

RCAA SCOPING COMMENTS ON THE "SEA TAC MASTER PLAN UPDATE, INCLUDING A THIRD RUNWAY"

I. INTRODUCTION

This document constitutes the comments of the Regional Commission on Airport Affairs (RCAA) in response to your request for written comments for your scoping process on the "Sea Tac Master Plan Update, including a third runway." The RCAA is a coalition of various citizen groups, municipal governments and individuals who have a long-standing interest in airport issues and has submitted extensive comments, professional reports and testimony on behalf of our members and member groups in various forums on this subject. This document will also constitute the individual comments of the various participants in the RCAA coalition, though individual members may submit separate comments.

In addition to the comments provided herein, we incorporate by reference previous our comments on the related Puget Sound Air Transportation Committee Flight Plan Environmental Impact Statement (hereinafter referred to as the Flightplan E.I.S.) and testimony and presentations to the Puget Sound Regional Council (PSRC) during their consideration of the Flightplan E.I.S.

We also reviewed the comment submitted by the PSRC asking that all issues identified in the Flightplan Final E.I.S. as "items be covered in the site specific E.I.S" be covered. We concur and incorporate their comment by reference. Rather than repeat all these instances, we ask that each and every instance in the Flightplan E.I.S.--whether in that instance was in the body of the document or response to public comment--was deferred to the "site specific" or a later E.I.S. must be included in this Environmental Impact Statement.

In our comments we will repeatedly use certain abbreviations and references. The subject environmental impact statement will be referred to as the "E.I.S." or "D.E.I.S." The Port of Seattle will be referred to as the Port or "POS." The United States Department of Transportation Federal Aviation Administration shall be referred to as the F.A.A. The Puget Sound Regional Council will be referred to as the "PSRC." Unless otherwise obvious from the context, "you" will refer to the parties responsible for the E.I.S., The references to "Sea-Tac" will refer to Sea-Tac Airport and not to the City of Sea-Tac. "Scoping packet" refers to the official request for comments mailed by your office to our organization and others. The Flightplan E.I.S. refers the non-project E.I.S. previously prepared by the Port of Seattle Flight Plan project and the associated working papers, documents and testimony.

II. REQUIREMENTS FOR PUBLIC PROCESS & DOCUMENTATION

Both the Draft Environmental Impact Statement (DEIS) and the process by which it is produced should comply with both the letter and the spirit of the federal National Environmental Policy Act (NEPA) and the State Environmental Policy Act (SEPA).

The intent of an Environmental Impact Statement under the federal N.E.P.A. and State S.E.P.A acts is to give the responsible public officials, who make the ultimate decision on whether to go forward with the project or not, complete, dispassionate, and accurate information and technical data necessary to make good environmental decisions for the public. It is assumed that these responsible public officials do not have specialist training in the area and must rely on others for that background data and analysis. The public, including ordinary citizens, interested organizations and other government agencies participate in the process to add information that they may have, and they have a right to rely on the completeness and accuracy of the final EIS when they discuss the proposed project with those same responsible public officials. In short, the EIS is not supposed to be a partisan document, not supposed to be a justification for a decision already made. It is supposed to be comprehensive, non partisan, dispassionate, accurate and collection of the data and analysis and to be easily understood by lay public officials, lay citizens and persons from a variety of disciplines. We urge in the strongest possible terms that the FAA and the Port present the material with the lay person in mind, such that all the necessary data is contained within the covers of the document and data is presented consistently and usefully.

IIA. Document standards

Adequate presentation to make the data understandable to the ordinary person is particularly to be stressed because of the many comments to the Flightplan DEIS that the draft's lack of citations and other editorial omissions made comment so difficult that it effectively precluded good public comment. We suggest that, at minimum, the standards for presentation of the data in this draft E.I.S. should include:

- The ordinary and normal editorial apparatus found in government documents , especially the following:
 1. An analytical table of contents and an index
 2. Consecutively numbered pages (including appendices)
 3. Complete Tables of charts, illustrations, maps, and diagrams
 4. Glossary of Terms with a definition of all technical terms not in ordinary useage by the average lay public.
 5. Glossary of Abbreviations
 6. Consistency of styleand usage
- Complete definition and consistency of all "terms of art" (i.e., terms redefined or especially defined for the purposes of this document) each time the term is used and also included in the glossary.

* All maps, charts, tables, and diagrams should be dated and captioned indicating the source, author, and specific agency which it is derived. For example, the map of Sea-Tac airport in the scoping request is undated, uncaptioned, and its source is unknown. None of the structures on the map are labeled. The reader cannot understand what it represents or where to find more detailed information. This problem would be cured with a date and a caption.

* Citations must be given for all studies or other documents referred to in the text, including the page numbers on which the data can be found. Such citations must be consistent with the standards given in the Chicago Manual

of Style and the Government Printing Office Style Manual. Citation of case law must conform to The Bluebook; An Uniform System of Citation published by the Harvard Law Review Association as amended by the Washington Reports Style Manual as approved by the Supreme Court of Washington. For example, the information passed out at the scoping open house contained facts drawn from otherwise uncited "studies" without citation(s). Citizens reading the notice had no way of reading the studies in order to prepare thoughtful comment. Citizens encountered similar problems with the Flightplan E.I.S. Citation standards would cure this problem.

* In all cases where analytical studies are included or referenced, the title, date, and originator of the studies--correctly cited--should be provided and copies not contained within the covers of the document made available free of charge for independent evaluation by the public. Copies of the Draft E.I.S. and all associated or referenced studies should be available throughout King and Pierce Counties and all public libraries on the date the Draft E.I.S. is issued. Persons wishing to comment but unable to obtain the documents shall be granted extensions to the comment period. Responsibility for placing the copies in the libraries rests with the co-lead agencies.

* One term of art in particular must be defined in this document and used consistently with the same definition, and that is the word "region." For example, in the FlightPlan E.I.S. this term was used with several different meanings: sometimes a four county area, sometimes a five county, sometimes the entire state plus adjoining states, sometimes King and Pierce counties alone, often undefined and unknowable. The use of the undefined term "regional" in the context of these variously defined regions not only creates confusion as to the responsibility of the constituents of the variously defined "regions" for involvement in this decision making process but also results in confusion in the analysis. The co-lead agencies in this draft E.I.S. each use the word differently: The F.A.A. (Northwest District) has the N.W. regional office which encompasses one region; the Port of Seattle, another. For these reasons, this term must be defined in this E.I.S. and used consistently throughout for a defined region and for nothing else. We would suggest that "region" be used to connote states, cities and counties encompassed in the F.A.A. N.W. Region. At minimum, the word "region" should be used to encompass the entire State of Washington and Oregon, the counties adjoining those two states, and the metropolitan counties of Vancouver B.C. and surrounding cities. Given the nature of the action, anything less than that would be inappropriately narrow.

* All projections and models should include a clear statement of the methodology chosen, with the rationale for choosing it provided. This statement should also include the following: assumptions, baseline measurements, high low estimates. Furthermore, projections and models should give the resulting figures for, at minimum: 1) the first year of operation; 2) the year 2000 (which is the effective date of the noise mapping, census data, numerous land use & planning studies, Port of Seattle budget projections, etc.); 3) for the year 2020 which is the date used for projections & data in the Flightplan EIS, and 4) for the full useful life of the project, that is, at least the years 2030 and 2050. The Flight Plan E.I.S. arbitrarily truncated their models and projections in the year 2020, even though the proposed facilities under discussion, such as a third runway, will still clearly be in use 2030 and probably 2050.

* All impacts should be discussed for, at a minimum: 1) the first year of operation; 2) the year 2000 (which is the effective date of the noise

mapping, census data, numerous land use & planning studies, Port of Seattle budget projections, etc.); 3) for the year 2020 the date use for projections & data in the previous EIS, and 4) for the full useful life of the project, that is at least the year 2030 and 2050. In the Flightplan E.I.S., for example, the noise projections were given for the year 2000 but the exposed population projections were given for the year 2020. Most particularly noise and air pollution impacts for the many years of operation and associated impacts prior to the year 2020 must be included. The Flightplan covered impacts in the year 2020, skipping the years in between. Both SEPA and NEPA require analysis of all impacts, including the years in between.

* All actions or mitigations examined that affect the organization, policies, budgets or revenues of state, county and municipal governments, special districts and federal and state agencies other than the F.A.A. or the Port should be discussed in detail. This discussion should include information on which government or agency is affected, what will be affected, what it will cost, and who will pay those costs. In addition, the E.I.S. should include and an explanation of what action the F.A.A. and/or the Port of Seattle intend to implement to pay the costs, to mitigate the environmental costs and organizational demands upon that agency, as well as what the environmental impacts will be if such policies or projects are not undertaken or implemented.

* Because it is impossible to evaluate or comment upon averages, percentages and rates without knowing the base data upon which the average, percentage or rate is based and the method of calculation, this information should be included when averages, percentages or rates are given.

All averages should be given as both the mean and the median along with the period, the minima & maxima and the method of calculation. Averages used to compare to historical data should also specify the source of the historical data and confirm that the method of calculation is comparable.

Because percentages can be actively misleading without further data (e.g., 200% of zero is still zero.) all percentages should give the reader enough information to understand "percent of what?" and to calculate the actual figure.

Percentage increase or decrease can be even more confusing and potentially misleading.

(A 100% increase of a base rate of 1% is still only 2%) Any data given as a percentage increase or decrease should also include enough additional information for the average reader to determine the significance of the percentage increase or decrease. For example, a statement such as "There will be a 200% increase in the number of UFO's using Sea-Tac" must also tell the reader how many UFOs were using Sea Tac prior to the increase (the base,) as well as the total number of planes using Sea-Tac after the increase (the gross) and the dates over which such a change is to occur (the period.) Such information was consistently lacking in the Flightplan EIS leading at least one Port Commissioner to totally misunderstand the air pollution results (see air pollution below) and others to paraphrase Andrew Lang, "The Flightplan EIS used statistics as a drunken man uses lampposts - for support rather than for illumination." The purpose of NEPA and SEPA is the latter and providing these figures would cure many of the complaints expressed during Flightplan.

IIB. Public Process Standards

The regulations of the Council on Environmental Quality encourage citizen involvement. 40 CFR SS 1500.1 -Purpose- states, in part, as follows:

"NEPA procedures must insure that environmental information is available to public officials and citizens before decisions are made and before actions are taken. The information must be of high quality. Accurate scientific analysis, expert agency comments and public scrutiny are essential to implementing NEPA.

