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COMMENTS ON THE DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT FOR THE PROPOSED MASTER PLAN UPDATE DEVELOPMENT ACTIONS AT SEATTLE-TACOMA INTERNATIONAL AIRPORT

Submitted by

THE AIRPORT COMMUNITIES COALITION

CITY OF BURIEN, WASHINGTON
CITY OF DES MOINES, WASHINGTON
CITY OF FEDERAL WAY, WASHINGTON
CITY OF NORMANDY PARK, WASHINGTON
CITY OF TUKWILA, WASHINGTON
HIGHLINE PUBLIC SCHOOLS

March 19, 1997
PRIVILEGED AND CONFIDENTIAL

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MARCH 19, 1997 DRAFT
PRIVILEGED AND CONFIDENTIAL

Prepared for Submission

to

The FAA and Port of Seattle

by

Cutler & Stanfield, L.L.P.
700 Fourteenth Street, N.W.
Tenth Floor
Washington, D.C. 20005

Counsel to the Airport Communities Coalition

In Consultation with:

BBN Systems & Technologies
21120 Vanowen Street
Canoga Park, California 91303

Dr. Clifford Winston
The Brookings Institute
1775 Massachusetts Avenue
Washington, D.C. 20005

Consulting Services, Ltd.
2023 Simms Way
Port Townsend, Washington 98032

Christopher Brown and Associates
879 Rainier Avenue North
Renton, Washington 98117

Steven Morrision
Northeastern University
301 Lake Hall
Boston, Massachusetts 02115

Smith Engineering & Management
5311 Lowry Road
Union City, California 94587

Gene S. Mercer
5528 Yorkshire Street
Springfield, Vriginia 22151

Environmentrics, Inc.
4803 Fremont Avenue North
Seattle, Washington 98103-6527

Jimmie Hinze, Ph.D., P.E.
University of Florida
Gainesville, Florida 32611

James C. Fea
West Engineers & Assoc., Inc.
44 Montgomery Street
San Francisco, California 94104

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- **The Port Has Significantly Changed the Sea-Tac Expansion Plan**

  √ The Port previously stated that a new third runway was urgently needed at Sea-Tac, that without an additional runway, the Airport would experience delays of an hour or more during poor weather conditions. *The Port now is saying that a new runway can wait for almost ten years while it builds a new terminal, parking garage and internal roadways.*

  √ The Port warns that unless the Airport is expanded, passengers would suffer substantial delays and inconvenience. *The Port acknowledges, however, that with or without the proposed expansion, Sea-Tac would be able to accommodate all of the passengers likely to use the Airport for at least the next 12-15 years.*

  √ The Port assured the region that the proposed third runway would be used to handle no more than 14 percent of all aircraft operations, and therefore, it would do little to increase the amount of aircraft noise to which the community would be subjected. *The Port and the FAA now admit that a third runway would be used to handle a significantly larger proportion of all aircraft operations.*

  √ The Port previously stated that the same number of aircraft operations would occur at Sea-Tac with or without a third runway. *The Port now concedes that as many as 170,000 more aircraft operations would occur at Sea-Tac if a third runway is constructed.*

  √ The Port stated that the proposed third runway would cost less than $500 million. *The Port has been forced to admit that the cost of the runway has increased by $130 million, without including the cost of debt service which could add an additional $300 million to the cost of the project.*

  √ The Port insisted that it could transport all the fill material it would need for the third runway in 2 - 2½ years. *The Port now is planning to run hundreds of double dump trucks each day, 16 hours a day for **5** years.*

THE DRAFT SEIS DEMONSTRATES THAT THE THIRD RUNWAY IS UNNECESSARY AND THAT EVEN WITHOUT A THIRD RUNWAY SEA-TAC WILL BE ABLE TO ACCOMMODATE ALL OF THE PASSENGERS WANTING TO USE THE AIRPORT FOR THE FORESEEABLE FUTURE.

- **The Port Has Not Seriously Considered Alternatives to the Third Runway Project**

  √ The Draft SEIS ignores the effects of using technological improvements to increase the capacity of the existing two runways. *Existing and near-term technology would allow the existing two runways to accommodate additional aircraft operations in less than optimal weather conditions.*

  √ The Draft SEIS insists that only an 8,500-foot runway would meet the need for additional capacity at Sea-Tac. *A 5,200-foot runway could satisfy the asserted need for increased poor weather aircraft arrival capacity.*

  √ The Draft SEIS insists that the asserted need for additional airport capacity only could be met at Sea-Tac. *Data in the Draft SEIS indicates that sufficient passenger demand would exist in 2010 to make a supplemental airport competitive with Sea-Tac.*

  √ The Draft SEIS ignores the possibility of diverting commuter aircraft to another airport within the region. *Recent airline industry trends show an increased emphasis on point-to-point service by commuter planes, making the diversion of commuter operations a realistic means of relieving capacity problems at Sea-Tac.*

  THE DRAFT SEIS DOES NOT CONSIDER ALL REASONABLE ALTERNATIVES TO CONSTRUCTION OF THE THIRD RUNWAY.

- **The Port and the FAA Seriously Underestimate the Environmental Consequences of the Expansion Project**

  √ The Draft SEIS refuses to examine the environmental impacts of the proposed third runway beyond the year 2010, even though the runway would not be operational until 2005, at the earliest. *Thus the Draft SEIS obscures and grossly underestimates the true extent of environmental impacts which would be caused by the construction of a third runway.*

  √ The Draft SEIS only addresses the impacts which would result from the 474,000 operations projected to occur by 2010. *Since the Master Plan Update improvements are designed to accommodate a maximum of 630,000 operations, the Draft SEIS must examine the impacts attributable to that level of operations.*

  THE DSEIS TRIVIALIZES THE ENORMOUS NEGATIVE IMPACTS ON AIR QUALITY, LOCAL AND STATE ROADS, PARKS, SCHOOLS AND THE OVERALL QUALITY OF LIFE IN THE REGION THAT WOULD RESULT FROM THE THIRD RUNWAY PROJECT.

- **Noise Impacts with the Third Runway Would be Greater than Today**

  √ The Draft SEIS states that even with a third runway the area exposed to unacceptable noise levels would be smaller in the future than it is today. *Since the Port already has achieved most of the possible noise reductions from its Mediated Noise Agreement and from the phase-out of Stage 2 aircraft, the increased numbers of operations at Sea-Tac resulting from a third runway will cause an expansion of the area exposed to high noise levels.*

  √ The Draft SEIS minimizes the noise impacts of the proposed third runway by only addressing the noise effects attributable to the 474,000 operations it projects for the Airport for the year 2010. *The Draft SEIS should have analyzed the noise impacts for alternative numbers of operations, including the 585,000 operations projected for 2020 and the 630,000 maximum number of operations which the Airport could accommodate with the third runway project.*

  √ The Draft SEIS does not consider increased noise levels which will interfere with instructional activities in the schools in the vicinity of Sea-Tac. *The Draft SEIS ignores the greater noise levels which will interfere with speech and learning as a result of increased operations projected at Sea-Tac.*

INACCURACIES, OMISSIONS, ERRORS AND IMPLAUSIBLE ASSUMPTIONS INFECT AND UNDERMINE THE VALIDITY OF THE EVALUATION OF NOISE IMPACTS IN THE DRAFT SEIS.

- **The Full Extent of Construction Impacts Have Not Been Revealed**

  √ The Draft SEIS indicates that extending the time for transporting fill dirt would be less disruptive to the community. *Transporting over 23 million cubic yards of fill dirt for five years – rather than the 2½ years previously indicated – will prolong the region's exposure to extreme traffic congestion and dangerous road conditions.*

  √ The Draft SEIS underestimates the amount of fill that will be needed and the number of truck trips that will be required. *The natural "shrinkage" and "swelling" of the fill material will require a significantly larger number of trucks to transport the fill than indicated in the Draft SEIS.*

THE DSEIS DOWNPLAYS THE NEGATIVE IMPACT THAT MINING AND TRANSPORTING OVER 23 MILLION CUBIC YARDS OF FILL WOULD HAVE ON MANY COMMUNITIES – EVEN THOSE FAR FROM THE AIRPORT.

- **The Third Runway Project Would Lead to a Degradation in Air Quality**

  √ The Draft SEIS states that a third runway would not contribute to the deterioration of regional air quality even with a substantially greater number of aircraft operations and surface traffic. *It is preposterous to assert that air pollutants emitted by aircraft during take-offs would decrease even though the number of departing aircraft will increase.*

  √ The Draft SEIS declines to identify the specific types of construction equipment to be used in the course of the Airport expansion project. *The Draft SEIS, therefore, cannot accurately predict the quantity of air pollutants which could be emitted by heavy-duty construction equipment operating on- and off-road or analyze the impacts of such emissions.*

  THE DSEIS IGNORES SCIENTIFIC EVIDENCE THAT CONSTRUCTION OF A THIRD RUNWAY AT SEA-TAC WOULD INCREASE AIR POLLUTION IN THE PUGET SOUND REGION.

- **Additional Surface Traffic Resulting From Expansion of the Airfield Would Add to Already-Congested Roads**

  √ The Draft SEIS minimizes the effect of Airport traffic on commuter traffic in the vicinity of the Sea-Tac, and fails to analyze the effect of increased operations on surface traffic during the peak hour of Airport activity. *Since many more people will be arriving at, and departing from, the Airport during peak periods than was revealed in the Draft SEIS, the effect on surface transportation and traffic conditions was substantially underestimated.*

  THE DSEIS UNDERESTIMATES THE IMPACT OF THE THIRD RUNWAY PROJECT ON SURFACE TRANSPORTATION FACILITIES IN THE PUGET SOUND REGION.

- **The Port and the FAA Ignore the Socio-Economic Impacts That an Expanded Airport Would Have on the Surrounding Communities**

  √ The Draft SEIS overemphasizes the positive economic impacts of Airport expansion and minimizes the financial, social and economic costs to neighboring communities. *The widely dispersed economic gains which might result from Airport expansion do not off-set the localized economic and social deterioration which often results from major airport expansion projects.*

  √ The Draft SEIS does not consider the spiraling process of economic and social deterioration that attacks neighborhoods subject to high levels of aircraft noise and other negative environmental impacts associated airport operations. *The proposed expansion of Sea-Tac is likely to have a negative effect on the price of residential housing stock; and lead to lower property values and declining property tax collections coincident with an increased demand for enhanced social services and police protection.*

  THE DRAFT SEIS CONTAINS NO DISCUSSION OF THE EFFECT OF THE EXPANSION OF SEA-TAC ON THE SOCIAL AND ECONOMIC FABRIC OF NEIGHBORING COMMUNITIES.

