 Model Files (Electronic)
Appendix E:	Health Risk Assessment Results

## ACRONYMS AND ABBREVIATIONS

Acronym	Definition
$\mu\text{g}/\text{m}^3$	microgram/cubic meter
ADMRT	Air Dispersion Modeling Risk Tool
AEDT	Aviation Environmental Design Tool
AERMIC	American Meteorological Society/Environmental Protection Regulatory Model Improvement Committee
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
AMS/EPA	American Meteorological Society/Environmental Protection
APU	auxiliary power unit
ASF	age-sensitivity factor
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
COPC	chemicals of potential concern
DPM	diesel particulate matter
EIR	Environmental Impact Report
EPA	Environmental Protection Agency
FBO	fixed-base operator
GA	general aviation
GAIP	General Aviation Improvement Program
GLC	ground-level concentration
GSE	ground support equipment
HARP2	Hotspots Analysis and Reporting Program
HI	hazard index
HIA	acute hazard index
HIC	chronic hazard index
HRA	health risk assessment
JWA	John Wayne Airport
K-12	Kindergarten to 12 <sup>th</sup> grade
KSNA	John Wayne International Airport Meteorological Station
LTO	landing and take-off
NED	National Elevation Dataset
OEHHA	Office of Environmental Health Hazard Assessment
PM	particulate matter
PM <sub>10</sub>	particulate matter smaller than 10 microns in diameter
PM <sub>2.5</sub>	Particulate matter smaller than 2.5 microns in diameter
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
TAC	toxic air contaminant
USEPA	United States Environmental Protection Agency
USGS	United States Geologic Survey
VOC	volatile organic compound

## EXECUTIVE SUMMARY

The purpose of this Health Risk Assessment Technical Report is to provide supporting documentation for the Environmental Impact Report (EIR) being prepared for the General Aviation Improvement Program (GAIP) project proposed for John Wayne Airport (JWA or Airport). This technical report identifies and assesses the potential health risk impacts that would result from the operation of the Proposed Project and Alternative 1. This report analyzes the incremental health risk impacts of the Proposed Project and Alternative 1 when measured against the Existing (Baseline) Conditions.

The Proposed Project includes a Full-Service West Fixed-Base Operator (FBO) and a Full-Service East FBO, for a total of two full-service FBOs. These two full-service FBOs would replace the two existing FBOs. The total aircraft storage capacity under the Proposed Project would be approximately 354 based aircraft. When compared to Baseline Conditions, the Proposed Project reduces aircraft storage capacity by approximately 242 spaces (nearly 41 percent) and would accommodate 128 fewer (nearly 27 percent) general aviation aircraft than currently using the Airport. Refer to Section 3.0, Project Description, of the EIR for a complete description of the Proposed Project.

Alternative 1 proposes a Full-Service West FBO, a Full-Service Northeast FBO, and a Full-Service Southeast FBO, for a total of three full-service FBOs. The three full-service FBOs would replace the two existing FBOs. The total aircraft storage capacity under Alternative 1 would be approximately 356 based aircraft. When compared to Baseline Conditions, Alternative 1 reduces aircraft storage capacity by approximately 240 spaces (about 40 percent) and would accommodate 126 fewer (about 26 percent) general aviation aircraft than currently using the Airport. Refer to Section 3.0, Project Description, of the EIR for a complete description of Alternative 1.

This technical report considers the general aviation aircraft operations and fleet mix attributes developed for JWA in the constrained aviation forecasts as presented in the EIR. The use of on-road vehicles is not anticipated to increase by more than one percent with the Proposed Project or Alternative 1. Therefore, emission sources related to the change in general aviation aircraft operations and fleet mix were evaluated, which include aircraft operations, auxiliary power unit (APU) usage, and ground support equipment (GSE) usage. Emissions for aircraft operations, APUs, and GSE were based on assumptions as included in the GAIP EIR for the Baseline Conditions, Proposed Project and Alternative 1. In addition, the Project will include a new aviation gas (avgas) storage tank that is considered in this technical report. Emissions from volatile organic compounds (VOCs) and particulate matter smaller than 2.5 microns in diameter (PM<sub>2.5</sub>) from the above sources were further speciated into toxic air contaminants (TACs) based on published speciation profiles.

This analysis uses the American Meteorological Society/Environmental Protection Agency Regulatory Model Improvement Committee Model (AERMOD) to estimate dispersion factors resulting from emissions from aircraft, APU, GSE, and the avgas tank at nearby receptors. Sources were placed at ground locations where equipment would operate (i.e., hangars, aprons, taxiways, and runways), as well as at the airborne portions of the flight paths. Receptors include a receptor grid prepared following South Coast Air Quality Management District (SCAQMD) guidance,<sup>1</sup> as well as discrete receptors placed at sensitive locations within 1,000 meters of the Project. Sensitive receptors include residential areas, long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, child care centers, and athletic facilities. Both

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<sup>1</sup> SCAQMD. 2018. SCAQMD Modeling Guidance for AERMOD. Available at: <https://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/modeling-guidance>. Accessed: January 2019.

current and future sensitive receptors are included in this analysis. This includes planned residential developments, such as the Koll Center Residences project.

The AERMOD dispersion factors and TAC emissions were combined using the California Air Resources Board's (CARB) HARP2 Air Dispersion and Modeling Risk Tool to calculate ground-level TAC concentrations and resulting health risk impacts. HARP2 incorporates current health risk assessment (HRA) guidance provided by the California Office of Environmental Health Hazard Assessment (OEHHA)<sup>2</sup> and the SCAQMD. This includes the latest toxicity values and exposure pathways for the TACs.

Lifetime cancer risk, chronic hazard index (HIC), and acute hazard index (HIA) were calculated at each receptor for the Proposed Project and Alternative 1 as compared to the Baseline Conditions. The exposure parameters used to estimate excess lifetime cancer risks (over a lifetime of 70 years) for all potentially exposed populations were obtained using risk assessment guidelines from OEHHA. For residential exposure, the total exposure duration analyzed is 30 years, in accordance with OEHHA guidance default assumptions, and begins in the third trimester to accommodate the increased susceptibility of exposures in early life. These exposure assumptions, designed to be protective of children younger than age 16, are assumed to be adequately protective of residents older than 30 years of age, including the elderly. For worker exposure, the total exposure duration analyzed is 25 years.

The incremental health risk results of this HRA were compared to SCAQMD thresholds of 10 in one million for cancer risk, and 1.0 for HIC and HIA.<sup>3</sup> The maximum cancer risk for the Proposed Project is 0.27, at a worker receptor on the northern fence line of JWA. The maximum cancer risk for Alternative 1 is 0.41, which is at the same location. Sensitive and residential receptor cancer risks are improved as compared to Existing Conditions for both the Proposed Project and Alternative 1 (i.e., cancer risk is lower). The maximum HIC and HIA are less than 1.0 for both the Proposed Project and Alternative 1 at all receptors. Therefore, the Proposed Project and Alternative 1 have a less-than-significant impact related to health risks.

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<sup>2</sup> OEHHA. 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. February. Available online at [http://oehha.ca.gov/air/hot\\_spots/hotspots2015.html](http://oehha.ca.gov/air/hot_spots/hotspots2015.html). Accessed: January 2019.

<sup>3</sup> SCAQMD. 2015. Air Quality Significance Thresholds. March. Available at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>. Accessed: January 2019.

## 1. INTRODUCTION

The purpose of this Health Risk Assessment Technical Report is to provide supporting documentation for the Environmental Impact Report (EIR) being prepared for the General Aviation Improvement Program (GAIP) project proposed for John Wayne Airport (JWA or Airport). This technical report identifies and assesses the potential health risk impacts that would result from the operation of the Proposed Project and Alternative 1. This report analyzes the incremental health risk impacts of the Proposed Project and Alternative 1 when measured against the Existing (Baseline) Conditions.

### 1.1 Proposed Project

The Proposed Project includes a Full-Service West Fixed-Base Operator (FBO) and a Full-Service East FBO, for a total of two full-service FBOs. These two full-service FBOs would replace the two existing FBOs. The total aircraft storage capacity under the Proposed Project would be approximately 354 based aircraft. When compared to Baseline Conditions, the Proposed Project reduces aircraft storage capacity by approximately 242 spaces (nearly 41 percent) and would accommodate 128 fewer (nearly 27 percent) general aviation aircraft than currently using the Airport. Refer to Section 3.0, Project Description, of the EIR for a complete description of the Proposed Project.

### 1.2 Alternative 1

Alternative 1 proposes a Full-Service West FBO, a Full-Service Northeast FBO, and a Full-Service Southeast FBO, for a total of three full-service FBOs. The three full-service FBOs would replace the two existing FBOs. The total aircraft storage capacity under Alternative 1 would be approximately 356 based aircraft. When compared to Baseline Conditions, Alternative 1 reduces aircraft storage capacity by approximately 240 spaces (about 40 percent) and would accommodate 126 fewer (about 26 percent) general aviation aircraft than currently using the Airport. Refer to Section 3.0, Project Description, of the EIR for a complete description of the Alternative 1.

Alternative 1 would replace approximately 134,000 square feet of existing, aging facilities with approximately 110,000 square feet new and more efficient facilities that comply with Title 24, Part 6 and Title 24, Part 11 of the California Code of Regulations. Development associated with Alternative 1 would need to comply with then applicable standards and, as the building standards generally are updated every three years, subsequent, more energy efficient standards may apply.

## 2. EMISSIONS ESTIMATION

This technical report evaluates health risk impacts associated with toxic air contaminants (TAC) emitted by the aircraft, ground support equipment (GSE), and auxiliary power units (APU) associated with the Project. Additionally, emissions from the proposed aviation gas (avgas) storage tank were estimated. This analysis evaluates the changes between the Existing (Baseline) Conditions and the Future (Proposed Project and Alternative 1) Conditions.

This technical report specifically considers the general aviation aircraft operations and fleet mix attributes developed for JWA in the constrained aviation forecasts as presented in the EIR. Therefore, emission sources related to the change in general aviation aircraft operations and fleet mix were evaluated, which include aircraft operations, auxiliary power unit (APU) usage, and ground support equipment (GSE) usage. The contribution of emissions from building energy usage (e.g., natural gas) is assumed to contribute minimally to the health risk and is not specifically modeled. The Proposed Project and Alternative 1 are not anticipated to increase the number of average daily trips or trip lengths, or the quantity of vehicle miles traveled by users of the Project's general aviation facilities and amenities; therefore, these emissions also are not included in this analysis.

### 2.1 Aircraft

The types of aircraft considered in this analysis include business jets, commuter propeller aircraft (commuter props), general aviation propeller aircraft (GA props), and helicopters. Emissions for aircraft were estimated by type of aircraft, runway use, flight track use, and taxi time using the Aviation Environmental Design Tool (AEDT). Baseline flight tracks and taxi time were assumed to remain the same for the Proposed Project and Alternative 1 modeling as any changes that could be made in the future would be speculative. Emissions from business jet engine startup were also estimated using AEDT. Details on aircraft emission calculations can be found in Appendix E of the EIR.

TAC emissions from aircraft are based on speciation profiles for volatile organic compounds (VOCs) and particulate matter smaller than 2.5 microns in diameter (PM<sub>2.5</sub>) for the aircraft fuel type. Business jets and commuter props are assumed to use Jet-A fuel, while GA props and helicopters use avgas.