40 C.F.R. paragraph 1506.6 requires agencies to "... make diligent efforts to involve the public in preparing and implementing their NEPA procedures."

The Department of Transportation adopted NEPA procedures, identified as DOT Order 5610.16, 44 Fed. Reg- 46920, Oct. 1, 1979, (amended change 1, July 13, 1982). Paragraph 14a mandates citizen involvement procedures to the maximum extent possible as early as possible.

Citizen Involvement Procedures

a. Citizen involvement in the environmental assessment of departmental action is encouraged at each appropriate stage of development of the proposed action and should be sought as early as possible. Citizen involvement in the environmental process should be integrated with other citizen involvement procedures to the maximum extent possible. Attempts should be made to solicit the views of the public through hearings, personal contact, press releases, advertisements or notices in newspapers, including minority or foreign language papers, if appropriate, and other methods..."

Sub-section (c) encourages DOT agencies to have lists of interested parties available for consultation. The lists include community organizations who are known to have an interest in the project or who can speak knowledgeably on the environmental impact of the proposed action.

FAA order 1050.1D, a handbook entitled "Policies and Procedures for Considering Environmental Impacts," Paragraph 29, states: "Citizen involvement, where appropriate, shall be initiated at the earliest practical time and continued throughout the development of the proposed project in order to obtain meaningful input."

III. PROCEDURAL IRREGULARITIES & DEFICIENCIES

We question whether the present scoping process is valid or legal, in view of its many deficiencies, and many deviations from required and accepted procedures. We request that you start over, this time with a proper approach.

1. What is the proposed action? Which version is right? The proposed action is not clearly stated. At various points in the document issued over

the name of Dennis G. Ossenkop and the document issued over the names of FAA Regional Manager Edward G. Tatum, & William E. Brougher, the proposed action is described as

- (i) updating a Master Plan for Seattle-Tacoma International Airport (hereafter referred to as "Sea-Tac), possibly to include. [in said plan] a new parallel runway,
- (ii) or, as developing a new runway at Seattle-Tacoma International Airport,
- (iii) or, as addressing the bad-weather capacity problem at Seattle Tacoma Airport,
- (iv) meeting the long-term regional air travel needs, or as
- (v.a) or, as a new parallel runway and improvements to the passenger terminal, ground access system, and other support facilities, as well as
- (v.b) other airport developments.

These are five rather different propositions, stated by two different documents, and two different groups of officials. Which is it? Who's in charge here? What is the relationship between the F.A.A. and the Port as defined by the law? The legal ramifications, as well as the environmental ramifications, are quite different as to each of the different proposed actions. Before there can be intelligent comments on the scope of the environmental studies, one must know what action is proposed. The present process is therefore premature.

2. What about the actions known to be planned but not mentioned in the packet? It is well known that other proposed actions related to the general subject matter are in the works. But we cannot ascertain whether those proposed, related actions are encompassed in the environmental studies contemplated by this notice. For example, it is of course well known that the Port of Seattle has long-standing plans for not one, but two new runways at Sea-Tac. Could the action for this proposed EIS process actually encompass two new runways?

3. What Master Plan? If the action is a Master Plan Update (alternate (i) discussed in #1 above, then what is the Master Plan that is to be updated?) In the absence of an adequate identification of that plan, we are at a loss to know what is involved. Who adopted the plan? When? Under what authority? To what legal effect? Where is it to be found? Who has legal authority to amend ("update") the plan?

4. Who is setting this process in action? Is Ossenkop in charge here, or are Tatum & Brougher? To whom are comments legally addressed? And under what authority?

5. Is this a lawful process under Federal law? We are unable to determine whether the notice on behalf of the U.S. Department of Transportation is a lawful one. We have never heard of Dennis G. Ossenkop, Environmental Protection Specialist. Who is he to set in motion all this process? Can any employee of the FAA with such a title begin an EIS process on his own authority? Can any other such person cancel such a process on the same authority? Is someone in charge here? One would have thought that actions of the Federal Aviation Administration of the U.S. Department of Transportation would have been set in motion by the Secretary of that Department or one of his immediate deputies, say, an Under-Secretary, or, at the least, by the chief responsible official of the FAA - hopefully, someone subject to Senate confirmation, some responsible official. Under what

authority does anyone purporting to act for the FAA act here? The authority is not stated. The general public, therefore, have to suppose that authority for Federal action does not exist. The call for scoping should be withdrawn, & a new call (if issued at all) should be issued by a responsible official demonstrably responsible, demonstrably acting under the authority of the law, and of the Department.

6. Is this a lawful process under State law? We are unable to determine whether-the-notice on behalf of the Port of Seattle is a lawful one. What is a "SEPA Responsible Official?" There are five and only five responsible officials of the Port of Seattle, and they are the five duly elected, qualified and acting Commissioners of the Port. There is not even a hint in the scoping packet that the Commissioners have authorized this action, and the public therefore have to suppose that this call was issued without the lawful authority of the Port.

7. Why is the FAA involved here? Because the authority for the proposed action is so inadequately stated, and because the proposed action is so confusingly described, the public cannot understand proper involvement of the FAA in this process. Construction of a third runway at SeaTac by the Port of Seattle, on realty owned by the Port of Seattle, for future operation by the Port of Seattle would appear to be a concern of the Port alone. Likewise, expansion of ground facilities at Sea-Tac would appear to be actions of the Port alone. What action of the FAA is involved in this matter? The general public cannot meaningfully comment on the proposed actions of the FAA when the FAA does not reveal what they might be.

8. What actions has the FAA already taken? It is asserted by the document dated 20 December 1993 in the scoping packet that "The FAA ... [has] determined that the new parallel runway is likely to have a significant adverse impact on the environment." We agree completely that a new runway will have a significant adverse impact, but we ask, When, how, and through what process did the FAA reach that determination? It is surely relevant to scoping comment's to know what the FAA has already done and why. This information should have been included in the scoping packet, and its absence is disabling.

9. Why are King County, the City of SeaTac, & the State of Washington not involved! The most detailed of the five disparate statements of the proposed action contemplates (new) ground access systems, presumably to (rather than solely within) Sea-Tac. All existing ground access systems to Sea-Tac are provided by agencies other than the two named co-lead agencies. We are not aware of any proposal that surface transportation facilities in future be provided by either or both of the named lead agencies. The legally and factually responsible agencies are: King County, the City of SeaTac, and the State of Washington, acting through its Department of Transportation. Is it not required that these agencies participate in this process as lead agencies, since it is action by them that is contemplated? It follows that the proposed scoping process is inadequate, incomplete, and ineffective. Either the proposals for actions by these agencies should be excluded from this process (which would result in an incomplete study) or these agencies should be brought in as lead agencies. Either way, the present process is premature, the scoping call should be withdrawn, and the process should be begun again (which would offer an opportunity to cure the many other deficiencies & irregularities noted here.)

10. Why is King County not involved? Major actions such as construction of additional all service airport runways are subject by law to the oversight and control of the several counties under the Growth Management Act. Expansion of the Sea-Tac facility is subject to (forbidden by, actually) existing land-use regulations adopted by King County. Any important expansion of Sea-Tac must meet the tests of the relevant King County community plan (which, as previously stated, forbids such expansion), and must meet the requirements of the growth management plan of King County, adopted in accordance with the Growth Management Act. It is not clear to us why King County is not a co-lead agency, if it is seriously proposed to proceed with a project that does not comply with existing and future King County regulation. We might add that the Growth Management Act is the most far-reaching and comprehensive environmental legislation ever enacted in our State: compliance with it is an inherent requirement of every action that might have an environmental impact.

11. What legal system governs here? The lead document in the scoping packet does not tell us whether the proposed action is being reviewed under State law, the law that governs the actions of the principal actor (Port of Seattle), or under Federal law, governing the actions of the FAA. The document of December 20, 1993 issued over the signatures of FAA Regional Manager Tatum & the Port's Mr. Brougher refers to both Federal and State statute. Which governs? Scoping requirements are obviously different under the different legal regimes. The failure to identify governing law clearly makes the scoping call ambiguous, and insufficient. We understand from subsequent research that F.A.A. rules provide that the most restrictive requirements of each statute apply. Why was this not explained at in the scoping packet and at the scoping meeting? The F.A.A. could have easily anticipated that average members of the general public would be mightly confused being asked for scoping comments on apparently five different actions by two different agencies (three, counting PSRC) under two different interrelated laws--one federal and one local. Materials explaining the roles of the agencies and the laws under which they are operating should have been available at the meeting and attached to the mailed notice. Their absence is disabling. The process should be started over, with proper notice.

12. The F.A.A. has not met the minimum requirement of the CEQ regulation, the DOT rule, or the F.A.A. Handbook. It held only one scoping meeting for the public --not even a hearing; it set its time for a weekday to begin at 4 P.M., the rush hour, and end at 8:00 P.M., the end of dinnertime -- a duration designed to limit public attendance.

It made no effort to use any of the techniques identified in Paragraph 14a. The "Agency Scoping Meeting Outline," makes no mention whatever of any other opportunities for citizens to participate in person-to-person contact. Part 11,

Notice of the proposed action was woefully inadequate. The FAA, as the lead agency of the two co-lead agencies (all notices to date have been issued under the name of the FAA), has failed to meet its duty to insure that environmental information is available to citizens. 40 CFR Sec. 1500. There has been NO diligent effort to involve the public in this NEPA procedure, contrary to the requirements of 40 CFR Sec. 1506.6, & DOT order 5610.16, 44 F.R. 46920, 114a, as well as FAA order 1050.1D, see especially Para. 29. Just to the contrary. The FAA and the Port, know perfectly well who is interested in the third/fourth runway issue, from numerous prior excursions. The FAA has not made the slightest effort to involve the citizens and

citizens groups known to be interested in this matter. Although the contemplated actions clearly contemplate impacts on policies, budgets, and activities of local special districts, such as the school districts, water, and sewer districts, apparently no notice was sent to them, nor was any effort made to involve them. This lack of adherence to the requirements of Federal law invalidates the process to date and requires that it be re-started, this time with a sincere and effective effort to notify the interested public of what is going on.