- **The Port and the FAA Have Shirked Their Responsibilities to Consider Reasonable Mitigation Measures**

  √ The Draft SEIS erroneously assumes that little mitigation would be required, because it seriously underestimates the environmental impacts of the Airport expansion proposal. *Major mitigation actions will be required to address the serious negative environmental impacts of increased noise, air pollution, congested surface transportation arteries and the overall deterioration of the quality of life in the Puget Sound region.*

  √ The cursory discussion of mitigation in the Draft SEIS totally ignores the state-funded independent Airport Impact Mitigation Study. *The State Legislature appropriated $500,000 for an objective study of the potential environmental, transportation and socio-economic impacts associated with the expansion of Sea-Tac and the determination of appropriate mitigation measures.*

  THE CURSORY DISCUSSION OF MITIGATION MEASURES IN THE DSEIS FAILS TO ADDRESS THE SUBSTANTIAL NEGATIVE IMPACTS OF THE PROPOSED AIRPORT EXPANSION ON THE OVERALL QUALITY OF LIFE IN THE PUGET SOUND REGION.

1.0 INTRODUCTION

The cities of Burien, Des Moines, Federal Way, Normandy Park and Tukwila, Washington and the Highline School District (known as the Airport Communities Coalition or the "ACC"),[1] individually and collectively submit these Comments on the Draft Supplemental Environmental Impact Statement ("DSEIS") prepared jointly by the Federal Aviation Administration ("FAA") and the Port of Seattle ("Port") for the proposed Master Plan Update development actions at Seattle-Tacoma International Airport ("Sea-Tac" or "Airport").[2] The DSEIS is proffered by the FAA and the Port in fulfillment of their respective obligations under the National Environmental Policy Act ("NEPA")[3] and the Washington State Environmental Protection Act ("SEPA").[4]

The ACC and its constituent members previously have submitted extensive comments on the Draft Environmental Impact Statement ("DEIS")[5] and the Final

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[1] The Airport Communities Coalition ("ACC") is a voluntary association of local governmental entities created and established pursuant to state law and Chapter 39.34 of the Revised Code of Washington ("RCW").

[2] Fed. Aviation Admin. and Port of Seattle, Draft Supplemental Environmental Impact Statement for Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport ("DSEIS") (Feb. 1997).

[3] 42 U.S.C. §§ 4231-4370d (West 1996).

[4] Chapter 43.21C RCW.

[5] Airport Communities Coalition, et al., Comments on the Draft Environmental Impact Statement for Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport ("DEIS Comments") (Aug. 3, 1995).

Environmental Impact Statement ("FEIS")[6/] for this proposal. To the extent that the DSEIS perpetuates flaws and omissions in the DEIS and FEIS, the ACC's earlier comments remain in effect and are incorporated by reference into these Comments.[7]

Since the publication of the FEIS in February, 1996, the Port and the FAA have recalculated the numbers which form the basis for this project – the forecast of aviation demand for Sea-Tac. According to the FAA, a Supplemental EIS was necessitated by the fact that the original forecast developed for the Master Plan Update has been surpassed by a higher-than-estimated rate of growth in operations: actual operations in 1996 nearly reached the number forecast for 2005 in the Master Plan Update.[8] This discrepancy initially was identified in the FEIS – in a footnote to an appendix[9] – but its implications for the environmental analysis contained in the body of that document were not

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[6/] Letter from Perry M. Rosen, Cutler & Stanfield, L.L.P. (Counsel to the ACC) to Dennis Ossenkop, FAA Northwest Mountain Region, and Barbara Hinkle, Health, Safety and Environmental Management, Port of Seattle (Mar. 18, 1996).

[7] In addition to its comments on the DEIS and FEIS, the ACC submitted a request to the Puget Sound Regional Council ("PSRC"), pursuant to the Washington State Environmental Protection Act and in accordance with Washington Administrative Code ("WAC") 197-11-600(4)(d) and PSRC Resolution EB-92-02, Section 7, that a Supplemental Environmental Impact Statement ("SEIS") be prepared for the amendment of the Metropolitan Transportation Plan to include a third runway at Sea-Tac. In taking this action, the PSRC chose to rely upon existing environmental documentation, including the FEIS for the Master Plan Update. The ACC's request was denied by the PSRC. The ACC's SEIS request and the reports appended thereto are incorporated by reference into these Comments. See e.g., letter from Peter J. Kirsch and Sarah M. Rockwell, Cutler & Stanfield, L.L.P. to Norman Abbott, PSRC Responsible SEPA Official (June 11, 1996).

[8] The Master Plan Update projected 392,500 operations for 2005. DSEIS at 2-2. Actual operations in 1996 reached 392,000.

[9] FEIS at R-9, n. 5.

addressed. As a result of these forecasting errors, the FEIS significantly underestimated the number of aircraft that would be using the expanded airport in any given year, and discounted the project's environmental impacts significantly.

Although the need to prepare an SEIS presented the FAA and the Port with an opportunity to correct the many errors in the FEIS, they have instead used the supplemental review process to exacerbate those errors. For example:

- Even though the Port and FAA acknowledge that there will be an increase in the level of aircraft operations if the third runway is constructed, they limit the environmental analysis to the 2010 forecast, providing them license to wholly ignore the many impacts that actually will result from this project;

- The Port has chosen to deal with the mammoth construction impacts of the project not by reducing such impacts or finding ways to alleviate the negative effects, but by stretching out the impacts – deciding that dirt hauling trucks will now spend five years (rather than three) cluttering up the roads and causing safety problems and environmental degradation in South King County;

- The project is so poorly planned that the Port has underestimated its costs by hundreds of millions of dollars and still has no visible financing plan in place; yet the Port continues to assure residents of South King County that it will not raise taxes;

- Notwithstanding the fact that the Port and the FAA have conceded that there would be a large increase in the number of passengers using Sea-Tac requiring a complete reordering of the Master Plan projects, the DSEIS neither identifies nor commits to implement additional mitigation measures;

- The Port now concedes that, in light of the revised forecasts, a supplemental airport is quite feasible, yet fails to analyze this alternative in any meaningful way, despite concluding that an additional runway is not needed until 2005 – five years later than originally planned.

Rather than taking this opportunity to re-evaluate the wisdom of the project and to reconsider alternatives which would meet the region's needs at a lower financial and

environmental cost, the Port has chosen to adhere to a 1994 runway expansion plan[10] which has been overtaken by events. The Port, by adopting an approach which, at best, would meet regional air capacity needs for five to ten years (but at an enormous cost) squanders valuable financial and political resources which could be invested in developing the facilities which are needed to provide adequate air transportation capacity to the region well into the twenty-first century.

In refusing to re-examine either the rationale for the proposed project or reasonable alternatives to its full-scale implementation, the Port and the FAA have hampered the region's ability to reach an optimal solution to both short-term and long-term regional aviation needs – and violated SEPA and NEPA in the process.

[10] P&D Aviation, Airport Master Plan Update for Seattle-Tacoma International Airport, Technical Report No. 6: Airside Options Evaluation (September 19, 1994).

2.0 PURPOSE AND NEED

The statement of purpose and need for a proposed action serves as the primary foundation for the analysis of environmental impacts. The project's purpose must be defined in reference to the underlying needs which it is meant to address. Because the purpose and need for the project drive the identification of reasonable alternatives, any change in underlying needs or revisions to the approach being taken to meet those needs must be fully disclosed and analyzed in the environmental documentation. By denying the full implications of the revised forecast on the purpose and need for the project, the DSEIS fails to comply with this fundamental tenet of NEPA and SEPA.

2.1 THE REVISED FORECAST PROJECTS THE SAME NUMBER OF PASSENGERS USING SEA-TAC WITH OR WITHOUT CONSTRUCTION OF THE THIRD RUNWAY

The Port's revised forecast projects that by 2010, approximately 35.8 million passengers will use Sea-Tac on an annual basis.[1] The forecasting methodology used by both the FAA and the Port assumes that sufficient airfield capacity will be available: on that basis, Sea-Tac is projected by the Port to experience 474,000 operations in 2010.[2] When constraints associated with the existing airfield, terminal facilities, support facilities, and the landside/roadway system are taken into consideration, projected

[1] The Port's revised forecast projects 17.9 million enplanements in 2010. DSEIS at 1-2. Enplanements are approximately half of total passengers. FEIS at I-7.

[2] DSEIS at 1-2.

operations are capped by the Port at 460,000, producing a "constrained" forecast.[3] However, the Port projects the same number of enplanements under the constrained and unconstrained forecasts.[4] In other words, the Airport could be expected to handle the same number passengers with or without construction of the third runway.

If the existing airfield could accommodate the projected number of passengers through 2010 (albeit with some inconveniences), then the rationale for constructing a third runway becomes open to question. According to the DSEIS, the existing airport would be able to handle the same projected number of passengers without a new runway primarily through a spreading out of operations throughout the day.[5] Under the "constrained" scenario, "passenger behavior would evolve as congestion mounts, without a loss in demand until the maximum airfield operating capacity is exceeded."[6] Additional "modest adjustments" – an average increase in aircraft size of one seat and an increase in the load factor of each aircraft of one percentage point – would make up the rest of the difference between the "constrained" and "unconstrained" level of operations.[7] These

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[3] DSEIS at 1-3.

[4] DSEIS, Table 1-2 at 1-3.

[5] DSEIS at 2-11 to 2-13; P&D Aviation, Forecast Update, Capacity Analysis and Landside Evaluation for Seattle-Tacoma International Airport: Airport Capacity Analysis 1-5 (Port of Seattle Working Paper No. 2, 1997).

[6] DSEIS at 2-7.

[7] Working Paper No. 2 at 1-5.

adjustments were judged by the Port's consultant's to be "feasible and reasonable responses by airlines" to the constraints of the existing airfield.[8]

If one accepts the Port's numbers at face value, the existing airfield could and would continue to satisfy passenger demand through the planning period. This conclusion exposes the fallacy of building a third runway to accommodate "demand." Since demand comes from passengers wishing to travel, not aircraft clamoring to be flown, construction of the third runway would do nothing more than allow 14,000 more noisy, pollution-emitting planes to fly in and out of Sea-Tac, without any greater benefit to the economy of the region.

2.2 THE DSEIS CONFLATES LANDSIDE AND AIRSIDE NEEDS

The Port admits that the needs identified by the Master Plan Update are separate and distinct,[9] yet it persists in presenting its Preferred Alternative as an indivisible project which responds as a whole to all of the stated purposes and needs. The DSEIS decries the "congested and inefficient conditions" which would result from foregoing Airport expansion, but only cites problems associated with landside constraints: an increase in the average flights per gate, a growth in the average number of passengers per gate, use of

[8] Working Paper No. 2 at 1-5.

[9] DSEIS at 2-18.

remote aircraft parking and passenger loading, and declining levels of service in the ticketing, gates and baggage claims areas.[10]

Putting aside the observation that many of these conditions are routinely encountered and tolerated by passengers at high-volume airports,[11] the obvious means of addressing these problems would be the improvement of terminal and other landside facilities. None of these "congested and inefficient conditions" would be ameliorated by construction of a third runway. As a corollary to that proposition, resolution of the identified problems is not dependent on an expanded airfield. Terminal expansion, improvement of the access road system, additional parking facilities, and other landside improvements would meet these needs without requiring any corresponding expansion of the airfield. By bundling these discrete projects together into one alternative (or three variations of one alternative), and contrasting these with a total "do-nothing" scenario, the DSEIS artificially inflates the need for the third runway.

