APPENDIX H

Comments and Responses

This appendix contains agency, elected official, and public comments received during the Draft Supplemental Environmental Assessment (EA) comment period, and responses to comments.

The following agencies and local governments provided comments on the Draft Supplemental EA: the U.S. Environmental Protection Agency, State of Washington Department of Archeology and Historic Preservation, State of Washington Department of Ecology, and the City of Mukilteo Public Works Department.

Public comments also include written comments and transcripts of spoken comments provided to court reporters during the Draft Supplemental EA Public Information Workshop and Public Hearing.

A total of four agency, five elected official (three were duplicate submissions), and 282 public comments were received during the comment period.

This appendix contains the following items:

- **Appendix H-1** General Responses
- **Appendix H-2** Agency and Elected Official Comments and Responses
- **Appendix H-3** Public Comments and Responses
GENERAL RESPONSES

Introduction

As described in the Errata and Chapter 1, in early November 2018 after publication of the Draft Supplemental Environmental Assessment (DSEA) in September 2018 and the subsequent Public Information Workshop/Public Hearing in October 2018, the FAA was informed that Southwest Airlines had withdrawn its proposal to operate at Paine Field. The gate allocations (five flights per day) proposed by Southwest Airlines were acquired by Alaska Airlines in early November 2018. The Final Supplemental EA (FSEA) reflects that fact that the current Proposed Action involves Alaska Airlines (and their partners) operating Embraer 175 aircraft on the five gate allocations acquired from Southwest Airlines, in 2019 and 2024.

Chapter 6 of the FSEA reflects the change in the Proposed Action evaluated in the DSEA. As the change in aircraft type was not expected to measurably affect certain resources, a qualitative review of the potential impacts in those resource categories was conducted. The rationale was applied to the following resource categories: Biological Resources; Coastal Resources; Hazardous Materials, Solid Waste, and Pollution Prevention; Historic, Architectural, Archaeological, and Cultural Resources; Land Use; Natural Resources, Energy Supply, and Sustainable Design; Socioeconomics, Environmental Justice, and Children's Environmental and Safety Risks; Visual Effects; and Water Resources. There are no significant impacts associated with current Proposed Action in these resource categories.

For the other environmental resource categories, where the change in aircraft type in the current Proposed Action could result in measurable impacts due to associated changes such as the number of passengers or noise level, a screening of the potential impacts in comparison to the DSEA was conducted. This screening applied to Air Quality, Climate, Noise and Noise-Compatible Land Use, and Surface Transportation. The screening process included a review of the potential for impacts based on a comparison of the Embraer 175 and the Boeing 737-700. Based on the review of the screening process for these environmental resource categories, it was determined that in all cases the impacts of the current Proposed Action as presented in the FSEA are fewer than the impacts evaluated in the DSEA. Because no significant impacts to these environmental resource categories were identified in the DSEA and there are fewer impacts associated with the current Proposed Action, no significant impacts are identified in the FSEA. Therefore, no additional analyses were completed for the FSEA for these resource categories.

Because the current Proposed Action did not result in a change in the total number of aircraft operations, and results in a decrease in both passenger enplanements and impacts, the FAA determined that an additional comment period was not necessary prior to issuing the FSEA. The Errata that follows the report cover details the changes that were made for the FSEA as a result of the current Proposed Action, as well as revisions resulting from errors identified during the
public outreach process. Additionally, the responses to comments contained in Appendix H have accounted for the current Proposed Action.

**Issue 1: Supplemental EA Study Process**

**1-1 Adequacy and Use of FAA Guidance**

Some comments questioned FAA’s implementation of and compliance with the National Environmental Policy Act (NEPA) as well as analysis methodologies used in the DSEA. Some comments stated that there was insufficient detail in the DSEA.

The FAA has the authority and responsibility, consistent with NEPA and the Council on Environmental Quality (CEQ) regulations, to prepare and issue guidance for the preparation of environmental documents addressing FAA actions.

The DSEA was prepared following the policies, procedures, and guidelines as outlined in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* and Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*. These Orders outline FAA-accepted methodologies, models, techniques, and thresholds of significance for the impact assessment and preparation of environmental documents.

**1-2 Scope of the Supplemental EA Analysis for Future Operations and Passengers**

Some comments stated that the scope of the Supplemental EA should be broader in terms of the level of operations analyzed and more long-term in nature. The commenters are concerned that once commercial service is initiated at the Airport, the airlines would choose to operate more flights and enplane more passengers than what was projected in the DSEA and aircraft activity forecast. A majority of these comments questioned the projected numbers of operations and passengers used in the analysis, indicating that they were too low. Commenters also indicated that other airports should have been considered.

The DSEA and FSEA were prepared in accordance with applicable FAA Orders. The Orders outline FAA accepted methodologies, and preparation of documents based on actions that are “reasonably foreseeable.” The FAA has no evidence that activity levels will be higher than those projected by the airlines, and relied on the proposals submitted by the airlines (see Appendix C, which reflects the revised proposal). CEQ regulations implementing NEPA require that documents address impacts that are "reasonably foreseeable." FAA Order 5050.4B Paragraph 9q defines reasonably foreseeable as:

An action on or off-airport that a proponent would likely complete and that has been developed with enough specificity to provide meaningful information to a decision maker and the interested public. Use the following table to help determine if an action is reasonably foreseeable.⁴

(Footnote 4: Paragraph 905.c (1) and (2) provide definitions of "connected actions" and "similar actions," respectively)
The evaluation of possible operations or enplanements beyond 2024 would be speculative. Not only would aircraft operation numbers be uncertain, but the types of aircraft flown, the destinations flown, and the time of day or night those operations are also unknown. Any number of possibilities could be imagined, none of which would be based on actions that are reasonably foreseeable. The maximum capacity of the Airport is a theoretical number driven by the physical facility constraints (e.g., terminals and runways), type of aircraft, and will vary based on the aircraft fleet mix.

Any changes in destinations served from Paine Field, aircraft, or airlines operating out of Paine Field would be subject to subsequent environmental review in order for FAA to issue Operations Specifications amendments. Furthermore, if the number of passengers exceeded the capacity of the terminal, subsequent environmental review would be required before FAA could approve the modification to the Airport Layout Plan (ALP) illustrating this change.

1-3 Flawed/Inadequate Supplemental EA

Some comments indicated that the DSEA was flawed and/or inadequate in its analysis of environmental impacts of the Airport or the Proposed Action.

The DSEA was prepared in accordance with the requirements of NEPA, CEQ regulations, and FAA Order 1050.1F, Environmental Impacts: Policies and Procedures and FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions.

During the preparation of the DSEA, the current FAA-approved models were used in all modeling exercises. The DSEA addresses the potential impacts of the Proposed Action based on reasonably foreseeable future conditions compared to the thresholds of significance outlined in the FAA Orders above.

As described above in the Introduction, in early November 2018 after publication of the DSEA in September 2018 and the subsequent Public Information Workshop/Public Hearing in October 2018, the FAA was informed that Southwest Airlines had withdrawn its proposal to operate at Paine Field. The gate allocations (five flights per day) proposed by Southwest Airlines were acquired by Alaska Airlines in early November 2018. The FSEA reflects that fact that the current Proposed Action involves Alaska Airlines’ partners operating Embraer 175 aircraft on the five gate allocations acquired from Southwest Airlines, in 2019 and 2024. Where the change in aircraft type in the current Proposed Action could result in measurable impacts due to associated changes such as the number of passengers or noise level, a screening of the potential impacts in comparison to the DSEA was conducted. This screening applied to Air Quality, Climate, Noise and Noise-Compatible Land Use, and Surface Transportation. Based on the review of the screening for these environmental resource categories, it was determined that in all cases the impacts of the current Proposed Action as presented in the FSEA are fewer than the impacts evaluated in the DSEA. Because no significant impacts to these environmental resource categories were identified in the DSEA and there are fewer impacts associated with the current Proposed Action, no significant
impacts are identified in the FSEA. Therefore, no additional analyses or model runs were completed for the FSEA for these resource categories.

1-4 Adequacy of Public Involvement and Public Hearing

Some comments questioned the adequacy of public involvement for the DSEA process, including both the scoping process and a lack of more than one public workshop/public hearing.

FAA Order 1050.1F, Paragraph 2-5 states that:

NEPA and the CEQ regulations, in describing the public involvement process, require Federal agencies to: consider environmental information in their decision making process; solicit appropriate information from the public; fully assess and disclose potential environmental impacts resulting from the proposed action and alternatives; and provide the public with this information and allow it to comment on these findings.

Public scoping meetings are not required for Environmental Assessments. One agency scoping meeting was held at the beginning of this EA process, with the Puget Sound Clean Air Agency, to review the air quality protocol and modeling methodology.

The DSEA was published on September 29, 2018 with electronic versions of the document placed on the Airport’s website and hard copies available for review and comment at the following locations:

- Snohomish County Airport Administrative Office
- Mukilteo Library
- Everett Public Library
- Lynwood Library

The public workshop/public hearing included an open house for the public to discuss the Proposed Action and DSEA with the Study Team, followed by a presentation, and a formal public hearing soliciting oral and written comments. Notices for the public workshop/public hearing were run three times in the Everett Daily Herald. In addition, notice of the public workshop/public hearing was posted on the Airport’s website where the DSEA was available.

The workshop started at 5:30 PM to allow adequate time for the open house, the hearing presentation, and verbal testimony during the public hearing. Numerous attendees arrived prior to the published 5:30 PM start time, and the Study Team made themselves available as soon as the set-up was complete, at approximately 5:00 PM. The public hearing started at 6:30 PM. The general process and procedures for the public hearing allowed each person to sign up for an allotment of three minutes for public testimony. There was sufficient time for everyone who signed up to speak. If, after those three minutes were finished, a commenter wished to make additional comments, they were invited to submit additional verbal comments to a court reporter outside of the room. Everyone was also invited to submit their additional comments in writing either at the public hearing, or by mailing or
emailing their comments to the contact addresses. This process ensured that everyone who wished to provide verbal testimony had a chance to speak. For those who did not want to speak at the public hearing, they were invited to provide private verbal comments to a court reporter or submit a comment card at the public hearing, or by mailing or emailing their comments to the Study Team.

The current proposals by Alaska Airlines and United Airlines (and their partners) evaluated in this FSEA reflect the same combined gate allocation (total number of operations) included in the DSEA that was circulated for public review. While the number of operations in the current Proposed Action remain the same as that evaluated in the public DSEA, five flights per day will be operated with smaller aircraft. In consideration of this change, a screening was conducted for Air Quality, Climate, Noise and Noise-Compatible Land Use, and Surface Transportation (see Chapter 6, Environmental Consequences) relative to the current Proposed Action. Based on the reduction in passenger enplanements forecast as a result of the Alaska Airlines’ current proposal, a qualitative review was completed for the remainder of the environmental resource categories analyzed in Chapter 6. As a result, the FAA determined that there would be a reduction in impacts, when compared to results presented in the DSEA and at the Public Information Workshop/Public Hearing. Because the current Proposed Action did not result in a change in the total number of aircraft operations, and results in a decrease in both passenger enplanements and impacts, the FAA determined that an additional comment period was not necessary before issuing the FSEA.

1-5 Additional Study Should Be Conducted

Some comments requested additional study and some comments specifically requested that the FAA prepare an Environmental Impact Statement (EIS). CEQ regulations and FAA Orders require the preparation of EISs for certain actions or in cases where an EA has shown significant adverse impacts.

If the impacts exceed the significance thresholds for any affected resource and cannot be mitigated, the FAA may recommend the preparation of an EIS. Should the impacts not exceed the significance thresholds for any affected resources or are mitigated below significance, the FAA may prepare a Finding of No Significant Impact (FONSI) and/or a FONSI/Record of Decision (ROD). An EIS is required when any of the impacts of a proposed action, after incorporating any mitigation commitments, remain significant to the human environment.

As described above in the Introduction, in early November 2018 after publication of the DSEA in September 2018 and the subsequent Public Information Workshop/Public Hearing in October 2018, the FAA was informed that Southwest Airlines had withdrawn its proposal to operate at Paine Field. The gate allocations (five flights per day) proposed by Southwest Airlines were acquired by Alaska Airlines in early November 2018. The FSEA reflects that fact that the current Proposed Action involves Alaska Airlines’ partners operating Embraer 175 aircraft on the five gate allocations acquired from Southwest Airlines, in 2019 and 2024. Where the change in aircraft type in the current Proposed Action could result in measurable impacts due to associated changes such as the number of passengers or noise level, a
screening of the potential impacts in comparison to the DSEA was conducted. This screening applied to Air Quality, Climate, Noise and Noise-Compatible Land Use, and Surface Transportation. Based on the review of the screening for these environmental resource categories, it was determined that in all cases the impacts of the current Proposed Action as presented in the FSEA are fewer than the impacts evaluated in the DSEA. Because no significant impacts to these environmental resource categories were identified in the DSEA and there are less impacts associated with the current Proposed Action, no significant impacts are identified in the FSEA. Therefore, no additional analyses or model runs were completed for the FSEA for these resource categories.

The FSEA for the current Proposed Action showed that there would be no significant impacts. Therefore, an EIS for the Proposed Action is not warranted.

1-6 Draft Supplemental EA Did Not Reflect the Opposition of the Community

Some comments stated that the DSEA did not reflect the opposition from some members the community to the Proposed Action.

The DSEA did not discuss community support or opposition to the Proposed Action. The public workshop/public hearing and comment period provided opportunity for the community to comment on the Proposed Action. Comments were received both in support of the Proposed Action and in opposition to the Proposed Action. The Study Team has considered all comments received concerning the DSEA in preparing the FSEA. These comments resulted in modifications to the main body of the FSEA.

A detailed response has been prepared for all substantive comments, as reflected in this document. Similar comments were grouped together and responses were then prepared and are provided in this document. Comments that did not fit into these groupings were responded to individually. The general responses are included here in Appendix H-1 while the individual responses are provided either at the bottom of the letter/email or on the page following the letter/email in Appendices H-2 and H-3. Comments obtained at the hearing are also responded to in Appendix H-3. The FSEA reflects changes that were made to the DSEA based on public and agency comments.

1-7 Study Areas

Some comments questioned the boundaries used for evaluation of various resource categories in the DSEA and stated that expanded study areas should have been considered.

Study areas were identified to describe existing conditions in the vicinity of Paine Field and to assess direct and indirect impacts of the No Action Alternative and Proposed Action. The resource categories for the DSEA were established following the agency's guidance on environmental resources. The change to the current Proposed Action did not affect the study areas or the characterization of the existing environment as evaluated in this FSEA.
For environmental considerations that deal with broad, indirect impacts and issues, a Generalized Study Area (GSA) was established (shown in Figure 5.1-1). The GSA includes a geographic area in which certain potential impacts may affect the surrounding community (i.e., aircraft noise, air quality, and land use impacts). Because noise often has the most far-reaching impacts of an airport-related action, the size and configuration of the GSA was designed to encompass an area larger than the future DNL 65 dB contours of the Proposed Action. Areas with potential for land use and socioeconomic resource impacts were also considered when the GSA was defined.

A Detailed Study Area (DSA) was established for environmental considerations that deal with construction and operational impacts that directly affect natural resources, such as wetlands, protected species, and biotic resources (shown in Figure 5.1-2). Although no construction activities are associated with the Proposed Action, the DSA includes the areas of existing airfield pavement that would be converted for use as vehicle parking.