"The Environmental Impact Statement Process", page 2, allows the public only 45 days to comment on the draft E.I.S. --- hardly an adequate time for citizens to review a document on a project of this magnitude with as much highly technical information as should be available. This tells citizens that the only way they are to be allowed to effectively participate in the technical and other review of the E.I.S. is to sue--a clear violation of both S.E.P.A. and N.E.P.A. The comment period should be extended to a period commensurate with the action, at minimum 90 days. We urge and request that completed portions of the impact statement be issued in the interim to facilitate public comment.

13. The actual scoping process is fatally defective. As yet, neither co-lead agency has held a scoping hearing, although hearings are required by the Federal regulations previously mentioned. One public scoping meeting -- not hearing -- was held on very short, very inadequate notice, in a location remote to the population of the largest city adversely impacted by SeaTac operations. That meeting was held during the evening rush hour and the normal dinner hour. The location, though not the time, was reasonably convenient for people living in the City of SeaTac. But for people living in Tacoma, Gig Harbor, Seattle, Mercer Island, etc., etc., the location was singularly inconvenient, and, coupled with the peculiar time, was perhaps the most inconvenient meeting date time that could have been arranged.

Scoping without hearings is a contradiction in terms. Multiple public hearings should have been arranged at multiple sites, consultation with interested citizens groups, interested municipalities, cities, other interested governmental agencies, and special districts should have been solicited. Of course, even if there had been proper lead time for true hearings, with a sincere effort to involve the interested public other interested agencies, the defects noted above in the description of the action, and etc., would still have rendered the hearings nugatory.

We note further that construction of a third runway and its ancillary features falls within the requirements for :expanded scoping under WAC 197-11-410, which binds the true lead agency here (the Port), even if the agency actually giving the notices is not bound thereby. Failure to comply with relevant State law is fatally defective to this process.

14. The Proceedings at the one scoping meeting were inadequate. The proceedings of the public scoping meeting were not recorded. The proposed actions under examination were not adequately explained. There was little or no information available for the public. There were no maps displaying the possible proposed actions. This was the one permitted opportunity for members of the public to hear and see the proposed actions explained and to participate face to face in scoping discussions. The opportunity was illusory, and certainly did not meet the reasonable expectations of the public or the specific requirements of applicable Federal law. The process

should be begun again, with provisions for real hearings, based on adequate information and adequate opportunity for participation.

15. Efforts to make written comments difficult. Mr. Ossenkop announced at part of the scoping meeting and wrote in part of the package that comments on the scoping announcement and on the announcement of Managers Tatum & Mr. Brougher must be physically received in Mr. Ossenkop's office --in Renton -- on or before 25 February, the absolute minimum legal time for scoping comments.

The yellow scoping comment sheet passed out at the scoping meeting directly contradicts these statements saying "Comments must be mailed by February 25, 1994." Which is it? Why this unseemly haste? Why must the documents be received physically? Is not receipt by the Federal government's own U.S. Postal Service good enough? We have been dealing with the FAA about this third runway for years and years, and until now the FAA has been located at a well-known site at Sea-Tac. We note the omission of Mr. Ossenkop's phone number and FAX number, an omission which further increases the difficulty of communicating with the FAA. How is it that comments must be sent only to Mr. Ossenkop? Why can they not be lodged with the Port of Seattle at its Aviation Division office and/or the Office of the Port Commission itself? Why was the NEPA scoping deadline applied to SEPA comments? SEPA places no time limits on scoping.

16. Why do the scoping documents contain misleading information? We question the validity of a scoping process that is based on what the co-lead agencies MUST know are confusing and misleading representations. For example, the document dated 23 December 1993, at p.3, asserts that Sea-Tac is the 8th largest international gateway to Asia and Europe. Actually, Sea-Tac is not even in the top 100 largest international airports in the United States. At 2400 acres, it is a tiny facility, a DC-3 airport, not a large one, not one that comes even close to size standards for modern international airports to handle the twenty-first century traffic. Although it handles traffic equivalent to larger airports, the public understandably will interpret the word large to also mean physical size, especially at a scoping meeting on the physical layout and additions to the airport.

Another example: p.4 of the scoping document previously cited, asserts that the Puget Sound Regional Council (PSRC) evaluated possible regional aviation needs. Actually, as is well known, the PSRC excluded regional aviation needs and regional alternatives from its study, restricting to scope to the four urban counties of Snohomish, King, Pierce, & Kitsap, and excluding, as a matter of policy, all aviation needs and all possible sites in the other 35 counties of the State, to say nothing of the balance of the region. Regional needs have never been addressed in any of the studies undertaken to justify the third runway at Sea Tac.

According to federal transportation regulations , the F.A.A. must "independently evaluate the information submitted [by the project sponsor, in this case, the POS] for its accuracy" This clearly was not done for the scoping packet or meeting. The scoping notice should be withdrawn and the process re-started.

IV. PURPOSE, NEED, ALTERNATIVES AND IMPACTS WHICH MUST BE EXAMINED UNDER SEPA AND NEPA

The EIS for the Seattle-Tacoma International Airport Master Plan update must meet not only the requirements of NEPA and SEPA, but must also provide additional information to allow decision makers to assess the overall impact and select the most reasonable and viable regional airport system for the State of Washington and the region. The additional information required includes costs and sources of funding, economic impact, aircraft and passenger safety and governance.

The following comments are organized in accordance with SEPA rules as specified in Washington Administrative Code Chapter 197-11, with additional information added as necessary to facilitate the decision process. These comments represent our group's best guess as to what contemplated action is and our effort to fulfill our public responsibility in the NEPA and SEPA process. However, they should not be construed as precluding further scoping comments once the action is better understood or precluding scoping comments under SEPA should new information become available or the project changed, etc.

1.0 Project Description and Justification

The regional airport system to be developed should meet the capacity needs of Washington State through the year 2020, with expandability to the year 2050 and beyond. Justification for the airport system must be provided in terms of required future regional capacity to accommodate passengers, cargo, and aircraft operations. Additional justification must be provided to substantiate any claims related to delay and delay costs.

1.1 Passenger and Aircraft Operations Projections

Passenger and operations projections of the past have been labeled unreliable by consultants to the State Air Transportation Commission, and this has been verified by actual data compared to projections made for Sea-Tac as recently as two years ago. In developing projections, the E.I.S. should consider population projections by responsible agencies, including King County, the PSRC, and the State's Department of Community Development. Analyses should be made of employment and other economic circumstances, including airline ticket pricing, competition in the airline industry, economic circumstances of business and non-business travelers, and costs of aircraft, labor and fuel. Economic downturn or upturn should be considered. Consideration should also be given to use of aircraft of the future (e.g., 600 to 800 passenger, supersonic and/or hypersonic aircraft, etc.) which can have a major impact on both demand and capacity and on the need for airport land buffering against the large amounts of extra noise and pollution which would be generated. Passengers per airplane assumptions should be justified by analysis.

Forecasting for both passengers and operations, because of their uncertainty, should include a broad range of forecasts which can be matched with an array of potential runway and facility options to allow incremental implementation as dictated by the needs of the future. (Dynamic Strategic Planning)

1.2 Airport Capacity and Delay Assessment

The 1991 Capacity Enhancement Study provided an analysis of Sea Tac enhancement capacity and delay and suggested enhancement alternatives. The current E.I.S. should update those analyses and factor in any improvements that have been made to date. Future capacity and delay projections that are claimed should include analysis of the following:

- a. Future mix and types of aircraft(incl. 600-800 passenger jets and proportion of commuters)
- b. System of runways and taxiways
- c. Annual distribution of traffic
- d. Runway utilization
- e. In-trail separation practices
- f. Runway shut-downs required to accommodate purging of crowded taxiways
- g. Weather (Delays not attributable to runway capacity (dense fog) should be identified.
- h. Air traffic patterns
- i. Methods to improve runway efficiency

Capacity projections should include use of a third runway with 2500' separation as an "independent runway," a capability that can be provided by the advanced technology PRM landing system

The environmental, economic, social and political issues related to capacity and demand should be addressed in appropriate section of the E.I.S. The E.I.S. should also demonstrate the ability of each proposed airport system alternative to satisfy the capacity needs of the region through the year 2050.

1.3 Air Cargo Projections

Previous planning studies have projected large increases in air cargo volume. With the increased potential volume resulting from APEC agreements, cargo projections need to be updated and substantiated from reliable sources. Previous studies have also stated that a world class international passenger/cargo airport complex, which this region should have, ideally should comprise 13,000 to 15,000 acres, with direct access to rail and facilities for manufacturers and shippers to have direct access to loading and unloading aircraft. Alternatives considered must be justified based on these criteria to take maximum advantage of that market. A strategy should be delineated to attain a competitive advantage with international airports like Denver, San Francisco, and Los Angeles.

1.4 Aircraft Flight Paths

The E.I.S. should contain analysis of alternatives which abandon the Four Post Plan at Sea-Tac in favor of flight paths that minimize adverse environmental impacts. Advanced technology landing aids, such as Microwave Landing System and Precision Runway Monitor (PRM) and Global Positioning System (GPS) that have potential use should be identified, and flight paths resulting from them identified. Their impact on the environment and on airport capacity and delay should be thoroughly analyzed, as well as the environmental impacts of continued use of the 4-post both with and without other enhancements.

2.0 Alternatives

The scoping public notice states "-- alternatives for meeting the Sea-Tac air travel demand and capacity problems will be evaluated in the E.I.S." Since the needs of the region need to be satisfied, and Sea Tac can never satisfy the region's long term capacity needs, the E.I.S. must explain explicitly the total need, what portion of the need Sea Tac will satisfy, and how the remaining need will be satisfied. Comments relating to the five alternatives follow.

2.1 Features of Reasonable Alternatives

2.1.1 Alternative modes of Transportation

High or Higher Speed Rail was summarily dismissed in previous planning as inconsequential in its ability to replace commuter air transportation between Seattle, Vancouver B.C. and Portland. The new E.I.S. should contain a detailed analysis of rail and other modes and their contribution to passenger capacity, air travel demand and their ability to reduce aircraft operations and delays. Additionally, the High Speed Ground Transportation Commission used extremely conservative estimates which appear to have been low. New data from the test runs anticipated in the next few years should be included here. High or Higher Speed Rail is not in itself a solution, but should be considered as a part of all alternatives.