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[10] DSEIS at 1-4. While metaphorically "wringing its hands" over existing and future passenger congestion and resulting in conveniences, the Port also actively is promoting Sea-Tac as a "public gathering place" for the citizens of the region "where people can shop, eat and learn about aviation as well as catch planes headed elsewhere." *Destination Sea-Tac*, Seattle Times, Mar. 17, 1997 at C 1. Apparently, the Port does not believe that Sea-Tac is, or will be, so crowded that it should not be promoted as a combination shopping mall and food court for people who may not even be traveling. A copy of the Seattle times article can be found in Appendix __.

[11] As the DSEIS acknowledges, "[t]his is the historical trend of busy congested airports throughout the world." DSEIS at 2-7.

The third runway project not only would fail to solve most of the problems identified by the DSEIS, but it would put additional strain on landside facilities and increase the need for terminal expansion by facilitating the concentration of operations in the peak hours. The DSEIS notes that at 6,300 peak hour enplanements, the existing terminal would operate at an inadequate level of service, with severe congestion.[12] Under the Port's unconstrained forecast (i.e., with the third runway), this level of peak hour enplanements would be reached in 2010, corresponding to annual enplanements of 17.9 million.[13]

In contrast, under the No-Action scenario the same number of annual enplanements would translate into just 5,930 peak hour enplanements,[14] due to a slight shifting of flights and passengers occurring as a result of capacity constraints.[15] While the DSEIS presents this phenomenon as a negative effect of insufficient runway capacity, this type of "peak spreading" is a sound method of maximizing airport facilities and meeting demand for air travel more efficiently,[16] and could reduce the extent of landside improvements needed to handle the Port's projected number of passengers.[17]

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[12] DSEIS at 2-11.

[13] DSEIS at 2-11.

[14] DSEIS at 2-12.

[15] DSEIS at 2-12.

[16] The DSEIS dismisses the entire range of demand management measures, including peak spreading, on the basis of the Flight Plan Study and the final order of the PSRC Expert Panel on Noise and Demand/System Management ("Expert Panel". DSEIS at 3-5. The Expert Panel only considered congestion pricing as a means of inducing

In light of higher demand identified in the Port's revised forecasts, improvements in landside facilities have been transformed from a long-range goal to an immediate need.[18] According to the DSEIS, the new forecast numbers "show a potential need to accelerate, sooner in time, the terminal and landside facilities."[19] In balancing airside and landside needs, the Port now has concluded that terminal and other landside improvements take precedence over airside development in both timing and the management of financial resources.[20]

The DSEIS establishes that improvements to landside facilities are all that is really needed in the near term. Landside improvements, perhaps in combination with improvements to taxiways and aprons and demand and system management measures, would provide an acceptable level of capacity until 2010 and beyond. Since the Port

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peak spreading, and concluded that it could not be implemented before 2001, due to existing agreements with the airlines which will remain in force until that date. Final Phase I Order on Phase II Demand/System Management Issues (July 27, 1995) at 5. However, the Expert Panel expressed its confidence that congestion pricing "is an important tool that could improve the efficiency of the use of scarce airfield resources in Seattle, and therefore deserves careful study by the [Port] and the airlines." Id..

[17] The Expert Panel noted that the Port itself admits that operational delays at Sea-Tac are very sensitive to small changes in the level of peak operations. Final Order on Phase II Demand/System Management Issues (Dec. 8, 1995) at 3.

[18] Landside facilities were previously identified as needing improvement sometime before 2020. FEIS at I-19.

[19] DSEIS at 1-4.

[20] SDEIS at 3-7

anticipates undertaking a new master plan near the year 2,000,[21] it should defer any long-term plans to expand airfield capacity until that time.

2.3 THE DSEIS DEMONSTRATES THAT THE THIRD RUNWAY IS UNNECESSARY

Although higher than anticipated growth in passengers over the past few years could be expected to bolster the Port's claim that an expanded airfield is urgently needed, the data and analysis in the DSEIS unexpectedly provide support for the opposite conclusion. In fact, far from offering compelling justification for spending over half a billion dollars and subjecting the region to inestimable environmental impacts, the DSEIS presents persuasive evidence that a third runway at Sea-Tac is an even bigger boondoggle than previously alleged by its harshest critics.

The premise of the Master Plan Update and previous environmental studies was that the existing airport would become severely congested when activity surpassed the "annual service volume" of the airfield, identified as approximately 380,000 annual operations.[22] This number was interpreted by the Port as "an ultimate limit on the level of activity that could be accommodated by the two parallel runways."[23]

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[21] DSEIS at 2-14.

[22] DSEIS at 2-7.

[23] DSEIS at 2-7.

In the face of the revelation that operations have already surpassed the "efficient" operating capacity of the existing airfield,[24] the DSEIS recharacterizes the annual service volume of 380,000 as "the threshold where inefficiencies in the airfield operating system become highly visible."[25] According to the DSEIS, "[a]s activity has exceeded the annual service volume, delay has increased."[26] In particular, the DSEIS claims that between 1993 and 1995, as a result of a 15 per cent increase in activity levels, delay and associated costs have increased.[27] This claim is directly contradicted by FAA Air Traffic Operations Measurement System ("ATOMS") data (referenced obliquely but not included in the DSEIS) which show just the opposite: in 1995, when operations reached 378,974 (a 9 per cent increase over the previous year), Sea-Tac experienced a 15 per cent decline in significant delays.[28]

The FEIS maintained that the existing runway system's constraints produces "extensive arrival delays"[29] in poor weather, which is calculated by the Port and the FAA

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[24] In 1995, actual aircraft operations reached a total of 386,500. Forecast Update, Capacity Analysis and Landside Evaluation for Seattle-Tacoma International Airport; Unconstrained Aviation Forecast Update, Table 1-2 at 1-6 (Port of Seattle Working Paper No. 1, 1997).

[25] DSEIS at 2-7.

[26] DSEIS at 2-7.

[27] DSEIS at 3-7.

[28] ATOMS measures delays in excess of 15 minutes per 1,000 operations.

[29] FEIS at I-15. This claim has never been adequately documented. See Expert Arbitration Panel, Final Phase I Order of Demand/System Management Issues (July 27, 1995)("We have not found in the evidence presented to us a succinct, well-documented

to occur 44 per cent of the year.[30] The FEIS stated unequivocally that "improvements are needed today and current poor weather delay is excessive."[31] However, FAA data shows that in 1995, only .48% of Sea-Tac operations experienced significant delays.[32]

The DSEIS acknowledges that ATOMS data through August 1996 confirm that delay has substantially decreased since 1989, but makes the sweeping statement that "delay has been reduced as far as it can through other non-development action."[33] The DSEIS references the FEIS in support of this claim, but review of the FEIS's discussion of these "non-development actions" reveals that none of them has been developed or implemented to their maximum potential.[34] Application of some or all of these technologies would significantly reduce delay and forestall the need to construct a third parallel runway.

2.4 THE PORT HAS FUNDAMENTALLY RESTRUCTURED ITS PROPOSED PROJECT

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statement of the delay and capacity problems that have led the [Port] to seek approval of the third runway.")

[30] DSEIS at 2-9, n.6. This number is based on highly questionable methodology and analysis, and its significance for actual operations at Sea-Tac is debatable. See DEIS Comments at 2-11 - 2-12.

[31] FEIS at I-17.

[32] FAA Air Traffic and Delay Report (December 1995).

[33] DSEIS at 2-18.

[34] FEIS at II-12 to II-17. For example, installation of Localizer Directional Aid ("LDA") approaches could further reduce arrival delay from an average of 7.7 minutes to an average of 4.4 minutes. FEIS at II-17, See also discussion of alternatives, infra § ___.

The original rationale behind the proposal for a third parallel runway at Sea-Tac was to reduce poor weather delay, which is predominantly arrival related.[35] With the publication of the DSEIS, the Port has changed its tune. The urgent need for improved poor weather arrival capacity appears to be not so urgent after all. The DSEIS states that "[t]he third parallel runway is proposed to address an existing operational constraint that exists during poor weather – the limitation to a single arrival stream,"[36] yet the Port is also saying that a new runway can be deferred until 2005. By that time, operations are projected by the Port to reach 445,000[37] – an increase of more than 30 per cent over the level of operations experienced at the Airport in 1993,[38] when the urgent need for improved poor weather capacity was first identified.[39] Delays caused by poor weather conditions appear to have become less of a concern, even though the forecast of operations has increased by 17 per cent, and the weather forecast is unchanged. Instead, landside facilities now constitute the more imminent constraint on Sea-Tac's ability to meet the aviation needs of the region.

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[35] FEIS at IV.1-1.

[36] DSEIS at 2-19.

[37] DSEIS, Table 2-5 at 2-13.

[38] Sea-Tac experienced 339,500 operations in 1993 (Port of Seattle Working Paper No. 1, 1997).

[39] Technical Report No. 8.

By placing the need for landside improvements ahead of runway expansion, the Port has re-conceived its entire project. The third runway is not even afforded coequal status with the terminal and other landside projects – it has been relegated to a "desirable but not urgent" category. Indeed, the Port's approach to the need for the new runway can best be characterized as "hurry up and wait." The FEIS reported that the runway was desperately needed to accommodate all of the passengers that were forecast to use Sea-Tac. When, through the SEIS process, the Port and the FAA determined that their original forecasts were too low and that many more people would be using the Airport than originally forecast, the Port's response was to delay the construction of the runway, concluding that it now isn't needed as quickly as all the original planning had concluded.[40] Such "logic" clearly reveals that there is no real need for the third runway, and that the Port is working from stale assumptions and an outdated examination of alternatives.

This re-ordering of priorities reveals the true purpose of the third runway: increasing capacity in all weather – a purpose and need that has not been studied in any environmental document produced by the Port or the FAA. The Port's unstated intent to use the new runway to maximize overall Airport capacity is also reflected in changed assumptions about its usage. Whereas the Port previously maintained that the third

[40] This is the equivalent of the Seattle Mariners determining that they had underestimated by 25 per cent the number of fans who would be attending games in the future and using such fact as a basis for asking the County to delay for another five years approving the construction of a new stadium.

parallel runway would be used only for about 12.1 per cent of arrivals and 2.6 per cent of departures[41/] , the DSEIS states, without exposition, that about 44 percent of arrivals would be expected to use the new runway by 2010.[42]

Thus, the purpose and need for the entire Airport expansion has changed considerably. The primary need articulated in the DSEIS is to accommodate the 38 million annual passengers projected to be using the Airport in 2010.[43] As indicated in the DSEIS, this need could be met by a package of landside improvements: expanded terminal and parking facilities, improvement of the interior road system, the addition of taxiways and aprons, among other measures. The secondary need is for expanded all-weather runway capabilities. It is this latter need that the proposed third runway is allegedly designed to satisfy.