Lead emissions from avgas are based on fuel consumption. The avgas lead content is assumed to be 2.12 grams per gallon (based on the ASTM standard for 100LL fuel), and 5% of lead is assumed to be retained in the engine, engine oil and/or exhaust system following US EPA methodology.<sup>4</sup> As fuel consumption by flight path segment was not available, lead emissions were allocated to each flight segment based on a percentage of oxides of sulfur (SO<sub>x</sub>) emissions, which directly correlates with fuel consumption.<sup>5</sup>

Annual VOC, PM<sub>2.5</sub>, and SO<sub>x</sub> emissions by aircraft type and flight path segment were based on assumptions as included in the GAIP EIR and are presented in **Appendix A**. Hourly emissions were back-calculated from the annual emissions and anticipated diurnal aircraft

<sup>4</sup> US EPA, 2013. Calculating Piston-Engine Aircraft Airport Inventories for Lead for the 2011 National Emissions Inventory. EPA-420-B-13-040. Available at: <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100LFGL.PDF?Dockey=P100LFGL.PDF>. Accessed: January 2019

<sup>5</sup> FAA. 2017. Aviation Environmental Design Tool Technical Manual Version 2d. September. Available at: [https://aedt.faa.gov/documents/aedt2d\\_techmanual.pdf](https://aedt.faa.gov/documents/aedt2d_techmanual.pdf). Accessed: January 2019.



operation patterns were accounted for through the use of temporal factors in AERMOD (**Section 3.2.2**).

## 2.2 Auxiliary Power Units

APUs are used by commercial jet aircraft (GA props do not have APUs) to operate the heating, air conditioning, and electric systems when main engines are shut off. APUs are also used during engine startup. APU emissions were modeled based on aircraft operations. Details on APU emission calculations can be found in Appendix E of the EIR.

APUs are powered by the same fuel as the aircraft. Therefore, TAC emissions from APUs are based on speciation profiles for VOC and PM<sub>2.5</sub> for jet fuel. VOC and PM<sub>2.5</sub> emissions from APUs were based on assumptions as included in the GAIP EIR and are presented in **Table 2.2-1**. Hourly maximum emissions were estimated based on the AEDT default APU use duration of 13 minutes per operation and the number of departure operations per day.

## 2.3 Ground Support Equipment

GSE include air conditioning, air start, baggage tractors, belt loaders, emergency vehicles, and other equipment that support aircraft operations. GSE emissions were estimated based on GSE fuel type and annual operating hours. Details on GSE emission calculations can be found in Appendix E of the EIR.

GSE are powered by a combination of diesel, electric, gasoline, and propane fuels. As activity from diesel-fueled equipment accounts for approximately 95% of the off-road equipment activity and contributions from propane and gasoline TAC would be small, the TAC emissions from GSE are assumed to consist of diesel particulate matter (DPM). Particulate matter smaller than 10 microns in diameter (PM<sub>10</sub>) from diesel-powered equipment is used as a surrogate for DPM. PM<sub>10</sub> emissions from GSE were based on assumptions as included in the GAIP EIR and are presented in **Table 2.3-1**. Hourly maximum emissions were estimated based on the number of operating hours per day (**Appendix A**).

## 2.4 Aviation Gas Storage Tank

The Proposed Project incorporates provisions for the installation of a self-serve fueling station for avgas located on the west side of the Airport. The size of the fuel tank is expected to range in size from 5,000 to 20,000 gallons and be above ground. Avgas has a similar vapor pressure and composition to motor gasoline with the exception of a lead additive and a higher-octane rating.<sup>6</sup> Therefore emissions can be calculated using methods used for motor gasoline.<sup>7</sup> Emissions from fuel storage consist of loading, breathing, refueling, spillage, and hose permeation. These activities are defined below:

- Loading – emissions released through the tank vent pipe when a fuel tanker truck unloads fuel into the storage tank.
- Breathing – emissions released through the tank vent pipe as a result of temperature and pressure changes in the tank vapor space.

<sup>6</sup> Shell. 2018. Safety Data Sheet for AVGAS 100LL. Available at: <http://www.epc.shell.com/documentRetrieve.asp?documentId=131577295>. Accessed: January 2019.

<sup>7</sup> SDAPCD. 2008. Gasoline Storage and Dispensing. April. Available at: [https://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Toxics\\_Program/APCD\\_gasdisp1.pdf](https://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Toxics_Program/APCD_gasdisp1.pdf). Accessed: January 2019.

- Refueling – emissions released through the nozzle or on-board vapor recovery system during aircraft refueling.
- Hose Permeation – emissions that occur when liquid gasoline or gasoline vapors diffuse through the hose to the atmosphere.

Emissions from the storage tank loading, breathing, spillage, refueling, and hose permeation were estimated following California Air Resources Board (CARB) guidance for gasoline service stations.<sup>8, 9</sup> Emissions are calculated using emissions factors on a pound (lb) per 1,000 gallons basis and the total Project throughput. Since it is uncertain what the level of fuel throughput will be, it was conservatively assumed that all avgas for the Project is routed through the proposed storage tank. Emissions for the avgas tank are presented in **Table 2.4-1**. Tank loading and breathing emissions were assumed to occur 24 hours/day, 7 days/week, while refueling, hose permeation and spillage emissions were assumed to follow anticipated diurnal aircraft operation patterns and were accounted for through the use of temporal factors in AERMOD (**Section 3.2.2**).

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<sup>8</sup> CAPCOA. 1997. Gasoline Service Station Industrywide Risk Assessment Guidelines. November. Available at: <https://www.arb.ca.gov/ab2588/rrap-iwra/GasIwra.pdf>. Accessed: January 2019.

<sup>9</sup> CARB. 2013. Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities. December. Available at: <https://www.arb.ca.gov/vapor/gdf-emisfactor/gdf%20umbrella%20document%20-%202020%20nov%202013.pdf>. Accessed: January 2019.

### 3. AIR DISPERSION MODELING METHODOLOGY

Air dispersion modeling was performed to estimate the concentrations of TACs at receptors in the project vicinity. The following sections describe the methodology used for modeling, including model selection, source characterization, meteorological data, land use, and receptor placement

#### 3.1 Model Selection

The AMS/EPA Regulatory Model Improvement Committee (AERMIC) Model (AERMOD) (version 18081) was used to estimate concentrations of ambient air pollutants. AERMOD has been approved for use in various regulatory applications by the United States Environmental Protection Agency (USEPA), CARB, and South Coast Air Quality Management District (SCAQMD). AERMOD uses mathematical equations to simulate the movement and dispersion of air contaminants in the atmosphere. This model, which has been approved for use by USEPA, CARB, and SCAQMD, incorporates multiple variables in its algorithms including:

- Meteorological data representative of surface and upper air conditions;
- Local terrain data to account for elevation changes;
- Multiple receptor locations;
- Physical specification of emission sources including information such as:
  - Location;
  - Release height; and
  - Source dimensions.

For each receptor location, the model generates air concentrations (or air dispersion factors as unit emissions were modeled) that result from emissions from multiple sources.

The regulatory default option, urban dispersion characteristics, and PERIOD and 1-hour averaging times were selected based on the SCAQMD modeling recommendations.<sup>10</sup> Dispersion model averaging times are specified based on the averaging times of ambient air quality standards and the air quality significance thresholds established by the appropriate regulatory agencies. For the HRA, the PERIOD averaging time was used to evaluate chronic (long-term) health effects and the 1-hour averaging time was used to evaluate acute (short-term) health effects. Temporal factors were used to allocate emissions by hour of day based on the aircraft operation schedule. Emissions were modeled using the  $\chi/Q$  ("chi over cue") method, such that each source group had unit emission rates (i.e., a total of 1 gram per second [g/s]) and the model estimated dispersion factors (with units of microgram per cubic meter [ $\mu\text{g}/\text{m}^3$ ]/[g/s]). The model output was used in a post-processing calculation with actual emission rates to estimate the TAC concentrations at each receptor (see **Section 4.5** for additional information regarding receptors). This approach is conservative, since it assumes that maximum hourly emissions for all sources could occur at any hour, even though there is a low probability that the worst-case meteorological conditions would occur at the same time as when the maximum emissions from all sources would occur. The air dispersion model files are included electronically in **Appendix B**.

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<sup>10</sup> SCAQMD Modeling Guidance for AERMOD. Available at: <https://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/modeling-guidance>. Accessed: January 2019.

## 3.2 Source Characterization

This HRA evaluates the sources of emissions that change due to the Project and Alternative 1 (i.e., aircraft activity, APU activity, GSE activity, and avgas storage and dispensing). Aircraft emissions were modeled using area sources along the taxiways, runways, and flight paths, and volume sources for helipads. APU and GSE activity emissions were modeled using area sources covering the general aviation aprons and hangars. Avgas loading and breathing emissions were modeled as a point source while avgas refueling and spillage emissions were modeled as volume sources. **Figure 3.2-1** shows the locations of the on-site taxiways, runways, aprons and hangars, and proposed avgas tank location. **Figure 3.2-2** presents the locations of the flight paths. Each source was assigned to a source group, as indicated in **Table 3.1-1**.

### 3.2.1 Source Parameters

#### 3.2.1.1 Aircraft

Ramboll followed the AEDT Technical Manual for default guidance on aircraft landing and take-off (LTO) modeling.<sup>11</sup> The emission sources are placed along the aircraft's flight track to a point where the aircraft reaches the mixing height (3,000 ft). The altitude profile, which shows the altitude between 0 and 3,000 ft with the distance along the flight path, is based on the AEDT "STANDARD 1" profile for each aircraft category. The change of altitude between 0 and 1,000ft, and then 1,000 and 3,000ft, is assumed to be linear when setting up the sources, consistent with AEDT methodology.

The following aircraft mode emissions were modeled in AEDT:<sup>12</sup>

- **Startup:** Emissions associated with startup of jet engines. Startup emissions only exist for business jet departure operations. These emissions are modeled as *areapoly* sources covering the general aviation aprons and hangars.
- **Climb Taxi:** Taxi emissions when taking off. The climb taxi mode is attributed to the taxiway area, modeled as *areapoly* sources in AERMOD.
- **Climb Ground:** Includes emissions of the takeoff ground roll. These emissions are attributed to the runway, modeled as line-area sources in AERMOD. Since helicopters do not have a roll distance, the helicopter climb ground emissions are modeled as volume sources at the helipads.
- **Climb Below 1,000:** Emissions from the takeoff airborne flight segments below 1,000ft. These emissions are attributed to segment of the flight path below 1,000ft, modeled as line-area sources in AERMOD. Note, helicopter vertical profiles do not exceed 1,000 ft and Touch and Go vertical profiles do not exceed 900 ft.
- **Climb Below Mixing Height:** Emissions from the climb flight segments below the mixing height (3,000ft). These emissions are attributed to segment of the flight path between 1,000 and 3,000ft, modeled as line-area sources in AERMOD.

<sup>11</sup> FAA. 2017. Aviation Environmental Design Tool Technical Manual Version 2d. September. Available at: [https://aedt.faa.gov/documents/aedt2d\\_techmanual.pdf](https://aedt.faa.gov/documents/aedt2d_techmanual.pdf). Accessed: January 2019.

<sup>12</sup> FAA. 2017. Aviation Environmental Design Tool Version 2d User Guide. September. Available at: [https://aedt.faa.gov/Documents/AEDT2d\\_UserGuide.pdf](https://aedt.faa.gov/Documents/AEDT2d_UserGuide.pdf). Accessed: January 2019.

- **Climb Below 10,000:** Emissions from climb and departure cruise flight segments below 10,000-ft. These emissions are above mixing height and are not included in the HRA.
- **Above 10,000:** Emissions from the flight segments above 10,000-ft. These emissions are above mixing height and are not included in the HRA.
- **Descent Below 10,000, Descend Below Mixing Height, Descend Below 1,000, Descend Ground, and Descend Taxi:** The arrival modes which are reciprocal to the departure modes.

**Tables 3.2-2 and 3.2-3** provide a summary overview of the AERMOD source parameters utilized for aircraft in this analysis.

### 3.2.1.2 GSE and APU

Since the exact location of the GSE and APU use is unknown, GSE and APU were modeled as areapoly sources covering the general aviation aprons and hangars. Source parameters are summarized in **Table 3.2-2**.