2.1.2 Utilization of other Airports

The E.I.S. should provide a detailed analysis of the potential use of other airports (excluding Boeing Field) for commuter operations. These options also have been summarily dismissed from previous studies.

Because the region must have a supplemental airport to satisfy its long term needs, the E.I.S. should describe the alternative roles of both Sea Tac and a supplemental airport in terms of capacity, accessibility, cost, economic impact, environmental impact (including noise and air pollution) and safety.

2.1.3 Alternatives at Sea Tac

Based on the alleged demand for increased capacity for operations, passengers, and air cargo facilities, the E.I.S. should analyze alternatives at Sea Tac in the following areas:

- a. Improvements to enhance capacity without runway expansion
- b. Runway options, citing impact on capacity, delay and safety
- c. Evaluation of alternative facility expansions to accommodate increased passengers and operations. As a minimum, this should include terminal expansion (gates, aircraft parking positions, ticketing, baggage, concessions,) vehicle parking and surface access, hangars, maintenance facilities and fuel storage. Descriptions, site plans and maps should be included for each alternative.
- d. Evaluation of air cargo facilities, both adjacent to the runways and on other airport property, providing site plans and overall maps. Evaluation of alternatives considering relocation of air cargo facilities to alternative airports should be included.

2.1.4 Demand Management

Demand Management should be evaluated for its ability to reduce demand as a part of all Sea Tac alternatives and also as a method of discouraging/eliminating increased operations at Sea Tac to force usage of a supplemental airport.

The issue of the number of passengers per aircraft should be thoroughly discussed in the demand management context. Previous estimates have indicated that Sea Tac must handle two and one half times the present number of passengers with a 1/3 increase in operations. If revised estimates still project these increases, a justification must be provided for them. The E.I.S. must also identify implementation mechanisms for demand management.

2.1.5 No Action Alternative

It is assumed this means "no action" at Sea Tac. This alternative should include maintaining Sea Tac at its current configuration and at its current or a reduced level of operations, and implementing operations as soon as possible at a supplemental airport or at other airport facilities. This can be covered here or under "utilization of other airports". In either case, the full range of subjects should be addressed: Capacity, accessibility, cost, economic and environmental impact, and safety as a minimum.

2.2 Locations, Phases and Timing

Maps, site plans and schedules showing development phases and all key milestones should be provided for all alternatives analyzed in the E.I.S.

2.3 Detailed Analysis and Comparative Evaluation of Alternatives (including Environmental Impact)

Preparation of the EIS will generate a large amount of technical information which must be summarized and presented to decision makers. The technical evaluation process commonly used by the F.A.A. and other governmental agencies for source selection of major projects is directly applicable to this project. The evaluation process consists of establishing criteria for evaluation of each alternative; determining the relative importance of each criteria; and displaying the results on a quantitative basis for all alternatives for the information of the decision makers. Suggested evaluation criteria for airport projects is: capacity, accessibility, economic benefits, capital cost, air quality, natural environmental impact, citizen cost and safety. Evaluation of the alternatives should be performed by individuals other than those that prepared the data.

2.4 Impact of Delayed Implementation

The E.I.S. must discuss the benefits and disadvantages of reserving until some future time the implementation of the project, as compared with possible approval at this time. Retaining Sea Tac in its present configuration while implementing a new supplemental airport immediately should be discussed in detail, citing the impact of environmental, social and economic factors of such a decision.

3.0 Affected Environment, Significant Impacts and Mitigation Measures

3.1 Natural Environment

3.1.1 Earth

General

The present Sea-Tac is sited on the side of a hill. Building a flat runway at such a site will require extraordinary amounts of fill dirt to be imported to the site, creating large scale earth impacts, both from dredging and hauling the fill and disruption of the surrounding ecology. Washington State is a high earthquake area. Recent reports in the newspaper and Science News point out that an earthquake Richter 9 is possible. More common estimations are Richter 5-7. Fill tends to liquefy in earthquakes and this must be thoroughly documented in the impact statement.

The impact statement must also address the specific issues listed below.

- * This E.I.S. must make and fully disclose adequate studies of environmental impacts that occur because of the impacts on earth at Sea Tac and at all alternative sites as well.
- * Investigation of soils and soil types must not only use SCS soil survey maps, but also include actual surveys of soils were made in the vicinity of any of these projects. Surveys should be made to ascertain the existence of peat or boggy soils that may be difficult for construction.
- * Soil types should be given for each of the potential sites considered in the master plan, including a detailed analysis of soils, their compactability and suitability for construction of runways, taxiways, terminals, and other facilities.
- * At Sea-Tac, the Flightplan E.I.S. identified that 13,682,000 cu. yd. of fill would be required to build the new dependent (3rd) runway. This E.I.S. should study this figure and indicate the basis for the calculation. It should also provide any background information, including any topographic maps or other plans that indicate how this figure was calculated (to the accuracy of thousands of yards) . Indicate whether the calculation is compacted on site or loose fill. If this figure is compacted on site, the E.I.S. should provide the cubic yards necessary to be hauled to the site to result in the compacted yardage.
- * Given the massive size of the fill required for the runway, the E.I.S. should indicate the size, length and height of the runway as it would be viewed by individuals from each side. Elevations showing this fill should be provided. The elevations should supply the angles of final disposition of material on each side. To fully understand this issue, cross sections of the fill, original contours and other information should be provided. Similarly, elevations and side slopes should be provided for other potential alternatives.
- * This E.I.S. should indicate the source of material for the fill. It should state whether the sources have current permits for withdrawal of fill material, and if not, whether withdrawal of such material is consistent with current land use plans for the areas of withdrawal. A summary of environmental impacts with regard to the mining or withdrawal of such material should also be provided.
- * With respect to the fill material, haul routes should be identified from the site of fill withdrawal to final disposition. Approximately how many truck trips will be required to haul this material to the site and over what period of time will such activity continue? What are the environmental impacts of such hauling operations, including air pollution, energy consumption, water pollution?

* The E.I.S. should discuss the water pollution impact of moving this huge quantity of dirt. Information should be provided as to water pollution potential created by the disposition of dirt at the supply sites, on streets surrounding the site, and when the material is in place. Each of these involve construction impacts which should be discussed in detail. A similar analysis of construction impacts should be provided for all proposed changes to the master plan and associated impact mitigations (e.g. highway or rail access provisions.) Analysis of air pollution from blowing and drifting dust from the transportation and distribution of the fill at Sea-Tac should be provided.

* On page 3-43, the Flightplan E.I.S. cites storm water runoff "as the greatest single factor affecting erosion in the Puget Sound region." However, storm water runoff were not significantly addressed in the environmental impact statement in any location and should be addressed in this E.I.S.. We note particularly that the statement of "license required" in the Flightplan E.I.S. does not include the requirement to secure an NPDES permit for disturbance of the area of the fill. The E.I.S. should review the NPDES requirements and indicate how the subject proposal will meet such requirements.

* The E.I.S. should discuss whether or not holding basins or other facilities to control the quantity and quality of storm water runoff will be constructed as a part of this proposal and if so where they will be located. Such information should be provided in the final impact statement, together with information concerning projected runoff volumes. The efficiency of runoff control systems in controlling contaminants from the airport should also be provided. Information is should be provided concerning the nature of potential contaminants in the runoff. We note that the airport certainly involves discharges of petroleum products, rubber tire products and other products, including de-icing liquids used in cold weather. The impacts of such activities on storm water runoff should be considered.

* The Flightplan E.I.S. indicated that "mitigation may be to avoid all sensitive areas with potential geologic hazards." This E.I.S. should identify any sensitive areas with geologic hazards and how will they be avoided in the construction of the runway.

* It is also indicated in the Flightplan E.I.S. "modern construction practices" will be used. This E.I.S. should list and fully describe such practices along with their potential environmental benefits and/or detriments. The Flightplan E.I.S. asserted without basis that "minimizing earth movement during rainy seasons "should control most earth impacts. This E.I.S. should state the period of time involved in the movement of material to Sea-Tac. Since we estimate this will be certainly longer than a year, it must be indicated how the site will be protected during the rainy season.

* We also note that significant need for cleanup of ground water contamination was necessary in the removal of certain facilities at the airport to provide for the expansion of concourse D. Inasmuch as further expansion at the airport may involve modifications of areas in the south area of the airport where existing hangars and maintenance facilities are found, this E.I.S. should disclose what potential exists for the release of toxic material into the ground or ground water to this area.

* Also with respect to the airport facility, the E.I.S. should investigate and fully disclose the areas underlying the new construction for the third runway that serve as a source for any ground water resources. Has any investigation been made of ground waters underlying this area and if so whether such ground waters are used as a water source for any purpose, including human consumption. If ground water resources exist in this area, indicate what impact the construction of the third runway will have on such ground waters and on their potential for recharge. With respect to industrial discharges, describe whether or not any new industrial drainage treatment facilities will be built as a part of the third runway construction. If the present industrial treatment system is inadequate, please indicate what plans exist for the expansion of such facilities.

* This E.I.S. should identify how discharges from Sea-Tac to Miller Creek and Des Moines Creek will be handled and whether or not any changes in such discharges are effected by the construction and fill for the third runway.

* The E.I.S. should identify whether or not a dredge and fill permit under Sec. 404 of the Clean Water Act will be required for any activities on any of the proposed sites. If one is required, the E.I.S. must identify how the construction will meet the requirements of this section of the law.

* The E.I.S. should identify all geologic hazards, including known earthquake hazard areas and fault lines and their relationship to the proposed plan projects. The West side of the present Sea-Tac is a well known geologic hazard area. Other faults and hazards should be included.

* The E.I.S. should discuss in detail the impact of earthquakes at Richter levels predicted for the area on present runways and any proposed new runways. The large amounts of fill needed should be treated with particular care and attention to detail.

3.1.2 Air Quality

General

Sea-Tac airport is one of the largest source generators of air pollution in King County, producing 8% of the carbon monoxide and 5% of the nitrous oxides in the county. Air emissions from Sea-Tac come from both aircraft emissions and ground transport emissions from cars & buses of passengers and freight. Aircraft emissions constitute approximately 88.3% of the emissions and ground traffic the remaining 11.7%. In addition, there are also emissions from fire tests and other airport activity, although their percent of contribution has never been measured. Because Sea-Tac sits on one small site, unlike other comparable air pollution sources (i.e., freeways) where the source is spread, pollutants reach very high concentrations in the three mile area just around the airport. The "brown cloud" over Sea-Tac is visible from Seattle on clear days. The Flightplan E. I. S. estimated that the third runway at Sea-Tac would produce a 32% increase in air operations at Sea-Tac airport and a 250% increase in passengers. This would produce a corresponding 30+ per cent increase in aircraft emissions and at 250% in ground traffic emissions. Concentrations in the three mile radius around the airport could result in even higher emissions in those areas. All these sources of potential emissions must be studied and discussed in detail,

including all pollutants emitted by aircraft, (e.g., benzene and nitrogen oxide,) existing conditions and increased emissions from expansion action.