Two resource categories had individual study areas defined: (1) Department of Transportation (DOT) Act Section 4(f) and (2) Historic, Architectural, Archaeological, and Cultural Resources Area of Potential Effect (APE).

DOT Act Section 4(f) protects publicly owned parks, recreation areas, wildlife/waterfowl refuges, and historic properties. The Land and Water Conservation Fund Act of 1965, Section 6(f), provides funds and matching grants to federal, state, and local governments to acquire land and water for recreational purposes. Since both Section 4(f) and Section 6(f) are related to recreational areas, the same study area was used for both resources. In order to capture recreational resources east and west of Paine Field, and maintain consistency with the 2012 EA, the study area reviewed for Section 4(f) and 6(f) resources was based on a 10,000’ radius from the center of the Airport. These resources are shown on Figure 5.6-1.

The FAA consulted with the Washington Department of Archaeology and Historic Preservation (DAMP) and the Stillaguamish Tribe of Indians, Sauk-Suiattle Indian Tribe, and Tulalip Tribes to identify the APE, which is developed for the consideration of potential impacts to historic, historic architectural and archaeological resources. An APE typically includes areas subject to direct physical disturbance and areas that would be subject to indirect impacts, such as those resulting from increased noise and air emissions. The Direct Effects APE is the footprint of the existing airfield pavements that would be converted to provide additional automobile parking spaces. The excavation of soils under or adjacent to existing pavements is not anticipated. The Indirect Effects APE consists of those areas encompassed by the Proposed Action’s future study years (2019 and 2024) DNL 65 dB contour (shown on Figures 5.8-1 and 5.8-2 for 2019 and 2024, respectively). Appendix B includes consultation with the DAMP and local tribes for concurrence on the Direct and Indirect APEs.

Several commenters requested that the study area include locations such as Whidbey Island, Lake Forest Park, and Kitsap County, which are greater than 10 miles from Paine Field, as they indicate they have experienced aircraft-related effects such as noise and air emissions.
in these areas. As stated above, because noise often has the most far-reaching impacts of an airport-related action, the size and configuration of the GSA were designed to encompass an area larger than the future DNL 65 dB contours of the Proposed Action. Based on the screening conducted in Section 6.11, Noise and Noise Compatible Land Use, the contour area, which is the basis for the GSA, would decrease as a result of the current Proposed Action. The screening for air quality used FAA’s AEDT, Version 2d, compared the annual emissions associated with the Boeing 737-700 to the Embraer 175. There is a reduction in aircraft air emissions based on the replacement of the higher-emitting Boeing 737-700 aircraft that would have been used by Southwest Airlines with the lower-emitting Embraer 175 aircraft used by Alaska Airlines (see Section 6.2). The DNL 65 dB contour for the current Proposed Action is fully contained within the GSA and there are no significant air quality impacts as a result of the current Proposed Action. Therefore, locations beyond the GSA were not included as they would not experience significant impacts from the current Proposed Action.

1-8 Significance of Project Impacts

Some comments disputed that the project-related effects would not rise to the level of the significance. Commenters indicated that they believed the Proposed Action would generate significant adverse effects.

The DSEA was prepared according to NEPA and implementing FAA Orders. The DSEA identified all anticipated project-related effects associated with the Proposed Action. While the DSEA showed that there would be project-related effects in many of the environmental resource categories, these effects were not expected to exceed the significance thresholds identified in Exhibit 4-1 of FAA Order 1050.1F. The same remains true for the effects shown in the FSEA.

As described above in the Introduction, in early November 2018 after publication of the DSEA in September 2018 and the subsequent Public Information Workshop/Public Hearing in October 2018, the FAA was informed that Southwest Airlines had withdrawn its proposal to operate at Paine Field. The gate allocations (five flights per day) proposed by Southwest Airlines were acquired by Alaska Airlines in early November 2018. The FSEA reflects that fact that the current Proposed Action involves Alaska Airlines’ partners operating Embraer 175 aircraft on the five gate allocations acquired from Southwest Airlines, in 2019 and 2024. Based on the qualitative review and the screening conducted for the current Proposed Action in the FSEA, it was determined that in all cases the impacts of the current Proposed Action are fewer than the impacts evaluated in the DSEA. Because no significant impacts to these environmental resource categories were identified in the DSEA and there are fewer impacts associated with the current Proposed Action, no significant impacts are identified in the FSEA.

1-9 How is Significance Defined?

Some comments suggested that either the term significance is ambiguous or that it is not well defined in the DSEA.
The FAA uses thresholds, or specific indicators, of significant impact for some environmental impact categories. Actions that would result in impacts at or above these thresholds require the preparation of an EIS, unless impacts can be reduced below the significant threshold level(s). Quantifiable thresholds do not exist for all impact categories; however, the FAA has identified other factors to consider, consistent with CEQ regulations.

FAA-defined thresholds of significance for each environmental resource category are described and explained in Exhibit 4-1 of FAA Order 1050.1F. Exhibit 4-1, specifically details the significance threshold (if applicable) and other factors to consider for each environmental resource category. The other factors to consider are related to the potential for impacts, which may not be considered significant. For example, the FAA does not have an established significance threshold for Historical, Architectural, Archaeological, and Cultural Resources; however, factors to consider include the determination of an Adverse Effect through the Section 106 process. For categories that have significance thresholds, such as Noise and Noise-Compatible Land Use, Exhibit 4-1 details the thresholds and provides examples of special considerations for assessing other impacts, which may not be considered significant, such as impacts on noise sensitive areas within national parks. The analysis in the FSEA is consistent with the guidance outlined in FAA Order 1050.1F.

1-10 Consideration of Other Airports

Some commenters questioned why other airports were not considered as potential alternatives to Paine Field.

As stated in Section 4.2.3 of the DSEA, none of the airlines proposing to initiate service at Paine Field have has indicated interest in establishing service at an alternate airport in Snohomish County or the greater Seattle area. Furthermore, the FAA does not have the authority to direct or place influence upon commercial air service providers to provide commercial air carrier services at a particular airport, or to require them to shift services from one airport to another; therefore, other airports were not retained for analysis.

Issue 2: Operations

2-1 Why Can’t the County Limit or Restrict Operations?

Some comments stated that the County should limit or restrict commercial operations. Other comments expressed concern that once commercial operations are allowed that there will be no limit to those operations.

The County is not allowed to limit or restrict operations at Paine Field because it is a public use airport that has accepted federal funding. In accepting federal funding, the County has agreed to comply with 39 specific grant assurances. These assurances require that the County, among other things, must “make the airport available as an airport for public use on reasonable terms and without unjust discrimination to all types, kinds, and classes of
aeronautical activities, including commercial aeronautical activities offering services to the public at the Airport.” (Grant Assurance 22(a)).

The U.S. government deregulated the airline industry with Public Law 95-504, known as the Airline Deregulation Act of 1978. Since the deregulation of the airline industry in 1978, certificated U.S. air carriers are free to fly routes of their choice and serve airports of their choice. Airports that are composed of surplus federal property and/or receive federal funding are considered public use airports, and must be made available for use on a reasonable basis when a carrier seeks to start service. A consequence of that Act allowed airlines unrestricted choice as to which airports they serve. Other than to ensure safety, neither the Airport Sponsor (in this case, Snohomish County) nor the federal government controls where, when, and how airlines provide service. Operators of public use airports, such as Paine Field, cannot deny access to an airline if the aircraft they propose to use can safely operate at that facility. Consistent with its grant assurance obligations, Snohomish County has been negotiating in good faith with the airlines to accommodate proposed passenger service at Paine Field.

If the FAA were to find the Airport in non-compliance with its grant assurances, the consequences could include the suspension of grant funding or loss of the Part 139 Airport Operating Certificate, and the County could be required to pay back historical grant funding. The requirements of Grant Assurance 22(a) are similar to the requirements of the quitclaim deed for airport property from the federal government to Snohomish County.

2-2 Mediated Role Determination (MRD) Document

Some comments cited the “Mediated Role Determination” as an agreement or promise by the County that Paine Field would never have commercial service. In some instances, the commenters stated that they moved to the area because of the promise that commercial service would never be implemented.

The May 16, 2007 Executive Summary of the Report on the Mediated Role Determination for Paine Field states the following:

In 1978 at the request of Snohomish County, the University of Washington, Office of Environmental Mediation convened a panel to recommend the future role of Paine Field. The “mediated role determination” (MRD) panel suggested that general aviation and commercial aeronautical work (such as Boeing’s Everett plant) be the dominant uses of Paine Field. The MRD Panel recommended encouraging those uses, and discouraged any uses incompatible with community harmony. The existing airport uses that would be discouraged included supplemental/charter air passenger service, large transport crew training operations, air cargo aviation, and military aviation.

The MRD is advisory in nature. Federal law does not allow the County to prohibit or limit scheduled passenger air service. Because it is a public use airport that has accepted federal funding, in accepting federal funding, the County has agreed to comply with grant assurances which require that the County, among other things, must “make the airport available as an

1 https://www.faa.gov/airports/aip/grant_assurances/media/airport-sponsor-assurances-aip.pdf
airport for public use on reasonable terms and without unjust discrimination to all types, kinds, and classes of aeronautical activities, including commercial aeronautical activities offering services to the public at the Airport.” (Grant Assurance 22(a)).

2-3 What Are the Effects of the Proposed Project on General Aviation?

Some comments questioned the effect of the Proposed Action on general aviation operations at Paine Field.

As indicated in Table 3-4 of the FSEA, passenger air carrier operations are expected to be approximately 17,520 out of a total of 124,372 aircraft operations in 2019 and 125,473 aircraft operations in 2024. In other words, with the Proposed Action, air carrier operations are expected to account for less than 15 percent of total aircraft operations in both 2019 and 2024. General aviation operations are expected to total more than 100,000 operations in 2019 and 2024 regardless of whether or not the Proposed Action is implemented. Thus, the initiation of commercial service is not expected to affect the level of general aviation operations at Paine Field.

Space is available on the airfield to develop additional general aviation hangars and there are currently tie downs available. Currently, nearly 300 aircraft operations occur each day at Paine Field, and the vast majority are general aviation activities; it is expected that the airport would continue to operate in a similar manner if commercial service is initiated. The commercial aircraft (48 total flights; 24 round-trip operations) associated with the current Proposed Action would be located at the Propeller terminal and should not interfere with general aviation operations. Access to the general aviation hangars will still be available, as well.

2-4 Aircraft Currently Fly Low and Very Close to Houses

Some comments stated that aircraft already fly very low and close to houses.

The height of aircraft on final approach to a runway or departure from a runway is established by the FAA. The standard traffic pattern altitude for small propeller aircraft is 1,600 feet Mean Sea Level (MSL), while the traffic pattern altitude for large propeller, turboprop, and jet aircraft is 2,100 feet MSL. An airfield traffic pattern is a standard path followed by aircraft on takeoff or landing while maintaining visual contact with the airfield. Aircraft typically begin descending from pattern altitude in the downwind leg of the pattern when landing and on a 3-degree approach slope for the final leg of the pattern. The commercial operations included in the current Proposed Action would operate in accordance with FAA requirements.

According to Title 14, Code of Federal Regulations, Section 91.119, Minimum Safe Altitudes, in general, there are minimum standards for operations of fixed-wing aircraft (excluding when necessary for takeoff/landing). Over congested areas, an altitude of 1,000 feet above
the highest obstacle within a horizontal radius of 2,000 feet is required, except for under take-off and landing procedures. Complaints of low-flying aircraft may be filed with the FAA, Office of Flight Standards, which investigates aircraft operations not in compliance with FAA regulations.

2-5 Would there be an Increase in Fuel Dump/Fuel Smell/Residue?

Some comments stated that aircraft would dump fuel, and there would be smell and residue as a result of the Proposed Action.

Fuel dumping rarely occurs. Aircraft only need to jettison fuel during an emergency situation. Most aircraft have the capability of taking off with more weight than they can safely land with. This means that in an emergency situation immediately after takeoff, the aircraft would need to reduce its weight to make a safe return landing. Depending on the nature of the emergency, the pilot has two options, either jettison fuel or fly in a holding pattern until enough fuel has been burned to reduce the weight to below the maximum certified gross landing weight.

It is important to note that not all aircraft have the capability to jettison fuel. Some are designed and stressed to be able to take-off and land with the same weight, so fuel jettisoning is not necessary. Manufacturing information indicates that fuel dumping is not available on the Boeing 737 or Embraer 175 aircraft.

Commenters also claimed that soot or particles are deposited on their property due to aircraft flights. There have been soot studies conducted at many airports across the country, with the uniform result that samples collected on and near the airport bore little chemical resemblance to either unburned jet fuel or soot from jet exhaust. Instead, the collected material was found to be chemically similar to general urban pollution, particles from burning heavy fuels, and motor vehicle exhaust.

Odors from aircraft typically have more of an oily smell versus an odor like one would experience when fueling an automobile. The pollutants that comprise this type of smell are accounted for in the air pollutant assessment presented in the DSEA for precursor pollutants.

The air quality modeling in the DSEA covers many of the pollutants that relate either directly or indirectly to fuel “smells,” and covers all of the federally regulated pollutants that relate to human health. Since the project does not trigger any federal thresholds of significance for air quality for these pollutants, there are no significant impacts relating to air quality. Therefore, no further study is required. As described above in the Introduction, a screening of the potential impacts of the current Proposed Action in comparison to the DSEA was conducted for Air Quality. Based on the review of the screening, it was determined that the impacts of the current Proposed Action as presented in the FSEA are less than the results evaluated in

the DSEA. Because no significant impacts were identified in the DSEA and there are less impacts associated with the current Proposed Action, no significant Air Quality impacts are identified in the FSEA. Therefore, no additional analyses or model runs were completed for the FSEA for Air Quality. For additional details, see Section 6.2.2 of the FSEA.

### Issue 3: Noise

#### 3-1 Existing Aircraft Noise Concerns

Some comments discussed the level of existing noise and its impact on quality of life.

As stated in Section 6.11 of the DSEA, existing aircraft-related noise exposure was defined in the DSEA through the use of noise exposure maps or contours prepared with the FAA's Aviation Environmental Design Tool (AEDT). AEDT is the FAA-approved software program used to model the noise exposure levels from aircraft operations and engine testing and produce contours of equal sound energy. These contours are presented using the DNL 65 dB contour metric where DNL 65 dB represents significant aircraft noise impacts.

The DNL metric measures the overall aircraft noise experienced during an entire (24-hour) day. DNL calculations account for the sound exposure level of each aircraft operation, the number of aircraft operations, and a 10-dB penalty for nighttime operations. In the DNL scale, each aircraft operation occurring between the hours of 10:00 PM to 7:00 AM includes a sound level penalty to account for the higher sensitivity to noise in the nighttime and the expected further decrease in background noise levels that typically occur at night. DNL is a numerical description of the weighted 24-hour cumulative noise energy level using the A-weighted decibel scale, typically over a period of one year.

Because DNL is a cumulative metric, while areas can receive single event noise levels above 65 dB, it is the average of these noise levels over the course of one year that provides for the DNL 65 dB contour. Although the FAA recognizes that noise occurs outside of these contours, the DNL 65 dB contour is the federally accepted level at which residential and other noise sensitive land uses are incompatible with aircraft noise. Because the existing DNL 65 dB contour, shown on Figures 6.11-1 through 6.11-4 of the DSEA, does not encompass any noise sensitive land uses (homes, schools, churches, etc.), the existing land use in the vicinity of the Airport is considered compatible with aircraft operations and aircraft generated noise under the federal guidelines.