The significant alteration in the purpose and need for the proposed Master Plan Update development actions requires the FAA and the Port examine *de novo* alternative means of meeting the newly-articulated need and the environmental impacts of all

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[41/] FEIS at IV.1-1.

[42] DSEIS at 5-3-4. This quantum leap in usage, which goes unmentioned elsewhere in the DSEIS, is in keeping with statements made by the FAA. See letter from C. Roger Wall, Program Director for Air Traffic Operations, Federal Aviation Administration, to Wilton Viall (Sept. 24, 1996) (asserting that "dual arrival streams [using the proposed third runway] will be used whenever the volume of traffic dictates this. This will be true in *nearly all weather conditions.*") (emphasis added). This letter is attached to these Comments as Appendix ?

[43] DSEIS at 2-27.

reasonable alternatives. The DSEIS does not identify or examine alternatives which would address the newly articulated purpose and need of this project, and as a result fails to analyze whether these alternatives might accomplish the same goals at a lower environmental and financial cost.

3.0 ALTERNATIVES

Despite major revisions to the numbers used to support the original project proposal, the DSEIS asserts that "[n]o significant information has come to light concerning any alternative that has not already been discussed ... The new demand forecasts, and operating capability of the existing and future airport facilities would not affect the viability of any alternative considered in the Final EIS."[1] In fact, the viability of several alternatives discussed and dismissed in the FEIS, as well as some rejected prior to the DEIS or ignored altogether, are altered significantly by the changes in the underlying need and the means by which the Port now proposes to meet that need.

For example, the alternative of a new supplemental airport was rejected in large part because "it has been demonstrated that it takes 10-15 years from conceptualization to implementation."[2] With completion of a third parallel runway now deferred until 2005, a 10-15 year timeframe no longer appears so disadvantageous.

Furthermore, the FEIS cited as a reason for its determination that a supplemental airport would be an infeasible alternative a study which concluded that a two-airport system would not succeed until the origin and destination ("O&D") market exceeds 10 million annual enplanements.[3] The revised forecasts indicate that this threshold is likely to be reached at Sea-Tac by 2005.[4] While the DSEIS concedes that "O&D demand is

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[1] DSEIS at 1-5.

[2] FEIS at II-10.

[3] FEIS at II-10.

[4] DSEIS at 3-5.

anticipated to grow faster, possibly making a supplemental airport competitive with Sea-Tac,"[5] it inexplicably fails to discuss the implications of this change for the feasibility of a supplemental airport, and instead concludes, without any basis, that a supplemental airport would fail to draw enough traffic from Sea-Tac to address poor weather operating conditions.[6]

Likewise, the FEIS dismissed the idea of diverting a particular class of aircraft, such as commuter aircraft, to another existing airport within the regional system.[7] According to the analysis in the FEIS, commuter operations primarily serve connecting passengers, and so any diversion of commuter air traffic to another airport would result in the need for ground transportation so that passengers could connect to air carrier flights to and from Sea-Tac.[8] Recent trends in the airline industry, however, show an increased emphasis on point-to-point service by commuter planes,[9] a development which could make diversion of commuter operation a more effective means of relieving capacity

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[5] DSEIS at 3-9.

[6] DSEIS at 3-5.

[7] FEIS at II-11.

[8] FEIS at II-11 to II-12.

[9] See G. Mercer Review of Forecasts Which Form the Basis for the Supplemental EIS ("Mercer Report"), appended to these Comments as Apendix __.

problems at Sea-Tac. The recent proposal by Horizon Air to initiate service from Paine Field is evidence of the viability of this alternative.[10/]

The DSEIS contains no further consideration of alternative runway lengths. The discussion of a commuter runway in the FEIS was cursory: 5,200-foot commuter runways with either 1,500 or 2,500 foot separation from Runway 16L/34R were identified as options, but only the latter was subject to even a preliminary screening analysis, purportedly because of similarities between the two options.[11] The results of this preliminary screening were presented in the FEIS in a chart containing minimal data and no analysis.[12] Even though commuter runway options were acknowledged to result in the least impact on natural resources as well as the human environment, they are eliminated from further consideration based upon a conclusory and unexplained determination that they would not satisfy the need for increased runway capacity in poor weather.[13]

The conclusion that a commuter length runway would not meet the Port's stated purpose and need hinges on the unreasonable prerequisite that any new runway must be able to accommodate close to 100 per cent of the aircraft using Sea-Tac.[14] This is an

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[10/] See Diane Brooks, Horizon air Eyes Paine for new routes, Seattle Times (Feb. 11, 1997) B1, B2; Paging Horizon Air Passenger Adam Smith, Seattle Times (editorial) (Feb. 13, 1997) (attached to these comments as Appendix ___.

[11] FEIS at II-33.

[12] FEIS Table II-5.

[13] FEIS at II-34.

[14] FEIS at Table II-3.

illogical premise given the stated need of decreasing arrival delay for a limited number of planes during limited periods of the time, and it is unsupported by available information about the future fleet mix. Although the revised forecast shows a diminishing percentage of commuter operations,[15] this is largely attributable to Horizon Air's orders for new aircraft which minimally exceed the seat capacity used to designate commuter aircraft.[16] Horizon's plans to upgrade its fleet reflects the increased use of regional jets, which may significantly affect future fleet mixes at Sea-Tac.[17] A commuter length runway which could accommodate these smaller aircraft would free the existing single arrival stream to handle the larger air carriers.[18]

In rejecting these and other alternatives, the DSEIS persists in the proposition that the third runway project is designed solely to address poor weather arrival delay. The DSEIS provides no justification for spending over half a billion dollars to address this limited problem. This "purpose and need" is further narrowed by the assumption that this delay could be sufficiently decreased only by an airfield design which would allow dual arrival streams in low-visibility (IFR) conditions. As a result, the Port and the FAA have predetermined the outcome of the alternatives analysis, and disregarded other

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[15] Working Paper No. 1, Table 3-3 at 3-10.

[16] DSEIS at 2-17.

[17] Mercer Report.

[18] See Consulting Services, Ltd., Review of Assumptions and Alternatives in the Supplemental EIS, 11, 14, Tables 1 and 2.

alternatives which might be as effective in reducing or limiting the impact of poor weather delay.

4.0 ENVIRONMENTAL IMPACTS

The DSEIS obscures and grossly underestimates the true extent of environmental impacts which would be caused by the construction of the third runway. Unlike earlier environmental studies of this project which implausibly assumed that expansion of the airfield would have no impact on the number of planes using Sea-Tac,[1] the DSEIS concedes a difference in activity levels between the no-action and with-project scenarios.

However, the Port and the FAA limit the effect of abandoning this central fiction by cutting short the DSEIS' environmental analysis at 2010, instead of looking to 2020 as the FEIS did. The Port and the FAA disingenuously acknowledge the inherent unreliability of long-term forecasts as justification for adopting this near-sighted approach to environmental analysis. According to the DSEIS, "year 2020 was determined not to be reasonably foreseeable at this time," despite the fact that the Port clearly intends to continue use of the third runway until 2020 and beyond.[2]

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[1] See, e.g. FEIS at R-5.

[2] DSEIS at D-1 - D-2. The DSEIS cites various reasons for reaching this conclusion. The fifth reason given, that "[n]umerous environmental approvals ... will likely expire within the next 3-5 years" is nonsensical, and is followed by the *non sequitor* that an approved FEIS is only valid for three years, while a final conformity determination lapses in five. DSEIS at D-2. None of this has any remote bearing on the analysis of future environmental impacts under NEPA and SEPA. If it were relevant to this analysis, the logical inference would be that the DSEIS need not discuss the third runway project at all, since it will not be implemented within that three to five year period.

4.1 THE ANALYSIS OF ENVIRONMENTAL IMPACTS SHOULD NOT BE ARTIFICIALLY LIMITED BY THE PROJECTED LEVEL OF OPERATIONS IN 2010

As the DSEIS notes on its very first page, because forecasting assumptions are based on a number of variables, "airport master plan improvements are typically associated with a level of activity instead of a precise year."[3] In other words, although it may be difficult to ascertain with precision when activity will reach a certain level, the whole premise of the master planning process, and the justification for the third runway project, is that certain activity levels would be reached at some point within the planning period.

The Master Plan Update improvements are designed to accommodate a "theoretical maximum" of 600,000 to 630,000 operations.[4] Since it would be poor airport planning to construct facilities that are not likely to be fully utilized, it is reasonable to assume that operations would reach that number at some point in the foreseeable future, even if it is impossible to assign a specific year in which that would be likely to occur.

This "build-out" scenario represents the true potential for environmental impacts attributable to this project. Viewed from this perspective, the real difference between the No-Action and With-Project alternatives is not the 14,000 operations identified in the

[3] DSEIS at 1-1 (emphasis added).

[4] DSEIS, Exhibit 2-7 at 2-26.

DSEIS,[5] but the 170,000 additional operations that the expanded airfield could accommodate at its maximum capacity.[6]

The implications of this for environmental impacts is significant, since aircraft operations are directly responsible for almost all airport noise and much of the air pollution associated with airports. The DSEIS, like the previous environmental studies prepared for this project, trivializes the extent of adverse environmental impacts stemming from the third runway project by comparing them with a base case of future No-Action impacts. In other words, activity levels are generally expected to increase regardless of any airport expansion, and only the impacts caused by operations in excess of the general trend can be attributed to this project.

The fallacy of this approach is apparent when one looks beyond the 2010 horizon. Although the DSEIS attempts to diminish the import of post-2010 forecasts by burying them in an appendix to the main volume, it is clear that even under a conservative growth scenario the gap between operations under existing conditions and operations with an expanded airfield would widen dramatically in the not-so-distant future.

Simply by extrapolating from the new Port forecast, operations in the year 2020 with the third runway are projected to reach 532,000, or 72,000 more than under the No-Action scenario.[7] If demand grows at a faster rate than forecast, the Port concedes that

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[5] DSEIS, Table 1-2 at 1-3.

[6] Compare DSEIS, Exhibit 2-2 at 2-9 with DEIS, Exhibit 2-7 at 2-26.

[7] DSEIS, Table D-1 at D02.

operations could reach 585,200 in 2020[8] – representing an additional 125,200 operations over and above the No-Action scenario.

In fact, there is every reason to believe that additional demand – beyond that predicted by the Port's forecast – would be generated by the third runway project. There is empirical evidence that, all other things being equal, airports with greater capacity will have higher levels of activity.[9] Whether this is due to increased competition at a larger airport driving down airfares, more convenient and reliable schedules of service offered by a larger facility, or more aggressive marketing by an airport eager to pay off an expensive capital investment, the data show that capacity is a key factor in determining the level of demand at any airport.[10] While some air travel would occur regardless of cost or delay, there is a significant amount of discretionary travel which is sensitive to changes in airfare, airline schedules, and other factors more difficult to quantify. An expanded airport would be poised to capture this latent demand, and may actually induce large numbers of passengers to fly who otherwise would drive, take a train or bus, or simply stay home. Yet according to the analysis in the DSEIS, this effect is non-existent.