The impact statement must also address the specific issues listed below.

* The beginning point for impact evaluation would be current existing conditions at the airport. Full analysis of existing conditions is explicitly required under the SEPA rules. (WAC 197-11440(6)(a)). The E.I.S. must discuss and disclose the existing air quality impacts at the airport.

* Data and assumptions used to estimate emissions increases must be consistent with capacity and delay projections presented elsewhere in the impact statement. Both high and low assumptions must be used.

* The E.I.S. must contain a sufficiently detailed analysis to permit a comparative evaluation of the air quality impacts that the proposal would create for each alternative, as required by the SEPA rules at Sec. 440 (5) (c) (v).

* The E.I.S. must contain alternatives to attain the proposal's objectives at a lower environmental cost as required by SEPA, Section 440(5)(B).

* The E.I.S. must address increases in the aviation pollutant production in specific terms and provide information on individual airport pollutant concentrations. According to the Department of Ecology Study of May 1991., Sea-Tac Airport produced an approximate total of 5.125 metric tons* of pollutants, including the following constituents which must each be addressed:

1. Over 3,000 metric tons of hydrocarbon emissions
 2. 1950 metric tons of nitrogen oxides
 3. 175 metric tons of sulfur oxide
 4. 68 metric tons of particulate emissions (both TSP and PM10)
- *A Metric ton is 2204.62 avoirdupois pounds, or 10% more than the 2,000 pounds ton.)

It is interesting to note that Airport Staff and commissioners continue to be concerned about vehicular traffic pollutants (11.7%) rather than air traffic pollutants (88.3%). (Paige Miller, President of the Port Commission in 1992 claims "...A majority of the carbon monoxide emissions associated with the Airport are due to automobiles traveling to and from Sea-Tac" in a letter to Elizabeth M. Williams). The E.I.S. should make clear that the larger percentage increase in air pollution is due to aircraft emissions.

* The E.I.S. must investigate & fully disclose nitrogen oxide emissions at takeoff.

* The two dozen or so airports in the four county region must be studied individually and then collectively in order to avoid the appearance of dismissing air pollution as a nebulous and unavoidable consequence of having so many airports so close to a clearly defined Coastal Zone and a body of water which has been established as a resource of national significance. When airports are studied individually, measurements of air pollutants will be more accurate and the air quality in the region will become more important to those involved.

* Aviation pollutant production must be addressed in specific terms such as "military", "air taxi", "commercial", etc. within the E.I.S. since all types of air traffic exists.

* The E.I.S. must investigate and disclose air, water, and health impacts from emergency fuel dumps within 15 miles of the airport.

* The E. I. S. must define and address the large, single proprietary developments or "complex sources" which includes the airport. The Washington State Clean Air Conformity Act defines "major stationary sources" but does not indicate what these sources are.

* Do not base air pollution information on the Department of Ecology Study of 1991. This study was done in response to a request from Representative Greg Fisher and is for the most part an excellent piece of work. However, the DOE report is based on the computerized EDMS which, although a useful tool, is not a field test, and therefore should not be considered a baseline study because of the following short-comings:

1. The terrain is not accounted for
2. Vertical stability in the atmosphere is represented by a single classification
3. It is reliable within only 1 kilometer radius
4. It is still being fine tuned
5. Queuing is restricted to be modeled as a straight line. Parallel taxiways are not represented.
6. Hydrocarbons are not broken down into components.

* The E.I.S. must consider non-build alternatives or mitigations that would address aircraft emissions from idling time. If the landside operations at Sea-Tac were administered from the standpoint of reducing idling time, this factor should be the same for all alternatives. If delays are predicted as a result of the airport reaching capacity, there is no reason why aircraft must spend this delay time idling in taxiways. Both land based and airborne air carrier traffic is highly managed. Under such a system there is no reason why aircraft must spend excessive amounts of time simply idling their engines waiting for clearance to take off. If the magnitude of aircraft emissions is a result of idling time, that impact should be addressed through alternatives and mitigations specifically responsive to that impact.

* The E.I.S. must analyze the indirect impacts caused by the proposal as required by Sec. 060(4)(d) of the SEPA rules. For example, the Flight Plan projects an expansion of office space of up to 2.3 million square feet and an additional 7,000 to 10,000 hotel rooms. All this airport related activity is projected to occur in areas immediately surrounding the airport. This sort of secondary development would obviously produce very substantial increases in motor vehicle trips. The E.I.S. should quantify and discuss these induced transportation impacts. Assuming that the infrastructure exists to accommodate these additional trip ends, substantial air quality emissions would result.

* The E.I.S. should investigate and fully disclose the health risks to adjacent communities from benzene and determine if the ambient air quality standard for nitrogen dioxide is being exceeded.

* The E.I.S. must utilize the mobile monitor van to take samples at the airport and within a 10 mile radius around Sea-Tac Airport expected to have the highest impacts, especially for benzene (which may pose a large risk to the nearby communities) and fully disclose the results. This must be done prior to issuance of the E.I.S. Promises by the Port of Seattle to do it in the future have been given before and never adhered to and won't be accepted by us this time around.

* The E.I.S. must estimate and disclose the number of people and areas exposed to air pollution concentrations above standards or proposed standards.

* On a more detailed level, the E.I.S. must analyze and disclose the air quality effects engendered by the third runway upon the immediate community to the west of Sea-Tac. Currently there is a separation of approximately 1600 feet between the right runway and residential housing. With construction of a third runway, this separation would shrink to 400 feet, thus placing residents in much closer proximity to air carrier operations. These residences are also at a much lower elevation than the airport itself. The E.I.S. must discuss the impact of this decreased separation or the effect of emissions concentrations at the lower elevation of the residential neighborhood.

* Because of the significant danger to the biota inherent in air pollution, Sea-Tac's contribution of 8% of the carbon monoxide in King County and 5% of the nitrogen oxides in King County must be addressed because of the severity of pollution in such a small area of land --less than 1/5 of 1% of King County. (May 1991 DOE Study -- Seattle Tacoma International Airport: Air Pollution Contribution).

* It is imperative that Sea-Tac Airport's air quality and pollutant reduction plans be included in the E.I.S. because of the airport's impact on the air quality of the region. This must be done by field study, not the computerized Emissions and Dispersion Modeling System (EDMS). The Puget Sound region is currently in non-attainment status for both ozone (O3) and carbon monoxide (CO). In order to obtain compliance with the Washington State Clean Air Conformity Act, the region will have to devote considerable attention to reducing volatile organic compounds (VOC's) which convert to ozone, as well as prepare plans for reducing carbon monoxide and other pollutants, both criteria and toxic.

* The F.A.A. is responsible for implementing standards for commercial passenger jets and it does so through engine certification data provided by the manufacturers. The F.A.A. must address the bias of the manufacturers in this very important element of the air pollution reduction to comply with the Federal Clean Air Act, Title II, Part B. The E.P.A. is currently in the process of requiring aircraft engines to conform to the standards of the Federal Clean Air Act in parts of California which severely restricts the F.A.A.'s ability to accept the manufacturer's word as the emissions certification. Actual emissions should be used to study air quality impacts.

* Address the need for a strong inspection and maintenance (I/M) program for aircraft -- currently manufacturers provide engine certification data.

* The Clean Air Act, Title II, Part B directs the Environmental Protection Agency to establish aircraft emission standards and to "study the extent to which such emissions affect air quality in air quality regions . . ." Studies were conducted prior to 1980, but these apply only to large commercial jets, not to all aircraft. Other aircraft need to be included in the current study. Please comment on how the FAA and the Port are cooperating and communicating with the EPA to establish aircraft emission standards which will satisfy the Clean Air Act, Title II, Part B.

* The E.I.S. must fully disclose and consider conformity with the State Implementation Plan (SIP). Sea Tac is located within the non-attainment area for carbon monoxide and ozone. Pursuant to the Clean Air Act, the state is required to develop an implementation plan to bring the region's air quality into compliance with the national ambient air quality standards for these air pollution indicators. As a matter of both state and federal law, all plans, programs and projects must be in conformity with the SIP.

1.) The E.I.S. must set forth how the proposed action would carry out the various commitments contained within the SIP for improving air quality in the region. With regard to mobile sources and particularly motor vehicles, the SIP includes commitments to increase transit use and for demand management (See Appendix D to SIP.)

2.) The Flightplan E.I.S. contained transportation mitigation measures of two types - site specific freeway capacity improvement measures and a simple identification of transit planning processes. The transit planning is laudable but not something that is proposed to be implemented as part of any of the Flightplan alternatives or, as near as we can guess, by this proposed action. Consequently, because airport expansion is a significant generator of traffic, it is probable that little if anything will be done to improve either vehicle occupancy or modal split. A serious consequence of the failure to make these improvements would be the invocation of the measures identified in the SIP Contingency Plan. See Appendix G to SIP. These contingency measures include the delay of projects within the non-attainment areas that could adversely impact air quality. This issue must be addressed.

3.) Sea-Tac meets the definition of "major stationary source" and a complex source and must be so treated in this E.I.S. S.I.P, Pg. 7: (41) "Major stationary source means any stationary source (or group of stationary sources that are located on one or more contiguous or adjacent properties and are under common control of the same person or persons under common control) which:

- *emits or has the potential to emit one hundred tons per year or more of any air contaminant regulated by the state or Federal Clean Air Act (Sea-Tac emits 5,125 tons per year of pollutants into the air);

- *is located in a marginal or moderate ozone non attainment area (definition fits area where Sea-Tac is situated) and

- *which emits or has the potential to emit one hundred tons per year or more of volatile organic compounds or oxides of nitrogen (Sea-Tac emits 1,950 metric tons/y)

- *is located in a "serious" carbon monoxide non attainment area where stationary sources contribute significantly to carbon monoxide levels

and which emits or has the potential to emit fifty tons per year or more of carbon monoxide or (Sea-Tac emits 3,050 metric tons/y)

*is located in a "serious" particulate matter (PM10) non attainment area and which emits or has the potential to emit seventy tons per year or more of PM10 emissions. (Sea-Tac currently emits 68 metric tons/y and if the 3rd runway is constructed will emit much more than 70 tons of "serious" particulate matter.)