### 3.2.1.3 Aviation Gas Storage Tank

Avgas loading and breathing emissions were modeled as a point source while avgas refueling and spillage emissions were modeled as volume sources, based on SCAQMD Guidance.<sup>13</sup> Source parameters were based on SCAQMD Guidance, modified for the dimensions of a typical GA Prop aircraft. Source parameters are summarized in **Tables 3.2-3 and 3.2-4**.

### 3.2.2 Temporal Factors

Temporal changes of emissions during the day are modeled using hourly operation profiles as scaling factors, as shown in **Table 3.2-5**. The aircraft hourly profiles are based on general aviation operations by time period (day, evening, and night) for each flight path. Daytime is defined as 7:00 AM to 7:00 PM, evening is defined as 7:00 PM to 10:00 PM, and nighttime is defined as 10:00 PM to 7:00 AM. Temporal variation for the GSE, APU, and avgas tank refueling and spillage were based on overall aircraft hourly profiles. Avgas tank loading and breathing was assumed to be steady across all hours of the day.

### 3.2.3 Emission Rates

The AERMOD run was set up using the X/Q ("chi over cue") method to obtain the dispersion factors, such that each source group had unit emission rates (i.e., a total of 1 gram per second [g/s]) and the model estimated dispersion factors (with units of microgram per cubic meter [ $\mu\text{g}/\text{m}^3$ ]/[g/s]). Source groups are defined in **Table 3.2-1**. The model output was imported into HARP2 to estimate ground-level TAC concentrations at each receptor.

## 3.3 Meteorology

SCAQMD provides AERMOD model-ready meteorological data sets for use in air quality and risk impact analyses in the South Coast Air Basin (SCAB). SCAQMD's John Wayne International Airport (KSNA) meteorological data set was selected to analyze the Project's impacts, based on that station's location at the Project Site and best representation of the facility's meteorological conditions (such as prevailing winds), terrain, and surrounding land

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<sup>13</sup> SCAQMD. 2017. Risk Assessment Procedures for Rules 1401, 1401.1 and 212 version 8.1. September. Available at: <http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12>. Accessed: January 2019.

use.<sup>14</sup> The SCAQMD meteorological data set is for January 1, 2012 to December 31, 2016.<sup>15</sup> The Miramar Marine Corps Air Station in San Diego was used as upper air meteorological station in this data set. **Figure 3.2-1** depicts the location of the meteorological station. The wind rose in **Figure 3.3-1** shows the distribution of wind speeds and directions, which directly affect the dispersion of the air emissions. The “petals” of the wind rose indicate the direction from which the wind blows from, and the colors represent the wind speed. The air dispersion model uses this data to evaluate how emissions are dispersed through the air.

### 3.4 Land Use and Terrain Data

The land uses in the Project vicinity include residential uses to the south and west and industrial uses surrounding the site. The closest residential land uses are located adjacent to the Project site along the southern and southwestern boundary. AERMOD offers the option of using either rural or urban dispersion characteristics. Selection of rural or urban dispersion characteristics is typically based on the predominant land use within a three-kilometer radius of the site. SCAQMD guidance recommends that the urban land use option be chosen for this area.<sup>16</sup>

Data specifying terrain elevations of sources and receptors are imported into the model. Elevations are based on National Elevation Datasets (NEDs) and consist of an array of regularly spaced points on a horizontal plane for which an elevation is specified. NEDs used in this analysis were obtained from the United States Geologic Survey (USGS).<sup>17</sup>

### 3.5 Receptors

The following receptors are included in the AERMOD mode per SCAQMD guidance.<sup>18</sup>

- Fence line receptors 25 meters (m) apart;
- Fine grid 25 m x 25 m up to 200 m from the fence line;
- Coarse grid 100 m x 100 m from 200 m to 1000 m from the fence line; and
- Sensitive receptors are gridded receptors in residential areas as well as discrete receptors, including long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, child care centers, and athletic facilities, within 1,000 m of the project boundary.<sup>19</sup>

The locations of all receptors are illustrated on **Figure 3.5-1**. Receptor heights were assumed to be ground level per SCAQMD guidance.

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<sup>14</sup> SCAQMD. 2017. Risk Assessment Procedures for Rules 1401, 1401.1 and 212. Version 8.1. September. Available at: <http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12>. Accessed: August 2018.

<sup>15</sup> SCAQMD. 2018. Data for AERMOD. Available at: <https://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/data-for-aermod>. Accessed: January 2019.

<sup>16</sup> SCAQMD. 2018. SCAQMD Modeling Guidance for AERMOD. Available at: <https://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/modeling-guidance>. Accessed: January 2019.

<sup>17</sup> USEPA. 2018. Interim Access and Process for Use of 1992 NLCD and NED. December. Available at: <https://www.epa.gov/scram/interim-access-and-process-use-1992-nlcd-and-ned>. Accessed: January 2019.

<sup>18</sup> SCAQMD. 2018. SCAQMD Modeling Guidance for AERMOD. Available at: <https://www.aqmd.gov/home/air-quality/air-quality-data-studies/meteorological-data/modeling-guidance>. Accessed: January 2019.

<sup>19</sup> SCAQMD. 1993. CEQA Air Quality Handbook. April.

A search for non-residential sensitive receptors (such as daycare centers, schools, hospitals, and other care facilities) showed that there are 27 sensitive receptors within 1,000 m of the Project site. Non-residential sensitive receptor locations were identified for the Project and based on searches of the following on-line public databases:

- California Community Care Licensing Division  
(<https://secure.dss.ca.gov/CareFacilitySearch/DownloadData>);
- California Department of Education, California School Directory  
(<https://www.cde.ca.gov/SchoolDirectory/>); and
- California's Office of Statewide Health Planning and Development  
(<https://oshpd.ca.gov/construction-finance/facility-detail/>).

Databases were searched for all zip codes surrounding the Project site. Sensitive receptors are discussed in further detail in the following section.

### 3.5.1 Sensitive Receptors

Sensitive receptors refer to those segments of the population most susceptible to impacts from air pollution emissions (e.g., children, the elderly, and people with pre-existing serious health problems affected by air quality).<sup>20</sup> For this analysis, sensitive receptors that could be affected by the operation of the Project include all identified residential communities, public and private K-12 schools, public and private day care centers, convalescent homes and elderly residential facilities, hospitals and long-term care facilities, and parks and athletic facilities within 1,000 meters of the Project site. Residential communities that could be affected by the operation of the Project include residents of Irvine, Newport Beach, Costa Mesa and Santa Ana whose homes are within 1,000 meters of the Project site. Sensitive receptors other than residential communities within 1,000 meters of the Project site are listed in **Table 3.5-1**. All receptors are shown on **Figure 3.5-1**.

The nearest sensitive receptors to the Project site are residents in Newport Beach immediately adjacent to the southern portion of the Project site. Some other sensitive receptors are highlighted below:

- **Schools:** The nearest schools are the Orange County Christian School: CHEP/PCHS public school, approximately 1,100 feet (335 meters) from the western boundary of the Project site, and the Newport Montessori private school, approximately 1,300 feet (400 meters) from the eastern boundary of the Project site.
- **Daycare Centers:** The nearest daycare center is the Newport Montessori private school, approximately 1,300 feet (400 meters) from the eastern boundary of the Project site. The next closest daycare center is Tutor Time Child Care/Learning Center, approximately 1,520 feet (463 meters) from the eastern boundary of the Project site.
- **Elderly Residential Facilities:** The nearest residential facility for the elderly is Jewel Homecare 2, located approximately 350 feet (106 meters) from the western boundary of the Project site.
- **Parks and Athletic Facilities:** The Newport Beach Golf Course is immediately adjacent to the southern boundary of the Project site, while the Upper Newport Bay Nature

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<sup>20</sup> SCAQMD. 1993. CEQA Air Quality Handbook. April.

Preserve recreational area is approximately 2,800 feet (853 meters) from the southern boundary of the Project site.



## 4. HEALTH RISK ASSESSMENT

### 4.1 Chemicals of Potential Concern

The chemicals of potential concern (COPC) were identified based on the TAC emission inventory for the Project emissions. Emissions of VOCs and PM<sub>2.5</sub> were speciated into TACs based on SCAQMD and CARB speciation profiles. **Table 4.1-1** shows the COPC identified for inclusion in the HRA. VOC emissions from jet engine startup were speciated based on the profile for jet fuel running exhaust, as a speciation profile for startup emissions was not available. In addition, lead emissions were calculated based on US EPA methodology and allocated to flight segments based on a ratio of total lead emissions to total SO<sub>x</sub> emissions. This ratio (also referred to as a scaling factor) is calculated in **Table 4.1-2**.

### 4.2 Exposure Assessment

The components of the exposure assessment include the identification of potentially exposed populations, the estimation of exposure point concentrations, identification of exposure pathways, and the selection of exposure assumptions to quantify chemical intakes that may result from potential Project emissions. The exposure assessment step determines the quantity of contaminants people are exposed to during a specific time period. Ramboll used dispersion factors from AERMOD and emission rates to estimate the concentrations of COPC at each receptor. These steps are described in the following sub-sections.

#### 4.2.1 Identification of Potentially Exposed Populations

The potentially exposed populations considered include workers, residents, and sensitive receptors located within the grid of receptors as further described in **Section 3.5**. Locations of potentially exposed existing and future residential populations were identified based on review of aerial photographs and city planning websites.<sup>21</sup> The locations of nearby worker, residential, and sensitive receptors are shown in **Figure 3.5-1**.

As previously discussed in **Section 3.5**, SCAQMD specifies various non-residential sensitive receptors that must be included in an HRA. The search for existing non-residential sensitive receptors showed that there are 27 existing non-residential sensitive receptor locations within 1,000 meters of the Project including nine schools, four adult residential facilities, eight daycares, two golf courses, and four parks. In addition to the receptor grid outlined above, non-residential sensitive receptors within 1,000 meters of the modeled Project sources were modeled as discrete receptors. Non-residential sensitive receptors were conservatively modeled using the residential exposure scenario.

#### 4.2.2 Estimation of Exposure Point Concentrations

Exposure point concentrations are the concentrations of each TAC to which an individual may be exposed at a given receptor location. The exposure point concentrations used to estimate cancer risk and chronic non-cancer hazard index (HI) are the annual average ground-level concentrations of each TAC. Section 3 provides a description of the methodology used for air dispersion modeling with AERMOD to obtain the ground-level dispersion factors.

In order to estimate the ground-level concentrations of the COPC, the ground-level concentrations of VOC and PM<sub>2.5</sub> has to be multiplied by their respective speciation profiles shown in **Table 4.1-1**. Ramboll used the "Calculating/Importing GLC" step in the Air

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<sup>21</sup> Google Earth Pro. 2018. Imagery date of April, 2018. Available for download at: <https://www.google.com/earth/>.

Dispersion Modeling Risk Tool (ADMRT) of HARP2 to perform this task. A brief description of the methodology is provided below.

- A HARP2 project run was created for each project alternative/baseline.
- The annual average and 1-hour average post-processed AERMOD output files (plot files) for each source group were imported into the ADMRT tool in the "List of PLOTFILES to Convert" screen.
- Next, emission rates for speciated COPC (**Appendix C**) were imported into the "Emissions Inventory" screen.

Finally, the "Calculate GLCs from GLC Calc Setup" feature in the "Calculate\Import GLC" screen was used to estimate the ground-level concentrations for the COPC.

### 4.3 Dose Response Assessment

A brief description of dose-response assessment and key adverse health effects are provided in the following sub-sections.

#### 4.3.1 Toxicity Criteria

Compounds were evaluated for their potential health effects in two categories, carcinogenic and non-carcinogenic. Many compounds produce non-carcinogenic effects at sufficiently high doses, but only some compounds are associated with carcinogenic effects. Most regulatory agencies consider carcinogens to pose a risk of cancer at all exposure levels (i.e., a "no-threshold" assumption); that is, any increase in dose is assumed to be associated with an increase in the probability of developing cancer. In contrast, non-carcinogens generally are thought to produce adverse health effects only when some minimum exposure level is reached (i.e., a threshold).