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[8] DSEIS at D-s, Table D-1.

[9] See C. Winston, Review of the Revised Aviation Forecast for Seattle Tacoma International Airport, attached to these comments as Appendix ___..

[10] The FAA's terminal area forecast ("TAF") does not reflect existing facility constraints or proposed future airport improvements. DSEIS at 2-3. The Port's forecast recognizes the role played by capacity only in terms of capacity constraints, by cutting off the "constrained forecast" at a specific level of operations. However, like the TAF, the Port's forecasts do not include capacity as a variable in the equation used to calculate future activity levels.

By limiting its analysis of impacts to the 2010 planning horizon, and failing to consider the additional demand which may be stimulated by an expanded Airport, the DSEIS minimizes the actual impacts likely to be caused by the third runway project. This fundamental flaw infects the entire analysis of environmental impacts, and renders the DSEIS inadequate under both NEPA and SEPA.

4.2 THE NOISE IMPACTS ATTRIBUTABLE TO THE THIRD RUNWAY PROJECT ARE FAR GREATER THAN REVEALED BY THE DSEIS

The DSEIS, like previous environmental studies of this project, concludes that the area exposed to noise of DNL 65 dB and greater is expected to decline in size in the future regardless of new development at Sea-Tac Airport.[11] Based on this implausible thesis, the DSEIS posits that while the development of a third parallel runway would increase noise impacts over the No-Action scenario, year 2020 impacts still would be 53 percent less than current noise impacts.[12] This reduction "is expected due to the Port's noise reduction program and the Federal mandate to phase-out Stage 2 aircraft by the year 2000."[13]

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[11] DSEIS at 5-3-1. In contrast to the position taken in the FEIS and the current DSEIS, the Port admitted in its final submission to the PSRC Expert Arbitration Panel on Noise and Demand/System Management that for some people, the recent trend is slightly upward after many years of significant downward movement because the number of operations is growing. Port of Seattle, Position Statement and Compliance Report Prepared for the PSRC expert Panel in Response to the Preliminary Order on Phase II Noise Issues ("Statement of Position") 7, 8 (Jan. 30, 1996).

[12] DSEIS at D-3. The DSEIS does not specify what this number is a percentage of, or how it was derived.

[13] DSEIS at 5-3-1. Noise contours for the year 2020 are not provided in the DSEIS.

The DSEIS compares future noise levels to 1994 levels (not "existing" levels as claimed) to demonstrate this remarkable phenomenon. This sleight-of-hand obscures the fact that most of the potential noise reduction which could be attributed to these programs already has been experienced at Sea-Tac, and that future noise levels with the third runway would be higher than otherwise could be anticipated.

The fiction of an overall decrease in noise in the future begins to crumble when one looks carefully at the benefits which remain to be gleaned from both the Port's noise reduction program and the phaseout of Stage 2 aircraft. The primary elements of the current noise remedy program, based on the Mediated Noise Agreement, are linked to the phaseout of Stage 2 aircraft. The most effective programs put into place under the Mediated Noise Agreement (e.g., the Noise Budget and the Nighttime Noise Limitations) already have achieved their goals of accelerating the transition to a Stage 3 fleet and have little effect now that the phaseout of Stage 2 aircraft has been nearly completed.[14] The Port itself concedes that once the fleet is converted to mostly Stage 3 aircraft "the amount of noise reduction that can be achieved will not be as great because the number of remaining loud aircraft for removal is smaller."[15] In fact, most of the noise reduction achievable from the Stage 2 phaseout already has been accomplished.

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[14] Stage 3 aircraft presently account for over 86 percent of the fleet at Sea-Tac.

[15] Port of Seattle, Response to Expert Panel Request for Information, Response to Question 12 – Future Noise Reductions Levels (February 1995).

The Port's assumption of continually improving noise conditions is further suspect because Stage 3 aircraft are not always quieter than Stage 2 – some heavy Stage 3 aircraft are louder than some light Stage 2 aircraft,[16] and a Stage 3 aircraft may be as noisy on landing as a Stage 2 aircraft of equal weight.

Given the diminishing returns of the Stage 2 phaseout, it is unrealistic to assume that noise contours will continue to shrink indefinitely. Once the Stage 2 phaseout's potential for achieving noise reduction is fully exploited, increases in operations necessarily will lead to increased noise. The Port has conceded that this is precisely what is happening at Sea-Tac.[17] Therefore, the Port's conclusion that noise would continue to decrease indefinitely is not only implausible, but it is unsupported by data in the DSEIS or elsewhere.

The Port predicts that construction of a third parallel runway would result in 11 percent more people being affected by noise by the year 2010 than if the runway were not built. Over 5,000 additional people could be subjected to noise levels of DNL 65 dB or above by 2020, compared to the No-Action scenario.[18] Whereas the FEIS dismissed such increases by concluding that "areas where significant noise exposure would result from the proposed improvements ... either have already been mitigated through the Port's existing

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[16] FEIS at R-71.

[17] Statement of Position at 7, 8.

[18] DSEIS, Table D-2 at D-8.

Noise Remedy Program or are proposed for mitigation,"[19] the DSEIS acknowledges that the new noise contours for the year 2010 would exceed the boundaries of the Port's existing Noise Remedy Program.[20] As a result, the Port's assumption that only token mitigation would be required to offset noise impacts from the third runway is no longer defensible.

The potential noise impacts of the Master Plan Update proposal should be measured using the maximum number of operations which would be using an expanded airport in the future, rather than in terms of the number of operations projected for a given year. The DSEIS includes noise contours depicting impacts associated with approximately 474,000 operations,[21] while an appendix to the DSEIS contains a chart purporting to summarize the noise impacts associated with activity levels up to 585,200 operations.[22] An analysis of impacts associated with the maximum number of operations sustainable by the expanded airfield would reveal the true extent of the noise problems which could be caused by the third runway project, and would provide graphic evidence that the hard-won gains of the last decade would be eroded as noise contours once again expand.

In its discussion of mitigation, the DSEIS again makes the spurious observation that future impacts would be less than current noise exposure.[23] This facile statement

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[19] FEIS at R-65.

[20] DSEIS at 1-10.

[21] DSEIS, Exhibit 5-3-7 at 5-3-17.

[22] DSEIS, Table D-2 at D-8. This table lists nothing more than the population and housing units projected to be subject to DNL 65 and above.

[23] DSEIS at 5-3-7.

ignores the fact that construction of a third runway would reverse the ongoing efforts to provide relief to residents impacted by airport noise, and the benefits from the Port's current noise reduction program and the Stage 2 phaseout which otherwise would be enjoyed by the region would be canceled out by increases in the overall number of operations. The inescapable conclusion is that noise impacts attributable to the third runway would be greater than current noise exposure.

4.3 THE DSEIS IGNORES THE IMPACTS OF AIRPORT EXPANSION ON SCHOOLS AND SCHOOL CHILDREN

There is convincing evidence that chronic exposure to aircraft noise can negatively affect school performance. These performance effects have been shown to occur both when children are tested inside their noisy school and when children from noisy schools are tested in quieter settings.[24] Additionally, children who are exposed to noisy home environments tend to perform worse than those who are not, even when both types of children attend quiet or noise-abated schools.[25]

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[24] A. Moch-Sibony, a Study of the Effects of Noise on the Personality and Certain Psychomotor and Intellectual Aspects of Children, After Prolonged Exposure (French), 47 Travail Humain 155-165 (1984); S. Cohen et al., Physiological, Motivational, and Cognitive Effects of Aircraft Noise on Children: Moving from the Laboratory to the Field, 35 Am. Psychologist 231-243 (1980); B.L. Kyzsar, Noise Pollution and the Schools: How Much is Too Much? 14 CEFP Journal 10-11; G. Karsdorf & H. Klappach, The Influence of Traffic Noise on Heath and Performance of Secondary School Students in a Large City, 14 Zeilschrift fur die Gesamte Hygiene 52-54 (1968).

[25] S. Cohen et al., Aircraft Noise and Children: Longitudinal and Cross Sectional Evidence of Adaptation to Noise and Effectiveness of Noise Abatement, 40 J. Personality and Soc. Psychology 331-345 (1981).

The primary explanation for the negative effect of noise on performance in the classroom is that noise consistently interferes with the teaching and learning processes, resulting in a cumulative loss of available teaching time. For example, periodic, intense noise events interrupt classroom routines and decrease productive classroom time by causing instructors to cease teaching temporarily or by making it impossible for teachers and students to hear one another.[26] Numerous studies verify this effect.[27]

Other research demonstrates that significant classroom disruption begins when interior noise reaches 60 dB.[28] At levels of 78 dB, interruption occurred half of the time, and at levels of 82 dB, continuous interruption was inevitable.[29] One report also noted that even a highly motivated adult observer was unable to hear the teacher from the back of the classroom half of the time when flights produced noise levels of 78 dB.[30] EPA has

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[26] M. A. Crook & F. J. Langdon, The Effects of Aircraft Noise in Schools Around London Airport, 34 Sound and Vibration 221-323 (1974).

[27] See, e.g., K. B. Green et al., Effects of Aircraft Noise on Reading Ability of School Children, 37 Archives Envtl. Health 1, 24-31 (1982); J. S. Lucas et al., Effects of Noise on Academic Achievement and Classroom Behavior, California Dep't of Transp., Rep't No. FHWA/CA/DOHR-81/01 (1981); A. L. Maser et al., Effects of Intrusive Sound on Classroom Behavior: Data From a Successful Lawsuit, Paper presented at the Annual Meeting of Western Psychological Ass'n., San Francisco (1978) (study also found that low aptitude children were particularly susceptible to the detrimental effects of noise on low reading scores).

[28] The Effects of Aircraft Noise in Schools Around London Airport, at 221-234; R. D. Kryter, The Effects of Noise on Man, (2d ed. 1985).

[29] The Effects of Aircraft Noise In Schools Around London Airport at 227.

[30] The Effects of Aircraft Noise In Schools Around London Airport at 227.

identified an $L_{eq(24)}$ of 45 dB as the maximum appropriate interior noise level for classrooms.[31] Other studies have concurred with this finding.[32]

The Highline School District, the ninth largest in the state, serves nearly 18,000 students in kindergarten through twelfth grade. All of the children live in the communities which surround Sea-Tac: the cities of Burien, Des Moines, Normandy Park, and SeaTac and the unincorporated areas south of Seattle. Every year over 6,000 students attend schools with unacceptable noise levels. The Expert Panel expressed its concern over the fact that a majority of the classrooms in the vicinity of the Airport "remain uninsulated and heavily impacted by aircraft noise."[33]

The excessive noise levels to which Highline School District students and personnel are subject results from the Port's failure to mitigate the noise conditions attributable to the construction of the second runway in 1973. The School District already has expended a considerable amount of its own capital funds to remodel its schools for noise attenuation, and has been forced to divert basic educational funds and maintenance and operating levy funds to provide remedial support to students whose

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[31] U.S. Envtl. Protection Agency, Rep't No. 550/9-74-004, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (Mar. 1994).