4.) Addition of a third runway and/or other expansions contemplated by the Airport Master Plan changes meet the definition of a "major modification" under the act and must be so treated in the E.I.S.

S.I.P, Pg. 6: (40) "Major modification" means any physical change in or change in the method of operation of a major stationary source that would result in a significant new emissions increase of any pollutant subject to regulation under the act. Any net emissions increase that is considered significant for volatile organic compounds shall be considered significant for ozone.

5.) Addition of a third runway and/or other expansions contemplated by the Airport Master Plan changes meet the definition of a "new source" under the act and must be so treated in the E.I.S.

S.I.P., Pg. 8: (48) "New Source" means the construction or modification of a stationary source that increases the amount of any air contaminant emitted by such source . . .

6) Sea-Tac is defined as a Major Stationary Source, and must be treated in the E.I.S. as a complex source of air pollution with special attention to measuring and estimating the effect of concentrations of multiple pollutants and local hot spots of very high concentrations.

* According to the Puget Sound Air Pollution Control Agency's report of October, 1992, (pg.10) non-road mobile sources in King County contributed 60,976 tons per year of CO in the base year of 1990. Aviation's contribution of CO, including aircraft engine tests (pg. 7) was 6,642 tons or 11%. During December-February (1989-1990), 195,927 pounds per day of CO were emitted by non-road mobile sources in King County. Aviation's contribution of CO, including aircraft engine tests, was 36,396 pounds per day December - February or 18%. (Air taxi figures are excluded.)

* According to unpainted and unnumbered tables of the PSAPCA report: King County non-road mobile sources for CO total 19,551 pounds per day June through August. Aviation's contribution, including aircraft engine tests for June - August is the same as December - February (36,396 pounds per day or 18%.)

* King County total NOx tons per year June - August are estimated at 149,347. Commercial aircraft, including aircraft engine tests, contribute 1,469 tons per year (7.51%) of NOx June -August. King County's total NOx pounds per day from June -August is 149,347. Commercial aircraft, including aircraft engine tests, emit

approximately 8,049 pounds per year (5.39%) of the total King County total NOx emissions of 149,347.

* King County Volatile Organic Compounds totals for non-road mobile sources are 11,437 tons per year June - August. Aviation's contribution, including aircraft engine tests is estimated at 1,792 tons per year (15.67%). The number of pounds per day from June - August of VOC's in King county is 116,817. Aviation's contribution is 9,734 (8.33%).

* Please note that the pollutant emissions estimated for the airport take place on a land mass which is less than 1/5 of 1% of the entire land mass of King County.

* There are known "hot spots" of significant pollutant concentrations. These are found under the current flight paths. Concentrations are extremely serious. For instance, -Nitrogen oxide concentrations are a reason for concern. The EDMS predicted concentrations of 19 parts per million (PPM) of NO2 in a receptor located on S. 154th St. (directly north of the airport and just south of SR 518 which follows 148th. With the wind blowing directly from the North, the TYEE Golf Course (south flight path, 24th S. & S. 192nd) can be getting as much as 12 PPM an hour average (pgs. 19-20, Sea-Tac International Airport: Air Pollutant Contribution, May 1991, DOE, Olympia.)

* There are also localized hot spots of particulate concentrations of 800 micrograms per cubic meter also on S. 154th which is almost 5 and 1/2 times the 24 hour standard of 150 micrograms per cubic meter.

* Estimation of hydrocarbons of 5 parts per million in a worst case scenario at ground level concentrations have been made under the south flight path at S. 200th. Housing around Seattle Christian School and the school itself (S. 196th & 28th S.) may get around 4 ppm in certain instances. Radian Corporation estimated that 4% of the hydrocarbons are converted to benzene (a known carcinogen). This would put the area and the people who live, work and go to school there in a severely polluted pocket. The amount of benzene in that area would be 0.16 ppm per 24 hour standard or 24,000 parts per trillion annual average. The acceptable source impact level for new sources proposed in WAC 173-460 is 0.063 parts per trillion per 24 hour standard.

* The E.I.S. must discuss in detail any ongoing or planned efforts by the Port of Seattle and/or the F.A.A. to reduce Sea-Tac's pollution to the surrounding region, specifically stating the effect and detailing the reductions to be accomplished for each of the major aviation pollutants, the dates by which it is to be accomplished, and compliance with both Federal and State Clean air requirements.

3.1.3 Water General

The present Sea-Tac site was built over the Bow Lake wetland at the head of the drainage basin for both Miller and Des Moines Creek with nearby wetlands all around. The Highline Major Aquifer under Sea-Tac is a significant source of drinking water. The sources of water pollution from

the airport include heavy concentrations of air pollution falling on the ground, high volumes of contaminated storm water runoff from the runways, fuel spills, and particulate and dust pollution from the massive fill and construction. In addition, topographic changes are likely to disrupt the established surface and stream water migration patterns as well as wetland quality.

All of these impacts on all of these waters from all of these sources must be investigated in detail and fully disclosed in the impact statement. All contaminants in the pollution should be studied and the results included. Complete, readable site maps delineating the areas of wetland (with appropriate tests), the perk source and course of streams, and the depth & course of ground water and the aquifer, along with other pertinent data should be provided. The cumulative impacts of pollution from the current, unmitigated airport, plus additional pollution from a third runway should be presented. Because of the huge surface of the new runway, worst case scenarios for flood conditions should also be provided.

The impact statement must also address the specific issues listed below.

* Full analysis of existing conditions is explicitly required under SEPA rules (WAC 197-11440(6) (a) .

* This Environmental Impact Statement must address the dramatic impact the expansion of Sea-Tac Airport will have on the continuing pollution into the waters from ground and air sources, including jet fuel sources and sewage treatment systems which at times severely pollute the watersheds, tributaries and bodies of Miller and Des Moines Creeks which enter the Puget Sound, a marine resource of National Significance. On December 29, 1987 the Puget Sound was designated by the Congress of the United States as a marine resource of National Significance; therefore the biota within this resource is clearly important.. Discussion should include complete site maps, site surveys water movement charts, test data of pollutant movement in runoff and ground water, stream, water, and outlets at the Puget Sound. It should address changes in water movement due to topography.

* This E.I.S. must address the serious impacts to the biota of the Puget Sound as these relate to the Coastal Zone Management Act of 1972 (CZMA) and the Coastal Zone Management Improvement Act of 1980 (CZMIA) and its designation as a marine resource of National Significance.

Under CZMA and CZMIA "lands either strongly influenced or affected by the sea . . ." are covered. It is the policy of both CZMA and CZMIA: "To preserve, protect, develop and where possible, to restore or enhance the resources of the Nation's coastal zone. The objectives: "Protection of natural resources; management of coastal development to minimize loss of life and property caused by improper development, continuing consultation and coordination with affected Federal agencies, timely and effective notification of and opportunities for public and local government participation in coastal management decision making"

The western boundary of Sea-Tac International Airport is in places a mere two miles from the shoreline of Puget Sound. The Puget Sound region clearly fits the definition, policies and objectives. Many national and local organizations are enhancing the streams and rivers which flow into the waters of these creeks to allow for continued runs

of salmon. Expanding the airport will seriously jeopardize the work of these organizations which have had the cooperation of state and federal government agencies and would clearly not be in compliance of the CZMA and the CZMIA. Both Acts require cooperation and communication among federal, state and local agencies concerning the use and impacts on coastal lands and waters. This E.I.S. must address how the expansion of Sea-Tac Airport's runway system can possibly conform to any of the policies or objectives of the CZMA and CZMIA.

* Information must be provided as to the water pollution impact of moving the huge quantity of dirt that will be required to create the fill needed for a flat runway over a mile long. Information should be provided as to water pollution potential created by the disposition of dirt on streets surrounding the site, as well as once the material is in place. Each of these involve construction impacts. A similar analysis of construction impacts should be provided for actions contemplated in the E.I.S.

* Storm water runoff must be significantly addressed in the E. I. S. We note particularly the requirement to secure an NPDES permit for disturbance of the area of the fill. The E.I.S. should review the NPDES requirements and indicate how the subject proposal will meet those requirements.

* The treatment of storm water runoff must be addressed including at minimum:

- 1) identification of whether or not holding basins or other facilities control the quantity and quality of storm water runoff will be constructed as a part of this proposal and if so where they will be located.
- 2) Detailed information concerning projected runoff volumes.
- 3) Information detailing the efficiency of runoff control systems in controlling contaminants from the airport
- 4) Worst case scenarios during flood conditions should be discussed.

* The impact must discuss in detail the nature of potential contaminants in the runoff. We note that the airport certainly involves discharges of petroleum products, rubber tire products and other products, including de-icing liquids used in cold weather. The impacts of such activities on storm water runoff should be considered.

* Because the Highline Aquifer runs beneath the airport, the E.I.S. must include detailed studies on the depth of penetration from toxic spills, fuel storage, and surface and their effect upon the drinking water quality of the aquifer water.

* The E.I.S. should contain a discussion of contaminants in the case of an aircraft accident near the airport.

3.1.4 Plants and Animals

The E.I.S. must examine the impacts of the proposal on unique species and habitat for species of plants, fish, and other wildlife. Under the Endangered Act the F.A.A. must carefully examine the potential effect of projects on endangered and threatened species. Because of Sea-Tac's proximity to the Puget Sound, the E.I.S. should analyze whether airport operations or the construction of an additional runway would affect any endangered or threatened species, including fish species (such as salmon) in

Des Moines and Miller Creeks and peregrine falcons, heron, bald eagles and other threatened species known to frequent the vicinity.

3.1.5 Energy and Natural Resources

3.1.5.1 Amount Required/Rate of Use/Efficiency

* The E.I.S. must address in a detailed manner the increased requirements for electrical energy, natural gas, water supply and fuel oils an expanded Sea-Tac facility will require. Increased capacity needs and use rates for electrical energy, gas and water use must be scoped. Storage facilities for expanded fuel oil and aircraft fuel needs must be addressed and the location specified.

