

**OFFICE OF THE HEARING EXAMINER  
PUGET SOUND REGIONAL COUNCIL**

IN RE: Review of the Adequacy )  
of the Flight Plan Project ) **FINDINGS, CONCLUSIONS,**  
Environmental Impact ) **AND DECISION**  
Statement. )  
)

**I. SUMMARY OF APPEAL AND DECISION**

**A. SUMMARY OF APPEAL:** This is an appeal or request for reconsideration by the City of Federal Way (City or appellant) challenging the adequacy of the "Flight Plan Project" Final Environmental Impact Statement (FEIS) issued by the Puget Sound Regional Council (PSRC) as the nominal lead agency and the Port of Seattle (Port) as the co-lead agency. (PSRC and the Port are referred to herein together as the "respondent.") The appeal challenges the adequacy of the FEIS in three areas: Economics, Noise, and Health.

**B. DECISION:** Denial of appeal.

**II. BACKGROUND**

**A. FLIGHT PROJECT ENVIRONMENTAL IMPACT STATEMENT**

On October 6, 1992, PSRC, as the nominal lead agency, and the Port, as the co-lead agency, adopted the Flight Plan Project FEIS. The general purpose of the Flight Plan Project (FPP) is to "plan for the future air transportation needs of the Central Puget Sound Region through the year 2020 and beyond." FEIS Section 1.1, Page 1-2. As part of this general purpose it is the purpose of the FPP to "provide input for updating and amending the Regional Airport System Plan," which is part of the Regional Transportation Plan. FEIS Section 1.1.1, Page 1-5. The "input" provided by the FPP is a review and discussion of several possible general commercial air travel solutions or system alternatives.

These possible solutions or alternatives include:

1. Improvements at the existing Sea-Tac Airport, including one or all of the following components:

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- a. Broad system management. This alternative attempts to meet the region's future travel needs without building any new dependent air carrier runways. It includes the use of demand management, new technologies, and high speed transportation.
  - b. A new dependent third runway. This would allow two staggered streams of aircraft to land during bad weather. It would increase capacity at Sea-Tac and would be able to accommodate both landings and takeoffs of commuter and jet aircraft.
  - c. Sea-Tac in conjunction with a remote airport at Boeing Field or Moses Lake.
2. A multiple airport system consisting of the Sea-Tac Airport and supplemental passenger service airports at sites north or south of Sea-Tac. Possible supplemental airport sites considered are Paine Field, McChord Air Force Base, Central Pierce County, Loveland, and Black Lake/Olympia (Thurston County).
  3. Closing Sea-Tac and replacing it with a larger airport. The replacement airport would have three independent runways that would allow for three simultaneous streams of air traffic in all weather conditions and would be large enough to provide for all of the region's commercial airport capacity to the year 2020 and beyond at a single site. The sites considered include Fort Lewis and Central Pierce County.
  4. No action.

The Draft EIS (DEIS) identified as a "preferred alternative" a new dependent third runway at Sea-Tac and supplemental service at Paine Field. The FEIS did not identify a preferred alternative.

The FEIS was issued as a "non-project" or "programmatic" EIS. It addresses the following elements of the environment: Noise, Air Quality, Surface Transportation, Land Use, Public Services and Utilities (Water and Sewer, Education, Waste Disposal, Fire, and Police), Natural Environment (Wetlands and Water and Vegetation and Wildlife), Earth, and Energy. It also addresses "Public Safety" and "Air Space Management." Its stated specific purpose is "to evaluate the regional environmental impacts of [the] various airport system alternatives." FEIS Section 1.1.3, Page

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1-7. It will be followed by one or more site or project-specific Environmental Impact Statements that will be issued by other agencies including, possibly, the Port of Seattle together with the Federal Aviation Administration under the National Environmental Policy Act.

#### **B. REQUEST FOR RECONSIDERATION**

On November 6, 1992 the City challenged the adequacy of the EIS. In its request the City states:

By filing this request for reconsideration Federal Way seeks to have the responsible official withdraw the non-project action Final EIS and require preparation of a project action EIS which includes a series of reasonable alternatives. In addition, Federal Way seeks to have the responsible official require supplemental analysis in the areas of Health, Noise, and Economics.

The City argues that the FEIS should be replaced with a project-specific EIS because subsequent to when the FEIS was issued the Port passed a resolution directing the Port staff to prepare plans and take certain other actions specifically related to constructing a third runway at Sea-Tac, and by this action the Port has:

- 1) Precluded consideration of other reasonable "system alternatives;
- 2) Selected a non-regional solution to meet forecasted travel needs;
- 3) Failed to evaluate and select a series of reasonable "system alternatives" for further project action environmental review as intended by the non-project EIS; and
- 4) Violated the non-project action EIS procedural requirements of SEPA.

The request states:

Based on this action by the Port of Seattle, the responsible official must determine that the flight plan Final EIS is inadequate and withdraw the EIS from further consideration. This action of the responsible official will invalidate the Port of Seattle's adoption of Resolution No. 3125.