Developing toxicity criteria involves using toxicity studies with laboratory animals or epidemiological studies of humans. The toxicities of many of the COPCs evaluated for the project are relatively well-known and their toxicity criteria have been well established. These toxicological values are published by CARB in the Consolidated Table of Approved Risk Assessment Health Values.<sup>22</sup> The California Office of Environmental Health Hazard Assessment (OEHHA) periodically revises toxicity values for air toxics. The latest version of the toxicity values as updated in HARP2 were used in this HRA, based on SCAQMD's Risk Assessment Procedures.<sup>23</sup>

#### 4.3.2 Exposure Pathways

Exposure pathways are classified as primary and secondary. Per SCAQMD guidelines,<sup>24</sup> some non-inhalation primary and secondary exposure pathways were evaluated in addition to the inhalation pathway. The primary non-inhalation pathways evaluated include dermal exposure and soil ingestion; the secondary non-inhalation pathways included mother's milk and homegrown produce ingestion (root uptake).

<sup>22</sup> CARB. 2018. Consolidated Table of OEHHA / ARB Approved Risk Assessment Health Values. August. Available at: <http://www.arb.ca.gov/toxics/healthval/healthval.htm>. Accessed: January 2019.

<sup>23</sup> SCAQMD. 2017. Permit Application Package "N". September. Available at: <http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/attachmentn-v8-1.pdf?sfvrsn=4>. Accessed: January 2019.

<sup>24</sup> South Coast Air Quality Management District (SCAQMD). 2015. Supplemental Guidelines for Preparing Risk Assessments for the Air Toxics "Hot Spots" Information and Assessment Act. June 5.

### 4.3.3 Exposure Assumptions

The exposure parameters used to estimate excess lifetime cancer risks (over a lifetime of 70 years) for all potentially exposed populations were obtained using risk assessment guidelines from OEHHA.<sup>25</sup> For residential exposure, the total exposure duration analyzed is 30 years, in accordance with OEHHA guidance default assumptions, and begins in the third trimester to accommodate the increased susceptibility of exposures in early life. These exposure assumptions, designed to be protective of children younger than age 16, are assumed to be adequately protective of residents older than 30 years of age, including the elderly. For worker exposure, the total exposure duration analyzed is 25 years. Non-residential sensitive receptors are conservatively analyzed using the residential exposure factors.

Under OEHHA guidance, breathing rates change over time for different age groups for residential exposure. Following the SCAQMD risk assessment procedures, 95<sup>th</sup> percentile daily breathing rates for age groups less than 2 years old and 80<sup>th</sup> percentile daily breathing rates for age groups that are greater than or equal to 2 years old were used.<sup>26</sup>

The age groups used for the residential exposure analysis are third trimester, 0-2, 2-16, and 16-30 years. These age groups are needed in order to incorporate age-sensitivity factors (ASFs). ASFs account for increased sensitivity of children to carcinogens. To incorporate ASFs, cancer risk estimates are weighted by a factor of 10 for exposures that occur from the third trimester of pregnancy to two years of age and by a factor of three for exposures that occur from two years through 15 years of age. No weighting factor (i.e., an ASF of one, which is equivalent to no adjustment) is applied to ages 16 and older. There are no ASFs for the worker exposure analysis; hence, there is only one age group for worker exposure, age 16 through 41. For the residential exposure, the fraction of time spent at home is 100% for ages up to 16 years and 73% for ages greater than 16 years as referenced from SCAQMD Risk Assessment Guidance.

## 4.4 Risk Characterization Methodology

Ramboll used HARP2 to calculate the health risks for the Project. HARP2 has been developed by CARB for estimating health risk values and it incorporates the requirements of the latest version of OEHHA Air Toxics Hot Spots Risk Assessment guidelines.<sup>27</sup>

Lifetime cancer risk, chronic hazard index (HIC), and acute hazard index (HIA) were calculated at each receptor for the Proposed Project and Alternative 1. To estimate these impacts, the following runs were performed for each project alternative: residential cancer risk, residential non-cancer chronic risk, worker cancer risk, worker non-cancer chronic risk, and non-cancer acute risk. The health risk assessment options chosen for these runs (**Table 4.4-1**) were developed based on SCAQMD Risk Assessment Guidelines and OEHHA

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<sup>25</sup> OEHHA. 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. March. Available at: <https://oehha.ca.gov/air/cnrn/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>. Accessed: January 2019.

<sup>26</sup> SCAQMD. 2017. Risk Assessment Procedures for Rules 1401, 1401.1 and 212. Version 8.1. September. Available at: <http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12>. Accessed: January 2019.

<sup>27</sup> Cal/EPA. 2015. Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments. Office of Environmental Health Hazard Assessment. February. Available at: <https://oehha.ca.gov/air/cnrn/notice-adoption-air-toxics-hot-spots-program-guidance-manual-preparation-health-risk-0>. Accessed: January 2019.

Air Toxics Hot Spots Risk Assessment guidelines. HARP2 modeling files are provided electronically in **Appendix D**.

Incremental cancer risk, HIC, and HIA associated with the Proposed Project and Alternative 1 as compared to the Baseline Conditions were estimated in Microsoft Excel by subtracting the HARP2 results of the Baseline Conditions from those of the project alternative at each modeled receptor. Summaries of the maximum incremental health risk impacts are presented in **Section 6.1**.

## 5. RISK CHARACTERIZATION RESULTS

Results of the health risk calculations in HARP2 provide an estimate of the potential carcinogenic and non-carcinogenic health risk impacts for each project alternative and baseline. These estimated risks and hazard indices include lifetime excess cancer risk estimates, chronic hazard index estimates, and acute hazard index estimates.

### 5.1 Project Impacts

The risk characterization results of this HRA were compared to SCAQMD thresholds of 10 in one million for cancer risk, and 1.0 for HIC and HIA.<sup>28</sup>

Incremental cancer risk, HIC, and HIA associated with TAC emissions from Project operation for each modeled receptor are provided in **Appendix E. Table 5.1-1** shows a summary of the maximum Proposed Project and Alternative 1 cancer risk, HIC, and HIA for each receptor type (worker, residential, and sensitive). As shown, health risk impacts under both the Proposed Project and Alternative 1 would be less than significant.

The maximum cancer risk of 0.41 in a million, which occurs at a worker receptor under Alternative 1, is less than the SCAQMD significance threshold of 10 in one million. Similarly, the maximum HIC of 0.06 and maximum HIA of 0.23, again associated with Alternative 1, are each less than the SCAQMD significance threshold of 1.0. The maximum cancer risks for residential and other sensitive receptors is negative. (The Proposed Project results are lower and less impactful than those reported here for Alternative 1.)

The two main contributors to cancer risk are the *GSE\_APU* and *taxiway* source groups. GSE and APU contributions to risk decrease from baseline to the future while taxiway risk increases. Due to the nature of the sources, emissions from the taxiway source group disperse more quickly than the GSE and APU emissions. The worker receptor is closer to the sources than the residential receptors. At the worker location, the increase in taxiway risk is greater than the decreases seen in other sources, such as from the GSE and APUs. By the time the emissions disperse to the location of the residential receptors, the increase in taxiway emissions no longer exceeds the decreases in emissions.

**Figure 5.1-1** shows the location of the maximum worker, residential, and sensitive cancer risks. For each receptor type, the location of maximum risk is the same for the Project and Alternative 1.

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<sup>28</sup> SCAQMD. 2015. Air Quality Significance Thresholds. March. Available at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>. Accessed: January 2019.

## 6. UNCERTAINTIES

In any risk evaluation, a number of assumptions are made in order to estimate human exposure and to calculate potential risks. These assumptions may, however, introduce uncertainty in risk calculations. Regulatory guidance requires that conservative assumptions be used to provide an upper-bound estimate of the risk and to avoid underestimating the potential exposures and associated health risks.

The key sources of uncertainty in this health risk evaluation include:

- Identification of Project-related chemicals,
- Estimation of exposure concentrations,
- Identification of exposure pathways,
- Exposure assumptions, and
- Selection of chemical toxicity values.

In all of these cases, conservative assumptions are made in this assessment. Thus, estimated excess cancer risks are upper-bound estimates and the actual incidence of cancer is likely to be lower.

## **TABLES**

**Table 2.2-1. VOC and PM<sub>2.5</sub> Emissions from Auxiliary Power Units**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

	Baseline	Proposed Project	Alternative 1
<b>VOC Emissions</b>			
Daily Emissions <sup>1</sup> (lb/day)	0.60	0.70	0.70
Maximum Hourly Emissions <sup>2</sup> (lb/hr)	0.18	0.22	0.22
Annual Emissions <sup>1</sup> (lb/year)	219	256	256
<b>PM<sub>2.5</sub> Emissions</b>			
Daily Emissions <sup>1</sup> (lb/day)	0.90	1.10	1.20
Maximum Hourly Emissions <sup>2</sup> (lb/hr)	0.28	0.34	0.37
Annual Emissions <sup>1</sup> (lb/year)	329	402	438

**Notes:**

<sup>1</sup> Emissions obtained from EIR 627 Appendix E.

<sup>2</sup> Based on APU usage of 13 minutes per operation and the number of APU operations per day.

**Abbreviations:**

lb - pound

PM<sub>2.5</sub> - particulate matter less than 2.5 microns in diameter

VOC - volatile organic compound



**Table 2.3-1. PM<sub>10</sub> Emissions from Diesel-Fueled Ground Support Equipment**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

<b>Equipment Type</b>	<b>Baseline<sup>1</sup></b>	<b>Proposed Project<sup>1</sup></b>	<b>Alternative 1<sup>1</sup></b>
<b>Daily PM<sub>10</sub> Emission Rate<sup>2</sup> (lb/day)</b>			
Aircraft Tractor - Diesel	0.441	0.038	0.039
Fuel Truck - Diesel	0.030	0.003	0.003
GPU - Diesel	0.356	0.031	0.031
<b>Total</b>	<b>0.827</b>	<b>0.0720</b>	<b>0.0723</b>
<b>Maximum Hourly PM<sub>10</sub> Emission Rate<sup>2</sup> (lb/hr)</b>			
Aircraft Tractor - Diesel	0.041	0.0041	0.0041
Fuel Truck - Diesel	0.0025	0.00025	0.00025
GPU - Diesel	0.022	0.0022	0.0022
<b>Total</b>	<b>0.065</b>	<b>0.0065</b>	<b>0.0065</b>
<b>Annual Average PM<sub>10</sub> Emission Rate<sup>2</sup> (lb/year)</b>			
Aircraft Tractor - Diesel	161	14	14
Fuel Truck - Diesel	11	0.95	0.95
GPU - Diesel	130	11	11
<b>Total</b>	<b>301.8</b>	<b>26.3</b>	<b>26.4</b>

**Notes:**

<sup>1</sup> Based on emissions provided in EIR 627 Appendix E. Proposed Project and Alternative 1 emissions represent the "with minimization" scenario, which includes 90% electrification of equipment.

<sup>2</sup> DPM emissions are assumed to be equivalent to PM<sub>10</sub> emissions from diesel equipment.

**Abbreviations:**

DPM - diesel particulate matter

EIR - Environmental Impact Report

GPU - ground power unit

lb - pound

PM<sub>10</sub> - particulate matter less than 10 microns in diameter

**Table 2.4-1. VOC Emissions from the Aviation Gas Storage Tank**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

Scenario	Annual Fuel Consumption (gallons)	Aviation Gas Tank Emissions (lb/yr)						
		Loading <sup>1</sup>	Breathing <sup>2</sup>	Tank Total (Loading + Breathing)	Refueling <sup>1</sup>	Hose Permeation <sup>1</sup>	Refueling Total (Refueling + Hose Permeation)	Spillage <sup>1</sup>
Emission Factor (lb/1000gal)	--	0.39	0.21	--	0.18	0.009	--	0.24
Baseline	147,017	57	31	87	26	1.32	27	35
Proposed Project	120,024	46	25	71	21	1.08	22	29
Alternative 1	120,531	46	25	72	21	1.08	22	29

**Notes:**

<sup>1</sup> Emission factor based on CARB Revised Emission Factors for Gasoline Marketing Operations at California Gasoline Dispensing Facilities. Available at: <https://www.arb.ca.gov/vapor/gdf-emisfactor/gdf%20umbrella%20document%20-%202020%20nov%202013.pdf>. Accessed: January 2019.