#### 3-2 Use of the DNL Metric

Some commenters asked why DNL was used as the basis for the noise analysis within the DSEA.

DNL is the standard required metric for quantifying aircraft noise exposure. As a result of the 1979 Aviation Safety and Noise Abatement Act (ASNA), Congress required the FAA to select a single metric to standardize the evaluation of aircraft noise. In response to ASNA,
through 14 CFR Part 150, *Airport Noise Compatibility Planning*, FAA formally adopted DNL as its primary metric for evaluating aircraft noise to ensure consistency across the country. FAA Order 1050.1F, Paragraph B-1, states “For aviation noise analysis, the FAA has determined that the cumulative noise energy exposure of individuals to noise resulting from aviation activities must be established in terms of yearly day/night average sound level (DNL) as FAA’s primary metric.”

DNL is the 24-hour average sound level in A-weighted decibels (dBA). This average is derived from all aircraft operations during a 24-hour period that represents an airport’s average annual operational day. DNL reflects the inclusion of a penalty to each aircraft operation occurring during nighttime hours (10:00 PM to 7:00 AM). This penalty attempts to compensate for people’s heightened sensitivity to noise during this period. Significant project-related effects are defined as impacts to noise sensitive land uses at or above the 65 DNL that experience a project-related increase of at least 1.5 dB DNL.

DNL contours were prepared using the AEDT, the FAA’s approved software program used to model the noise exposure levels from aircraft operations and engine testing and produce contours of equal noise energy. These contours are presented using the DNL metric where DNL 65 dB represents significant aircraft noise levels, and project-related significant impacts are identified based on a project-caused increase of 1.5 dB DNL within the DNL 65 dB contour for noise sensitive land uses.

Although the FAA recognizes that noise occurs outside of these contours, the DNL 65 dB contour is the federally accepted level at which residential and other noise sensitive land uses are non-compatible with aircraft noise. Because the existing DNL 65 dB contours shown on Figures 6.11-1 through 6.11-4 of the DSEA do not encompass noise sensitive land uses (homes, schools, churches, etc.), the existing land use in the vicinity of the Airport is considered compatible with aircraft operations and aircraft-generated noise under the federal guidelines.

The compatibility of various land uses with noise above DNL 65 dB is based on scientific research concerning public reaction to noise exposure. The Schultz curve predicts that approximately 14 percent of the exposed population would be highly annoyed with exposure to the DNL 65 dB. At DNL 60 dB, this rate of annoyance decreases to approximately 8 percent.

### 3-3 Noise Measurements and Supplemental Metrics Requested

Some comments requested that noise measurements be conducted and that alternative noise metrics (including change in DNL threshold) be used for the analysis.

The analysis of aircraft noise exposure was prepared in compliance with FAA Orders. Those orders require the use of noise exposure contours using the FAA-approved AEDT model showing the area affected by DNL 65 dB and greater noise levels. While alternative metrics can be informative, they are often associated with further understanding the effects associated with DNL 65 dB and greater sound levels when noise sensitive land uses are
located within the DNL 65 dB contour. While FAA guidance indicates that the use of supplemental metrics such as the maximum sound level (Lmax) and equivalent sound level (Leq) is warranted in special circumstances, such as areas of natural quiet or sleep disturbances, the FAA has determined that in this case, use of supplemental metrics is not warranted. Accordingly, the standard DNL metric and DNL 65 dB threshold were used to determine significance of the potential impacts on noise sensitive land uses.

FAA regulations and 14 CFR Part 150 require that aircraft-related noise exposure be modeled using the FAA-approved AEDT. AEDT allows calculation of noise exposure at numerous points around the airport. It also allows prediction of future aircraft noise exposure levels based on expected changes in aircraft operations and fleet mix. Per FAA regulations and 14 CFR Part 150, noise monitoring cannot be used as a substitute for the aircraft noise exposure predictions made using AEDT. Furthermore, Paragraph B-1.2., Federal Aviation Administration Approved Models for Detailed Noise Analysis, of Appendix B of FAA Order 1050.1F states, "Noise monitoring data should not be used to calibrate the noise model," and noise monitoring results cannot be used to determine impacts or for noise mitigation eligibility.

3-4 Noise Analysis Methodology

Some comments were received on the noise analysis questioning the use of the FAA’s noise model and the validity of the analysis.

The noise methods used in the DSEA comply with the FAA Orders concerning aircraft noise. The noise contours were developed using the FAA-approved AEDT model. The operational inputs were based on the FAA-approved forecasts in Appendix C, which has been updated in the FSEA to reflect the revised Proposed Action.

The AEDT model included aircraft engine run-ups that take place on the Boeing ramp on the northeast quadrant of the Airport. The “bubbling out” of the noise contour in the south central part of the Airport and to the northeast near the Boeing ramp is a result of aircraft run-ups from Boeing operations and Aviation Technical Services (ATS) operations. Because these noise events can be quite loud, they have a substantial effect on the contour, pushing the contour out to the east. However, the Proposed Action is not expected to increase or change these aircraft run-ups. Taxiing operations are not included in the noise model because they are overshadowed by landing and takeoff noise and would require approval from FAA for custom aircraft profiles.

Comparing the current Proposed Action with the Proposed Action evaluated in the DSEA, it was anticipated that the change in aircraft type from the Boeing 737-700 to the Embraer 175 would have a small, but measurable reduction in aircraft noise. Therefore, a screening process was conducted using the Area Equivalent Method (AEM) to compare the potential change in impact of the current Proposed Action to the Proposed Action evaluated in the DSEA. The AEM is a screening tool developed by the FAA and is used to streamline the determination of the need for additional analysis using the Aviation Environmental Design Tool (AEDT). The AEM screening, which provides an indication of the expected change in
the size of the DNL contours, indicated that there would be a reduction in the size of the DNL contours for the current Proposed Action. Because no significant impacts were identified in the DSEA, no significant impacts are associated with the current Proposed Action presented in the FSEA. Therefore, the AEDT model was not rerun for the FSEA. For more details of the analysis, see Section 6.11.2.

3-5 Where are Flight Tracks Shown?

Some comments asked where the flight tracks were located in the DSEA and asked if any changes would occur to the flight tracks as a result of the Proposed Action. Several comments were related to proximity of flight tracks to residential areas.

No flight track changes are being recommended as part of the Proposed Action or current Proposed Action. The flight tracks are shown in Appendix F and are the same for both the No Action Alternative and the current Proposed Action.

Flight tracks are designed for airspace and airport safety and efficiency, and aircraft must follow these tracks in order to operate and land safely. Typically, aircraft are required to operate at a minimum of 1,000 feet above ground level except during take-off or landing. The FAA has the sole authority to change flight tracks.

3-6 What Are the Existing and Future Noise Impacts?

Some comments stated that the existing noise is already intolerable, and mentioned that the Proposed Action would only make the problem worse. The comments also indicated that the analysis was flawed and did not represent the true change in noise.

The analysis of aircraft noise exposure in the DSEA was prepared in compliance with FAA Orders 1050.1F and 5050.4B. Those Orders require the use of noise exposure contours using the FAA-approved AEDT model showing the area affected by DNL 65 dB and greater noise levels.

The FAA and the County have taken steps over the years to assess existing levels of aircraft noise and to develop voluntary noise abatement procedures that reduce the impacts on residential and other noise sensitive areas. The existing condition (2017) DNL 65 dB contour is shown on Figure 5.11-1 of the DSEA. The DNL 65 dB contour does not encompass any noise sensitive land uses (homes, schools, churches, etc.). Therefore, the existing land use in the vicinity of the Airport is considered compatible with aircraft operations and aircraft-generated noise based on federal guidelines.

A slight change in noise would occur with the Proposed Action, increasing the DNL 65 dB contour. As seen in Section 6.11 of the FSEA, the Proposed Action would not result in noise sensitive uses within the DNL 65 dB noise exposure contour. Because no significant noise impacts would occur to noise sensitive land uses within the FAA-defined thresholds of significance (DNL 65 dB contour), no mitigation is required. While changes in the noise environment would occur outside this contour with or without the Proposed Action, the
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DNL 65 dB contour is the federally-accepted threshold of the beginning of significant aircraft noise levels and therefore is the contour used to disclose any significant aircraft noise impacts that would result from the Proposed Action.

Comparing the current Proposed Action with the proposals evaluated in the DSEA, it was anticipated that the change in aircraft type from the Boeing 737-700 to the Embraer 175 would have a small, but measurable reduction in aircraft noise. Therefore, a screening process was conducted using the Area Equivalent Method (AEM) to compare the potential change in impact of the current Proposed Action to the proposal evaluated in the DSEA. The AEM is a screening tool developed by the FAA and is used to streamline the determination of the need for additional analysis using the Aviation Environmental Design Tool (AEDT). The AEM screening process, which provides an indication of the expected change in the size of the DNL contours, indicated that there would be a reduction in the size of the DNL contours for the current Proposed Action. Because no significant impacts were identified in the DSEA, no significant impacts are associated with the current Proposed Action presented in the FSEA. Therefore, the AEDT model was not rerun for the FSEA. For more details of the analysis, see Section 6.11.2.

3-7 Noise Impacts on Schools

Some comments stated that there would be impacts on schools from increased noise as a result of the Proposed Action.

The noise and land use impact analysis presented in the document were prepared in accordance with federal guidelines and showed that while aircraft noise would change slightly with the Proposed Action, there would continue to be no noise sensitive uses exposed to DNL 65 dB or greater noise levels. No schools would be exposed to DNL 65 dB or greater noise levels with or without the Proposed Action. 14 CFR Part 150, Land Use Compatibility Guidelines, indicates that schools are compatible with aircraft noise levels less than DNL 65 dB.

3-8 What are the Health Effects of Noise?

Some comments questioned the impacts of noise on public health.

According to various studies and scientific research, noise can have varying effects on people. From these effects, criteria have been established to protect public health and safety and prevent disruption of certain human activities. These criteria are based on the effects of noise on people, communication interference, sleep interference, physiological responses, and annoyance.

The health effects of noise were taken into account when the FAA was required by Congress, through the Aviation Safety and Noise Abatement Act of 1979 (ASNA), to select one metric for describing aircraft noise levels. The FAA selected the use of the Day-Night Noise Level (DNL), which is required for use in FAA NEPA documents. The DNL reflects the Schultz curve, which predicts that approximately 14 percent of the exposed population
would be highly annoyed with exposure to the DNL 65 dB. This annoyance level has been correlated to health effects due to stress; hearing loss would not be expected at sound levels experienced off-airport in the vicinity of Paine Field. The Proposed Action would not subject any noise sensitive land uses to exposure of 65 DNL or greater; therefore, no significant project-related noise impacts are expected.

As stated above, noise is known to have adverse effects on people, and these effects have helped establish criteria to protect the public health and safety and prevent disruption of certain human activities. These criteria are based on the effects of noise on people, including communication interference, sleep interference, physiological responses, and annoyance. Each of these potential noise impacts is briefly discussed in the following points:

- *Communication Interference* is one of the primary concerns with aircraft noise. Communication interference includes interference with hearing, speech, or other forms of communication such as watching television and talking on the telephone. Normal conversational speech produces sound levels in the range of 60 to 65 dBA, and any noise in this range or louder may interfere with the ability of another individual to hear or understand what is spoken.

- *Sleep Interference*, particularly during nighttime hours, is one of the major causes of annoyance due to noise. Noise may make it difficult to fall asleep, create momentary disturbances of natural sleep patterns by causing shifts from deep to lighter stages, and may cause awakenings that a person may not be able to recall.

- *Physiological Responses* reflect measurable changes in pulse rate, blood pressure, etc. Generally, physiological responses reflect a reaction to a loud short-term noise, such as a rifle shot or a very loud jet overflight.

- *Annoyance* is the most difficult of all noise responses to describe. Annoyance is an individual characteristic and can vary widely from person to person. What one person considers tolerable may be unbearable to another of equal hearing capability. The level of annoyance also depends on the characteristics of the noise (e.g., loudness, frequency, time, and duration), and how much activity interference (e.g., speech interference and sleep interference) results from the noise. However, the level of annoyance is also a function of the attitude of the receiver. Personal sensitivity to noise varies widely. It has been estimated that two to 10 percent of the population are highly susceptible to annoyance from noise not of their own making, while approximately 20 percent are unaffected by noise. Attitudes are affected by the relationship between the listener and the noise source (Is it your dog barking or the neighbor's dog?). Whether one believes that someone is trying to abate the noise will also affect their level of annoyance.

### 3-9 Request for Noise Curfew/Activity Restrictions

Some comments called for a noise curfew, or for aircraft activity restrictions or other measures to mitigate the impacts of the Proposed Action and noise at the Airport.
There are no noise sensitive land uses within the DNL 65 dB and there are no project-related effects that rise to the level of being significant. As a result, no mitigation measures are required for this Supplemental EA.

The Airport Noise and Capacity Act of 1990 (ANCA) prevents airports from establishing additional operational and/or access restrictions on aircraft except through compliance with 14 CFR Part 161, Notice and Approval of Airport Noise and Access Restrictions. The FAA will approve a restriction only if it complies with the following statutory and regulatory conditions:

1. The restriction is reasonable, non-arbitrary, and nondiscriminatory;
2. The restriction does not create an unreasonable burden on interstate or foreign commerce;
3. The restriction is not inconsistent with maintaining the safe and efficient use of the navigable airspace;
4. The restriction does not conflict with a law or regulation of the United States;
5. An adequate opportunity has been provided for public comment on the restriction; and
6. The restriction does not create an unreasonable burden on the national aviation system.

In its analysis, the airport operator must show that the benefits of a restriction outweigh the costs and that all non-restrictive measures have been shown to be ineffective at eliminating the noise and land use incompatibilities addressed by the restriction. Since the passage of ANCA in 1990, there has only been one Part 161 Study approved by FAA.

Therefore, these types of restrictions cannot readily be put into place at a public use airport. However, in 1997, the Airport enacted a voluntary noise abatement procedure for large commercial aircraft with more than 30 passengers from 9:00 PM to 7:00 AM, where aircraft are requested to avoid operating during these hours. This procedure is voluntary since the ANCA makes it nearly impossible to impose a mandatory curfew or activity restriction, and it also serves as a safety measure to inform pilots of potential head-to-head conflicts when the air traffic control tower is closed.

**3-10 Boeing 747 Dreamlifter Operations**

Comments were received related to operation of the Boeing 747 Dreamlifter and resulting noise and vibration impacts, particularly during nighttime hours.

The Boeing 747 Dreamlifter would operate at Paine Field regardless of whether or not the Proposed Action is implemented. Dreamlifter operations were included in the noise analysis, which did not result in any impacts to noncompatible land uses. Additionally, there have been many studies on the impacts of aircraft-noise induced vibrations on structures. The results consistently show that vibration levels from aircraft noise are well below the levels that would be expected to cause structural damage (Concorde Noise-Induced Building Vibrations for Sully Plantation, NASA, 1976; Building Vibrations Induced by Noise from Rotorcraft and Propeller Aircraft Flyovers, NASA, 1992).
Issue 4: Air Quality

4-1 Sources of Existing Air Pollution

Some comments requested a description of airport air pollution sources as well as other existing air pollution sources.