In addition, the responsible official must direct preparation of a project action EIS on a series of

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reasonable "system alternatives" prior to allowing project-specific decisions to be made.

The request also states that the FEIS fails to address issues related to health and noise impacts. It states:

The EIS fails to empirically identify and address adverse health effects of airports on such elements as the general effects of noise, mental health, cardiovascular disease, pregnancy and birth defects, gastrointestinal disease, immunology, learning disabilities, sleep and speech disruption and cancer.

The EIS inappropriately defers the analysis of many of these health impacts to the project-specific phase of environmental review. However, even at a non-project phase, health impacts are consistent and identifiable for each of the alternatives presented in the Flight Plan EIS. It is appropriate that each of the issues be adequately addressed by the non-project EIS to facilitate the decision-making process in selecting a series of preferred "system alternatives" or for adopting policies regarding forecasted travel needs.

The request similarly states that the FEIS fails to adequately address economic issues. It states that the FEIS fails to acknowledge or address several economic issues identified by the City in its comments on the Draft EIS. It states, "Even at a non-project level of review, economic impacts can be identified and evaluated" and that "economic analysis is critical to selection of preferred 'system alternatives' and for adoption of policies regarding forecasted travel needs."

On or about December 4, 1992, the responsible official of the PSRC decided to refer the request for reconsideration to a Hearing Examiner. The decision by the responsible official identified in general terms the issue to be considered by the Hearing Examiner. Those issues included issues pertaining to noise, health, and limited economic impacts. The decision by the responsible official limited review of economic issues to those "economic-related issues which are required to be discussed in an EIS." The responsible official declined to forward to the Hearing Examiner issues raised by the City related to adoption of Resolution No. 3125 by the Port of Seattle.

On December 17, 1992, the Port of Seattle submitted a motion to the Hearing Examiner requesting that the Port be allowed to intervene in the request for reconsideration. On December 18, 1992, in a pre-hearing teleconference, the Hearing Examiner

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issued an oral order allowing the Port to intervene. The City, PSRC, and the Port all participated in the pre-hearing teleconference.

#### C. ISSUES CONSIDERED

At the December 18, 1992 teleconference the participants, together with the Hearing Examiner, agreed that the review by the Hearing Examiner would address the following issues:

1. Whether the Non-Project Environmental Impact Statement prepared for the Flight Plan Project adequately addressed the health/noise impacts of the alternatives under consideration in the EIS.
2. Whether the EIS adequately addressed those economic impacts of the flight plan project that the State Environmental Policy Act (SEPA) requires to be reviewed in an Environmental Impact Statement.

The prehearing conference participants agreed that on or about December 30, 1992 the parties would submit a list of specific issues within the scope of the two issues listed above that they believed should be considered. The participants further agreed that on or about January 4, 1993, the parties would submit any objections to an opposing party's characterization of the issues to be considered by the Hearing Examiner.

On or about December 30, 1992 the City submitted its list of proposed sub-issues. It listed the same health issues that it listed in its request for reconsideration. It listed the following noise issues:

1. The failure of the EIS to address the adverse effects of noise in its evaluation of preferred alternatives.
2. The inadequacies of Ldn as a noise impact methodology.
3. The need for a technical assessment of noise impacts to Federal Way.
4. "The problematic degree of constancy between reality and the modeled contours."

The City identified the following economic sub-issues:

1. The failure of the impact analysis and associated multiplier analysis to properly separate new.

spending created by the airport alternatives from spending that would exist without the airport expansion.

2. The failure of the EIS to separate "new money" from "old money."
3. The failure of the EIS to address or provide analysis of which alternative provides the best mix of fiscal and environmental impacts.
4. The failure of the EIS to consider growth-related costs that are borne by government and its consequent failure to address the net effect to government revenues at any level.
5. The failure of the EIS to account for the ability of different communities to mitigate the resulting environmental impacts and to fund public services.
6. The effects of the airport alternatives on economic development "in available land areas outside the core airport area" and the consequent effects on the ability of the non-core communities to fund infrastructure, capital facilities, and public services necessary to support projected new growth.

The City also stated that it intended to reassert comments submitted by the City in response to the Draft Environmental Impact Statement but not addressed by the PSRC in the Final Environmental Impact Statement. Those comments are identified as Comment Nos. 1, 4, 5, 6, 7, 8, and 11.

On or about January 4, 1993 PSRC and the Port submitted its objections to the City's proposed issues. They objected to the majority of the economic issues identified by the City. They stated that review and analysis of economic issues should be limited to:

Whether the EIS adequately discusses the economic feasibility of funding public works projects designed to mitigate the impact of the proposal.

They did not object to any noise and health issues raised by the City.

On or about January 6, 1993, the Hearing Examiner issued a written order that stated that the issues that would be

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considered by the Hearing Examiner would be the noise and health issues identified by the City in its preliminary list of issues and the following economic issues:

1. Whether the EIS adequately discusses the property tax revenue impacts of the alternatives, considering growth-related costs borne by communities.
2. Whether the EIS adequately discussed the economic feasibility of funding public works projects designed to mitigate the impacts of the proposal.