<sup>2</sup> Emission factor based on CAPCOA Gasoline Service Station Risk Assessment Guidelines. Available at: <https://www.arb.ca.gov/ab2588/rrap-iwra/GasIWRA.pdf>. Accessed: January 2019.

**Abbreviations:**

CARB - California Air Resources Board

CAPCOA - California Air Pollution Control Officers Association

lb - pound

gal - gallon

PM<sub>2.5</sub> - particulate matter less than 2.5 microns in diameter

VOC - volatile organic compound

yr - year

**Table 3.2-1. Source Group Descriptions**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

Source Group	Location	Emission Activities
AVGAS	Aviation gas storage tank	Loading and Breathing
AVGAS_R		Refueling and hose permeation
AVGAS_S		Spillage
GSE_APU	GA Aprons and RON Hangars	GSE and APU use, aircraft startup emissions
Taxiway	All taxiway segments	Taxi in and taxi out for all aircraft
B45L	Runway 01L	Business jet landing ground roll
B46L	Runway 19R	
B45D	Runway 01L	Business jet takeoff ground roll
B46D	Runway 19R	
C45L	Runway 01L	Commuter prop landing ground roll
C47L	Runway 01R	
C48L	Runway 19L	
C46L	Runway 19R	
C45D	Runway 01L	Commuter prop takeoff ground roll
C47D	Runway 01R	
C48D	Runway 19L	
C46D	Runway 19R	
G45L	Runway 01L	GA prop landing ground roll
G47L	Runway 01R	
G48L	Runway 19L	
G46L	Runway 19R	
G45D	Runway 01L	GA prop takeoff ground roll
G47D	Runway 01R	
G48D	Runway 19L	
G46D	Runway 19R	
T47D	Runway 01R	Touch and go takeoff ground roll
T48D	Runway 19L	
H1	Helipad 1	Helicopter ground emissions
H2	Helipad 2	
H4	Helipad 4	
Aircraft Arrivals		
A1B	Track 01LA1	All aircraft below 1000ft
A2B	Track 01LA2	
A15B	Track 19RA1	
A16B	Track 19RA2	
A17B	Track 19RA3	
A19B	Track 19RA5	
A20B	Track 19RA6	
A8B	Track 01RA1	
A11B	Track 19LA1	
A1A	Track 01LA1	All aircraft between 1000ft and mixing height
A2A	Track 01LA2	
A15A	Track 19RA1	
A16A	Track 19RA2	
A17A	Track 19RA3	
A19A	Track 19RA5	
A20A	Track 19RA6	
A8A	Track 01RA1	
A11A	Track 19LA1	

**Table 3.2-1. Source Group Descriptions**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

Source Group	Location	Emission Activities
T14A	Track 19LT1	Touch and go below 1000ft
T10A	Track 01RT1	
H33B	Track H1A1	Helicopters at or below 1000ft
H34B	Track H1A2	
H37B	Track H2A1	
H38B	Track H2A2	
H41B	Track H4A1	
H42B	Track H4A2	
H43B	Track H4A3	
H44B	Track H4A4	
Aircraft Departures		
B4B	Track 01LD1	Business jets below 1000ft
B26B	Track 19RD2	
B4A	Track 01LD1	Business jets between 1000ft and mixing height
B26A	Track 19RD2	
C4B	Track 01LD1	Commuter props below 1000ft
C9B	Track 01RD1	
C12B	Track 19LD1	
C13B	Track 19LD2	
C26B	Track 19RD2	
C27B	Track 19RD3	
C4A	Track 01LD1	Commuter props between 1000ft and mixing height
C9A	Track 01RD1	
C12A	Track 19LD1	
C13A	Track 19LD2	
C26A	Track 19RD2	
C27A	Track 19RD3	
G4B	Track 01LD1	GA props below 1000ft
G9B	Track 01RD1	
G12B	Track 19LD1	
G13B	Track 19LD2	
G27B	Track 19RD3	
G4A	Track 01LD1	GA props between 1000ft and mixing height
G9A	Track 01RD1	
G12A	Track 19LD1	
G13A	Track 19LD2	
G27A	Track 19RD3	
H35B	Track H1D1	Helicopters at or below 1000ft
H36B	Track H1D2	
H39B	Track H2D1	
H40B	Track H2D2	
H45B	Track H4D1	
H46B	Track H4D2	
T14D	Track 19LT1	Touch and go below 1000ft
T10D	Track 01RT1	

**Abbreviations:**

APU - auxiliary power unit

ft - feet

GA - general aviation

GSE - ground support equipment

RON - remain overnight aircraft

**Table 3.2-2. AERMOD Source Parameters for Area Sources**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

Emission Source	Mode	Location	Release Height <sup>1</sup> (m)	Initial Vertical Dimension <sup>1</sup> (m)	Source Width <sup>1</sup> (m)	Source Length <sup>2</sup> (m)
APU, GSE and engine startup <sup>3</sup>		GA Aprons and RON Hangars	1.50	3	-- <sup>3</sup>	-- <sup>3</sup>
Business Jets, Commuter Props, and GA Props	Approach	Mixing height to 1,000 ft	621.6	4.1	20	200
		1,000 ft to Runway	Varies with Location			381.6
	Takeoff/Climb Out	Runway to 1,000 ft	Varies with Location			122.3 (business jets), 146.7 (commuter props), 216.0 (GA props)
		1,000 ft to Mixing height	621.6			200
Touch and Go	Approach	900 ft to Runway	Varies with Location	4.1	20	381.6
	Takeoff/Climb Out	Runway to 900 ft	Varies with Location			227.8
		At 900 ft	286.3			200
Helicopters	Approach	At 1,000 ft	316.8	4.1	20	200
		1,000 ft to Runway	Varies with Location			153
	Takeoff/Climb Out	Runway to 1,000 ft	Varies with Location			82
		At 1,000 ft	316.8			200
All Aircraft	Landing Ground Roll	Runway	12	4.1	20	20
	Taxi In	Taxiway				Based on taxiway path
	Taxi Out	Taxiway				
	Takeoff Ground Roll	Runway				20

**Notes:**

<sup>1</sup> Release height, initial vertical dimension, and source width for aircraft emission sources based on AEDT Technical Manual. Release height for flight path segments is set equal to the average of the ceiling and floor of the current cuboid plus 12 meters. Available at: [https://aedt.faa.gov/documents/aedt2d\\_techmanual.pdf](https://aedt.faa.gov/documents/aedt2d_techmanual.pdf). Accessed: January 2019.

<sup>2</sup> Source length based on AEDT Technical Manual and the AEDT STANDARD 1 vertical profiles for each aircraft type.

<sup>3</sup> APU and GSE equipment and startup activities are "areapoly" sources located on the areas covering the GA Aprons and RON hangars. Engine startup is calculated in AEDT for business jet departure activities only, and are allocated to apron and hangar areas based on AEDT modeling guidance. APU and GSE release height and initial vertical dimension based on LAX Air Quality and Source Apportionment Study. Volume 2. Phase III. Available at: <https://www.lawa.org/-/media/lawa-web/environment/files/vol-2---lax-aqsas-2014-03-11s.ashx?la=en&hash=64E3AFD29F56BB75744405E6F40192BAC261FDB0>. Accessed: January 2019.

**Abbreviations:**

AEDT - Aviation Environmental Design Tool

APU - auxiliary power unit

ft - feet

GA - general aviation

GSE - ground support equipment

LAX - Los Angeles International Airport

m - meters

RON - remain overnight

**Table 3.2-3. AERMOD Source Parameters for Volume Sources**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

<b>Emission Source</b>	<b>Release Height (m)</b>	<b>Initial Lateral Dimension (m)</b>	<b>Initial Vertical Dimension (m)</b>
Aviation Gas Storage Tank Hose Permeation and Refueling <sup>1</sup>	2.72	2.56	2.53
Aviation Gas Storage Tank Spillage <sup>2</sup>	0	2.56	2.53
Helipad 1 Ground Emissions <sup>3</sup>	1.64	2.34	1.52
Helipad 2 Ground Emissions <sup>3</sup>	1.64	2.34	1.52
Helipad 4 Ground Emissions <sup>4</sup>	1.57	2.49	1.46

**Notes:**

<sup>1</sup> Hose permeation and refueling release height, initial lateral dimension, and initial vertical dimension based on dimensions of a Cessna 172 aircraft.

<sup>2</sup> Spillage release height is assumed to be ground level based on SCAQMD guidance. Initial lateral and vertical dimensions based on dimensions of a Cessna 172 aircraft. Available at: <http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12>. Accessed: January 2019.

<sup>3</sup> Helipad 1 and Helipad 2 release height, initial lateral dimension, and initial vertical dimension based on dimensions of an R44 helicopter.

<sup>4</sup> Helipad 4 release height, initial lateral dimension, and initial vertical dimension based on dimensions of an SA350 helicopter.

**Abbreviations:**

m - meters

SCAQMD - South Coast Air Quality Management District

**Table 3.2-4. AERMOD Source Parameters for Point Sources**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

<b>Emission Source</b>	<b>Release Height<sup>1</sup> (m)</b>	<b>Temperature<sup>2</sup> (K)</b>	<b>Initial Velocity<sup>2</sup> (m/s)</b>	<b>Stack Diameter<sup>2</sup> (m)</b>
Aviation Gas Storage Tank Loading and Breathing Losses	3.048	291	0.0018	0.0508

**Notes:**

<sup>1</sup> Based on a tank diameter of 10 feet for a horizontal aboveground storage tank.

<sup>2</sup> Based on SCAQMD Risk Assessment Procedures Example for an aboveground gasoline storage tank. Available at:  
<http://www.aqmd.gov/docs/default-source/permitting/rule-1401-risk-assessment/riskassessproc-v8-1.pdf?sfvrsn=12>. Accessed:  
January 2019.