[32] See, e.g., Effects of Noise on Academic Achievement and Classroom Behavior; D. DeJoy, Environmental Noise in Children: Review of Recent Findings, 23 J. Auditory Res. 181-194 (1983).

[33] PSRC, In the Matter of: Expert Arbitration Panel's Review of Noise and Demand/System Management Issues at Sea-Tac International Airport, Final Decision on Noise Issues ("Final Decision on Noise Issues") (Mar. 27-28,1996).

learning ability has been impaired by exposure to unacceptable noise levels from operations at Sea-Tac.

Obviously speech interference is a particularly critical issue in analyzing the effects of the Airport expansion on the local schools. "Time Above (TA) (the total time that the noise level exceeds a 'threshold' level during a specified interval), provides a useful 'single number' indicator of the potential for speech interference."[34] Moreover, as the Expert Panel observed, the time-above metric is "[o]ne of the most useful and illuminating ways to assess changes in noise impact. . . ."[35]

The noise effects of Airport operations on the schools particularly are evident in an analysis of time-above 65 dB levels.[36] "We note that Time Above 65 dB – not to mention 75 dB – does more than merely cause 'low levels' of speech interference [as claimed by the Port];[37] it disrupts a wide variety of everyday activities (relaxation, thinking, reading, learning and listening) and is correlated with increased levels of stress, tension and annoyance."[38]

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[34] Federal Interagency Committee on Noise ("FICON"), Federal Agency Review of Selected Airport Noise Analysis Issues ("FICON Report") at 3-10 (1992).

[35] Id. at 19.

[36] 65 dB is the level that is considered by FICON to be capable of interfering with speech in some degree. FICON Report at 2-3. The Expert Panel identified time-above 45 dB as "a benchmark for the threshold of speech interference. . . ." Final Decision on Noise Issues at 20.

[37] Statement of Position at 19.

[38] Final Decision on Noise Issues at 20 (emphasis added).

Time-above 65 dB levels calculated for each of the schools in the Highline School District in 2010– based on the 474,000 annual operations projected by the Port[39] – show a significant increase in the kinds of noise impacts which particularly are harmful to the learning process.[40] Moreover, the assertion that the "theoretical maximum capacity" of a third runway would be 600,00 to 630,000 annual operations[41] means that these time-above 65 dB noise levels and the significance of these levels for speech interference in general, and for the teaching and learning process, in particular, are substantially understated.

Notwithstanding the enormous impact of increased operations at Sea-Tac on the operations of the Highline Schools and on the ability of its students to study and learn, there is only a cursory discussion of these impacts and no commitment to mitigate them, beyond what the Port has already committed to do to mitigate the effects of the second runway.

4.4 THE PROPOSED MITIGATION OF WETLANDS IMPACTS REMAINS INADEQUATE

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[39] DSEIS at 1-3, 2-6, 2-14.

[40] See Dr. Sanford Fidell, Report on Noise Issues Relevant to Revised Projections of Airport Operations in the Draft Supplemental Environmental Impact Statement for Proposed Master Plan Update Development Actions at Seattle-Tacoma International Airport (Mar. 1997), attached to these Comments as Appendix ___.

[41] DSEIS at 2-26.

The DSEIS identifies an additional two acres of wetland impacts, resulting in "unavoidable" impacts to a total of 12.23 acres of wetland Under the Preferred Alternative.[42] The DSEIS also notes that additional wetlands may be identified when access is made available to all of the property in the acquisition area.[43] The Port and the FAA recognize the need to mitigate the loss of these wetlands, but continue to ignore any mitigation options which would create replacement wetlands within the same drainage basin as those which will be destroyed.[44]

The DSEIS states that "[a]ll undeveloped, non-forested, non-wetland sites with average slopes less than 5% were identified" in both the Miller Creek and Des Moines Creek basins.[45] The DSEIS presents no explanation for why these particular conditions were imposed. It is not obvious that only non-forested sites would be suitable for replacement wetlands – indeed, many of the wetlands which would be destroyed by this project are forested.[46] The DSEIS does not define what is meant by "undeveloped," but if this condition were applied to areas with low-density development, the search may have

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[42] DSEIS at 1-11.

[43] DSEIS at 5-5-2, n.1.

[44] DSEIS at 1-11, 5-5-13. In Washington, the first choice for wetland replacement is on-site; the secondary preference is off-site, but within the same watershed. DSEIS at 5-5-12. Likewise, ordinances adopted by the cities of SeaTac, Burien, Des Moines, Federal Way and Tukwila all require wetlands mitigation within the same watershed or drainage basin. See DEIS Comments, Table 5.6-1.

[45] DSEIS at 5-5-13.

[46] DSEIS, Table 5-5-1 at 5-5-4.

excluded many potentially suitable sites. Similarly, defining eligible sites as those with average slopes less than 5 per cent appears to be an unduly conservative restriction.

The Port apparently confined its in-depth consideration of suitable in-basin mitigation sites to areas within the 10,000-foot radius of concern for wildlife hazards to aircraft,[47] conveniently allowing it to dismiss each of the 19 potential sites as infeasible for "safety" reasons.[48] The DSEIS' assertion that "[w]etland mitigation... within the watersheds where the impacts may occur, is not feasible" remains unconvincing and unacceptable.

4.5 CONSTRUCTION IMPACTS CONTINUE TO BE UNDERESTIMATED

The Port has revised its estimates of construction impacts since the FEIS, without managing to provide any better understanding of how more than 23 million cubic yards of fill would be transported, unloaded, placed and compacted to create the massive embankment required for the third parallel runway.

4.5.1 Construction Equipment

The DSEIS asserts that "it is not possible to identify the specific types of construction equipment and frequency of usage that could occur."[49] This is a critical

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[47] DSEIS at 5-5-13. The FAA discourages airports from creating areas which might attract birds, which in turn can create hazards for aircraft using the airport. DSEIS at 5-5-16. In furtherance of this policy, the FAA "has indicated that 'wildlife attractions' within 10,000 feet of the edge of any active runway is not recommended." DSEIS at 1-11.

[48] DSEIS, Table 5-5-3 at 5-5-25 to 5-5-28.

[49] DSEIS at 5-4-1.

omission, because emissions from heavy-duty construction equipment operating on paved and unpaved roads are potentially significant sources of volatile organic compounds (VOC), oxides of nitrogen (NO_x) and carbon monoxide (CO). The DSEIS summarily dismisses this concern with the statement that "diesel haul trucks would not be expected to produce substantial carbon monoxide (CO) emissions,[50] and does not deign to even mention possible NO_x or VOC emissions from these vehicles.

Furthermore, the DSEIS makes no reference to the fleet of off-road construction equipment, including bulldozers, backhoes, front loaders, graders, scrapers, compactors and water trucks which would be required on this project. Off-road diesel equipment accounts for approximately 10 per cent of nationwide NO_x emissions and could contribute to air quality violations associated with this project. Transportation of this equipment to the site likewise is ignored in DSEIS' analysis of construction impacts.

4.5.2 Fill Requirements

Both the amount of fill required for this project and the number of trucks (or alternative vehicles) needed to transport the fill to the project site have been underestimated. The DSEIS' analysis begins with the end result – the compacted in-place fill requirements.[51] That number was then increased by a 15 percent "shrinkage" factor,

[50] DSEIS at 5-4-16.

[51] DSEIS at 5-4-2, 5-4-3.

and divided by the average capacity of each truck to arrive at the estimated number of truckloads required for the project.[52]

This calculation is erroneous on several counts. The term "shrinkage" refers to the volume change in bank material (fill material in its original location) when it is compacted in its final destination. However, bank material first "swells" when it is excavated and placed in a hauling unit. This swell factor may be 15 percent or more, depending on the quality of the fill. Thus, ten cubic yards of bank material may swell to 11.5 cubic yards for transport. It is this "loose volume" of fill that is relevant to the calculation of how many trucks would be required. The 11.5 cubic yards unloaded from the truck may amount to only 9 cubic yards compacted in place, due to shrinkage. Therefore, both shrinkage and swell factors need to be applied in order to arrive at credible estimates of fill and transport requirements. The DSEIS' single "shrinkage" factor of 15 percent is inadequate and misleading. In reality, fill can be expected to shrink 20-25 percent from its loose volume (in the trucks) to its final compacted volume.

As a result of these erroneous and incomplete calculations, the DSEIS seriously underestimates the number of trucks and truck trips required to transport the fill. This underestimation in turn effects the consideration of impacts on air quality, local roads and traffic congestion.

4.5.3 Borrow Sites

[52] DSEIS at 5-4-3.

The Port is assuming that as much as 15.45 million cubic yards of fill would be available from "on-site" borrow sources.[53] At least some of this fill, as much as 3.10 million cubic yards,[54] would be the result of "cut and fill" –material taken from another portion of the construction site in the course of the project. There is no discussion in the DSEIS of how or where this fill would be stockpiled or how it would be disposed of should it prove unsuitable for use in the third runway embankment.

Additional "on-site" borrow sources have been identified by the Port. While the DSEIS includes a section purporting to address concerns about post-excavation site aesthetics,[55] and provides a drawing depicting "redevelopment concept sections,"[56] there is no discussion of the potential impacts of excavation and redevelopment on surface or groundwater, nor is any consideration given to the loss of natural noise buffers provided by those areas currently covered by trees and other heavy vegetation. The DSEIS neither provides this type of analysis nor indicates whether additional environmental review would be undertaken at the project level once the borrow sites are selected and specific redevelopment plans are proposed.

4.5.4 Transport of Fill

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[53] DSEIS at 5-4-20.

[54] DSEIS, Table 5-4-1 at 5-4-20.

[55] DSEIS at 5-4-11 to 5-4-13.

[56] DSEIS Exhibit 5-4-6 at 5-4-47.

The DSEIS assumes that transporting the fill exclusively by truck represents a "worst case scenario."[57] However, this assumption overlooks the distinction between the types of impacts associated with truck transport (primarily air quality and surface traffic) and those which might be associated with alternative transport methods (e.g., water quality impacts associated with a conveyor belt along Des Moines Creek). An analysis of truck-hauling impacts cannot substitute for an analysis of potential impacts on streams, wildlife corridors, steep slopes, drainage, and shoreline resources associated with alternative transport methods. While in the final analysis the alternative fill transport methods might be judged to have a less detrimental impact on the environment, the DSEIS fails to provide the information necessary to make that analysis.

4.5.5 Duration of Haul Period

The DSEIS implies that impacts would be reduced by lengthening the haul period from three to five years. However, the community disruption caused by the project would only be exacerbated by being prolonged for an additional two years. Noise, vibration, traffic, dust and exhaust from construction equipment, spread out over a longer period of time, are likely to be even worse than the same impacts with a shorter duration. Once certain thresholds of annoyance or health effects are reached, any increase in the time span of the project will produce additional impacts. The DSEIS fails to identify these threshold levels and ignores the additional impacts created by extension of the construction period.