### III. PROCEDURAL INFORMATION

No hearings were held on this request for reconsideration. All testimony was presented in written form.

#### Exhibits:

1. Draft EIS
2. Final EIS
3. Federal Way Request for Reconsideration
- 4a. Letter from PSRC to City stating what issues would be forwarded to Hearing Examiner
- 4b. Letter from PSRC to Hearing Examiner forwarding Request for Reconsideration and identifying issues to be considered by Hearing Examiner
5. Port of Seattle's motion to intervene
6. City's preliminary list of witnesses, issues, and exhibits
7. Respondent's preliminary list of issues, witnesses, and exhibits.
8. Hearing Examiner's pre-hearing order dated December 31, 1992
9. Respondent's motion to limit issues on reconsideration
10. Hearing Examiner's pre-trial order re: Issues for Consideration
11. Respondent's rebuttal list of issues, witnesses, and exhibits
12. Appellant's preliminary list of rebuttal witnesses, issues, and exhibits
13. Appellant's supplemental list of witnesses, issues, and exhibits
14. Direct testimony of appellant's witnesses
15. Direct testimony of respondent's witnesses
16. Appellant's list of questions for Hearing Examiner inquiry

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- 17a. Respondent's memorandum in support of entry of proposed findings of fact and conclusions of law
- 17b. Respondent's proposed findings of fact and conclusions of law

#### IV. SUMMARY OF APPELLANT'S TESTIMONY AND ARGUMENTS

##### A. ECONOMIC ISSUES

Testimony about economic issues was presented by Dr. Richard Zerbe. Dr. Zerbe generally focused on statements in the DEIS and FEIS about the possible economic and fiscal impacts of a third runway at Sea-Tac. He attested to the following:

1. Statements in the EIS that the third runway will result in an economic benefit are, at best, unsupported by the EIS, and may be misleading.

The only circumstances under which the third runway can truly be said to result in a benefit is if it results in a net benefit, which is defined as the total of all additional revenue made possible by the runway less all additional costs made necessary by or resulting from it. If the statement in the EIS about benefits refers to gross benefits, it is a useless statement. If the statement refers to net benefits, it is misleading because it fails to address the following costs associated with the third runway.

- a. Reduced property tax revenue due to decreased property values caused by noise,
  - b. Reduced sales tax revenue due to a shift from high and middle income population in the area to a low income population,
  - c. Added "infrastructure" costs,
  - d. The costs of "induced changes in land use" (deterioration of neighborhoods), and
  - e. Costs associated with lost development opportunities.
2. The EIS ignores the benefits of decreasing noise if the third runway is not built.



If the third runway is not built, noise levels will decrease because of federally-mandated decreases in noise levels of airplanes. Thus, if the third runway is not built and there is not an increase in the amount of air traffic, overall noise will decrease. This will result in an increase in property values and the consequent benefits associated with an increase in property values. It is necessary to know what these benefits are to make an informed choice among the alternatives.

3. The EIS fails to consider the distribution of fiscal impacts.

The distribution of impacts will be different in each community for each of the alternatives. The effect that any one alternative will have on any particular community will depend upon the fiscal and environmental characteristics of that community. Therefore, even if two or more alternatives will have the same regional impacts, the impacts they have on a particular community could vary substantially.

4. The impacts on any one community such as Federal Way are not examined.

5. Statements in the EIS about expansion of Sea-Tac resulting in an increase in jobs is not supported by the EIS and may be misleading.

6. Statements in the EIS about increases in business revenues are inadequate and may be misleading.

Dr. Zerbe also stated that the EIS is inadequate in several areas not specifically related to economics.

#### B. NOISE ISSUES

Dr. James Chalupnick, Errol Nelson, Hans Aschenbach, and Frank Osburn submitted written statements about noise.

Dr. Chalupnick attested to the following:

1. The noise measures used in the EIS, Day-Night Noise Level (Ldn) and Sound Exposure Level (SEL) do not adequately measure the noise to which airports expose people.

They neglect or deemphasize low-frequency noises. Low-frequency noises can cause secondary noises to which human ears are more sensitive such as rattling of china and the shaking and squeaking of loose-fitting interior doors. The structural vibrations

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They neglect or deemphasize low-frequency noises. Low-frequency noises can cause secondary noises to which human ears are more sensitive such as rattling of china and the shaking and squeaking of loose-fitting interior doors. The structural vibrations caused by low-frequency noise can also lead to windows and plaster walls cracking. Because low-frequency sounds cause the whole structure to vibrate it is almost impossible to insulate against them. Therefore, the measures recommended in the FEIS to mitigate the impacts of noise will be ineffective in mitigating the impacts of low-frequency noise.

2. The Day-Night Noise Level measure of noise is not adequate because it fails to measure the impact of specific and particular noise events.

Rather, it simply measures the average noise level. People are clearly affected by individual noise events. The impact that noise resulting from an expansion of the airport will have on people in the area will be directly related to the increase in the number of flights.