A number of comments requested the likely sources of emissions at airports, which typically include the following, as described in Section 6.2.2 of the DSEA:

- Aircraft and auxiliary power units (APU) on the aircraft
- Ground support equipment (GSE) --the vehicles that service the aircraft
- Ground access vehicles, roadways, and parking lots -- the vehicles that transport passengers, employees, and goods and services that use the airport on the area roadway system
- Stationary sources --such as generators, heating and cooling systems, etc.
- Fire training -- fire department vehicles and equipment
- Maintenance and construction activity -- including off-road vehicles and equipment

Other sources of air pollution not associated with the Airport and its operations, and unaffected by the Proposed Action, that occur within the air shed, include:

- Manufacturing and other industrial sources
- Power plant emissions
- Marine emissions from commercial shipping
- Mobile emissions from non-airport related surface traffic
- Rail emissions from passenger and freight trains
- Construction emissions from residential, commercial and industrial projects
- A number of other miscellaneous sources

Information provided by the Puget Sound Clean Air Agency indicates that airport-related criteria pollutant emissions are less than 5 percent of total Puget Sound air emissions, and airport-related greenhouse gas emissions are less than 0.5 percent of total Puget Sound greenhouse gas emissions.4 Surface vehicle emissions within the Puget Sound region are the single largest source of emissions.

4-2 Air Quality

Some comments stated that the DSEA did not fully address air quality impacts, including Hazardous Air Pollutants (HAPs) and the National Ambient Air Quality Standards (NAAQS).

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4 See Table 5.4-1 of the FSEA and PSCAA 2015 GHG Emissions Inventory:
Significant air quality impacts would be demonstrated if the Proposed Action exceeded one or more of the NAAQS for any of the time periods analyzed. Emissions of criteria pollutants in 2019 and 2024 associated with the Proposed Action would not be significant because the difference in emissions between the No Action Alternative and the Proposed Action would not cause or contribute to an exceedance of the NAAQS or increase the frequency or severity of any air quality violations in the Puget Sound region. Because the Puget Sound region is in attainment for all criteria air pollutants, a general conformity analysis was not required for this action (see Appendix D).

For major projects normally requiring an EIS (e.g., new airport, new runway, major runway extension), the responsible FAA official should decide, in consultation with federal, state, and local air quality agencies whether it is appropriate to conduct a HAPs emission inventory. The Proposed Action is not considered a major project requiring an EIS, and consultation with the Puget Sound Clean Air Agency determined that further analysis was not warranted. No NAAQS have been established for HAPs, except for lead, which is regulated as a criteria pollutant and as a HAP. As stated above, the Puget Sound region is in attainment for all criteria air pollutants. In general, the levels of HAPs on or near airports are not appreciably different than those measured in other areas of the urban environment.\(^5\)

In response to questions and comments about the emissions being low because the evaluation only focused on the Proposed Action, it is important to understand the basis by which NEPA documents are prepared. CEQ regulations implementing NEPA require that NEPA documents address impacts that are "reasonably foreseeable."

FAA Order 5050.4B Paragraph 9q defines reasonably foreseeable as:

> An action on or off-airport that a proponent would likely complete and that has been developed with enough specificity to provide meaningful information to a decision maker and the interested public. Use the following table to help determine if an action is reasonably foreseeable.\(^4\)

(Footnote 4: Paragraph 905.c (1) and (2) provide definitions of "connected actions" and "similar actions," respectively)

Similar to the requirements of NEPA, the General Conformity Regulations also contain a related definition. 40 CFR 93.152 defines "reasonably foreseeable emissions" as:

> ...projected future indirect emissions that are identified at the time the conformity determination is made; the location of such emissions is known and the emissions are quantifiable, as described and documented by the Federal agency based on its own information and after reviewing any information presented to the Federal agency.

Reasonably foreseeable emissions for the Proposed Action include those incremental emissions associated with operations of the new carriers at Paine Field. How and when activity levels may change beyond those predicted by the proposing airlines are not foreseeable. Such information is required to evaluate the environmental effect of the

additional activity at Paine Field. Without a clear understanding of the additional carriers that would be operating in a specific timeframe and their likely activity levels, the impacts on air quality cannot be identified, because emissions vary based on aircraft type, activity levels and the projected number of passengers, the associated aircraft engines, and other factors. For these reasons, the FAA determined that such future conditions for carriers, beyond the flights analyzed in the DSEA, are not reasonably foreseeable and therefore were not modeled or assessed in this DSEA.

As described above, in the Introduction, a screening of the potential impacts of the current Proposed Action in comparison to the DSEA was conducted for Air Quality. The screening used FAA’s AEDT, Version 2d, and compared the annual emissions associated with the Boeing 737-700 to the Embraer 175. There is a reduction in aircraft air emissions for the current Proposed Action based on the replacement of the higher-emitting Boeing 737-700 aircraft that would have been used by Southwest Airlines with the lower-emitting Embraer 175 aircraft used by Alaska Airlines (see Section 6.2). Because no significant impacts were identified in the DSEA and there are less impacts associated with the current Proposed Action, no significant Air Quality impacts are identified in the FSEA. Therefore, no additional analyses or model runs were completed for the FSEA for Air Quality. For additional details, see Section 6.2.2 of the FSEA.

Issue 5: Traffic

5-1 Existing and Future Traffic

Some comments indicated that existing surface traffic in the area is already congested and that additional traffic analysis should be included in the DSEA.

The surface traffic associated with the Proposed Action was analyzed using the existing traffic as the baseline condition (see Section 5.13 of the FSEA). Local jurisdictions establish thresholds that determine if a road segment or intersection is operating at an acceptable level or at a deficient level of service. Currently all Snohomish County arterials analyzed are operating at acceptable levels of service and are anticipated to remain at acceptable levels of service with funded improvements and the Proposed Action. However, four intersections currently operate at deficient levels of service, and a total of seven intersections are anticipated to operate at deficient levels of service in the future whether or not the Proposed Action is implemented. The seven intersections are:

- SR 525 at Beverly Park Road (WSDOT intersection, currently operates at a deficient LOS)
- SR 99 at Airport Road (City of Everett intersection, currently operates at a deficient LOS)
- I-5 southbound ramps at 128th Street SW/SR 96 (WSDOT intersection) – Future
- I-5 northbound ramps at 128th Street SW/SR 96 (WSDOT intersection, currently operates at a deficient LOS)
- 3rd Avenue SE at SR 96/132nd Street SE (WSDOT intersection) – Future
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- SR 525 at Goat Trail Road (City of Mukilteo intersection) – Future
- SR 526 at SR 99/SE Everett Mall Way (WSDOT intersection, currently operates at a deficient LOS)

The City of Everett has determined that capacity improvements for single-occupant vehicles to the intersection of SR 99 at Airport Road are not practical due to the existing land configuration and lack of right-of-way; instead, additional transit services are identified for the area. Impacts from the current Proposed Action to the WSDOT intersections will be mitigated through the WSDOT mitigation fees in accordance with the interlocal agreement between Snohomish County and WSDOT. The City of Mukilteo intersection would operate at an acceptable level of service with the signal that is identified as part of the cost fee basis for the City of Mukilteo traffic mitigation fees. The traffic mitigation fees that will be paid to the City of Mukilteo will therefore mitigate the impacts of the Proposed Action.

Comparing the current Proposed Action with the proposals evaluated in the DSEA, it was anticipated that the change in aircraft type from the Boeing 737-700 to the Embraer 175 would have a small, but measurable reduction on traffic and vehicle trips. Therefore, a screening was conducted to reflect the current Proposed Action. The screening of the current Proposed Action and change in passenger enplanements indicated that there would be a reduction in vehicle trips (and as a result, a decrease in traffic). As no significant impacts were identified in the DSEA and traffic from the current Proposed Action is expected to be lower, there would be no significant impacts from the current Proposed Action. Because of the minimal reduction based on the screening, the full surface transportation models (presented in Appendix E) were not rerun. The level of service impacts described above reflect the current Proposed Action. For additional details, see Section 6.13.2 of the FSEA.

5-2 Traffic Analysis

Some comments questioned the validity of the surface traffic impact analysis.

The traffic impact analysis for the Proposed Action was performed in accordance with Snohomish County's requirements for new developments and the interlocal agreements between Snohomish County and WSDOT and the City of Mukilteo. Snohomish County does not have an interlocal agreement with the City of Everett, and therefore the City of Everett's SEPA traffic impact analysis requirements for developments were used when determining the scope of analysis required for the trips generated by the project impacting City of Everett intersections. Additionally, there were several ways in which the trip generation of the Proposed Action and therefore the traffic impacts of the Proposed Action were conservative, meaning the projected impacts of the Proposed Action on the surrounding roadways, as analyzed in the DSEA, are higher than what is actually anticipated. The information below describes the conservative methodology that was utilized for this analysis.
Analysis Periods

Reviewing jurisdictions generally require impacts to be analyzed during the typical PM peak-hour (within the 4:00 PM to 6:00 PM time period) and sometimes the AM peak-hour (within the 7:00 AM to 9:00 AM time period). Additionally, Snohomish County required the analysis of the Airport Road arterial during the Boeing shift changes (generally around 6:00 AM to 7:00 AM and 2:00 PM to 3:00 PM). The analysis of the Proposed Action was therefore completed for the typical weekdays during the times with the highest volumes.

Snohomish County and the surrounding jurisdictions do not have a weekend or holiday peak analysis requirement for this area since the standard weekday commuter peaks typically have higher traffic volumes than weekends in the study area, and seasonal peaks are only for 2–3 months of the year.

Trip Generation of the Proposed Action

The proposed times of flight operations are always subject to change by the airlines, and exact schedule for the flights is not currently known. Therefore, it was conservatively assumed that the peak trip generation of the project would occur during the existing weekday commuter peaks, including the Boeing peaks for the Airport Road arterial, to analyze the highest impact scenario. This resulted in the peak trip generation of the Proposed Action being added to the weekday peak periods of the surrounding street network.

The peak trip generation of the Proposed Action assumes that during a 60-minute period the following trips will occur:

- Two full turns of an Embraer 175 (76-seat aircraft), all passengers arriving and departing
- One full turn of a Boeing 737 (163-seat aircraft), all passengers arriving and departing
- A quarter of the estimated employees will arrive and a quarter of the estimated employees will leave

These Paine Field trip generation assumptions were compared to the operations at Bellingham International Airport, which serves Horizon Air and Allegiant Air and similar plane sizes. It was found that the time between a full turn for Horizon Air and Allegiant Air at Bellingham is closer to two hours. Therefore, the assumption that all of the Paine Field trips will occur during one hour is conservatively high.

Using this methodology in the DSEA resulted in the Proposed Action generating more trips during the peak-hours than what is actually anticipated and therefore a conservative analysis of the impacts of the Proposed Action.

New Trips to the Street System

All of the trips generated by the Proposed Action (i.e., trips to and from the new terminal) were assumed to be new trips to the road system for the purposes of performing the level of
service analysis. A diversion of trips has not been included in the level of service analysis for the traffic impact analysis. This assumption means that all of the trips generated by the Proposed Action are new to the analyzed intersections and arterials, which represents the highest estimate of the impacts of the project.

5-3 Ferry Operations

Some comments were received that expressed concern regarding the impact of the Proposed Action on traffic, when compounded with ferry operations.

WSDOT, Snohomish County, and the Cities of Mukilteo and Everett do not require analysis of impacts during peak ferry times, holidays, or other non-typical peak times. Ferry operations fall under the jurisdiction of WSDOT, who did not request an analysis of ferry impacts, which is typical for development in the area. Travel lanes dedicated to ferry traffic are located along the shoulder of SR 525 that are designed to minimize impacts to intersection and mainline operations. Additionally, a new ferry terminal project is fully funded to add additional on-site capacity for ferry traffic.

Issue 6: Other Impacts and Mitigation

6-1 What Are the Quality of Life Impacts?

Some commenters mentioned that their quality of life would be impacted due to changes in noise, air quality, and potential decreases in property value.

“Quality of life” is not a category that is specifically referenced in NEPA or FAA Orders. However, the concept of quality of life is tied into several environmental resource categories addressed in NEPA documents, including noise, water quality, air quality, and children’s health and safety. While the Proposed Action is not expected to generate significant adverse effects, there will be project-related effects. In accordance with the requirements of NEPA, the purpose of the DSEA is to assess and disclose the environmental impacts of the Proposed Action and make a determination as to the significance of the impact(s). While some of the environmental resource categories would have project-related environmental effects, these effects would not be significant. Chapter 6 of the DSEA discusses the effects of the Proposed Action on each environmental resource category, including noise, air quality, and socioeconomic impacts, which are most frequently associated with quality of life effects.

6-2 What is the Impact on Property Values?

Some comments expressed concern that the Proposed Action would have a negative impact on property values in the area.

A limited number of studies have attempted to measure the impact of aircraft noise on property values and no specific studies of the impact of noise at Paine Field on real property values have been conducted. In addition, “Impact to Property Values” is not a category that is specifically referenced in NEPA or FAA Orders. A2008 report by the Airport Cooperative
Research Program (ACRP) Synthesis 9: Effects of Aircraft Noise: Research Update on Selected Topics\textsuperscript{6} concluded:

“In summary, 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. Whereas most studies concluded that aviation noise effects on property value range from some negative impacts to significant negative impacts, some studies combined airport noise and proximity and concluded that the net effect on property value was positive. Prospective homebuyers were at times not well-informed about the noise levels of aircraft operations near the property of interest. Lack of information often led to high bid prices and possible disappointment after purchase.

Homeowners that experienced an increase in noise levels bore the burden of aviation noise. However, once noise levels stabilized, the next homeowner was compensated once the property value adjusted owing to the effects of noise. Lastly, the technology available to analyze data has improved throughout the years. The spatial nature of aircraft operations, noise contours, and property location will continue to prompt studies founded in GIS analysis that will improve our understanding of the effects of aviation noise on property value.”

One of the difficulties in evaluating the effect of aircraft noise on property values is the application of findings from one location to another. The Effect of Airport Noise on Housing Values, a report prepared in 1994 by Booz-Allen & Hamilton for the FAA\textsuperscript{7}, outlined a viable method of examining the effects of airport noise on housing values at the national level by using an approach referred to as the "neighborhood pair model." A series of studies conducted at Baltimore-Washington International, Los Angeles International, and New York LaGuardia and Kennedy International Airports determined that the neighborhood pair model can be used to establish the boundaries of the effect that airport noise has on housing values at a given airport. However, Booz-Allen recommended that their approach not be used at this time to determine property values due to the small sample size. Furthermore, Booz-Allen concludes that “Although these studies have been useful in providing some insight into this complex issue, it is difficult to draw any clear and unambiguous conclusions from the results, since each of the studies used a variety of quantitative and qualitative techniques, different measures of noise, and dissimilar sources of information. Therefore, the results of the study cannot be applied to airports in any general overall sense.”

Older studies conducted at other airports, which are summarized in documents such as FAA’s 1985 Aviation Noise Effects Report, have also concluded that airport noise has only a slight impact on property values within the 65 DNL or greater noise contour. Additionally, comparison of older studies to more recent studies indicates that noise impacts were greater in the 1960s, when jet aircraft first entered the fleet, than in the 1980s or 1990s. This

\textsuperscript{6} Effects of Aircraft Noise: Research Update on Selected Topics, A Synthesis of Airport Practice, Transportation Research Board, Airport Cooperative Research Program (ACRP), Washington, DC, 2008.

presumably is the result of stabilization of real estate markets following an initial adjustment to noisier jets, and of noise reduction in more modern aircraft using Stage 3, Stage 4, and Stage 5 engine technology. In addition, proximity to an airport could have a positive effect on property values in some markets as they provide access to travel and employment opportunities.\textsuperscript{8,9}

In the Summary and Conclusions section of the FAA’s 1985 \textit{Aviation Noise Effects Report}\textsuperscript{10}, it was stated "the magnitude of this impact [of noise on property values] cannot be estimated at the national level at this time, since the results varied across a wide range for the Airports studied, and only a small sample of airports was considered."