**Abbreviations:**

K - Kelvin

m - meters

m/s - meters per second

SCAQMD - South Coast Air Quality Management District

**Table 3.2-5. Hourly Operational Profiles**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

Source Group	Percent of Activity in Time Period <sup>1</sup>		
	Daytime	Evening	Nighttime
AVGAS <sup>2</sup>	100%		
AVGAS_R <sup>3</sup>	91%	6%	2%
AVGAS_S <sup>3</sup>	91%	6%	2%
GSE_APU <sup>3</sup>	91%	6%	2%
Taxiway <sup>3</sup>	91%	6%	2%
B45L	76%	7%	17%
B46L	89%	9%	3%
G45L	71%	5%	23%
G47L	56%	3%	1%
G48L	57%	3%	1%
G46L	89%	8%	3%
C45L	60%	5%	35%
C47L	50%	11%	39%
C48L	86%	9%	5%
C46L	90%	7%	3%
B45D	76%	7%	17%
B46D	89%	9%	3%
G45D	71%	5%	23%
G47D	56%	3%	1%
G48D	57%	3%	1%
G46D	89%	8%	3%
C45D	60%	5%	35%
C47D	50%	11%	39%
C48D	86%	9%	5%
C46D	90%	7%	3%
T47D	93%	5%	2%
T48D	93%	5%	2%
B4B	72%	4%	24%
B26B	91%	6%	2%
H33B	90%	7%	3%
H34B	90%	7%	3%
H35B	91%	6%	3%
H36B	91%	6%	3%
H37B	90%	7%	3%
H38B	90%	7%	3%
H39B	91%	6%	3%
H40B	91%	6%	3%
H41B	59%	16%	25%
H42B	59%	16%	25%
H43B	59%	16%	25%
H44B	59%	16%	25%
H45B	82%	6%	12%
H46B	82%	6%	12%
G4B	67%	4%	29%
G9B	96%	3%	1%



**Table 3.2-5. Hourly Operational Profiles**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

Source Group	Percent of Activity in Time Period <sup>1</sup>		
	Daytime	Evening	Nighttime
G12B	93%	5%	1%
G13B	93%	5%	1%
G27B	92%	5%	3%
T14D	93%	5%	2%
T10D	93%	5%	2%
C4B	48%	3%	49%
C9B	18%	9%	73%
C12B	81%	12%	6%
C13B	81%	12%	6%
C26B	96%	4%	0%
C27B	92%	6%	2%
B4A	72%	4%	24%
B26A	91%	6%	2%
G4A	67%	4%	29%
G9A	96%	3%	1%
G12A	93%	5%	1%
G13A	93%	5%	1%
G27A	92%	5%	3%
C4A	48%	3%	49%
C9A	18%	9%	73%
C12A	81%	12%	6%
C13A	81%	12%	6%
C26A	96%	4%	0%
C27A	92%	6%	2%
A1B	83%	11%	6%
A2B	83%	11%	6%
A15B	85%	12%	3%
A16B	86%	10%	3%
A17B	86%	10%	3%
A19B	86%	10%	3%
A20B	86%	10%	3%
A8B	91%	6%	3%
A11B	92%	7%	1%
A1A	83%	11%	6%
A2A	83%	11%	6%
A15A	85%	12%	3%
A16A	86%	10%	3%
A17A	86%	10%	3%
A19A	86%	10%	3%
A20A	86%	10%	3%
A8A	91%	6%	3%
A11A	92%	7%	1%
T14A	93%	5%	2%
T10A	93%	5%	2%

**Table 3.2-5. Hourly Operational Profiles**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

Source Group	Percent of Activity in Time Period <sup>1</sup>		
	Daytime	Evening	Nighttime
H1	90%	7%	3%
H2	90%	7%	3%
H4	70%	11%	19%

**Notes:**

<sup>1</sup> Based on the average daily operations of aircraft type in source group.

<sup>2</sup> Avgas loading and breathing (AVGAS source group) assumed to be constant throughout the day.

<sup>2</sup> Taxiway, GSE and APU, and Avgas refueling and spillage based on the average daily operations of all aircraft.

**Abbreviations:**

APU - auxiliary power unit

Avgas - Aviation gas

GSE - ground support equipment

**Table 3.5-1. Sensitive Receptor Locations**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

Sensitive Receptor ID	Type	Name	Street	City	State	Zip Code	X-coordinate (m)	Y-Coordinate (m)
SR01	School	Access County Community	200 Kalmus Drive	Costa Mesa	CA	92628	418346.37	3726332.45
SR02	Daycare	Back Bay Montessori	398 N University Dr.	Costa Mesa	CA	92627	417746.00	3724391.00
SR03	Daycare	Breen, James & Valerie	2669 Santa Ana Ave.	Costa Mesa	CA	92627	417617.42	3724864.54
SR04	Daycare	Bright Horizons Irvine	2010 Main St.	Irvine	CA	92614	421070.59	3727529.32
SR05	Park	Del Mesa Park	550 Paularino Ave	Costa Mesa	CA	92626	418531.66	3727407.45
SR06	School	International Christian Montessori School of Newport	381 N University Dr.	Costa Mesa	CA	92627	417668.01	3724420.76
SR07	Daycare	International Christian Montessori Academy of Newport	2591 Irvine Ave.	Costa Mesa	CA	92627	417727.85	3724357.62
SR08	Adult Residential	Irvine Cottages No. 9	20271 Orchid	Newport Beach	CA	92660	418976.47	3724331.05
SR09	School	Mariners Christian	298 Fischer Ave.	Costa Mesa	CA	92626	418637.00	3726515.00
SR10	Golf Course	Newport Beach Golf Course	3100 Irvine Ave	Newport Beach	CA	92660	418404.79	3724853.18
SR11 and SR12	Daycare and School	Newport Montessori	20221 SW Cypress St.	Newport Beach	CA	92660	418896.00	3724503.00
SR13	School	OCCS:CHEP/PCHS	2910 Redhill Avenue, Suite 200	Costa Mesa	CA	92626	418406.74	3725692.79
SR14	School	Orange County Special Education	200 Kalmus Drive	Costa Mesa	CA	92628	418346.37	3726332.45
SR15	School	Pacific Technology School Santa Ana	102 Baker Street East	Costa Mesa	CA	92626	418634.18	3727035.12
SR16	Daycare	Peter & Mary Muth Interpretive Center	2301 University Dr	Newport Beach	CA	92660	417902.00	3724079.00
SR17	Golf Course	Santa Ana Country Club	20099 Santa Ana Ave	Costa Mesa	CA	92626	418103.18	3725420.16
SR18	Adult Residential	Stevens Adult Residential Care Home	106 W. Stevens Avenue	Santa Ana	CA	92707	419475.20	3728681.66
SR19	Daycare	Tutor Time Child Care/Learning Center	1550 Bristol Street North	Newport Beach	CA	92660	419261.00	3724850.00
SR20	Park	Upper Newport Bay Nature Preserve	2301 University Drive	Newport Beach	CA	92660	417753.07	3724308.09
SR21	Daycare	Vineyard Christian Preschool	102 E. Baker	Costa Mesa	CA	92626	418635.78	3727013.05
SR22	School	Futures Academy - Newport Beach	2302 Martin St., Ste. 100	Irvine	CA	92612	420357.12	3726087.48
SR23	School	Newport Academy Day School	3189 Pullman Ave	Costa Mesa	CA	92626	419239.67	3727598.11
SR24	Adult Residential	Akua Behavioral Health Inc II	324 University Drive	Costa Mesa	CA	92627	417513.72	3724591.85
SR25	Adult Residential	Jewel Homecare 2	20152 RIVERSIDE DR	Newport Beach	CA	92660	418274.62	3725141.19
SR26	Park	Private Park	Dupont Dr and Von Karman Ave	Irvine	CA	92614	420862.31	3726041.93
SR27	Park	Private Park	Dupont Dr and Teller Ave	Irvine	CA	92614	420684.43	3726176.60

**Table 4.1-1. Speciation Profiles for Chemicals of Potential Concern**

John Wayne Airport General Aviation Improvement Program

Orange County, California

Criteria Air Pollutant	Speciation Profile	Speciated COPC	HARP2 Pollutant ID	Weight %
VOC from Jet Fuel Running Exhaust and Startup <sup>[1]</sup>	CARB OG5861 <sup>[2]</sup> / EPA 5565 <sup>[3]</sup>	Acetaldehyde	75070	4.3
		Acrolein	107028	2.4
		Benzene	71432	1.7
		Ethylbenzene	100414	0.2
		Formaldehyde	50000	12.3
		1,3-butadiene	106990	1.7
		M & p-xylene	1330207	0.3
		Methyl alcohol	67561	1.8
		Naphthalene	91203	0.5
		O-xylene	95476	0.2
		Phenol	108952	0.7
		Propylene	115071	4.5
		Styrene	100425	0.3
		Toluene	108883	0.6
PM <sub>2.5</sub> from Jet Fuel Running Exhaust	CARB PM1412 <sup>[4]</sup>	Chlorine	7782505	0.1
		Copper	7440508	0.2
		Manganese	7439965	0.0
		Nickel	7440020	0.0
		Sulfate	9960	22.2
VOC from Aviation Gas Running Exhaust	EPA 1099 <sup>[3]</sup>	Acetaldehyde	75070	4.3
		Acrolein	107028	2.1
		Benzene	71432	1.8
		Ethylbenzene	100414	0.2
		Formaldehyde	50000	14.1
		1,3-butadiene	106990	1.6
		M & p-xylene	1330207	0.3
		Naphthalene	91203	0.5
		O-xylene	95476	0.2
		Phenol	108952	0.2
		Propylene	115071	4.6
		Styrene	100425	0.4
		Toluene	108883	0.5
Lead from Aviation Gas Running Exhaust	See Table 4.1-2			

**Table 4.1-1. Speciation Profiles for Chemicals of Potential Concern**

John Wayne Airport General Aviation Improvement Program

Orange County, California

Criteria Air Pollutant	Speciation Profile	Speciated COPC	HARP2 Pollutant ID	Weight %
VOC from Aviation Gas Storage Tank	SCAQMD Gasoline <sup>[5]</sup>	Hexane	110543	1.0
		Benzene	71432	1.8
		Toluene	108883	7.0
		Ethylbenzene	100414	1.4
		Xylenes	1330207	7.0
		1,2,4-Trimethylbenzene	95636	2.5
		Cyclohexane	110827	0.2

**Notes:**

<sup>1</sup> There is no current VOC speciation profile for jet fuel startup emissions. Therefore, the speciation profile for jet fuel running exhaust was used as a surrogate.

<sup>2</sup> Based on CARB OG speciation profile for aircraft - jet fuel. Available at: [https://www.arb.ca.gov/ei/speciate/profilereference/Aircraft\\_OG5861.pdf](https://www.arb.ca.gov/ei/speciate/profilereference/Aircraft_OG5861.pdf). Accessed: January 2019.

<sup>3</sup> Obtained from EPA Speciate 4.5 database. Available at: <https://www.epa.gov/air-emissions-modeling/speciate-version-45-through-40>. Accessed: January 2019.

<sup>4</sup> Based on CARB PM speciation profile for commercial aircraft. Available at: [https://www.arb.ca.gov/ei/speciate/profilereference/Aircraft\\_PM1411-14.pdf](https://www.arb.ca.gov/ei/speciate/profilereference/Aircraft_PM1411-14.pdf). Accessed: January 2019.

<sup>5</sup> Based on SCAQMD Gasoline speciation profile. Available at: <http://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/supplemental-instructions-for-liquid-organic-storage-tanks.pdf>. Accessed: January 2019.

**Abbreviations:**

CARB - California Air Resources Board

COPC - chemicals of potential concern

EPA - Environmental Protection Agency

OG - organic gas

PM - particulate matter

PM<sub>2.5</sub> - particulate matter smaller than 2.5 microns in diameter

SCAQMD - South Coast Air Quality Management District

VOC - volatile organic compounds

**Table 4.1-2. Lead Emissions from Aviation Gasoline Exhaust**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

	<b>Baseline</b>	<b>Proposed Project</b>	<b>Alternative 1</b>
Avgas consumption (gal/year)	147,017	120,024	120,531
Fuel lead mass (g/gal) <sup>1</sup>	2.12		
Engine retention (%) <sup>1</sup>	5%		
Lead Emissions (ton/year)	0.33	0.27	0.27
Total SO <sub>x</sub> emissions (ton/yr)	0.94	0.76	0.76
Lead Scaling Factor (ton lead/ton SO <sub>x</sub> )	0.35	0.35	0.35

**Notes:**

<sup>1</sup>. Lead emission factor and engine lead retention rate is obtained from USEPA (2013), "Calculating Piston-Engine Aircraft Airport Inventories for Lead for the 2011 National Emissions Inventory", available at <https://nepis.epa.gov/Exe/ZyPDF.cgi/P100LFGL.PDF?Dockey=P100LFGL.PDF>

**Abbreviations:**

gal - gallons

g - grams

yr - year

SO<sub>x</sub> - oxides of sulfur

USEPA - United States Environmental Protection Agency

**Table 4.4-1. Health Risk Assessment Options Used in HARP2 ADMRT Tool**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

HARP2 Risk Analyses Screen/ Option Title		Options Chosen				
		Residential Cancer Risk Run	Residential Chronic Risk Run	Worker Cancer Risk Run	Worker Chronic Risk Run	Acute Risk Run
Select Risk Scenario	Analysis Type	Cancer Risk	Chronic Risk (Non-cancer)	Cancer Risk	Chronic Risk (Non-cancer)	Acute Risk (Non-cancer)
	Receptor Type	Individual Resident		Worker		N/A
	Exposure Duration	30-Year	N/A	25-Year	N/A	N/A
	Intake Rate Percentile	RMP using the Derived Method	OEHHA Derived Method	OEHHA Derived Method		N/A
Select Pathways to Evaluate	Tab “Pathways to Evaluate”	Select "User Defined" pathways and choose: inhalation, soil ingestion, dermal, mother’s milk, and homegrown produce		Select "Worker Pathways"		Default Inhalation Only Pathway
		Select deposition rate of 0.02 m/s		Select deposition rate of 0.02 m/s		
	Tab “Inh”	Check box “Apply the default fraction of time spent at home (FAH) to ages greater than or equal to 16 years”		Check box "Use Adjustment Factors" with WAF = 4.2 <sup>2</sup>	Use Defaults (No Change)	Use Defaults (No Change)
	Tab “Soil”	Use Defaults (No Change)		Use Defaults (No Change)		N/A
	Tab “Derm”	Select “Warm” Climate		Select “Warm” Climate		N/A
	Tab “MMIk”	Use Defaults (No Change)		N/A	N/A	N/A
	Tab “HG Produce”	Use Defaults (No Change)		N/A	N/A	N/A

**Notes:**

<sup>1</sup> HARP2 options based on SCAQMD's default assumptions for HRAs. Available at: <http://www.aqmd.gov/docs/default-source/planning/risk-assessment/ab-2588-supplemental-guidelines-201809.pdf?sfvrsn=6>. Accessed: January 2019.