3. The Sound Exposure Level measure of sound as used in the FEIS is inadequate.

It does not take into consideration all of the variables that can affect the noise level generated by an airplane taking off or landing. Further, it does not take into account the cumulative effect of noise levels.

4. There is nothing in the FEIS that relates the noise levels that will be generated by the airport expansion to state or local noise regulations.
5. The Integrated Noise Model (INM) used in the FEIS to predict noise exposure levels at various locations is flawed.

It does not consider specific topographical or meteorological conditions. Further, it is improperly used in the FEIS because the FEIS ignores existing noise levels.

6. The FEIS improperly assumes that a shift from Stage 2 to Stage 3 aircraft will result in a noise reduction.

There is no guarantee that such a shift will occur. Further, even if the shift occurs, noise levels will not necessarily be reduced because the Stage 3 airplanes are likely to be larger than the Stage 2 airplanes, and, thus, will generate as much or more noise.

7. The sound insulation program identified as a mitigation measure in the FEIS fails to consider the impact of shutting off desirable noises such as birds singing and children playing and warning sounds such as the cry of a child.

Further, insulating a house against noise can have an adverse effect on the quality of the air within a structure. It can result in air becoming stagnant and in a buildup of indoor pollutants.

Mr. Nelson attested to the following:

1. Existing noise conditions in the vicinity of the Sea-Tac Airport have been underestimated.

Noise levels measured in December 1992 are higher than the existing noise levels indicated in the FEIS. This means that the area and number of people that are affected by existing noise levels and that will be affected by increased noise levels due to expansion of the airport are incorrectly stated in the FEIS.

2. The predicted noise levels in the FEIS do not take into consideration ancillary airport activity such as taxiing aircraft, baggage trucks, and maintenance activities.

These activities contribute significantly to noise levels in the vicinity of the airport.

3. Use of SEL to describe the impact of a single aircraft taking off or landing is misleading.

SEL does not adequately measure the effect noise has on individual residents living in the area.

4. The FEIS does not adequately address low-frequency noise.

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5. Noise abatement measures are not evaluated in adequate detail.

Mr. Achenbach testified that the noise contour maps presented in the FEIS for Sea-Tac International Airport are inaccurate. He testified that they understate the noise levels and the size of the area and population affected by noise and , therefore, the cost of mitigation.

Frank Osburn testified to the following:

1. The use of 65 Ldn as an acceptable noise level is arbitrary.

Noise at this level can have a serious impact on health and the quality of life. A level of 55 Ldn is more realistic.

2. The use of the "A-Weighted" decibel scale distorts the true impact of noise on people and should be replaced.
3. Statements in the FEIS regarding noise levels of Stage 2 versus Stage 3 aircraft are misleading.
4. The FEIS fails to consider the impact advances in technology could have on noise levels.

Advances in technology could result in more and larger aircraft landing at Sea-Tac and in independent use of the third runway. If either of these events occur, noise levels could be considerably higher than predicted.

5. The FEIS failed to take into account the fact that Federal Way has recently been designated as an urban growth center pursuant to the Washington State Growth Management Act.

This designation means that Federal Way will have a larger population than considered in the FEIS and that more people will be affected by noise than stated in the FEIS.

6. The FEIS overstates the noise impacts that would occur if Sea-Tac Airport is not expanded.

### C. HEALTH ISSUES

Dr. Peter Brysse, Drs. Bennett Hansen and Lee Sanders, Elizabeth Williams, Rose Clark, Dr. Nancy Angello and Frank Osbun submitted written statements regarding health impacts.

Dr. Brysse identifies possible health impacts associated with noise, including the impacts associated with low-frequency noises. He does not specifically identify what, if any, noise-associated health impacts the FEIS failed to address. Dr. Brysse also presents the results of a survey conducted to measure the effects of noise on the educational environment at Sunset High School, a high school in the area affected by the noise from the existing Sea-Tac Airport. He does not state that the FEIS failed to adequately address the impacts of noise on the educational environment.

Drs. Hansen and Sanders provide a summary of potential adverse health effects associated with airports. They do not identify areas where they believe the FEIS failed to adequately address these impacts.

Elizabeth Williams submitted a statement regarding the health effects of air pollution caused by airports. Ms. Williams states that the FEIS is inadequate for the following reasons:

1. It fails to identify the economic cost to human health caused by the air pollution associated with the airport.

Sea-Tac Airport is a major source of air pollution in the region. Air pollution can cause a variety of health problems. These health have economic costs such as increased health care costs and absenteeism from work that are not addressed in the FEIS.

2. The FEIS fails to adequately address the reported higher-than-expected frequency of cancer cases around airports.

Airports generate a number of pollutants that have been reported to be causes of cancer.

3. It is not fully possible to determine what effect the airport has had or will have on air pollution in the area because there is no accurate baseline indicating present levels of pollution.

Rose Clark presented information regarding the effects of noise pollution on schools and school-age children and on health generally. She also presented general information regarding

health impacts associated with air pollution. She states that more consideration should be given to a "green grass airport," or an airport at a new location.