[57] DSEIS at 5-4-3.

4.6 AIR QUALITY IMPACTS ATTRIBUTABLE TO INCREASED AIRCRAFT OPERATIONS ARE IGNORED OR INACCURATELY IDENTIFIED

The air quality analysis in the DSEIS maintains the implausible conclusion of the FEIS that "emissions 'With Project' would be less than for the Do-Nothing condition." [58] In other words, in spite of increased operations, the airport expansion actually would reduce emissions by reducing delay and queuing times. While conceivably this would be true for CO emissions, which are primarily associated with taxiing and idling of aircraft, it defies logic to assert that NO_x emissions would decrease as the number of operations climbs.[59] This conclusion not only is implausible on its face, but is directly contradicted by a growing body of evidence that NO_x emissions worldwide are increasing as air traffic grows.[60]

Ninety percent of NO_X emissions occur during take-off, climb out, and engine braking during deceleration. As a result, each additional aircraft landing or taking off would increase NO_X emissions, an increase which would not be offset by reductions in delay. Thus, the higher number of operations associated with the third runway alternative after 2008 necessarily would result in higher NO_X emissions when compared with the

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[58] DSEIS at 1-9.

[59] The DSEIS identifies a possible exceedence of the Nitrogen Dioxide ambient air quality standards at one receptor, and acknowledges that pollution concentrations at this location are influenced" by aircraft takeoffs. DSEIS at 5-2-5.

[60] See generally Natural Resources Defenses Council, Flying Off Course, Environmental Impacts of America's Airports (Oct. 1996).

No-Action alternative. Nonetheless, data in the DSEIS shows "With Project" NO_x levels in 2010 as identical to No-Action levels, despite the projected 14,000 additional operations.[61] By 2020, 72,000 more operations are projected to produce lower levels of NO_x emissions than under the No-Action scenario.[62]

Furthermore, while newer aircraft types might emit less CO and hydrocarbons, they generally produce higher levels of NO_X, and consequently may actually *increase* NO_X emissions. In addition, because ground support equipment activity increases in direct proportion to the number of aircraft using the airport, and most aircraft ground support equipment are diesel-powered and emit a significant quantity of NO_X as well as VOC and CO, emissions from this source would be expected to increase as operations increase. Yet the DSEIS air quality analysis fails to identify increases in emissions from these sources in connection with increased levels of operations. A conclusion that these emissions would be lower despite increased operations is implausible and is unsupported by existing scientific evidence. The FAA and the Port must redo their air quality analysis before they can approve the third runway project.

The DSEIS focuses its analysis of air quality impacts to the "two pollutants of concern" – CO and NO_x.[63] The rationale for limiting the analysis in this fashion is that the Airport is located in an area which was, until recently, designated as "non-attainment"

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[61] DSEIS, Table C-2-5 at C-2-17.

[62] DSEIS, Table D-2 at D-8.

[63] DSEIS at 5-2-1.

for CO and Ozone (formed by the photochemical reaction of NO_x and Hydrocarbons), and which is still subject to the region's maintenance plan for these pollutants.

While this prescribed analysis may fulfill the FAA's obligation to undertake a Conformity Analysis pursuant to the Clean Air Act,[64] it fails to satisfy the requirements of NEPA and SEPA. Airport-related emissions of particulate matter ("PM") should be included in this analysis, especially in light of the pending revision to National Ambient Air Quality Standards ("NAAQS") for PM. Volatile Organic Compounds, which like NO_x, are precursors to the formation of Ozone, are omitted from the DSEIS' analysis, as are emissions of air toxics, which could pose a substantial threat to Airport employees as well as to nearby residents.[65]

4.7 THE THIRD RUNWAY PROJECT'S IMPACT ON SURFACE TRAFFIC IS NOT FULLY ACCOUNTED FOR IN THE DSEIS

The traffic analysis in the DSEIS acknowledges that the expanded airport would generate additional peak hour trips by the year 2010,[66] but manages to minimize the impact of that additional traffic by subsuming it in existing surface traffic congestion.

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[64] 42 U.S.C. § 7506(c).

[65] An EPA-sponsored study of toxic emissions at Chicago's Midway Airport, conducted in response to community concerns, evaluated cancer risks attributable to all air pollution sources in Southwestern Chicago. It indicated that Midway's arriving and departing planes constitute a considerable source of particulate matter as well as toxic compounds such as benzene, 1,2-butadiene, and formaldehyde, releasing far more of these pollutants than other industrial pollution sources within the 16-square mile study area. ViGYAN, Inc, Estimation and Evaluation of Cancer Risks Attributable to Air Pollution in Southwest Chicago: Final Summary Report (Apr. 1993).

[66] DSEIS at 5-1-1.

While the greatest cumulative amount of traffic may occur during the evening commute, airport-related traffic appears to be at its worst at midday, coinciding with the peak hour of arrivals and departures.[67] By omitting an in-depth analysis of airport peak hour traffic, the DSEIS fails to fully identify and disclose the surface traffic impacts attributable to this project.

In addition, the DSEIS avoids analyzing a true worst-case scenario, which would consider the impact of the expanded airport operating at full peak-hour capacity. An expanded airfield could accommodate upwards of 99 operations and 6,300 enplanements in a peak hour.[68] Whereas the No-Action scenario assumes that the same number of passengers could be accommodated by spreading them out throughout the day, construction of the third runway would allow more of these passengers to fly during peak hours. As a consequence, many more people would be arriving and departing during these peak periods – a possibility which the DSEIS does not appear to take into account.

Furthermore, the DSEIS contains some unexplained discrepancies in its reported data which may have skewed the comparison of With-Project to No-Action surface traffic. For instance, the DSEIS shows the same number of airport employee and

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[67] Current flight schedules indicate that the Airport's weekday peak period occurs between 11:00 a.m. and 1:00 p.m. DSEIS at 5-1-2.

[68] The DSEIS does not identify a theoretical maximum hourly capacity for the expanded airfield. See DSEIS at 2-25. The Port's revised forecast for 2010 projects a peak hour demand of 99 operations, which could be accommodated with a third parallel runway. DSEIS,Table 2-6 at 2-14.

maintenance trips in each of the future years studied,[69] despite an increase in the size of the airport and number of operations associated with the preferred alternative.

4.8 THE DSEIS CONTINUES TO IGNORE THE SOCIO-ECONOMIC IMPACTS OF THE PROPOSED AIRPORT EXPANSION

Major airport development programs have the potential for affecting the social and economic life of a community by causing residential and commercial displacement, promoting industrial development and contributing to changing surface transportation patterns. The FEIS failed to adequately describe the impacts of the proposed third runway and associated Master Plan Update development actions on the social and economic life of the Puget Sound region, and cavalierly concluded that "[t]here are no mitigation measures proposed to compensate for socio-economic effects on the study area, because no significant adverse effects are expected to occur."[70] The DSEIS summarily dismisses those socio-economic impacts with barely more than a page of text and does not even attempt to consider the effects on the community of much greater and faster-than-predicted growth in passengers and operations at the Airport.[71] Paradoxically, while the Port and the FAA have fashioned a DSEIS which characterizes the negative community impacts from the proposed Airport expansion as minimal,[72] the Port's previous Master Plan Update definitively asserted that "no new runways at Sea-Tac

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[69] DSEIS Table 5-1-1 at 5-1-10.

[70] FEIS at IV.8-13. See also FEIS at sections IV.6 and IV.8.

[71] DSEIS at 5-7-3, 5-7-4.

[72] See DSEIS at 5-7-3, 5-7-4.

would be considered, primarily because . . . (3) construction of a new runway would have a large environmental impact."[73] Rather than further disadvantage the communities surrounding the Airport, the Port and its consultant concluded at that time that there should be no additional runways developed at Sea-Tac.

A major passenger and cargo transportation facility, such as Sea-Tac, affects the surrounding community in many ways. Whatever aggregate economic gains might be associated with Airport activities usually are widely dispersed and typically are experienced across a large number of households and businesses located in the entire region. By contrast, economic losses and social costs – often attributable to aircraft noise, increased emissions of air pollutants, and increased traffic congestion – are burdens which often are borne disproportionately by the communities located near the airport. The environmental review documents issued by the Port and the FAA focus primarily on the positive economic benefits that the Puget Sound region would be expected to enjoy as a result of the expansion of Sea-Tac.[74] For those individuals residing near Sea-Tac, however, the Airport expansion would mean higher levels of aircraft noise, constant traffic jams resulting from the transportation of 23 million cubic yards of fill for five years; air and water quality degradation; the loss of environmentally sensitive areas; and overall increases in vehicular traffic on already crowded streets and highways.

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[73] Port of Seattle, Master Plan Update for Sea-Tac International Airport (Final Report) at 1, 2-3 (Sept. 1985) (emphasis added.

[74] See, e.g., FEIS at section IV.8; DSEIS at 5-7-3, 5-7-4.

The process of localized economic and social deterioration which often results from a major airport expansion such as the construction of a third runway and other Master Plan Update development actions at Sea-Tac can be summarized generally as follows: increased aircraft noise exposure and other adverse impacts to the local environment from increased airport operations result in economic losses which would lead, over time, to reduced property values in the community. The local property tax base deteriorates with the decline in property values, and the existing housing stock is transferred to lower-income residents. Decreased property revenues for the local communities results in a decreased tax base to fund local services, at the same time that the demand for such services increases in deteriorating neighborhoods. Lower per capita income levels compromise the economic ability of the community to support existing local businesses and result in decreases in retail sales and sales tax revenues.

The spiraling process of economic and social deterioration attributable to the expansion of an airport can have devastating impacts upon the fiscal and social well-being of communities in the vicinity. Previously stable neighborhoods become blighted in an accelerated period of time, thus placing enormous strains on the financial integrity of those local governments and school districts charged with the primary responsibility for educating the community's children and ensuring the basic public welfare.

Thus, there is considerable credible evidence from the experience of other communities that additional exposure to persistent aircraft noise and other detrimental environmental impacts in the ACC cities would have a negative effect on the price of

residential housing stock, and would have a generally negative effect on their economics. It is likely that, as the price of housing declines, new buyers would have lower average household income than the preceding owners, and neighborhoods would deteriorate. If long-term residents move away from the community and are replaced by families who do not have a long history of commitment to the community, there may be cascading effects on the level of personal income which would have an impact on the earnings of local businesses and on local tax collections.

The DSEIS prepared by the Port and the FAA ignores the fact that lower property values might result in areas adjacent to the proposed buyout areas in the cities of Burien, Des Moines and SeaTac. Lower property values also would result in decreased property tax receipts. Even a modest decline in property values would dramatically increase the net cost of providing local government and educational services.