\textbf{6-3 What is the Impact of the Proposed Action on Crime?}

Some comments stated that the Proposed Action will increase crime in the community.

Potential for crime is not a category that is specifically called out in NEPA or FAA Orders. There is no known published research that would indicate a correlation between the initiation of commercial air service and local crime or prostitution. Therefore, it is not possible or necessary to evaluate such conditions relative to the Proposed Action.

\textbf{6-4 What are the Health Effects Associated with the Proposed Action?}

Some comments stated that the Proposed Action would have an adverse effect on health.

"Health" is not a category that is specifically referenced in NEPA or FAA Orders. However, each of the environmental resource categories addressed in the DSEA can be related to health effects. For example, the National Ambient Air Quality Standards (NAAQS) are established by the U.S. Environmental Protection Agency (USEPA) to protect public health and welfare. Thus, the air quality evaluation considers the effects of the Proposed Action relative to these standards. The USEPA also requires water quality assessments for each state’s waterbodies, and groundwater is regulated by the Washington State Department of Ecology. Similarly, FAA’s consideration of aircraft noise exposure ensures the protection of public health and the compatibility of land uses with various sound levels. Each section in \textbf{Chapter 6} of the DSEA discusses the effects of the Proposed Action on each environmental resource category. In addition, the DSEA includes a section on Children’s Environmental and Safety Risks. As noted, in accordance with FAA Orders, the project-related effects of the Proposed Action are not expected to exceed the FAA’s thresholds of significance, and thus no significant health-related effects are expected.

\textbf{6-5 What is the Impact on Wildlife?}

Some comments stated that there would be impacts on wildlife as a result of the Proposed Action. Concerns were also raised regarding the study area with respect to wildlife.

\textsuperscript{8} \textit{Aviation Noise Effects}, Federal Aviation Administration (FAA), Washington, DC, March 1985.


\textsuperscript{10} \textit{Aviation Noise Effects}, Federal Aviation Administration (FAA), Washington, DC, March 1985.
suggesting that wildlife outside of Airport property could be impacted, especially with respect to aircraft activities and noise.

Potential project-related impacts to wildlife as a result of the Proposed Action were assessed in Section 6.3 of the DSEA in accordance with FAA Order 1050.1F. There are no known federally-listed species documented on the Airport and no designated Critical Habitat within one mile. Approximately one mile to the west of Paine Field, Puget Sound contains Critical Habitat for federally-listed Chinook salmon, bull trout, and Puget Sound Southern Resident killer whale. None of these aquatic habitats would be affected by the Proposed Action.

Public observations of special status species were located outside the project study area. Because there is no construction and flight paths would not change, it was determined that no impacts would occur to any listed species outside the study area. Additionally, no significant impacts are expected with respect to air quality, noise, wetlands, or water quality that would affect surrounding habitats on or off Airport property that would warrant examining a larger biotic project study area or require a large-scale survey. Since a No Effect determination was made, consultation is not required with the U.S. Fish and Wildlife Service pursuant to the Endangered Species Act.

6-6 What are the Safety Impacts due to the Air Traffic Control Tower Hours?

Some commenters expressed concern about the air traffic control tower (ATCT) not operating during the nighttime, and the potential for safety impacts with increased operations.

The Paine Field ATCT is open from 7:00 AM until 9:00 PM local time. When the ATCT is not staffed, users operate on a Common Traffic Advisory Frequency (CTAF) frequency; this is standard procedure in the airport industry (in accordance with FAA Advisory Circular 90-42F).

FAA’s Aeronautical Information Manual educates pilots for the proper use of CTAF procedures such as alerting when aircraft are within 10 miles of the airport, thus notifying anyone who may need to clear the runway or safety area.

Airport personnel with airside driving privileges undergo annual training on proper airside travel procedures, including proper radio procedures for those with airfield responsibilities. All airside use vehicles and equipment used on the runway/ ramp areas are equipped with tower frequency radios that are capable of transmitting and communicating with pilots without coordinating via the ATCT. Furthermore, all vehicles and equipment used on the runway/ramp area meet applicable visibility standards, and are typically painted according to applicable safety standards (e.g., yellow or white with a flashing beacon).

The Proposed Action also requires the installation of a segmented circle. A segmented circle is a visual ground-based structure, utilized when the Paine Field ATCT is closed, to provide
aircraft traffic pattern information. It typically includes wind direction, landing direction, landing strip, and traffic pattern indicators, which assists with the safe operation of aircraft after the ATCT closes.

6-7 Effect on Culture of Local Community

Concerns were raised on the change in local community culture and character such as coastal living and demographics as the result of the Proposed Action.

Following FAA Order 1050.1F, impacts to local communities are generally analyzed based on the significance of noise impacts or required relocations that could fracture a community or otherwise disrupt the community physically or economically. Aircraft noise already exists from current operations, although no noise sensitive uses are located in significant aircraft noise exposed areas. The Proposed Action is not expected to generate significant aircraft noise exposure. No homes, businesses, or other community resources would need to be relocated.

6-8 Cumulative Impacts

Some comments suggested that the overall cumulative impacts of the Proposed Action were not adequately assessed in the DSEA.

CEQ regulations (40 CFR § 1508.7) state that cumulative impacts represent the:

“...impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions, regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over time.”

The cumulative impacts assessment, which was prepared in accordance with CEQ regulations and FAA Order 1050.1F and Order 5050.4B, is in Section 6.16 of the DSEA. The DSEA describes past, present, and reasonably foreseeable projects on and adjacent to the Airport that potentially overlap and impact the same resources as the Proposed Action. The analysis in the FSEA has been refined to address the comments received, and states that based on federal significance thresholds, there would be no significant cumulative impacts. It has been determined that the potential incremental impacts of the current Proposed Action would not combine with existing impacts in a way that would become cumulatively significant to any given resource.

6-9 Water Quality Impacts

Some comments related to the potential for water quality impacts as a result of the Proposed Action.

Water quality considerations related to airport development and operations often include increased surface runoff; erosion; pollution from fuel, oil, solvents, and deicing fluids; and
potential impacts from decreased water quality on fish, wildlife, plants, and humans. Potential pollution could come from petroleum products spilled on the surface and carried through drainage channels off of the Airport. State and federal laws and regulations include standards for aboveground and underground storage tanks, leak detection, and overflow protection.

Paine Field currently operates under Snohomish County’s 2016 Drainage Manual, which includes stormwater detention and water quality requirements. The Airport also operates under Permit WAR000428 issued to Snohomish County under the State of Washington’s Industrial Stormwater General Permit. Surface water and stormwater runoff is captured and conveyed in a series of constructed bioswales, storm drain pipes, catch basins, detention facilities, and constructed stormwater ponds throughout the area.

There would be no change in impervious surface areas as a result of the current Proposed Action. Additionally, commercial aircraft maintenance and washing activities are not expected as a result of the current Proposed Action. All commercial aircraft, associated with the Current Proposed Action, requiring deicing would primarily use the new deicing pad located at the gate. Deicing could also occur at the existing deicing pad at Taxiway-A1. Discharges from deicing activities at the A1 deicing pad are covered under the wastewater discharge permit issued to Snohomish County Airport by the City of Everett and the industrial stormwater discharge permit (NPDES Industrial Stormwater Permit) issued to the Airport by the State of Washington Department of Ecology. Deicing activities at the are gate covered under the permits issued to Propeller by the City of Everett and its National Pollutant Discharge Elimination System (NPDES) Industrial Stormwater Permit (WAR307255) issued by the State of Washington Department of Ecology. Both deicing locations drain to the sanitary sewer system flowing through the Boeing Everett Factory, and the wastewater is treated at the City of Everett wastewater treatment plant, which has sufficient capacity to accommodate additional deicing runoff.

Paine Field follows best management practices for runway and taxiway deicing and anti-icing operations, and provides monitoring data to the State of Washington Department of Ecology in accordance with the terms of the NPDES Industrial Stormwater Permit. Paine Field uses potassium acetate for airfield pavement deicing/anti-icing and does not use Airport runway and taxiway deicing products that contain urea or glycol as certified in the Paine Field Annual Reports.

6-10 Wetland Impacts

Some comments questioned impacts on wetlands.

The Proposed Action would not alter or adversely affect the existing wetlands and wetland habitats on the Airport. As stated in Section 5.15.1 of the FSEA, several freshwater wetlands and a wetland mitigation bank are located on the Airport property. Wetlands on Paine Field were inventoried and delineated in 2007 as part of a critical areas study completed by the Airport.
Appendix H-1 General Responses

No wetland impacts are anticipated from the current Proposed Action as a result of potential effects to water quality or stormwater. Additionally, stormwater will not increase as no additional impervious surface will be constructed as part of the Proposed Action. Likewise, although deicing practices may increase as a result of increased operations, stormwater would not exceed the capacity of existing stormwater detention systems and the Airport’s and Propeller’s permits.

6-11 Mitigation

Commenters questioned what roadway traffic, noise, and air quality mitigation would be required as a result of providing proposed commercial service and passengers, and who would be responsible for that mitigation.

Consideration of mitigation is only required for actions where the project-related effects would exceed the federally defined thresholds of significance. As noted, the Proposed Action is not expected to produce impacts that would exceed the federal thresholds and, thus, compensatory mitigation of the Proposed Action is not required.

Under the Washington State Growth Management Act, state and local communities can impose impact fees based on new surface traffic that a project is expected to generate. For traffic mitigation, the only required mitigation identified in the EA is traffic mitigation fees, which are a local requirement. The mitigation fees are based on passenger enplanements and were updated in the FSEA to reflect the current Proposed Action (see Section 6.17 of the FSEA). The total traffic mitigation fees identified for payment to Snohomish County, WSDOT, and the City of Mukilteo for the current Proposed Action total an estimated $642,235.63. These fees are based on the total current Proposed Action impact to transportation resources, and the fees paid as a result of the 2012 EA ($333,262.85) would be credited to these estimated totals. Accordingly, the remaining mitigation fee balance is an estimated $308,972.78. The remaining balance includes an estimated $241,312.35 mitigation fee for Snohomish County, $38,269.80 for WSDOT, and $29,390.63 for the City of Mukilteo. Payment of these fees will be a condition in FAA’s environmental determination stating that these fees must be paid for by Propeller Group and/or the airlines prior to the issuance of the Part 139 Airport Operating Certificate amendment and airline Operations Specifications.

In regards to noise mitigation, the federal threshold for significance is DNL 65 dB. As stated in Section 6.11, there are no noise sensitive land uses within the DNL 65 dB contour. Based on the screening process conducted in Section 6.11, the contour area would decrease as a result of the current Proposed Action. No noise mitigation, such as sound insulation or modifying flight paths, is required.

In response to comments about air quality mitigation, Snohomish County is in attainment for all pollutants as defined by the U.S. Environmental Protection Agency. This means that while past pollutant levels in parts of the county may have exceeded standards, the standards are currently being attained. The screening for air quality used FAA’s AEDT, Version 2d, compared the annual emissions associated with the Boeing 737-700 to the Embraer 175. There is a reduction in aircraft air emissions based on the replacement of the higher-emitting
Boeing 737-700 aircraft that would have been used by Southwest Airlines with the lower-emitting Embraer 175 aircraft used by Alaska Airlines (see Section 6.2). As the current Proposed Action would generate emissions less than de-minimis, mitigation would not be required.
The tables below provide a list of comment letters received from agencies and elected officials, with the name and agency of each party that provided a comment. Each comment letter was assigned a unique Letter Code to catalog the submittal.

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</table>
Ms. Linda Amato
Environmental Science Associates
Paine Field Supplemental EA
5309 Shilshole Ave NW
Seattle, WA 98107

In future correspondence please refer to:
Project Tracking Code: 2018-07-05759
Property: Initiation of Proposed Commercial Service at Snohomish County Airport/Paine Field
Re: Receipt of Supplemental EA for Review

Dear Ms. Amato:

Thank you for contacting the Washington State Department of Archaeology and Historic Preservation (DAHP) and providing us with a copy of the supplemental EA completed by ESA for this undertaking. The document has been reviewed on behalf of the State Historic Preservation Officer (SHPO) under provisions of Section 106 of the National Historic Preservation Act of 1966 (as amended) and 36 CFR Part 800.

I have reviewed the document and have no issues or concerns on behalf of DAHP. These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer (SHPO) in conformance with Section 106 of the National Historic Preservation Act and its implementing regulations 36 CFR 800. Also, we appreciate receiving copies of any correspondence or comments from concerned tribes and other parties that you receive as you consult under the requirements of 36 CFR 800.4(a)(4). Should additional information become available, our assessment may be revised.

Finally, please note that in order to streamline our responses, DAHP requires that all documents related to project reviews be submitted electronically. Correspondence, reports, notices, photos, etc. must now be submitted in PDF or JPG format. For more information about how to submit documents to DAHP please visit: http://www.dahp.wa.gov/programs/shpo-compliance. To assist you in conducting a cultural resource survey and inventory effort, DAHP has developed guidelines including requirements for survey reports. You can view or download a copy from our website.

Thank you for the opportunity to review and comment. Please ensure that the DAHP Project Number (a.k.a. Project Tracking Code) is shared with any hired cultural resource consultants and is attached to any communications or submitted reports. Should you have any questions, please feel free to contact me.

Sincerely,

Matthew Sterner, M.A.
Transportation Archaeologist
(360) 586-3082
matthew.sterner@dahp.wa.gov
Matthew Sterner, M.A.
Transportation Archaeologist
Department of Archaeology & Historic Preservation
PO Box 48343
Olympia, WA  98504
Re: Project Tracking Code 2018-07-05759

Dear Matthew Sterner:

Thank you for your review of and comments regarding the Draft Supplemental Environmental Assessment (EA) for operations at Paine Field. If additional coordination with concerned tribes should occur or if additional information becomes available, we will be sure to copy DAHP on all related correspondence.

In early November 2018, after publication of the Draft Supplemental EA in September 2018 and the subsequent Public Information Workshop/Public Hearing in October 2018, the FAA was informed that Southwest Airlines had withdrawn its proposal to operate at Paine Field. Southwest Airlines stated that business considerations resulted in its decision to not commence service to Paine Field. The gate allocations (five flights per day) proposed by Southwest Airlines were acquired by Alaska Airlines in early November 2018.

The Final Supplemental EA has been revised to reflect the removal of Southwest Airlines and the corresponding change to Alaska Airlines’ current proposal, which includes operation of the additional gate allocations previously held by Southwest Airlines. As described in the Final Supplemental EA, the current Proposed Action would not cause any significant impacts to the resources evaluated.