Dr. Angello presented a summary of the impact of aircraft noise on the education of children. She did not identify specific inadequacies that she believes exist in the FEIS.

Frank Osbun testified to the following:

1. Assumption in the FEIS about the effects of a third runway at Sea-Tac on air pollution are biased in favor of a third runway.

They assume that the only real way to reduce the air pollution resulting from aircraft delays is to build a third runway, that without a third runway delays will forever be a problem at Sea-Tac. This is not necessarily true there are other ways to reduce delays that do not require a third runway.

2. The FEIS improperly excludes vehicle emissions from employee trips from its calculations of the amount of air pollution that will be generated.

According to the FEIS, the airports will increase the the mileage travelled by air port employees by 20%. Given that vehicle emissions are a major source of air pollution, this increase in miles travelled could be a cause of a major increase in air pollution. The information is available to calculate how much of an increase in pollution will result. Therefore the FEIS should provide this information.

## V. SUMMARY OF RESPONDENT'S TESTIMONY AND ARGUMENTS

### A. ECONOMIC ISSUES

Mr. W. Warren Sprague and Mr. David Mattern responded to the appellant's testimony regarding economic issues.

Mr. Sprague attested to the following:

1. The level of detail and regional focus of the FEIS is appropriate given that it is a non-project or programmatic EIS.

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Additional analysis will be conducted during the project level EIS.

2. The issue of the impact on surrounding vicinity property values and tax revenues was considered to be insignificant to the evaluation of the various alternatives.

In all cases, net property values and property and other tax revenues in the region should increase due to the development and operation of any of the alternatives. Significant impacts to individuals and communities affected by the development and operation of a specific alternative will be identified and mitigated in project-level environmental impact analysis. The net impact on property values and property and other tax revenues is relatively minor in comparison to the total benefits to the region.

Mr. Mattern testified to the following:

1. The level of analysis regarding possible impacts on public services and possible ways to mitigate such impacts described in the FEIS are appropriate.

The EIS is a non-project or programmatic EIS. More detailed analysis will clearly have to be done at the project level. For many of the alternatives considered, information is not available beyond the level of detail used in the FEIS. It is not reasonable to expect that such information will be generated for a non-project EIS.

2. Many of Dr. Zerbe's comments regarding the EIS were apparently based on the Draft EIS rather than the Final EIS.

Many of the issues Dr. Zerbe says were not discussed or addressed were in fact discussed or addressed in the FEIS.

#### B. NOISE ISSUES

Paul Dunholter and Dr. Henning, E. Von Gierke submitted statements responding to the noise issues raised by the appellant's witnesses.

Mr. Dunholter testified to the following:

1. The A-Weighted decibel scale is widely used in the assessment of community noise impacts.

Community noise standards are based on this scale. Nationally accepted noise and land use compatibility guidelines as well as

speech and sleep interference criteria are based upon this scale. No single alternative has been widely accepted by the scientific community. Changing to another scale has not met with widespread acceptance within the scientific community.

2. Aircraft noise certification does take into consideration low-frequency noise.

Therefore, it is not reasonable to suggest that Stage 3 aircraft are being designed to take advantage of the efficiencies in the A-Weighted decibel scale in measuring low-frequency noises. Low-frequency noises are not a significant problem with Stage 3 aircraft.

3. Ldn is a widely accepted measure of noise impacts.

A recent review by the Environmental Protection Agency, the Federal Aviation Administration, and the FICON concluded that there are no new measures of noise of sufficient scientific standing to substitute for the Ldn. Ldn takes into account the magnitude of all sound level of all individual events that occur during the 24-hour period, the number of events, and an increase in sensitivity to noise during typical sleeping hours. Ldn is a measure of the average noise during a 24-hour period. The logarithmic nature of the decibel unit on which Ldn is based causes sound levels of the loudest events to control the 24-hour average. Research has shown that most measures of noise are similar in that they measure the same thing.

4. The use of 65 Ldn is widely accepted as the threshold of significant noise exposure.

Nevertheless, the FEIS identified impacts at the 55 Ldn level. Further, the FEIS supplemented the Ldn analysis with a single event analysis based upon the Sound Exposure Level Metric.

5. Though limited in its usefulness, the Sound Exposure Level Measure of noise is useful in identifying the relative level of single-event disturbances.

It can be directly related to sleep disturbance. It was used only to supplement the Ldn analysis.

6. Airport noises (as well as other transportation-related noises) are specifically exempt from state and local noise ordinances because they regularly exceed permitted levels.

7. The fact that errors have been made in the past predicting noise levels around Sea-Tac Airport does not mean that the predictions made in the Final Environmental Impact Statement are in error.

Past predictions have been inaccurate in part because of events that occurred that were not predictable. Many of these events are not likely to reoccur. To a large degree, the levels of noise that will be generated will be controlled by regulations and agreements now in effect.