<sup>2</sup> Annual concentration adjustment factor for worker is set based on the a typical work schedule of 8 hours a day, 5 days a week, based on assumptions in EIR617 HRA.

**Abbreviations:**

ADMRT - Air Dispersion Modeling and Risk Tool  
EIR - environmental impact report  
HARP - Hotspots Analysis and Reporting Program  
HRA - health risk assessment  
m - mile

N/A - not applicable  
OEHHA - Office of Environmental Health Hazard Assessment  
RMP - Risk Management Policy  
s - second  
SCAQMD - South Coast Air Quality Management District

**Table 5.1-1. Health Risk Assessment Results**

John Wayne Airport General Aviation Improvement Program  
Orange County, California

Receptor Type	Maximum Estimated Cancer Risk (in a million)		Maximum Estimated Chronic Hazard Index		Maximum Estimated Acute Hazard Index	
	Proposed Project	Alternative 1	Proposed Project	Alternative 1	Proposed Project	Alternative 1
Resident	-0.11	-0.10	0.02	0.02	0.10	0.11
Sensitive	-0.12	-0.11	0.01	0.01	0.07	0.07
Worker	0.27	0.41	0.05	0.06	0.21	0.23
SCAQMD Threshold <sup>1</sup>	10		1		1	

**Notes:**

<sup>1</sup> SCAQMD Air Quality Significance Thresholds. Available at: <http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf>. Accessed: January 2019.

**Abbreviations:**

ADMRT - Air Dispersion Modeling and Risk Tool

HARP - Hotspots Analysis and Reporting Program

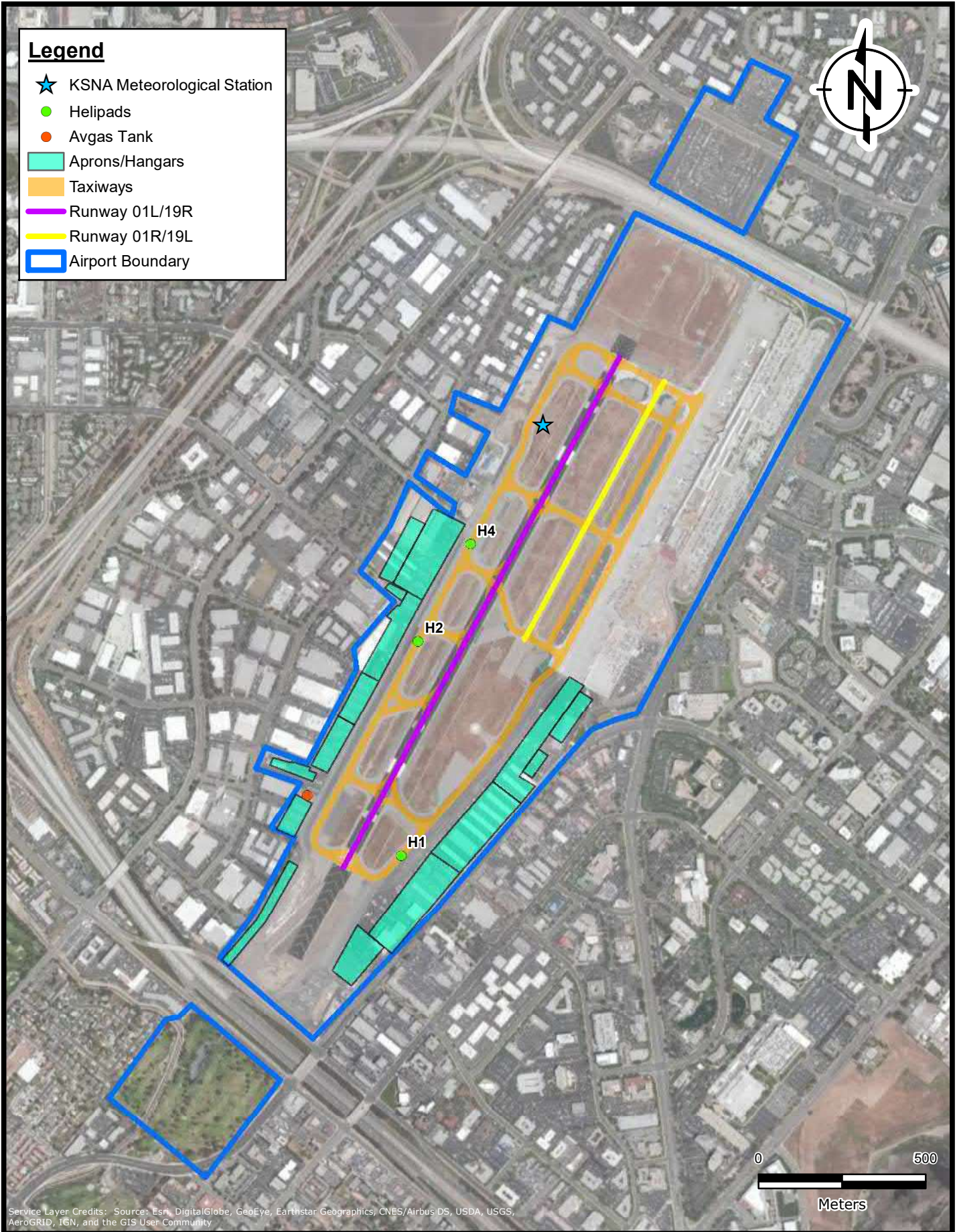
SCAQMD - South Coast Air Quality Management District



## FIGURES

## Legend

- ★ KSNA Meteorological Station
- Helipads
- Avgas Tank
- Aprons/Hangars
- Taxiways
- Runway 01L/19R
- Runway 01R/19L
- Airport Boundary



**RAMBOLL**

## Location of On-Site Emission Sources

**FIGURE  
3.2-1**

DRAFTED BY: RC

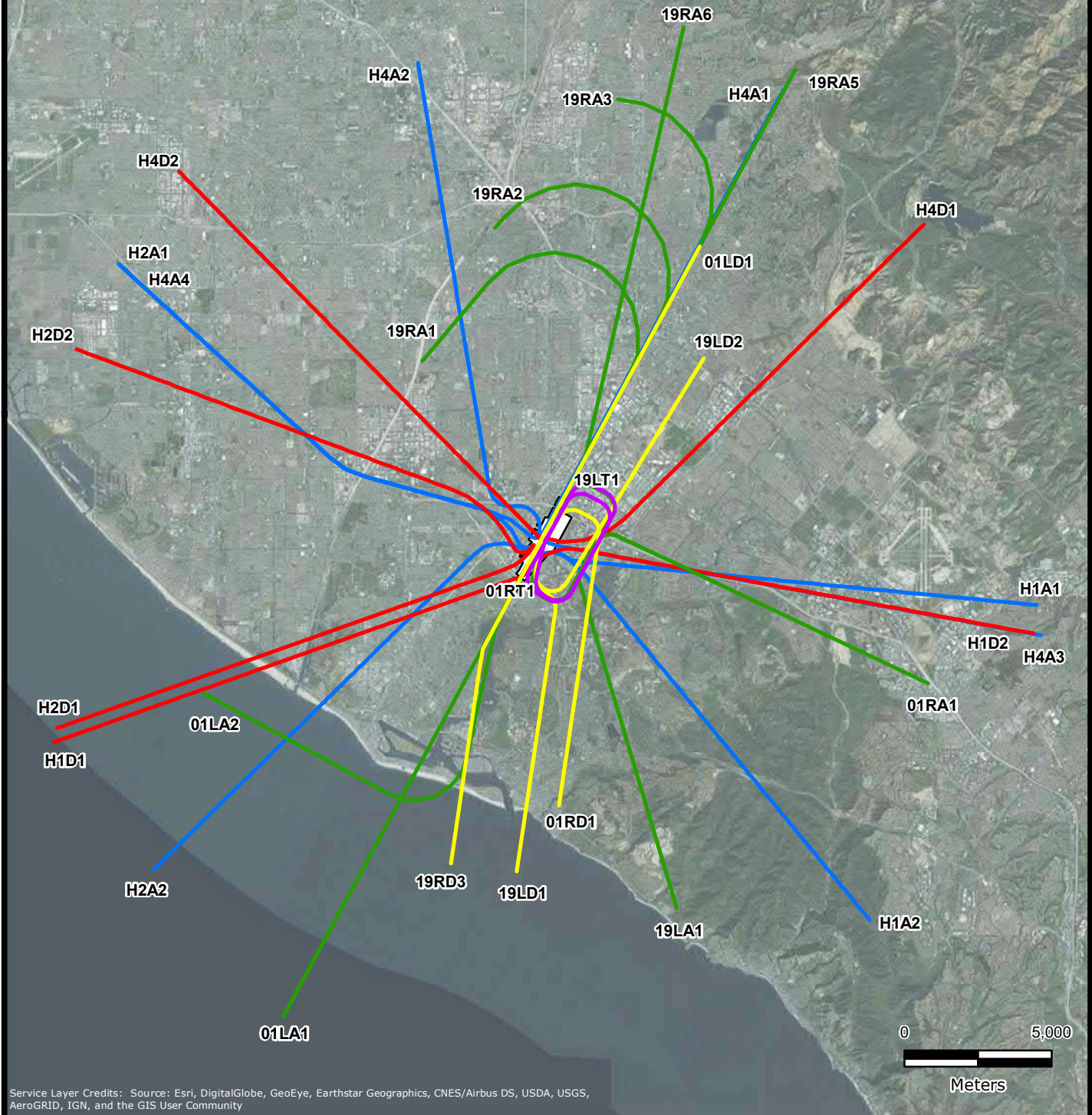
DATE: 2/4/2019

PROJECT: 1690011174



## Legend

- Touch and Go
- Departures (Business Jets, Commuter Props, and GA Props)
- Arrivals (Business Jets, Commuter Props, and GA Props)
- Departures (Helicopters)
- Arrivals (Helicopters)
- Airport Boundary