Sincerely,

Cayla D. Morgan, Environmental Protection Specialist
Federal Aviation Administration
Seattle Airports District Office
2200 S 216th Street, Des Moines, WA 98198
Cayla.Morgan@faa.gov
October 30, 2018

Environmental Science Associates
Paine Field Supplemental EA
5309 Shilshole Avenue NW, Suite 200
Seattle, WA 98107

Re: Draft Supplemental Environmental Assessment for the Proposed Commercial Air Service at Paine Field, Ecology SEPA #201806023

Dear Environmental Science Associates:

Thank you for the opportunity to provide comments on the Draft Supplemental Environmental Assessment for the Proposed Commercial Air Service at Paine Field. The Department of Ecology (Ecology) has the following comments:

The deicing activity would create an industrial process wastewater which should be discharged into a sanitary sewer. In order to discharge deicing wastewater to the City of Everett sanitary sewer system, the proponent must apply to the City of Everett for authorization and conditioning for this discharge. Any discharge of industrial process wastewater, such as deicing fluids, to the City of Mukilteo sanitary sewer system would require an application to the Department of Ecology for a State Waste Discharge permit. Everett has its own program to regulate deicing fluids discharged into its sewer; Mukilteo relies on Ecology to regulate deicing fluids discharged into its sewer. If you have any questions, please contact Biniam Zelelow from the Water Quality Program at (425) 649-7127 or by email at biniam.zelelow@ecy.wa.gov.

The Propeller Terminal, storage, and maintenance areas would need to be covered under the Industrial Stormwater General Permit to authorize discharges of stormwater to waters of the state. The deicing activity would create a process wastewater which would need to be discharged into sanitary sewer (addressed above). Currently Paine Field has one Industrial Stormwater General Permit (No. WAR124607) which does not appear to overlap with the new commercial terminal. Therefore, coverage under the existing permit or coverage under a new permit will require a modification form or a new application, respectively, for the Stormwater General Permit.

Note that under the Industrial Stormwater General Permit, any areas where deicing activities occur would be required to sample stormwater runoff for Total Ammonia, BOD5, COD, Nitrate +Nitrite, and Petroleum Hydrocarbons, providing the proponent is using more than 100,000 gallons of glycol-based deicing chemicals or 100 tons of urea annually. If more than 1000 flights annually, a numeric effluent limit for Total Ammonia would apply on all outfalls.
unless non-urea-containing deicers are used. For more information on the Industrial Stormwater General Permit, please contact Evan Dobrowski from the Water Quality Program at (425) 649-7276 or by email at evan.dobrowski@ecy.wa.gov

For more information about SEPA and Ecology, visit www.ecy.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-laws-rules-current-historical-revisions

Thank you for considering these comments from Ecology. If you have any questions or would like to respond to these comments, please contact one of the commenters listed above.

Sincerely,

Tracy Nishikawa
SEPA Coordinator

Sent by email: Environmental Science Associates, painefield@esassoc.com

ecc: Evan Dobrowski, Ecology
     Biniam Zelelow, Ecology
Dear Tracy Nishikawa:

Thank you for your review of and comments regarding the Draft Supplemental Environmental Assessment (EA) for operations at Paine Field. We have provided responses to the specific concerns raised in your comment letter.

**Aircraft Deicing Activities**

All commercial aircraft requiring deicing would primarily use the new deicing pad at the gate. Deicing could also occur at the existing deicing pad at Taxiway-A1. Discharges from deicing activities at the A1 deicing pad are covered under the wastewater discharge permit issued to Snohomish County Airport by the City of Everett and the industrial stormwater discharge permit (NPDES Industrial Stormwater Permit) issued to the Airport by the State of Washington Department of Ecology. Deicing activities at the gate are covered under the permit issued to the Propeller Group by the City of Everett and its NPDES Industrial Stormwater Permit (WAR307255) issued by the State of Washington Department of Ecology. Both deicing locations drain to the sanitary sewer system flowing through the Boeing Everett Factory and the wastewater is treated at the City of Everett wastewater treatment plant, which has sufficient capacity to accommodate additional deicing runoff.

**Industrial Stormwater General Permit**

The Airport operates under Permit WAR000428 issued to Snohomish County under the State of Washington’s Industrial Stormwater General Permit, the associated Paine Field Stormwater Pollution Prevention Plan (2015), and the Snohomish County’s 2016 Drainage Manual (revised 2018). This permit covers industrial stormwater discharges from aircraft deicing conducted at the A1 deicing pad. Per stormwater detention and water quality requirements, surface water and stormwater runoff are captured and conveyed in a series of constructed bioswales, storm drain pipes, catch basins, detention facilities, and constructed stormwater ponds throughout the area. The Airport follows best management practices for runway and taxiway deicing and anti-icing operations, and provides monitoring data to the Department of Ecology in accordance with the terms of the NPDES Industrial Stormwater Permit. Paine Field uses potassium acetate for airfield pavement deicing/anti-icing and does not use urea or glycol as certified in the Paine Field Annual Reports. Thus, testing for the five additional parameters is not applicable to Paine Field operations at this time. Propeller has obtained a National Pollutant Discharge Elimination System (NPDES) Industrial Stormwater Permit (WAR307255) for the aircraft and ramp deicing activities at the gates. Should future deicing operations change and exceed the 100,000-gallon glycol-based deicing benchmark, additional sampling activities will occur in accordance with the Permit at the discharge locations associated with the deicing activities.
Current Proposed Action in the Final Supplemental EA

In early November 2018, after publication of the Draft Supplemental EA in September 2018 and the subsequent Public Information Workshop/Public Hearing in October 2018, the FAA was informed that Southwest Airlines had withdrawn its proposal to operate at Paine Field. Southwest Airlines stated that business considerations resulted in its decision to not commence service to Paine Field. The gate allocations (five flights per day) proposed by Southwest Airlines were acquired by Alaska Airlines in early November 2018.

The Final Supplemental EA has been revised to reflect the removal of Southwest Airlines and the corresponding change to Alaska Airlines’ current proposal, which includes operation of the additional gate allocations previously held by Southwest Airlines. As described in the Final Supplemental EA, the current Proposed Action would not cause any significant impacts to the resources evaluated.

Sincerely,

Cayla D. Morgan, Environmental Protection Specialist
Federal Aviation Administration
Seattle Airports District Office
2200 S 216th Street, Des Moines, WA 98198
Cayla.Morgan@faa.gov
Dear Ms. Morgan:

We reviewed your agency’s subject proposal and appreciate your efforts in addressing the existing demand for commercial air service within the greater Seattle in response to requests from airlines operating in the area. Also, we support the FAA decision to supplement the previous analysis of the potential environmental impacts associated with an authorization to allow for commercial air service at Paine Field. Based on our review, we have the following suggestions for you to consider in your decision-making process to better protect people’s health and the environment within the analysis area and vicinity.

- Aircraft noise impacts:
  - Even though the Draft Supplemental EA shows no significant impacts to receptors in the analysis area, people at the public meeting raised the issue of existing aircraft noise effects (i.e., houses shaking, disturbed sleep and use of local public parks, among others). Therefore, we recommend that the FAA consider maximizing noise mitigation measures, and discussing the mitigation measures to be taken in the Final Supplemental EA so that such effects are minimized, monitored, and corrected when they exceed acceptable thresholds. Examples of aircraft noise mitigation measures may include, but are not limited to:
    - The noise complaint line could remain active and advance notification given to residents in the area of significant noise events, especially when noise activities are not usually restricted.
    - Spot noise monitoring could be implemented inside and outside of the nearest affected residences should be considered during all seasons, particularly in winter when leaf cover may be absent.
    - Home soundproofing can also provide noise relief inside homes, as well as use of earthen berms and evergreen tree cover between noise sources and nearby receptors.

- Air quality impacts
  - Thank you for providing data in the DSEA showing existing air quality conditions and emissions that would result from the proposed project. We noted, however, that air monitors used to collect data used in the DSEA are located far away and may not represent accurate air emissions at Paine Field. We recommend that the FAA work with other agencies operating within the project area and vicinity to install an air quality monitoring station at Paine Field so that air quality is monitored locally and corrective actions taken when air quality exceeds the standards e.g., in summer when surrounding areas experience wildfires. Air monitoring strategies should also be tailored to local conditions because localized air quality impacts can be substantial when area-wide and/or long term monitoring may show compliance with air quality regulatory requirements. If interested, I can put you in touch with our air quality program experts here in the EPA to help scope such a monitoring program.
Because there were unclear or missing data in the DSEA, it may also be helpful to include in information on the following topics in the Final Supplemental EA:

- All anticipated permits (existing and new ones), sources,
- Information on induced growth in the area and potential impacts e.g., likely new businesses, jobs generated because of the proposal, and impacts on people and the environment, including increased traffic (residents are worried about this).
- Climate adaptation.

Thank you for the opportunity to review this DSEA. If you have questions or comments concerning our review, please feel free to contact me for assistance. It was a pleasure meeting you in person at the Public Workshop/Hearing in Lynwood and look forward to working with you on future FAA NEPA projects, including the Final Supplemental EA for Paine Field.

Sincerely,

Theo Mbabaliye, Ph.D.
US EPA Region 10
1200 6th Ave., Suite 155, OERA-140
Seattle, WA 98101-3140
Phone: (206) 553-6322
Dear Theo Mbabaliye:

Thank you for your review of and comments regarding the Draft Supplemental Environmental Assessment (EA) for operations at Paine Field. We have provided responses to the specific concerns raised in your comment letter.

**Aircraft Noise Impacts**

The federally-established threshold for the provision of noise mitigation measure (i.e., significance threshold) is DNL 65 dB. As stated in Section 6.11 of the Supplemental EA, there are no noise sensitive land uses within the DNL 65+ dB contour. Therefore, no noise mitigation, such as sound insulation or additional noise monitoring, is required. The Airport continues to provide a 24-hour noise complaint hotline and website.

Existing aircraft-related noise exposure was defined in the Supplemental EA (Section 6.11) through the use of noise exposure maps or contours prepared with the Federal Aviation Administration’s (FAA’s) Aviation Environmental Design Tool (AEDT). AEDT is the FAA-approved software program used to model the noise exposure levels from aircraft operations and engine testing and produce contours of equal sound energy. These contours are presented using the DNL 65 dB contour metric where DNL 65 dB represents significant aircraft noise impacts.

Day-Night Average Sound Level (DNL) is a weighted cumulative metric that reflects annual average day noise exposure conditions with a 10-decibel adjustment added to those noise events occurring between 10:00 PM and 7:00 AM. This adjustment reflects the added intrusiveness of sounds occurring during nighttime hours. The DNL 65 dB contour is the federally established noise level beyond noise sensitive uses are considered compatible with aircraft noise. Because the existing DNL 65 dB contour, shown on Figures 6.11-1 through 6.11-4 of the Supplemental EA, does not encompass any noise-sensitive land uses (homes, schools, churches, etc.), the existing land use in the vicinity of the Airport is considered compatible with aircraft operations and aircraft-generated noise under the federal guidelines.

As stated above, FAA regulations require that the prediction of aircraft-related noise exposure be generated using the AEDT. Additionally, noise monitoring cannot be used as a substitute for the predictions made using AEDT. Furthermore, Paragraph B-1.2, Federal Aviation Administration Approved Models for Detailed Noise Analysis, of Appendix B of FAA Order 1050.1F states, “Noise monitoring data should not be used to calibrate the noise model,” and noise monitoring results cannot be used to determine impacts or noise mitigation eligibility. Since the analysis documented in the Supplemental EA did not identify any incompatible land uses, the purchase of noise monitors would not be eligible for federal funding.
Air Quality Impacts

Negligible increases in operational emissions from the Proposed Action are calculated in Section 6.2 of the Supplemental EA. Thus, effects to on-site or local air quality are not anticipated. Additionally, the topography, climate, and meteorology of Paine Field promote relatively windy conditions and frequent precipitation, which causes rapid dispersion and deposition of pollutants. The weather conditions at Paine Field, coupled with the intermittent nature of aircraft operations, may render additional air quality monitoring stations uninformative at this location. The existing network of air quality monitoring stations were deemed to be adequate by the Puget Sound Clean Air Agency (see Appendix D). FAA is supportive if USEPA or the State of Washington would like to erect an air quality monitoring station at or in the vicinity of Paine Field; however, since the Proposed Action would not result in significant air quality impacts, a new monitoring station will not be included as a mitigation measure.

Permitting

As negligible construction is associated with the Proposed Action, no additional permits would be required and the Airport would continue to operate under existing permits (or revise if specified threshold are exceeded as operations increase). This includes:

- Permit WAR000428 issued to Snohomish County under the State of Washington’s Industrial Stormwater General Permit.
- The use of the existing impervious surface for vehicle parking would be covered under Propeller’s future Stormwater Pollution Prevention Plan (SWPPP) and Industrial Stormwater Discharge Permit.
- Propeller has obtained a National Pollutant Discharge Elimination System (NPDES) Industrial Stormwater Permit for the ramp and aircraft deicing activities at the gates.
- Propeller will obtain a wastewater discharge permit from the City of Everett.

Induced Growth

Per the analysis in Section 6.12, Socioeconomics, Section 6.13, Surface Transportation, and Section 6.16, Cumulative Impacts, it is not anticipated that the Proposed Action will induce growth in the area as indicated by the generation of new businesses/jobs or traffic. The Proposed Action would add approximately 30–50 employees at Paine Field, which is not anticipated to affect unemployment rates, incomes, or displacement/relocation of population centers. An additional 540,930 – 621,011 passenger enplanements would occur, which would largely be accommodated within Airport facilities and not induce service industry growth outside of Airport property.
However, the analysis of cumulative impacts (Section 6.16 of the Supplemental EA) has been expanded accordingly to address the potential that the Proposed Action would incrementally contribute or otherwise induce additional growth in the region.

It is anticipated that Snohomish County will continue to experience increased population growth and continued private development/redevelopment of land for residential, commercial, and industrial uses off of Airport property. Establishment of new activities and land uses in the region may cumulatively:

- Increase or redistribute vehicle traffic
- Contribute criteria pollutant emissions and greenhouse gases
- Increase ambient noise
- Improve socioeconomic conditions
- Adversely affect water quality and other aquatic resources
- Convert or fragment available wildlife habitat

In response to the growth experienced in the region, the Snohomish County 2035 Comprehensive Plan (2017) provides land use policies that encourage compatible adjacent land uses, and Paine Field is designated therein as an Airport Influence Area. While it is not anticipated that the Proposed Action will specifically induce or otherwise contribute to this growth, it is envisioned that the project and continued efficient operation at Paine Field will help efficiently serve the region as continued development occurs and may alleviate some of the issues currently experienced as a result.

The Proposed Action is anticipated to account for negligible to discountable incremental impacts to affected resources in the greater landscape, including surface transportation, air quality, climate, noise and noise compatible land use, and socioeconomics.

**Impacts on the Community**

Following FAA Order 1050.1F guidance, impacts to local communities are generally analyzed based on the significance of noise impacts or required relocations that could fracture a community or otherwise disrupt the community physically or economically. Aircraft noise already exists from current operations, although no noise-sensitive uses are located in significant aircraft noise exposed areas. The Proposed Action is not expected to generate significant aircraft noise exposure. No homes, businesses, or other community resources would need to be relocated.

The traffic impact analysis for the Proposed Action was performed in accordance with Snohomish County’s requirements for new developments and the interlocal agreements between Snohomish County and WSDOT and the City of Mukilteo. Snohomish County does not have an interlocal agreement with the City of Everett, and therefore the City of Everett’s SEPA traffic impact analysis requirements for developments were used when determining the scope of analysis required for the trips generated by the project impacting City of Everett intersections.
The scope of the traffic analysis is also consistent with the traffic analysis completed for the previous (2012) EA.