8. The INM noise model does provide a reasonably accurate model or measure of noise.

The model was developed by the FAA, which maintains that the model does not need to be specifically calibrated for use at each airport. Further, a number of noise measurement surveys at Sea-Tac Airport demonstrate that the model does reasonably predict noise levels from Sea-Tac Airport.

9. It is not reasonably possible to draw any conclusions from the noise measurements reported by witness Nelson.

The short duration in which the measurements were taken make it impossible to draw any useable conclusions. Noise levels can vary substantially on a daily basis. Measurements taken over a long period of time are needed to account for such variation.

10. The INM model does take into consideration the contribution to noise from some ground activities, but not all.

Studies done assessing the contribution of noise from ground activities indicates that the contribution is insignificant.

11. Airlines will switch from Stage 2 to Stage 3 aircraft, and Stage 3 aircraft will result in a reduction in noise.

The Noise Budget for Sea-Tac assures that quiet aircraft will be operated at Sea-Tac.

12. The FEIS used data based on current available technology or technology expected to be available over the next 10 years.

It is not judicious to rely on future technology that may or may not be developed. The advance in technology mentioned by witness Osburn is technology that is not expected to be available for a long time.

13. Federal Way was not designated as an urban growth center when the FEIS was prepared, therefore, this fact could not have been considered in the FEIS.
14. The analysis of noise abatement measures is sufficient for the non-project FEIS.

A more detailed analysis will be more meaningful and will be done at a project level. The FEIS did identify general possible noise mitigation measures.

15. The FEIS did not include a detailed study of the cumulative impact of noises from other sources because of the large variety of sites considered.

The levels of existing noise and the impacts of added noise vary significantly from site to site. Therefore, it is more appropriate that such an analysis be done on a project-specific level.

Dr. Von Gierke supported the testimony given by Mr. Dunholter regarding the measures of noise used in the EIS. In addition, Dr. Von Gierke testified that the EIS does adequately address all potential and alleged adverse health effects of airport noise. It summarizes and reviews the same effects identified in the paper prepared by witnesses Drs. Hansen and Sanders. The FEIS does provide decision-makers with enough information to evaluate the noise impacts of the various alternatives. It gives information regarding the change in the number of people that will be exposed to various noise levels with the different alternatives. It thus allows assessment of the relative changes to be expected from the alternative plans. By the use of the single event noise level analysis (the SEL metric) the FEIS provides information appropriate at the non-project level to analyze effects upon communication and learning in schools and upon interference with sleep.

#### C. HEALTH ISSUES

Dr. Greve and Dr. Michael Morgan submitted statements regarding health issues. Mr. Greve specifically testified about the reasons the EIS focused on regional air pollution impacts. He testified to the following:

1. A regional analysis is appropriate because the EIS is intended to be used to make a regional decision.

The Feis attempted to answer which airport system and configuration would have the lowest potential for air pollutant

emissions and therefore the least impact on regional air quality.

2. The EIS focused on regional impacts because they are the most difficult to mitigate.
3. A regional analysis is most appropriate because the pollutants that exceed ambient air quality standards the most are regional pollutants.
4. The information needed to do a local air quality analysis is very extensive and is not available in most cases.
5. Information about the increase in air pollution that could result from increased employee trips was not included because it is too difficult to estimate what that increase might be at this time.

Dr. Morgan testified that the FEIS does acknowledge or address the various possible health effects associated with noise that are identified in the testimony of the City's witnesses. With regard to the health effects of air pollutants generated by airports he testified to the following:

1. Studies done at other airports indicate that airports contribute a relatively small amount to the public exposure to air pollutants when compared to the contributions from industries and vehicular traffic.
2. Though airports contribute little to the human exposure to air pollutants, the EIS does inform decision-makers of the potential health effects associated with air pollutants.

In addition to the testimony of the experts listed above, the respondents provided testimony from Dr. Peter Beaulieu, Flight Plan Project Manager, regarding the history of the Flight Plan Project and the relationship of the FEIS to future impact statements that will be prepared for site-specific projects. Also in addition to the testimony provided by the respondent's witnesses, the respondent's attorneys presented legal arguments in support of the FEIS. In summary, they argue:

1. The legal adequacy of an EIS is judged by the "rule of reason."

This standard of review requires only that an EIS be compiled in good faith and contain sufficient information to enable a decision-maker to fully consider possible environmental impacts.

2. The flexibility afforded by the rule of reason applies with even more force in a case such as this where the EIS is a non-project EIS.

The Washington Administrative Code recognizes that a non-project EIS requires more flexibility because detailed information is normally less available.

3. Washington Administrative Code Rule 197-11-442(2) states that non-project EIS's should analyze all alternatives at roughly comparable levels of detail.

The desire by the City of Federal Way to have more detailed information required about the possible expansion of Sea-Tac is contrary to this rule. If more detailed information were provided regarding the expansion of Sea-Tac, more detailed information would have to be provided about the other alternatives as well. In many cases, such information is not available. This is particularly true of new sites.

4. The use of two-tiered environmental analysis is consistent with SEPA rules that encourage agencies to conduct environmental review in phases, focusing on issues that are ready for decision and excluding from consideration issues not yet ready for review.