The DSEIS should have analyzed these socio-economic impacts that would result from the increased number of operations and passengers which are projected to occur as a result of the construction of a third runway and other Master Plan Update development actions at Sea-Tac. Since, however, the Port and the FAA seek to perpetuate the fiction that there would be, in effect, no difference in the use of the Airport with or without a third runway, it is not surprising that the DSEIS fails to provide any description or analysis of the socio-economic impacts of the implementation of the Master Plan Update development actions.

5.0 MITIGATION MEASURES

The brief and insubstantial consideration of mitigation measures included in the DSEIS fails to meet the requirements of either state or federal law. The FAA has an affirmative obligation to discuss in the SDEIS how the adverse effects of the increased use of Sea-Tac could be avoided through the implementation of mitigation measures.[1] Similarly, the Port is required to discuss "reasonable mitigation measures" that would significantly mitigate the impacts identified. The DSEIS must "clearly indicate those mitigation measures . . . that could be implemented or that might be required," and the intended environmental benefits of each.[2] Under SEPA,[3] the terms "mitigation" and "reasonable alternative" are functionally interchangeable: "mitigation" is avoidance and amelioration of environmental harm, and a "reasonable alternative" is an action which would attain or approximate a proposal's objective with less environmental harm.[4] Consequently, the analysis of alternatives forms the basis for considering mitigation measures.

As discussed elsewhere in these Comments,[5] the discussion of impacts in the DSEIS is incomplete and misleading. Thus, it comes as no surprise that the discussion of mitigation – to the extent that it exists at all – is woefully inadequate. Moreover, most references in the DSEIS

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[1] 40 C.F.R. § 1508.25(b) (1996).

[2] WAC 197-11-440(6)(a), (c)(iii), (iv).

[3] Chapter 43.21C RCW.

[4] WAC 197-11-786.

[5] See supra § 4.0.

to potential mitigation measures are short on detail and long on vague promises of some unspecified future action.[6]

Mitigation of residential noise impacts, are, for the most-part relegated to consideration in the Port's recently-initiated FAR Part 150 Noise Mitigation Plan,[7] notwithstanding the fact that the Part 150 study and resultant Noise Compatibility Plan ("NCP") will be completed years before the proposed third runway would be operational. However, the Port's reliance on the FAR Part 150 process to meet its obligation to identify and discuss appropriate mitigation measures is misplaced. The Part 150 NCP will be based on existing noise contours and those projected for a period five years into the future – most likely 2002 or 2003. Therefore, the NCP could not adequately plan for the mitigation of noise impacts for an additional runway which would not be operational until 2005.

In addition, several statements in the DSEIS that "eligibility" for residential noise insulation would be defined with reference to the Port's existing Noise Remedy Boundary,[8] also

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[6] See, e.g., DSEIS at 5-1-7 ("Mitigation is proposed for each adverse impact [on surface transportation] that would occur with the Preferred Alternative"); 5-4-19 ("Based on the [unspecified] hauling plan, the Port of Seattle will develop a Construction and Earthwork Management Plan"); 5-6-19 (The additional residences which the DSEIS concedes would be subject to an increase of 1.5 dB DNL or greater noise impact "would be addressed by the existing Noise Remedy insulation program, if the owners agree."); 5-7-4("Although pollutant loading will increase somewhat because of greater amounts of stormwater runoff associated with the 'With Project' alternatives, implementation of [unspecified] mitigation would prevent significant pollution or degradation of surface and groundwater resources."); 5-7-6 ("Mitigation for potential construction-related hazards include developing a [presently unspecified] Spill Prevention, Control; and Countermeasures Plan . . . and a[n also unspecified] Hazardous Substances Management and Contingency Plan") (emphasis added).

[7] DSEIS at 5-6-6.

[8] See DSEIS at 5-6-7, 5-6-17, 5-6-19.

are a cause for alarm, since the Noise Remedy Boundary was established in the Port's 1985 NCP and is based on a projection of 280,000 operations in 2010. The Port's revised forecast projects that operations will reach 474,000 by that year, but the DSEIS contains minimal discussion of the additional mitigation that would be necessitated by this increase.[9] The DSEIS contains absolutely no discussion of mitigation required to address impacts beyond 2010, despite the fact that by the Port's own reckoning, the expanded airfield could accommodate as many as 630,000 annual operations – more than twice the number that serves as the basis for the existing Noise Remedy Program.

Finally, as the ACC already has asserted, the Port's wetlands mitigation plan does not comply with the requirements of the comprehensive plans adopted pursuant to the Washington Growth Management Act[10] by the cities of Burien, Des Moines, Normandy Park, SeaTac or Tukwila.[11]

The lack of consideration of adequate mitigation in the earlier environmental review documents prepared by the Port and the FAA prompted the Washington State Legislature, in 1996, to appropriate the sum of $500,000 for an objective study which would assess the potential impacts of the proposed Airport expansion on neighborhoods in the surrounding communities of Burien, Des Moines, Federal Way, Normandy Park and Tukwila, and on facilities owned and

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[9] See DSEIS at 5-6-5 to 5-6-7 (describing proposal to offer sound insulation to nine public facilities and historic sites that would experience an increase of 1.5 DNL or more in 2010).

[10] Chapter 36.70A RCW.

[11] See DEIS Comments at 5.6-4 through 5.6-6.

operated by the Highline School District and Highline Hospital. While the grant has been administered by the State Department of Community, Trade, and Economic Development, the study itself was undertaken by nationally recognized airport consultants.

The study was confined to potential impacts associated with the proposed third runway and related facility improvements, with the primary objective being to identify mitigation measures necessary to further the preservation and protection of neighborhood integrity. The study examines potential environmental, transportation and socio-economic impacts.[12] The experience of other American airports and other major Washington State infrastructure projects also was reviewed to determine the appropriate mitigation approaches.[13]

During the year-long course of the study, the consultants conducted over 100 meetings, interviews, presentations, workshops and question-and-answer sessions with local elected and appointed officials and staff members; the Port of Seattle staff and its consultants; county and state elected officials; representatives from various city, county, state, regional and federal agencies; and the general public.[14] Moreover, throughout the study period, the consultants met regularly with citizens, city staff and elected officials and staff from the Port of Seattle, among others.[15]

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[12] Hellmuth, Obata + Kassabaum, Inc.; Thomas/Lane & Assocs., Inc.; Michael J. McCormick, AICP, Sea-Tac International Airport Impact Mitigation Study, Initial Assessment and Recommendations ("Mitigation Study") (Mar. 1997) §§ 2, 3, 4.

[13] See Mitigation Study §§ 5 and 6.

[14] Mitigation Study at ES-1.

[15] Mitigation Study at 1-4.

[The study concludes that the costs associated with the construction of the proposed third runway and the implementation of associated Master Plan Update development actions, would be "disproportionately borne by those communities immediately surrounding the Airport. Communities such as Burien and Des Moines are projected to be impacted by noise, traffic congestion, and socio-economic hardship merely because of their location near the Airport."[16] The study estimates that approximately $2.95 billion would need to be expended by the Port of Seattle and other appropriate public and, possibly, some private agencies to sufficiently ameliorate effects of these conditions on the communities surrounding Sea-Tac.[17]] [NOTE: *This paragraph will be included in these Comments only if the final version of the study is released to the public prior to the close of the DSEIS comment period.*]

Although the Port is a member of the Technical Advisory Committee which worked with the consultants conducting the study, and, as such, reviewed the interim working papers and several drafts of the final report, there is absolutely no mention of the Sea-Tac Airport Impact Mitigation Study in the DSEIS. More importantly, given the inadequate discussion of potential mitigation measures in the DSEIS, there is no mention of any of the potential mitigation measures identified during the course of this study. Neither in the assessment of environmental impacts nor in the brief references to potential mitigation measures does the DSEIS even

[16] Mitigation Study at ES-5.

[17] Mitigation Study.

acknowledge that this year-long state-funded effort was being undertaken and that the Port – one of the co-lead agencies for the DSEIS – was an active participant.

By showing little interest in appropriate mitigation, and by ignoring completely the Sea-Tac Airport Impact Mitigation Study, the Port and its partner, the FAA, have failed to satisfy the requirements of their respective legal mandates that they discuss and evaluate "reasonable mitigation measures" that could be implemented and which might be required.

6.0 CONCLUSION

The DSEIS fails in the central purpose of any environmental study: to conduct the type of scientific review and rigorous analysis required to make informed decisions. Instead, the Port and the FAA hope that by ignoring impacts, making faulty assumptions, providing as little scientific data as possible, and refusing to grant extensions of the comment period, it can push through a decision based on an inadequate record.[1]

By failing to fully disclose either the basis for this project or the true extent of its environmental impacts, the Port and the FAA have thrown the burden of conducting detailed technical analysis onto the public. Although the law does not require public commenters to supply the missing analysis, the inadequacies of the DSEIS, compounded by flaws in previous environmental documents on which the DSEIS is based, forced members of the public to retain their own experts in an attempt to recreate or generate data in order to critique the analysis presented in the DSEIS.

Not only have the Port and the FAA shortchanged the public by issuing an inadequate document, they have provided an insufficient period of time in which to conduct the requisite review and analysis of the DSEIS. A 45-day comment period is the minimum required by federal law, and is wholly inadequate for a complex and controversial project like this one. Contrary to the FAA's contention that the DSEIS' "narrower focus" produced "a much smaller document than the preceding Draft and Final

[1] The attitude of the Port is perhaps best exhibited by its officials publicly complaining at an industry conference about being forced by the FAA to even have to do a Supplemental EIS – despite the fact that it was their own reluctance to recognize the import of higher than-anticipated levels of operations in the FEIS which necessitated a Supplemental EIS.

Environmental Impact Statements" that eliminates the need for additional time to review the document,[2] the very fact that the DSEIS omits more than it includes increases the time needed to challenge its conclusions. In addition, although the FAA and Port attempt to obscure the fact that the purpose and need for the selected project has changed significantly, this change requires a re-examination of feasible alternatives and an analysis of the environmental impacts. That undertaking simply has not been made by the FAA or the Port in the DSEIS.

The DSEIS continues along the path established by the previous environmental studies: predetermine the desired outcome, and then obfuscate or ignore any data which might get in the way. The DSEIS' flawed assumptions, invalid inferences drawn from inaccurate data, and biased conclusions, taken together with similar transgressions in the DEIS and FEIS, prevent both the decision-makers and the public from making informed judgments about the wisdom of this project.

A draft Supplemental EIS, like a draft EIS must provide sufficient information and analysis for other agencies and the public to make constructive comments. A draft EIS that is so inadequate as to preclude meaningful analysis must be revised and reissued by the agency.[3] For the reasons set forth in these Comments, the DSEIS fails to meet this threshold requirement. The FAA and the Port must revise and reissue a draft SEIS that is sufficiently detailed to provide the public and other government agencies with information to facilitate thoughtful review and useful comments.

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[2] Letter from S. Kurland, Associate Admin. for Airports, to Adam Smith, House of Representatives (Mar. 17, 1997) at 2.

[3] 40 C.F.R. §1502.9(a).