All of the trips generated by the Proposed Action (i.e., trips to and from the new terminal) were assumed to be new trips to the road system for the purposes of performing the level of service analysis.

The analysis of the impacts of the development is based on the Snohomish County and City of Everett standards for all developments and the interlocal agreements between Snohomish County and WSDOT and the City of Mukilteo and City of Everett standards for all developments.

Climate Adaptation

The Proposed Action does not include any development activities; therefore, there is no design component that would need to address climate adaptation. Section 6.4 of the Supplemental Environmental Assessment addresses the potential effects to climate with implementation of the No Action and Proposed Action alternatives.

Current Proposed Action in the Final Supplemental EA

In early November 2018, after publication of the Draft Supplemental EA in September 2018 and the subsequent Public Information Workshop/Public Hearing in October 2018, the FAA was informed that Southwest Airlines had withdrawn its proposal to operate at Paine Field. Southwest Airlines stated that business considerations resulted in its decision to not commence service to Paine Field. The gate allocations (five flights per day) proposed by Southwest Airlines were acquired by Alaska Airlines in early November 2018.

The Final Supplemental EA has been revised to reflect the removal of Southwest Airlines and the corresponding change to Alaska Airlines’ current proposal, which includes operation of the additional gate allocations previously held by Southwest Airlines. As described in the Final Supplemental EA, the current Proposed Action would not cause any significant impacts to the resources evaluated.

Sincerely,

Cayla D. Morgan, Environmental Protection Specialist
Federal Aviation Administration
Seattle Airports District Office
2200 S 216th Street, Des Moines, WA 98198
Cayla.Morgan@faa.gov
Dear Environmental Science Associates,

I have attached a comment letter from the City of Mukilteo regarding the Paine Field Draft Supplemental Environmental Assessment.

Sincerely,

Mick Matheson, P.E.
Public Works Director | Public Works Engineering
mmatheson@mukilteowa.gov | 425.263.8080

City of Mukilteo | 11930 Cyrus Way, Mukilteo, WA 98275
425.263.8000 | 425.212.2068 (fax) | www.mukilteowa.gov
November 2, 2018

Environmental Science Associates
Paine Field Supplemental EA
5309 Shilshole Ave NW, Suite 200
Seattle, WA  98107

Sent Via Email: PaineField@esassoc.com

SUBJECT: Paine Field Draft Supplemental Environmental Assessment

Dear Environmental Science Associates:

Thank you for the opportunity to comment on the Paine Field Draft Supplemental Environmental Assessment (“Draft Supplemental EA”). As you are well aware, Paine Field and the City of Mukilteo’s (“City”) proximity to one another means activities associated with the proposal directly and indirectly impact City residents, businesses property owners, and others. These direct and indirect impacts also include cumulative impacts. As such, the City of Mukilteo takes great interest in the Draft Supplemental EA and the proposal it evaluates.

In reviewing the Paine Field Draft Supplemental EA, we take particular note of the Paine Field Commercial Service Traffic Impact Analysis (TIA), dated August 2018. After a careful and thorough review of the TIA and associated attachments, we find the Draft Supplemental EA fails to adequately analyze and identify significant adverse environmental impacts to the City of Mukilteo’s transportation network and, consequently, does not offer appropriate mitigation.

In particular, we have specific concerns and issues over the following items as the analysis in the draft Supplemental EA may be understating or may be missing altogether impacts to the City of Mukilteo.

1. The Level of Service (LOS) and average delay per vehicle for signalized intersections are reported based on Synchro methodology as presented on “Lanes, Volumes, Timings” reports throughout the TIA. The transportation planning/engineering industry standard practice is to report delay and LOS per Highway Capacity Manual (HCM) methodology. In several test cases, HCM reported delay is considerably higher than Synchro methodology. This non-standard Synchro methodology, in conjunction with our other comments, could result in undisclosed traffic operations impacts within Mukilteo. The final Supplemental EA needs to revise all calculations to be consistent with HCM 2010 or HCM 6th Edition reports for all intersections and re-examine the potential for LOS impacts resulting from the proposed action.

2. Overall trip generation is potentially low due to a number of factors. This underestimation of trip generation will affect the transportation impact fee paid by the project to the City of Mukilteo, and possibly other agencies. Further, an underestimation of trip generation may not
identify additional traffic operations impacts (which is compounded by the non-standard LOS reporting identified in Comment 1 above).

Specifically:

- The traffic analysis makes no mention of, nor takes into account, taxi, drop-off, or rideshare modes. These modes generate twice as many trips as a passenger vehicle that parks at the airport for travel. Please confirm that taxi, drop-off, and rideshare trips are included in the traffic analysis. In addition, clearly break out the trip generation (both the active and deadhead trips) associated impacts of these types of trips.
- It appears that the analysis may not consider the total number of employees at the proposed project. The TIA lists 34 employees, however, the Draft Supplemental Environmental Assessment lists 30-50 employees. Additionally, an Everett Herald article entitled, “Help is wanted at Paine Field’s new passenger terminal” dated October 23, 2018, states that 70 direct jobs will be created to handle aircraft servicing (not including vendors/concessionaires, flight crews, gate agents, and TSA staff). Please reconcile these inconsistencies by either providing further justification for the low number of employees if the low number of employees is accurate or updating the traffic analysis and trip generation calculation if the lower number of employees stated in the TIA is inaccurate.
- The vehicle occupancy for Embraer 175 (1.5 people per vehicle) and Boeing 737 aircraft (2.4 people per vehicle) are significantly different. No explanation for this difference is explained in the TIA. The difference also is questionable for traffic impact analysis purposes, as very few people choose whether or not to carpool or take a family trip based on the aircraft size. Please revise to use a consistent average occupancy value.
- The TIA compares trip generation to the Bellingham airport with two arrivals and departures, however it does not note the types of aircraft used, load factors, or number of seats. It also does not indicate if any employee shift changes occurred during the peak hour of data. Therefore it is difficult, if not altogether inappropriate, to use this data point as a reference for the validity of the trip generation rates in the TIA. The analysis needs to be revised to include more detail behind the Bellingham airport data or eliminate this reference if it is inconsistent with planned operations at Paine Field.

3. The Washington State Department of Transportation’s (WSDOT) LOS standard for SR 525 is set as LOS D. The intersections of SR 525 at Beverly Park Road and Goat Trail Road both fail this LOS standard under existing conditions. The addition of project trips further degrades the unacceptable operations, which constitutes an impact that should be identified and addressed. In addition, the additional level of delay needs to be identified.

The traffic analysis also states that the City of Mukilteo lists a traffic signal at the intersection of SR 525 and Goat Trail Road in its (Mukilteo’s) Impact Fee project list, however, this mitigation is not currently funded in the City’s Six-Year Transportation Improvement Plan (TIP). Unfunded improvements are not considered mitigation.

The traffic analysis needs to clearly identify significant traffic operations impacts at these two intersections in order to adequately disclose impacts. Paine Field must work with WSDOT to determine appropriate mitigation for the traffic operations at these two intersections. Failure to
identify the traffic operations impacts and potential mitigation measures is a major concern as it is inconsistent with the requirements for environmental assessments.

(https://data.wsdot.wa.gov/arcgis/rest/services/Shared/LevelOfServiceStandard/MapServer)

4. A review of trip distribution information (shown in Figure 3 of the TIA) indicates that approximately 15-20% of trips were within five (5) miles of Paine Field. The Vehicle Miles Traveled Analysis states that the average passenger trip distance is 15 miles, while the average employee trip distance is 25 miles. The distribution shown in the traffic analysis seems to include many trips on local and arterial routes, versus state highways as would be expected for the stated longer average travel distances. Increased highway trip distribution could easily increase the volume of trips on SR 525 in Mukilteo. Please document how the localized trip distribution information reflects the stated trip distance.

In addition to our substantial concerns above, we have a number of minor edits and corrections noted below. The need for minor edits and corrections to the Draft Supplemental EA as basic as those below increases our concern that the analysis of major issues above was not adequate.

1. In Table 4 (page 11), Embraer 175 Operations are shown as 30 per day, but are shown as 34 elsewhere. Calculations appear to be for 34 operations. Please correct this typographical error.
2. Traffic counts for intersections 34 and 35 use different peak hours, despite their close spacing and very limited access between the intersections. This leads to the appearance that vehicles “disappear” between the two intersections. Please revise to provide clear and logical volumes between the intersections.
3. Table 22 (page 55 of the TIA) references footnotes 5 and 6, but these footnotes do not appear below the table. Please correct.
4. For the intersection of SR 525 and 5th Street, the Synchro reports show that only three of the five phases included in the signal timing sheets were included in the analysis. Please revise to provide accurate phasing and timing and LOS results.

Thank you again for the opportunity to comment. We look forward to your responses and additional analysis with the issuance of the Final Supplemental EA.

If you have questions regarding technical aspect of the above comments, please contact Mick Matheson, P.E., Public Works Director, at 425 263-8080. Questions you might have about our comments on the adequacy of the Draft Supplemental EA may be directed to David Osaki, Community Development Director/SEPA Responsible Official, at 425 263-8042.

Sincerely,

Mick Matheson, P.E.
Public Works Director

David Osaki
Community Development Director/SEPA Responsible Official

City of Mukilteo • 11930 Cyrus Way • Mukilteo, WA 98275 • 425-263-8000 • www.mukilteowa.gov
Cc: Mukilteo City Council
    Mayor Jennifer Gregerson, City of Mukilteo
    Steve Edin, Management Service Director, City of Mukilteo
    Chris Alexander, Chief, Mukilteo Fire Department
    Cheol Kang, Chief, Mukilteo Police Department
    Miguel Gavino, WSDOT
Dear Mick Matheson and David Osaki:

Thank you for your review of and comments regarding the Draft Supplemental Environmental Assessment (EA) for operations at Paine Field. The FAA has provided responses to the specific concerns raised in your comment letter.

**Adequacy of the Analysis in the Supplemental EA**

The Supplemental EA was prepared in accordance with the requirements of the National Environmental Policy Act (NEPA), Council on Environmental Quality (CEQ) guidance, and FAA Orders. The document provides an appropriate assessment of the potential environmental impacts of the Proposed Action both for existing conditions and under reasonably foreseeable conditions. During the preparation of the Supplemental EA, the most up-to-date models were used in all modeling exercises, per FAA Orders. The Supplemental EA addresses the potential impacts of the Proposed Action based on reasonably foreseeable conditions compared to the thresholds of significance outlined in the FAA Orders. The development of the Supplemental EA and its conclusions take a critical look at the potential impacts that could occur if the Proposed Action is implemented, as required under NEPA.

The Draft Supplemental EA was prepared following the policies, procedures, and guidelines as outlined in FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4B, *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*.

These Orders outline FAA-accepted methodologies, models, techniques, and thresholds of significance for the impact assessment and preparation of EA documents. All environmental documents prepared under FAA oversight follow and adhere to these same Orders, setting national standards for the preparation of environmental documentation.

**Use of the Synchro Methodology**

The Synchro methodology was utilized for the analysis of the signalized intersections only while HCM 2010 was utilized for the analysis of stop-controlled intersections. The use of the Synchro methodology is consistent with the analysis utilized and approved as part of the 2012 EA. The methodology is also consistent with previously approved analysis for developments within the City of Mukilteo. The Synchro methodology is based on the HCM methodology, but allows for flexibility in lane configurations and signal phasing present at the study intersections. The HCM 2010 and HCM 6th Edition are not capable of analyzing the channelization and signal timings at all of the study intersections. The Synchro methodology was therefore utilized...
for consistency, both with the Supplemental EA and the 2012 EA and so that all of the intersections were analyzed with the same methodology.

**Overall Trip Generation**

The trip generation calculations performed for the Supplemental EA are based on data provided by the airlines and representative data collected at Bellingham International Airport. The trip generation encompasses different trip types, including taxi, drop-off, and rideshare trips. The methodology is consistent with the 2012 EA.

The data were collected at Bellingham International Airport during operations of two similar aircraft as a means to check the trip generation calculations using the airline data. The Bellingham International Airport data showed a higher average vehicle occupancy (2.08 in Bellingham vs. a weighted average of 1.80 for Paine Field) and a lower trip generation, indicating that the assumptions used for the Paine Field analysis were conservative.

Data from the Institute of Transportation Engineers (ITE) were reviewed as part of the trip generation analysis for Paine Field. The current ITE Trip Generation Manual only provides trip generation data for a commercial airport (ITE Land Use Code 021) based on the number of employees. However, the previous version provided trip generation based on the number of flights per day. The data were collected at larger airports with a limited number of studies. Utilizing the trip generation rates from the previous version of ITE would result in 276 peak-hour trips, which is nearly identical to the trip generation utilized for the Traffic Impact Analysis (TIA).

Although there may be questions regarding the vehicle occupancy rates and other factors that went into the trip generation calculations, two other sources (Bellingham and ITE) would have resulted in lower or similar trip generation for Paine Field, thereby verifying that the trip generation calculations are a reasonable calculation of the trips that are anticipated to be generated by Paine Field.

The number of employees was estimated to be 30–50; however, 34 employees was used for modeling purposes in the TIA, based on best available information. The trips by employees at the site represent a very small portion of the anticipated trip generation. Doubling the employees to match the highest employee count identified in the comment (70 employees identified in the Herald article) would increase the peak-hour trip generation by 7 PM peak-hour trips (equivalent to 2.5 percent). This trip generation assumes that 25 percent of the total employees create a trip during the peak-hour. The potential change in trip generation that would result if there are more employees than identified in the TIA is not anticipated to significantly change the results of the traffic analysis.

**Traffic-related Mitigation**

The intersections of SR-525 at Beverly Park Road and Goat Trail Road currently operate at deficient levels of service and will continue to operate at deficient levels of service, regardless of the Proposed Action. Traffic mitigation fees totaling $123,796.88 for the City of Mukilteo are
identified in the traffic analysis for Paine Field to mitigate the impacts of the Proposed Action to the intersections of SR-525 at Beverly Park Road and Goat Trail Road. These fees help fund improvements, especially improvements that are identified in the cost fee basis. The intersection of SR-525 at Goat Trail Road is one of the projects identified on the cost fee basis to be improved to signal operations, and therefore payment of traffic mitigation fees directly mitigates the impacts of the Proposed Action. Traffic mitigation fees are also identified for WSDOT to mitigate impacts to WSDOT projects (SR-525 is a WSDOT route). The Harbour Reach project is fully funded, and that improvement project is anticipated to improve the operations of the intersection of SR-525 at Beverly Park Road.

Localized Trip Distribution

The TIA and Vehicle Miles Traveled (VMT) reports are based on different methodologies since they analyze different aspects of the Proposed Action and employ slightly different assumptions. The correlation between the TIA and VMT reports should not necessarily be drawn, and Appendix E was revised to clarify the difference in the methodologies for these reports. The TIA is a microscopic analysis of the impacts of the Proposed Action, and the VMT report is a macroscopic analysis of the Proposed Action. The TIA showed that at least 55 percent of the traffic generated by the Proposed Action will utilize state highways (I-5, SR-525, SR-99, etc.), resulting in longer trip lengths. Additionally, the employee trips (which have the longest trip length in the VMT report) only account for a small percentage of the total trips that are anticipated to be generated by the Proposed Action. The two documents employ different methodologies to conservatively analyze the impacts (i.e., greatest anticipated reasonable impacts) of the Proposed Action; therefore, it is not appropriate to directly link the two documents based on the perceived trip length in the TIA and the stated trip length in the VMT report.