**RAMBOLL**

## Location of Flight Path Emission Sources

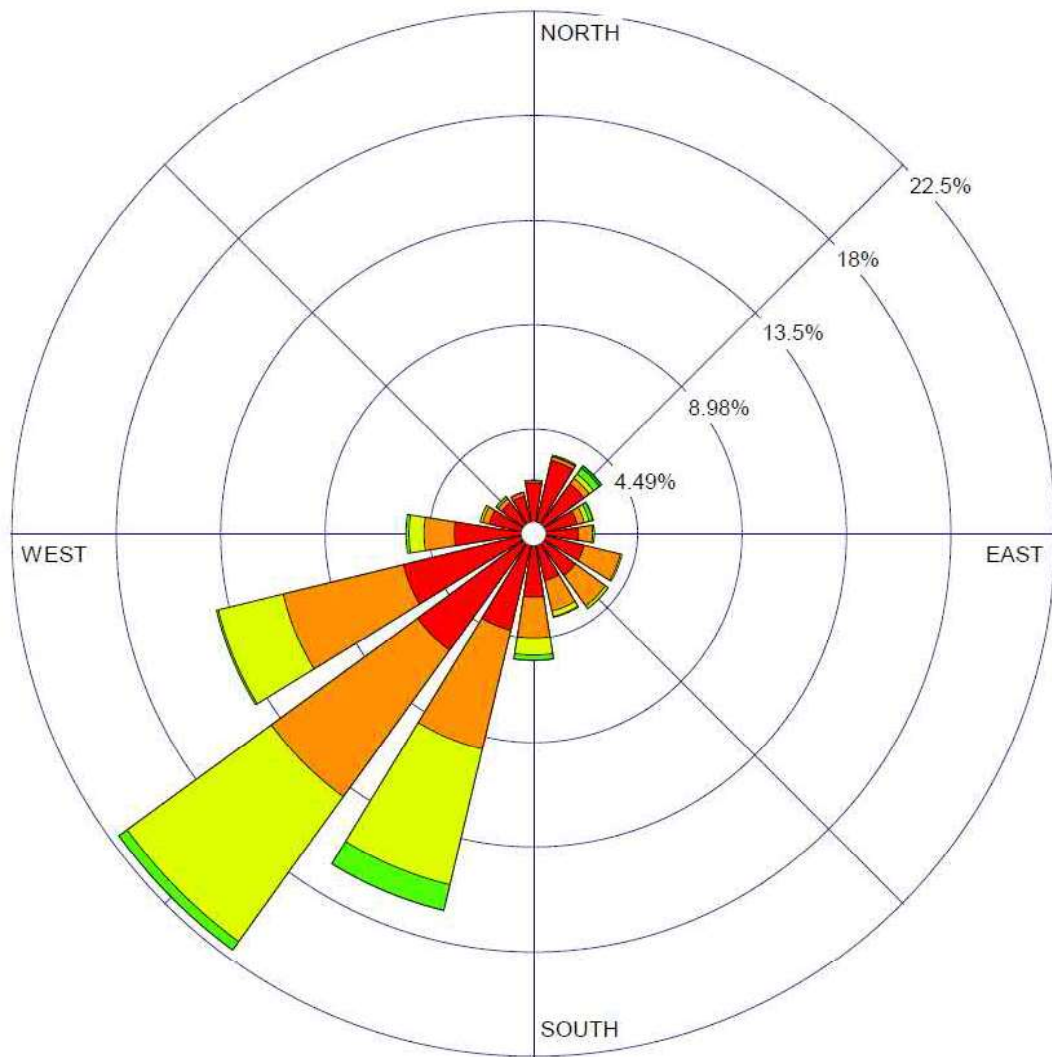
**FIGURE  
3.2-2**

DRAFTED BY: RC

DATE: 2/4/2019

PROJECT: 1690011174

C:\Users\rebeccase\OneDrive - Ramboll\JWA GAIP HRA\GIS\Fig-2-2\_FlightPathSources.mxd



WIND SPEED  
(m/s)

- $\geq 11.10$
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 3.42%



## Wind Rose for KSNA Meteorological Station

FIGURE

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DATE:

PROJECT: 1690011174




### Legend


 Airport Boundary

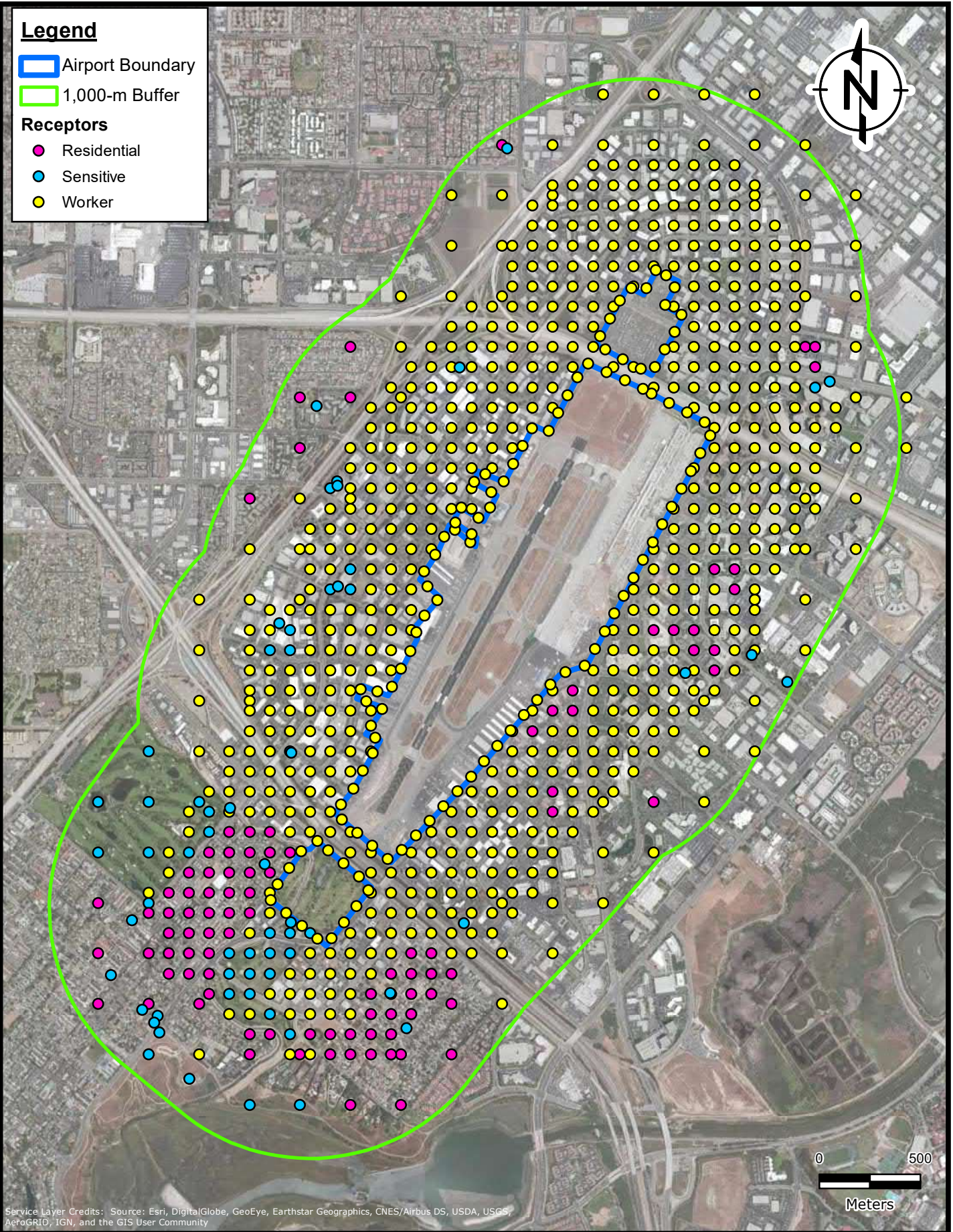
 1,000-m Buffer

### Receptors

 Residential

 Sensitive

 Worker



**RAMBOLL**

## Receptor Locations

FIGURE  
**3.5-1**

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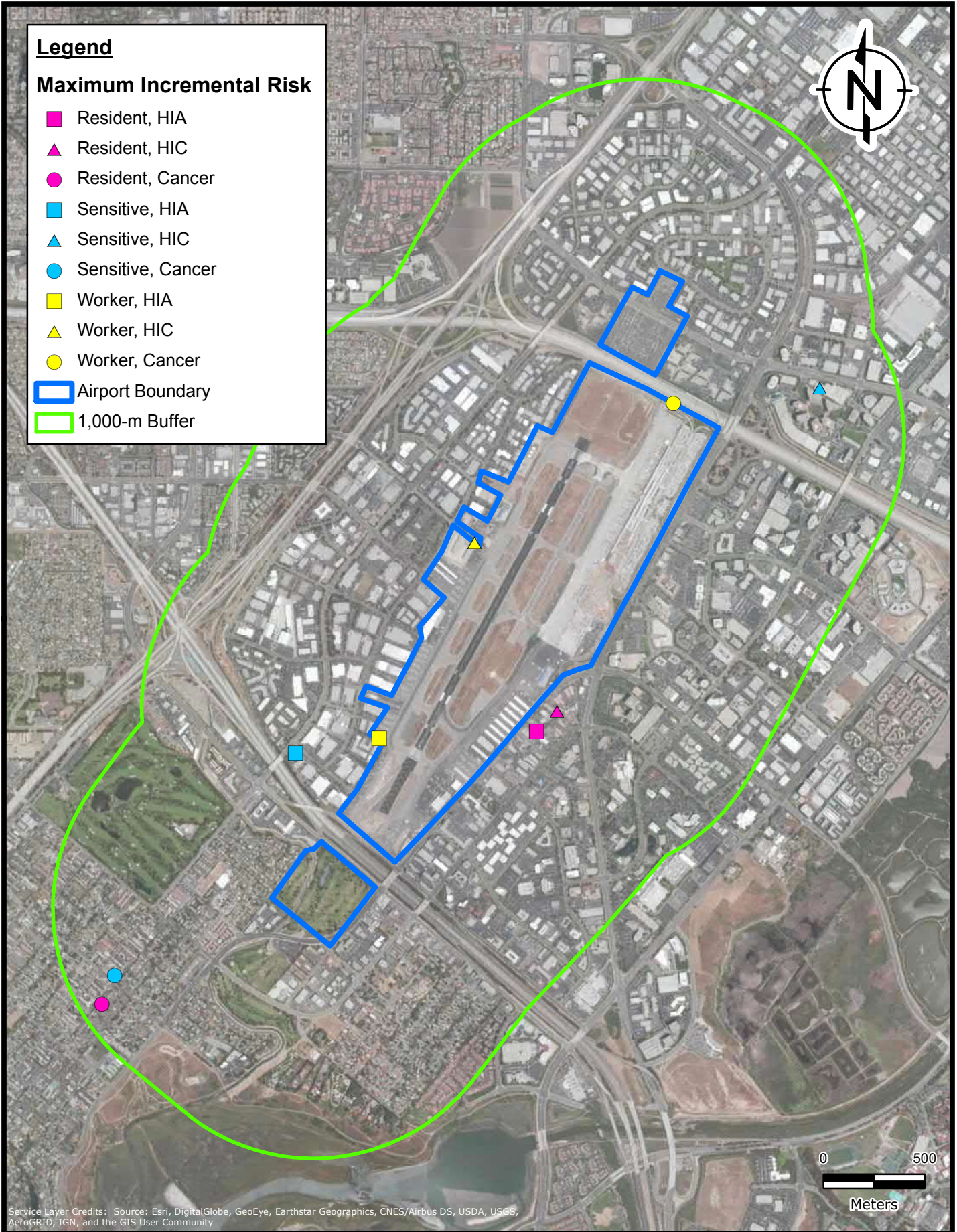
PROJECT: 1690011174



## Legend

### Maximum Incremental Risk

- Resident, HIA
- ▲ Resident, HIC
- Resident, Cancer
- Sensitive, HIA
- ▲ Sensitive, HIC
- Sensitive, Cancer
- Worker, HIA
- ▲ Worker, HIC
- Worker, Cancer
- ▭ Airport Boundary
- ▭ 1,000-m Buffer



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## Location of Maximum Incremental Risk

FIGURE  
**5.1-1**

DRAFTED BY: RC

DATE: 2/11/2019

PROJECT: 1690011174