3.1.5.2 Source/Availability

* The sources of the increased electrical energy, natural gas and water supply must be stated and availability discussed. The impact of installing expanded electrical power, natural gas and water supply facilities will have on the local transportation infrastructure should be considered and discussed.

3.1.5.3 Non-Renewable Resources

* The E.I.S. must address in a detailed manner the destruction of wetland and stream resources. Miller and Des Moines creeks flowing into Puget Sound have been greatly poisoned by airport operations jet fuel spillage and surface run-off. Expansion of Sea-Tac will most likely poison these creeks to the degree where they cannot support any marine life. A thorough analysis supported by site surveys and assessment by fisheries biologists should be provided. (See also Water.)

3.2 Built Environment

3.2.1 Environmental Health

3.2.1.1 Noise

General

Noise is a complex phenomena and current methods of measurement are crude. Although for example, loudness can be measured in decibels, no known instrument can determine the physical characteristics of noise, like finger nails on a blackboard which cause human beings to cringe, and respond as if tortured if it does not stop. Sea-Tac airport sits on just 2800+ acres in the middle of an existing densely populated area. The North/South runways send heavy jet aircraft low over the most densely populated metropolitan corridor north of San Francisco and west of Minneapolis. 78,000 people live in the 65+ LDN high-noise exposure area; Sea-Tac has the third to the fifth worst noise exposure problem in the nation, comparing the source of the noise (number of operations) to the number of people living in the high noise areas. Many thousands more live in the still bad 55 LDN area. Still more live in the 45+ LDN upon which residential neighborhoods are affected. The EIS should address why the third or fifth worst noise impacted major airport in the US should be even further impacted with up to one third more flights.

The large increase in the number of operations and the 4-Post Plan route changes during the 1980's produced widespread complaints.

FAA regulations require that the noise impacts associated with the proposed actions and the alternatives to those actions be considered in the E.I.S. Accordingly, the E.I.S. must examine the increased noise impacts that would result from increased operations at Sea Tac under the Port's proposal and under each alternative.

The impact statement must also address the specific issues listed below.

* This E.I.S. must discuss and fully disclose the existing, actual noise levels (not just computer generated,) projected increases, and detailed mitigation including costs, timing, etc.

* The FAA must examine the effect of aircraft noise on newly exposed and noise-sensitive areas, as well as the dispersion of noise over a over King County and North Pierce County. Such areas include the following:

- parks and recreation areas;
- historic structures and locations,
- residential communities;
- schools;
- health related facilities;
- cultural resources;
- businesses; and
- houses of worship.

The noise analysis must include an examination of impacts within the LDN, contour of 65 dB and the effect upon noise-sensitive areas outside the LDN, contour of 65 dB. The EPA has stated that "limiting noise analysis to the LDN 65 contours does not provide adequate disclosure of all significant noise impacts.

Flight paths for the proposed runway likely would cause aircraft to over fly many areas that do not currently experience unacceptable levels of aircraft noise, thereby subjecting new properties to the effects of airport noise. The noise effects of the proposed third runway would be most acute in residential neighborhoods in South Seattle, Tukwila, Federal Way Des Moines, Normandy Park, Burien and the North Hill communities, together with the Minority neighborhoods in the Rainier Valley area of Seattle. Many of the potentially affected residential neighborhoods are not included in the Port's noise mitigation program (which provides for the installation in residences of sound insulation materials). Even residences that are eligible for the Port's sound insulation program would obtain relief only from high interior noise levels. High outdoor noise levels would continue to erode the enjoyment of property and the quality of life in these and other communities.

The third runway proposal also would increase noise levels in area schools. The Port's most recent noise exposure map indicates that a large number of schools currently are located within the 65 LDN contour for 65, 70 or 75 dB. Interior single event noise levels in excess of 85 dB have been measured in at least one school district. With approximately 6,000 students enrolled in schools within a few miles of Sea Tac, increased aircraft operations and altered flight paths would harm the quality of education in local schools.

Current operations at Sea Tac subject many other noise sensitive resources -- such as hospitals, nursing homes and churches to average noise levels of 65 dB or greater. 1 The Port has estimated that the number of noise sensitive areas exposed to LDN in excess of 65 dB would decline by 1996, a prediction upon which cities and residents have relied. The construction and operation of a third runway at Sea Tac, however, likely would prevent a number of hospitals, nursing homes and churches near Sea Tac from realizing significant reductions in their noise exposure levels. Moreover, many locations could be expected to be exposed to even higher

numbers of over flights and to greater noise levels than they experience today.

* The E.I.S. must investigate and fully disclose studies of existing conditions, including actual measurement of existing noise levels. The Flightplan E.I.S. used only the heavily criticized and recently revised theoretical "INM" computer generated noise model, and did not document any of the assumptions (such as fleet mix) in constructing the model. Further, noise impacts missing from the model, such as all ground noise (from "runups" and airport ground activities), noise from aircraft from foreign carriers and others exempt from Stage III requirements, weight and flight profiles appropriate to Sea-Tac, land & atmospheric effects at Sea-TAC etc. were not included. All sources of noise must be fully disclosed and raw measurement data and assumptions used must be included. All sources of assumptions must be fully documented and properly cited per our earlier comment.

* The E.I.S. must investigate and fully disclose all impacts of noise to human health and to the education of children. We specifically reference Hansen & Sanders report titled The Adverse Health Impacts of Airport Expansion with Particular Reference to Sea-Tac International Airport, previously submitted.

* Techniques for measuring noise are called "metrics." Because no one metric can measure noise and because noise studies use a variety of metrics, existing and projected noise levels must be displayed in--at minimum--the following metrics:

- 1) Maximum decibels (both A & C weighting) plus the number of events. Maximum decibels should include values for each aircraft in the fleet mix, including heavy jets and must be displayed for any aircraft, such as foreign carriers, exempt from Stage III, as well as ground noise. This metric defines the loudness of the noise and the number of noise intrusions. Maximum decibels are the most widely used measurement of noise and are required to compare noise levels to most studies linking noise to hearing loss, to measure construction and insulation standards and as well as establishing maximum levels required by hospitals and other noise sensitive structures and areas. The E.I.S. should show maximum noise levels down to 35 dba and identify all noise sensitive structures in that area.
- 2) SEL (Single Event Level), including all SEL (both A & C weighted) above 50 in increments of 5 plus the number of events. Maximum decibels should include values for each aircraft in the fleet mix, including heavy jets and must be displayed for any aircraft, such as foreign carriers, exempt from Stage III, as well as ground noise. The method for calculating the noise including the assumed event length must be documented along with the rationale and a fully cited bibliography justifying those assumptions. This metric represents not only the loudness of the noise but the length of time the noise lasts. It is used in most sleep disturbance and school disruption studies, most particularly the N.A.S.A. sleep disturbance studies.

- 3) Ldn (both A & C weighted) above 45 Ldn at 5 decibel intervals and the and CNEL(Combined Noise Event Level) equivalent. The Ldn must include ground noise and document the assumptions about aircraft fleets. Both of these metrics--although much in dispute- for the measurement of aircraft noise--attempt to average noise on 24 hour basis and then on an annual basis. They have been used to define the 65 LDN area subject to Part 150 requirements and for EPA standards at 55 Ldn, and are used in studies documenting blood pressure, heart disease, and mental illness.
- 4) Unmeasurable, but annoying noise. The impact statement should identify noises which, like finger nails on a blackboard, have unwanted impacts and to display them. High scream noises, back up whistles for airport loaders, etc. would fall in this category.

In a recent rule making, -- the FAA apparently endorsed the EPA's position that it should "modify the definition of [noise study area] so as to eliminate the perception that the area with the DL 65 dB contour is the sole area to be considered for noise impacts, while retaining the flexibility of extending beyond the DL 65 dB contour. The E.I.S. must acknowledge, therefore, the existence of credible evidence that even relatively low average noise levels can adversely affect a community when pre-existing noise levels were comparatively low or when single noise events are particularly intrusive. We note that the daily LDN for a stick of dynamite (194 decibels) would be zero. This mathematical phenomenon explains why people who live with aircraft noise find the LDN metric so inadequate as the sole measure.

The LDN metric obscures the true noise impacts and does not provide any useful information about the level of noise attributable to individual over flights. The effect of noise upon a number of noise-sensitive areas in the vicinity of Sea-Tac cannot be described adequately or analyzed solely using the LDN metric. Activities that take place primarily during the day or in the early evening when the number of Airport operations are at their peak can not be represented accurately by an LDN contour. Therefore, the impact of noise on citizens, public schools, on health care and retirement facilities, or on the normal business activities of commercial establishments cannot be evaluated through the exclusive use of the LDN metric. A number of different noise metrics must be used to examine the effects on these noise-sensitive institutions and activities.

* All noise studies and projections should include ground noise, runups and maintenance operations. Runups, in particular, produce high decibel noise (over a hundred decibels) lasting many minutes and can be heard over four miles from the airport.

* All noise measurements and projections must be given in both the A-filter frequency and the C-filter frequency. C-filter frequency identifies low rumble noise sources such as made by many jet engines. Noise at these frequencies are more penetrating--like the baseline on the neighbor's stereo--and therefore must be given.

* The so-called "Mediation Agreement" may not be used as mitigation in Part 150 communities. That agreement did not meet Part 150 requirements for both

process and substance. The name is a misnomer, in that there was no agreement and no signatories from the affected cities side of the mediation. That process did not include consideration of additional air traffic at Sea-Tac either from the 4-Post routing or runway and other additions. The Port promised a "50% reduction in noise" from that mediation. We reserve comment to it's effectiveness, but that figure was given in relationship to the noise in effect at the time, a figure that cannot not be achieved with the addition of 30% more operations.

* The "Noise Remedy Program" may not be used as mitigation in Part 150 communities. This program was offered as mitigation in 1976 for noise created by the second runway, is incomplete and a source of controversy--including a lawsuit. Completing previously promised mitigation cannot be used as mitigation for new noise created by 30% more operations.

3.2.1.2 Risk of Explosion

* The E.I.S. must study the proximity of aircraft operations to dense populations and consider hazards caused by the close proximity of high performance engines on high speed aircraft, combustible fuel and human beings. The study should consider the lack of clear zones surrounding Sea Tac airport and the fact that the airport abuts residential communities in many areas surrounding the airport.