Minor Edits and Corrections

The Final Supplemental EA has been revised to reflect the minor edits and corrections identified in your letter.

#1 – The typographical error of 30 Embraer 175 Aircraft operations (incorrect number) has been corrected to 34 operations (correct number) in Table 4. It is important to note that the calculations included in the table utilized the correct number of operations, and therefore the other values in the table do not need to be updated.

#2 - It is important to note that the volume differences between intersections #34 and #35 are minor (less than 5 percent), and the volumes shown in the TIA are the peak-hour for each intersection, consistent with the standard methodology for traffic analyses.

#3 – The footnotes should have all referenced 4. There should not have been a footnote 5 or 6. This has been corrected.
#4 - The analysis of the intersection of SR 525 at 5th Street has been revised. The revised analysis shows that the intersection currently operates at LOS C and is anticipated to continue to operate at LOS C under the 2019 and 2024 conditions with the Proposed Action.

**Current Proposed Action in the Final Supplemental EA**

In early November 2018, after publication of the Draft Supplemental EA in September 2018 and the subsequent Public Information Workshop/Public Hearing in October 2018, the FAA was informed that Southwest Airlines had withdrawn its proposal to operate at Paine Field. Southwest Airlines stated that business considerations resulted in its decision to not commence service to Paine Field. The gate allocations (five flights per day) proposed by Southwest Airlines were acquired by Alaska Airlines in early November 2018.

The Final Supplemental EA has been revised to reflect the removal of Southwest Airlines and the corresponding change to Alaska Airlines’ current proposal, which includes operation of the additional gate allocations previously held by Southwest Airlines. As described in the Final Supplemental EA, the current Proposed Action would not cause any significant impacts to the resources evaluated.

Sincerely,

Cayla D. Morgan, Environmental Protection Specialist
Federal Aviation Administration
Seattle Airports District Office
2200 S 216th Street, Des Moines, WA 98198
Cayla.Morgan@faa.gov
October 16, 2018

Environmental Science Associates
Paine Field Supplemental EA
5309 Shilshole Ave NW, Suite 200
Seattle, WA 98107

The City of Everett has reviewed the September 2018 “Draft Supplemental Environmental Assessment to the Amendment for Operations Specifications for Air Carrier Operations and Amendment to a Part 139 Airport Operating Certificate.” We appreciate the very detailed analysis in the Supplemental EA determining that there is no significant impact with respect to the proposed increase from 12 to 24 commercial air service round trip flights per day at Paine Field. The City supports this finding.

We also note, and agree, that there will be no significant adverse impacts at or in the vicinity of Paine Field when the proposed action is considered cumulatively with other past, present or reasonably foreseeable projects.

This Draft Supplemental Environmental Assessment is the latest in a series of detailed studies and plans that have extensively examined significant aviation, land use and environmental issues associated with Paine Field over the past 30 years. This extensive body of work supports the conclusions that the proposed action will result in no significant adverse environmental impacts. Also of note is that these previous plans and studies resulted in considerable infrastructure investment, using both public and private funds, in the immediate vicinity of Paine Field and Southwest Everett. The resulting improvements support increased flight and business activity in the vicinity of the airport.

Sincerely,

Cassie Franklin
Mayor

Cc: Everett City Council
RESOLUTION NO. 7296

A RESOLUTION of the City of Everett Agreeing With Conclusions of a Draft Supplemental Environmental Assessment Regarding Commercial Air Passenger Service at Snohomish County Airport/Paine Field

WHEREAS, the Everett City Council recognizes the need to expand and enhance our transportation infrastructure by maximizing the use of all options and assets to keep our growing region competitive; and

WHEREAS, the City of Everett has reviewed the September 2018 Draft Supplemental Environmental Assessment regarding the proposed increase from 12 to 24 commercial air service round trip flights per day at Snohomish County Airport/Paine Field; and

WHEREAS, the City agrees that there will be no significant adverse impacts at or in the vicinity of Paine Field resulting from the proposed increase; and

WHEREAS, this Draft Supplemental Environmental Assessment is the latest in a series of detailed studies and plans that have extensively examined significant aviation, land use and environmental issues associated with Paine Field over the past 30 years; and

WHEREAS, this extensive body of work supports the conclusions that the proposed action will result in no significant adverse environmental impacts; and

WHEREAS, these previous plans and studies have resulted in considerable infrastructure investment of both private and public funds in the immediate vicinity of Paine Field and Southwest Everett;

NOW, THEREFORE, BE IT RESOLVED BY THE EVERETT CITY COUNCIL THAT:
The Council concurs with the letter submitted by Mayor Cassie Franklin to Environmental Science Associates of Seattle supporting the findings of the Draft Supplemental Environmental Assessment that the proposed increase in commercial air service flights at Paine Field will result in no significant adverse environmental impacts. We look forward to the beginning of commercial air service at Paine Field in early 2019.

Passed and approved this 17th day of October 2018.

Paul Roberts, Council President
Scott Bader, Council Vice President

Jeff Moore, Council Member
Scott Murphy, Council Member

Ethel McNeal, Council Member
Brenda Stonecipher, Council Member

Judy Tuohy, Council Member
The Honorable Cassie Franklin, Mayor  
City of Everett  
2930 Wetmore Avenue, Suite 10A  
Everett, WA  98201

Dear Mayor Franklin:

Thank you for your review of and comments regarding the Draft Supplemental Environmental Assessment for operations at Paine Field. The FAA acknowledges receipt of The City of Everett Resolution 7296 Agreeing with Conclusions of a Draft Supplemental Environmental Assessment Regarding Commercial Air Passenger Service at Snohomish County Airport/Paine Field which is signed by the City Council. The resolution is included in Appendix H-2 of the Final Supplemental Environmental Assessment.

Sincerely,

Cayla D. Morgan, Environmental Protection Specialist  
Federal Aviation Administration  
Seattle Airports District Office  
2200 S 216th Street, Des Moines, WA 98198  
Cayla.Morgan@faa.gov
RESOLUTION NO. __________

A RESOLUTION of the City of Everett Agreeing
With Conclusions of a Draft Supplemental
Environmental Assessment Regarding
Commercial Air Passenger Service at
Snohomish County Airport/Paine Field

WHEREAS, the Everett City Council recognizes the need to expand and enhance our transportation infrastructure by maximizing the use of all options and assets to keep our growing region competitive; and

WHEREAS, the City of Everett has reviewed the September 2018 Draft Supplemental Environmental Assessment regarding the proposed increase from 12 to 24 commercial air service round trip flights per day at Snohomish County Airport/Paine Field; and

WHEREAS, the City agrees that there will be no significant adverse impacts at or in the vicinity of Paine Field resulting from the proposed increase; and

WHEREAS, this Draft Supplemental Environmental Assessment is the latest in a series of detailed studies and plans that have extensively examined significant aviation, land use and environmental issues associated with Paine Field over the past 30 years; and

WHEREAS, this extensive body of work supports the conclusions that the proposed action will result in no significant adverse environmental impacts; and

WHEREAS, these previous plans and studies have resulted in considerable infrastructure investment of both private and public funds in the immediate vicinity of Paine Field and Southwest Everett;

NOW, THEREFORE, BE IT RESOLVED BY THE EVERETT CITY COUNCIL THAT:
The Council concurs with the letter submitted by Mayor Cassie Franklin to Environmental Science Associates of Seattle supporting the findings of the Draft Supplemental Environmental Assessment that the proposed increase in commercial air service flights at Paine Field will result in no significant adverse environmental impacts. We look forward to the beginning of commercial air service at Paine Field in early 2019.

E2
Duplicate of Resolution contained in E1

Passsed and approved this 17th day of October 2018.

Paul Roberts, Council President

Scott Bader, Council Vice President

Ethel McNeal, Council Member

Jeff Moore, Council Member

Brenda Stonecipher, Council Member

Judy Tuohy, Council Member

Scott Murphy, Council Member Introducing Resolution
RESOLUTION NO. 2018-31

A RESOLUTION OF THE CITY OF LAKE STEVENS, WASHINGTON,
SUPPORTING COMMERCIAL AIR SERVICE AT PAINE FIELD

WHEREAS, the City of Lake Stevens is fully committed to supporting general aviation in Snohomish County and believes commercial service at Paine Field would enhance the viability of general aviation in Snohomish County; and

WHEREAS, the City of Lake Stevens recognizes the significance of commercial aviation to Snohomish County and the region’s future transportation needs and economic competitiveness; and

WHEREAS, the aerospace industry surrounding Paine Field is the largest concentration of aviation manufacturing in the world and the largest single industrial job center in Snohomish County and Washington State representing over 40,000 jobs and $2.5 billion in wages and salaries; and

WHEREAS, by 2020 the region’s population is projected to increase to over 1.1 million persons with employment expected to swell to 426,000 workers; and

WHEREAS, Paine Field as a secondary regional airport alternative to Seattle-Tacoma International Airport would benefit Lake Stevens residents and businesses through substantial time savings, and other reduced traveler and opportunity costs; and

WHEREAS, demand generated by employment, population and income in the Paine Field market is, and will continue to be, more than sufficient to support commercial aviation service; and

WHEREAS, it is our commitment as elected officials to advance economic development, job generation and retention for the future viability of our community; and

WHEREAS, commercial aviation at Paine Field will reaffirm and strengthen the region’s longstanding position as the epicenter of commercial aerospace in the global marketplace,

NOW, THEREFORE, THE CITY COUNCIL OF THE CITY OF LAKE STEVENS, WASHINGTON, DOES RESOLVE AS FOLLOWS:

Section 1. The City of Lake Stevens supports the establishment of scheduled commercial air service at Paine Field, as it aligns with our community’s long-term economic development goals to attract aerospace, technology, and other commercial/light industry that brings family-wage jobs to our community, and to the region.

Section 2. The City of Lake Stevens encourages Snohomish County and Snohomish County cities to enter into good faith negotiations to ensure that interested airlines pay their way to operate at
Paine Field, and those impacts created due to commercial surface to surrounding communities are mitigated.

PASSED by the City Council of the City of Lake Stevens this 23rd day of October, 2018.

John Spencer, Mayor

Kathy Pugh, City Clerk

Greg Rubostello, City Attorney
The Honorable John Spencer, Mayor  
City of Lake Stevens  
1812 Main Street  
Lake Stevens, WA  98258

Dear Mayor Spencer:

Thank you for your review of and comments regarding the Draft Supplemental Environmental Assessment for operations at Paine Field. The FAA acknowledges receipt of The City of Lake Stevens Resolution 2018-31 Supporting Commercial Air Service at Paine Field. The resolution is included in Appendix H-2 of the Final Supplemental Environmental Assessment.

Sincerely,

Cayla D. Morgan, Environmental Protection Specialist  
Federal Aviation Administration  
Seattle Airports District Office  
2200 S 216th Street, Des Moines, WA 98198  
Cayla.Morgan@faa.gov
October 16, 2018

Environmental Science Associates
Paine Field Supplemental EA
5309 Shilshole Ave NW, Suite 200
Seattle, WA 98107

The City of Everett has reviewed the September 2018 “Draft Supplemental Environmental Assessment to the Amendment for Operations Specifications for Air Carrier Operations and Amendment to a Part 139 Airport Operating Certificate.” We appreciate the very detailed analysis in the Supplemental EA determining that there is no significant impact with respect to the proposed increase from 12 to 24 commercial air service round trip flights per day at Paine Field. The City supports this finding.

We also note, and agree, that there will be no significant adverse impacts at or in the vicinity of Paine Field when the proposed action is considered cumulatively with other past, present or reasonably foreseeable projects.

This Draft Supplemental Environmental Assessment is the latest in a series of detailed studies and plans that have extensively examined significant aviation, land use and environmental issues associated with Paine Field over the past 30 years. This extensive body of work supports the conclusions that the proposed action will result in no significant adverse environmental impacts. Also of note is that these previous plans and studies resulted in considerable infrastructure investment, using both public and private funds, in the immediate vicinity of Paine Field and Southwest Everett. The resulting improvements support increased flight and business activity in the vicinity of the airport.

Sincerely,

Cassie Franklin
Mayor

Cc: Everett City Council
Name: George Hurst - City Council
Address: 4027 184th Place NE, Lynnwood WA 98037
Phone or Email: 425-232-7877 ghurst@lynnwoodwa.gov

The presentation should have included a map of proposed flight patterns.
Can this be forwarded. Thank you.

The comment period ends on November 2, 2018. Comments may be submitted at the Public Information Workshop or to the following addresses:

EMAIL: PaineField@esassoc.com  MAIL: ENVIRONMENTAL SCIENCE ASSOCIATES
PAINE FIELD SUPPLEMENTAL EA
5309 SHILSHOLE AVE NW, SUITE 200
SEATTLE, WA 98107
Dear Councilman Hurst:

Thank you for your review of and comments regarding the Draft Supplemental Environmental Assessment for operations at Paine Field. Flight tracks are presented in Appendix F of the Final Supplemental EA and are not expected to change with implementation of the current Proposed Action.

Sincerely,

Cayla D. Morgan, Environmental Protection Specialist
Federal Aviation Administration
Seattle Airports District Office
2200 S 216th Street, Des Moines, WA 98198
Cayla.Morgan@faa.gov
APPENDIX H-3
Public Comments and Responses

Comment Responses
This sub-appendix contains a list of all parties that submitted comments on the Draft Supplemental EA, the associated coded comment numbers, and responses. For the purposes of the Final Supplemental EA, all comment formats (i.e., form letters, letters, comment forms, e-mails, and verbal comments) are referred to as comment “letters.”

Comment Letter Coding
The enclosed table includes a list of public comment letters, with the name(s) of each party that provided a comment. Each comment letter was assigned a unique Letter Code to catalog the submittal. Federal, state, and local agency letters are listed in the order received. Public comments are generally organized by form letters received and then individual letters in the order they were received.

Letter Codes consist of a character and a number to identify each comment letter. The first character identifies the type of commenter (affiliation code):
- A – Federal/State/Local Agency
- E – Elected Official
- P – Public

The number identifies the specific comment letter. For example, a Letter Code “P41” describes the comment letter as being the 41st letter received from the general public.

A file was prepared that provides detailed responses to the majority of the comments that were received and is located in Appendix H-1, General Responses. Responses were categorized into the following six issue categories:

1. Supplemental EA Study Process
2. Operations
3. Noise
4. Air Quality
5. Traffic
6. Other Impacts and Mitigation

Within each of those six issue categories, a range of responses was developed based on the nature of the comments received or additional questions that were raised within each of the categories. Each response was assigned a number, beginning with the issue category per the list above. For
example, 1-1 is the first response within the “Study Process” issue category. A sheet was inserted after each of the comment letters that provides the general response number the commenter should refer to for a response to their comment and/or question. If a comment letter contained a comment or question that was not covered under these general responses, an individual response was provided.

Some of the public comment letters expressed general support for the project. In this case, a sheet was inserted after the comment letter noting that the comment has been received since a detailed response was not required.

<table>
<thead>
<tr>
<th>Commenter</th>
<th>Letter Code</th>
</tr>
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<tbody>
<tr>
<td>Alicia Higgins</td>
<td>P33</td>
</tr>
<tr>
<td>Alison Taylor</td>
<td>P143</td>
</tr>
<tr>
<td>Amy Gulick</td>
<td>P187</td>
</tr>
<tr>
<td>Amy Johnson</td>
<td>P34, P35</td>
</tr>
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<td>Anders Olin</td>
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