The Washington Administrative Code grants lead agencies the authority to determine the appropriate scope and level of detail of environmental review. PSRC recognized that the EIS would be used for the purpose of adopting a regional plan and that more detailed information would be needed at a later date.

5. SEPA rules explicitly state that site-specific analysis is not required in a first phase, non-project EIS.
6. Though site-specific information or analysis is not required, SEPA rules do allow some site-specific analysis when there are areas of specific concern.

Thus, some site-specific analysis was provided regarding noise.

## VI. FINDINGS AND CONCLUSIONS

### A. INTRODUCTION

The request for reconsideration challenges the adequacy of the information provided in the Final Environmental Impact Statement on the Flight Plan Project. The Flight Plan Project identifies several alternative ways to address the future commercial air transportation needs of the south Puget Sound region. The PSRC General Assembly will select one of the alternatives for further consideration later this year. The Flight Plan Project EIS was drafted to provide the General Assembly and the public with information about the significant environmental impacts associated with each alternative. The question presented by this appeal is whether the information included in the FEIS adequately addresses all such significant impacts. The Hearing Examiner concludes that it does.

There are no specific or set standards against which an Environmental Impact Statement may be judged to determine whether it is adequate. Rather, the "rule of reason" is to be used to determine whether an EIS is adequate. Applying this standard, it is not necessary for an EIS to include every remote and speculative consequence of an action. All that is necessary is a "reasonably thorough discussion of the significant aspects of probable environmental consequences. The discussion of alternatives in an EIS need not be exhaustive; the EIS must present sufficient information for a reasoned choice among alternatives." Solid Waste Alternative Proponents v. Okanogan County, 66 Wash App 439, 832 P 2d 503 (1992).

This is particularly true in the case of non-project or programmatic EIS's. WAC 197-11-442(1) states:

The lead agency shall have more flexibility in preparing EIS's on non-project proposals because there is normally less detailed information available on their environmental impact and on any subsequent project proposals.

WAC 197-11-442(2) states that impacts and alternatives must be discussed in the level of detail appropriate to the scope of the proposal and to the level of planning for the proposal. WAC 197-11-442(3) states:

If the non-project proposal concerns a specific geographic area, site-specific analyses are not required, but may be included for areas of specific concern. The EIS should identify subsequent actions that would be undertaken by other agencies as a result of the non-project proposal, such as transportation and utility systems.

This Flight Plan Project EIS was issued as a non-project EIS. It clearly states that further site-specific review will be necessary and that additional impact statements will be issued for any site-specific proposals. The FEIS acknowledges the possibility that subsequent environmental review could show the alternative selected by the PSRC general assembly to be unacceptable. (See Pages 1-7 and 1-9 through 1-10.)

In reviewing the adequacy of an Environmental Impact Statement the decision of the responsible official must be accorded substantial weight. SWAP v. Okanogan County, supra, citing RCW 43.21C.090. The responsible official for Puget Sound Regional Council determined that the Final Environmental Impact Statement is adequate.

Upon reviewing the Final Environmental Impact Statement and all relevant exhibits and according substantial weight to the determination of the responsible official, the Hearing Examiner concludes that the Final Environmental Impact Statement adequately addresses economic, noise, and health issues. Each of these issues is discussed below.

#### B. ECONOMIC ISSUES

The FEIS adequately addresses economic issues. In Section 4.4.2.1.3 it acknowledges that airport-related noise may result in a reduction in residential property values, stating that the effect on a particular piece of property as well as the total effect in any area will depend upon a number of factors including the average change in noise levels, present property values, the number of homes or properties affected, the strength of the housing market, and unique locational characteristics such as proximity to employment centers or recreational amenities. It concludes that decreases in residential property values are likely to be more than offset by increases in the value of other type of property such as commercial or industrial properties surrounding the airport but outside the noise impact area. It notes that the net effect that an airport will have on local property tax revenues is dependent on two factors: The net impact of the airport on residential and commercial property

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values and the amount of land occupied by the airport that is removed from the tax rolls (assuming that the airport is owned by a government agency). It concludes that relative to the first factor the net effect of an airport on surrounding property values is most often positive. It concludes that, with regard to the second factor, the net impact on property tax revenues could be negative at sites not now occupied by airports.

This information is sufficient to allow decision-makers and the public to compare the tax revenue impacts of the various alternatives. Clearly, this information is not sufficient to determine the specific tax revenue impacts any particular choice will have, but such information is not necessary at this time. The only information that is necessary at this time is information sufficient to allow the general Assembly to make a choice among regional alternatives. Information regarding the specific and detailed impacts of a particular alternative on tax revenues will be provided in a project-specific or site-specific EIS. Further, given the variety of factors identified in the FEIS that could ultimately affect the impact on tax revenues, it is reasonable to defer the requirement for such information until a site or project-specific EIS is issued.

The FEIS adequately addresses issues related to costs. It acknowledges in Section 4.5.3 that the local demand for public services including fire, police, water, and sewer service would increase for each of the alternatives. It notes that the actual increase in demand for services and the associated costs would vary by location depending upon the level of existing services. It does not discuss in any detail how the costs associated with expanding public services would be paid. Instead, it notes that methods are available to local governments and the state to pay for the cost of providing additional services to new developments. It notes that the impacts to public services and utilities would be likely to be easier to mitigate at sites that have existing infrastructure improvements. It states:

No unavoidable adverse impacts to public services have been identified at the regional level. Additional studies at the site-specific level will examine, in detail, impacts to public services and utilities and the costs associated with necessary mitigation.

This level of analysis of the potential increased demand for and increased cost of public services is adequate for this FEIS in that it appraises decision-makers of the fact that there will be increased demand for services for all of the alternatives, that the specific impacts will vary from site to site, that no unavoidable adverse impacts to public services have been

identified at a regional level, and that additional site-specific studies will be necessary.

Costs identified by the appellant such as the deterioration of neighborhoods and the loss of development opportunities are not the proper subject for this FEIS for two reasons. First, they are site-specific dependent. Second, they are, at this stage of review, too remote and speculative. The appellant does not provide any information that allows the Hearing Examiner to conclude that neighborhood deterioration is likely at any specific site or that development opportunities will be lost at any specific site.

Several of the economic issues identified by the appellant's witnesses go well beyond the scope of the issues permitted by the Hearing Examiner's order in that they are purely economic issues. They are not addressed here.

### C. NOISE ISSUES

The EIS adequately addresses noise issues. The measures of noise used in the FEIS (Ldn and SEL) are widely accepted and used. The appellant does not provide any information pointing to a more acceptable measure of noise. The level of noise used in the FEIS for identifying adverse environmental impacts (65 Ldn) is, again, widely used and accepted. It is the level used by the Federal Aviation Administration. Though widely used and accepted, the FEIS goes beyond identifying possible adverse impacts at the 65 Ldn level. It also identifies possible adverse impacts at the 55 Ldn level. It maps the areas that will be affected at both the 65 and 55 Ldn level. In addition, it provides information regarding exposure to single noise event levels, measured as Sound Exposure Level or SEL. It uses an SEL of 80 DBA, noting that the level of 80 DBA corresponds to the level at which sleep disturbance and speech interference start to occur in the general population.

The noise information used in the FEIS is adequate. The appellant submitted information suggesting that the information used in the FEIS is inaccurate. At best, the information submitted by the appellant suggests that there is room for disagreement regarding existing noise levels. Given the short duration for which the noise measures used by the applicant were taken, the information does not require the FEIS to include further analysis.

The FEIS adequately identifies the various possible health and other impacts associated with noise. It lists such possible

impacts in Section 4.1.2.1. The level of detail is sufficient to apprise the decision-makers and the public of the possible adverse health impacts and other adverse impacts associated with aircraft/airport noise.

Use of the Integrated Noise Model (INM) to generate noise contour maps is acceptable. The testimony submitted by the respondent indicates that Sea-Tac Airport was used in developing the model and that the accuracy of the model was confirmed by actual noise measurements taken at Sea-Tac.

The assumptions in the FEIS regarding the switch from Stage 2 to Stage 3 aircraft and the impact that such a switch would have is reasonable and permissible. Such a switch is required by federal regulations and the Noise Budget contained in the Sea-Tac Noise Mediation Agreement.

When the noise information provide by the applicant is considered in its entirety, it is sufficient for the General Assembly to consider the noise impacts of the various alternatives. The methods used in the FEIS are used consistently for all of the alternatives, so they provide a consistent basis for comparison.

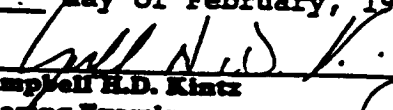
#### **D. HEALTH ISSUES**

The FEIS adequately addresses health impacts. As is stated above, it identifies the health impacts associated with noise. It identifies the effect the alternatives are likely to have on air quality. It identifies possible adverse impacts associated with types and levels of air pollution. It acknowledges that all of the alternatives will result in increased air pollution and a decrease in overall air quality in the Puget Sound region. It states that all system alternatives except for the replacement airport alternative will result in less emissions than taking no action at all. It notes that the most significant site level impacts will have to be considered at site-specific EIS's. The Hearing Examiner agrees with the respondent's testimony that it is not necessary to provide specific base information for the various sites at this time. The base level of pollution would vary substantially from site to site. Base information is not available for the sites. Generating it for each site would be extremely time-consuming and costly. Specific site information can and will be generated in conjunction with site-specific EIS's. Again, the information included in the FEIS is adequate to allow the General Assembly to compare the various alternatives.

**V. DECISION**

Based on the findings and conclusions above, it is the decision of the Hearing Examiner that the Flight Plan Project Final Environmental Impact Statement is adequate.

DATED this Four day of February, 1993.

  
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Campbell H.D. Kintz  
Hearing Examiner  
Puget Sound Regional Council

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