3.2.1.3 Release of Toxic or Hazardous Materials

* The E.I.S. must produce a study of fuel discharges from aircraft. This subject was also completely ignored in the Flight Plan E.I.S. Historical data revealing the number of fuel discharges, amounts, name of air carrier responsible, time, date, etc. must be included to provide an analysis of the risk to residents beneath the flight routes of Sea-Tac caused by this practice.

3.2.2 Land Use

The land use section of the Flightplan E.I.S. is only a "generalized review". In fact, this section of the E.I.S. is so vague and general as to be utterly uninformative either as a means to assess environmental impacts from proposed airport expansions or to provide a basis upon which alternatives can be analyzed. Again, in this area a new E.I.S. needs to be prepared which provides an honest and good faith consideration of land use issues. Our specific comments are as follows:

* Expansion at Sea-Tac by the Port of Seattle is subject to the terms of the Growth Management Act and the E.I.S. should provide a detailed analysis of laws relating to Port of Seattle, King County, PSRC, and local cities responsibilities.

* Land use maps should be provided for all alternatives considered.

* The environmental impact statement must contain an analysis of the types and kinds of additional facilities necessary to serve capacity provided for by the third runway as well as where such facilities will be located. Site plans and maps indicating these features should be provided. It is apparent

that the proposal to use the third dependent runway will require significant improvements at the terminal. Indeed, the airport is estimated to go during the planning period from about 16 Million Airport Passengers (MAP) to 40 MAP a 250% increase in passengers. Such increases will plainly require increases in a number of gates, ticket counter area, baggage area, concession area, parking area for both vehicles and airplanes, as well as increases in capacity of the airport drive in similar facilities. The E.I.S. should indicate what the scope and extent of such additional facilities.

* The E.I.S. should consider the need for expanded air cargo facilities. The E.I.S. must provide information as to 1) the extent of new air cargo facilities, providing square footages for new construction, 2) the location of such air cargo facilities within the immediate vicinity of each of the airports considered as alternatives, including Sea-Tac. The Flightplan E.I.S. identifies that there will be major increases in air cargo tonnage over the planning period, with increases expected to be higher than that for passenger traffic. We seriously question whether there is any available space in and around Sea-Tac not already committed to other uses which could provide the basis for air cargo facilities and the kind of terminal facilities necessary to sustain 40 MAP..

* The E.I.S. should indicate the proposed location for such new hangar and maintenance facilities through the planning period. Considerable additional space will be required for new air cargo facilities and terminal facilities to accommodate the significant increases in aircraft operations. Currently, hangars and aircraft maintenance facilities lie south of the terminal building between it and South 188th Street. This appears to be the only location for additional terminal facilities or air cargo facilities. In this light, The E.I.S. should identify the uses proposed for this area by way of terminal and other facilities.

* The E.I.S. should indicate whether within the planning period any new facilities are planned or contemplated to the west of the airport. If such facilities are contemplated, the E.I.S. must provide the generalized location of such facilities, their square footage and type of new facilities involved.

* The E.I.S. must include an identification of all park and recreational facilities within the vicinity of the various alternative airports. Will the airport have impact on any park land of state, regional or local significance? The types and kinds of park and recreational uses should be identified along with the nature and types of impacts expected on each, particularly from noise.

* With respect to the other airport locations, should indicate land uses, the extent and type of air cargo facilities envisioned, the effects on park land or other similar items. To provide any kind of comparison between the proposed alternatives, detailed information in each of these areas must be provided.

* The potential for relocating all air cargo facilities should also be examined. Air cargo should be discussed not only in terms of cargo carried "in the belly" of passenger aircraft, but air cargo provided by all cargo carriers. This E.I.S. should consider alternatives, such considered splitting airport function; for example, providing for freight services and transfer services at a better location than Sea-Tac. This E.I.S. should consider potential relocation of major air cargo facilities from the area in

and around Sea-Tac to other alternative airports, especially to a central location such as Moses Lake which is closer to the heavily exported fruit and vegetable growing areas and which now has a Customs Office. Thorough discussion of this alternative must be provided. Again, we note the limited space in and around Sea-Tac Airport and the tremendous potential increase of air cargo facilities apparently contemplated in the Flight Plan E.I.S.

* The E.I.S. should include a detailed section on induced land use for all alternatives. For example, in the Flight Plan E.I.S., it is apparently indicated that the only types of induced land use are "office, light industrial and hotel activities." However, it is apparent that significant amounts of retail and commercial activity are also generated by the airport. The impact statement must identify the nature and types of these induced activities. Fundamental land use planning plainly identifies the difference between residential, office, light industrial, retail, commercial and hotel, and distinguishes between retail and commercial and the other types mentioned. (Note: The concept that comprehensive plans and zoning regulations will take care of the problems as is would be inappropriate avoidance of SEPA. and NEPA. responsibilities.)

* Similarly the E.I.S. should decide whether or not significant amounts of additional office, light industrial and hotel space are consistent with land use plans around the airport. Indeed, it appears that such uses will displace existing uses and the type acreage and other details as to displace land uses need to be identified. Do such displaced land uses provide essential services for the community, such as gas stations, grocery stores, drug stores, and the like?

* If there are displaced residential uses, the nature, extent and impacts of such displaced uses must be identified and how relocation will occur. The costs of such relocation should be presented and the sources of who will pay those costs identified. The relocation costs per person must be estimated and compared to other relocation programs and fully reviewed by the U.S. Housing and Urban Development Department. The Flightplan E.I.S. rather casually says that there will be 2000 people left living in the 65+ LDN noise contour by the year 2020, so noise exposure will not be a significant problem. But there were, at last count by the F.A.A. 78,000 people living in that area! Both NEPA and SEPA require an extremely detailed impact statement for relocation of what amounts to a good sized city. If such relocations are contemplated, vague statements about "land use protections" will not do. Land use protections for whom?

* The Flight Plan E.I.S. indicated that there will be "approximately 140 acres of park land, commercial and industrial use being induced." We are curious about a conclusion that "park land" would be induced by the airport. This E.I.S. should explain how such inducement will occur, where would such park lands be located, how many acres of park land would be involved and describe the nature and extent of such park lands.

* The Flight Plan E.I.S. indicated that construction of the dependent third runway would require the acquisition of a 110 acres of property containing 230 homes. Inasmuch as it appears that there will be new terminal, air cargo maintenance and other facilities required, this E.I.S. should indicate whether additional lands over and above the 10 acres need to be acquired by the Port to accommodate such uses.

* Maps showing likely locations of "induced land uses" must be provided in the EIS. In addition, estimates should be provided as to the type and location of commercial and retail activities.

* The E.I.S. should provide a detailed discussion of housing or residential impacts, including those from the proposal along with impacts on residential housing from induced impacts, ground transportation improvements, noise and noise mitigation, air pollution, etc.

* The Flightplan E.I.S. indicates that \$2,000 is available for low income relocation assistance. This E.I.S. must indicate how much of the housing to be relocated is low income and whether or not other assistance is available either under law or through voluntary mitigation measures to provide assistance to low income and other property owners.

* Land use impacts should be consistent with all adopted County and city plans and sub-plans, the G.M.A., and other applicable plans.

It is not consistent with the SEPA law to simply defer to other potential plans developments and laws as a substitute to defining impacts here.

3.2.3.1 Transportation systems

Sea Tac is located on the side of a hill well off interstate I-5 and far from existing rail, making rail passenger and rail freight service difficult and costly if not impossible. Local neighborhood streets were not designed to handle the heavy demand from so many people seeking access. Public transportation options are limited due to the difficult hillside site. Access from the main freeways--I-5 and I-405--is extremely congested, raising questions about whether improving the freeway access of the present Sea-Tac turn off will be effective. Transferring the traffic jam from SR 518 to I-5 will only worsen the problem on I-5 creating further impacts. The Flightplan E.I.S projected a massive 250% increase in passengers with large increases in air freight usage from those seeking "just in time" inventory services. While we doubt this projection, if true, the passenger additions alone are likely to turn the present transportation systems to the airport into much deeper gridlock. The EIS must thoroughly analyze the traffic and transportation problem for all alternatives but with particular reference to the congested, unwieldy Sea-Tac site.

* The E.I.S. must discuss impacts on traffic and transportation. Transportation issues are key elements of the EIS which includes review of transportation as well as "(i) transportation systems, (ii) vehicular traffic, (iii) waterborne, rail and air traffic, (iv) parking, (v) movement/circulation of people or goods, and (vi) traffic hazards." Seemingly oblivious to chronic, long-term traffic problems that plague the south I-5 corridor, and particularly areas around the airport, the Flightplan E.I.S. simply pretended that transportation problems do not exist.

* The impacts of projected new passengers at Sea-Tac must be included in the E.I.S. References to Working Papers 5 and 9 of the Flightplan E.I.S. did not remedy the lack of analysis in the Flightplan E.I.S., for they do not provide basic traffic and transportation analysis. The Vision 2020 E.I.S. does not deal in any manner with the particular impacts of new passengers at Sea-Tac.

* This E.I.S. must consider basic issues of transportation movement. The basic proposition of the Flightplan E.I.S. was to rely upon other parties to do transportation planning. One cannot deny the existence of traffic impacts by shifting blame and responsibility for both planning and costs to other agencies. From estimates given in the impact statement, the outcome of Flight plan considerations will be to increase the number of passengers going through Sea-Tac from about 16. million airport passengers (MAP) to 25.4 million MAP in the year 2000, to ultimately about 40 million MAP in 2020. Estimated passenger traffic at Sea-Tac will grow by two and one-half times, or more than 60,000 persons per day. This huge increase clearly supports the need to provide significant review of the impacts of transporting such passengers to and from and around the airport.

Additionally, passenger miles of travel is an inadequate measure of impacts, as estimated in the Flightplan E.I.S., because there is no comparison of this demand against available capacity of the existing or future transportation system. Accordingly, if there is no measure of impact, there is no way to evaluate if mitigation is possible or sufficient. Plainly a thorough analysis of these impacts must be considered.

* The E.I.S. should include analysis of transportation impacts from all sources (not just passengers.) In addition to a passengers, the analysis should include impacts from trips of employees, service vehicle and personnel and also from increased industrial, commercial, and residential growth predicted for the area. For example, the Flight Plan E.I.S. identifies significant increases in "just in time" and other manufacturing and inventory control methods which indicate significant increase in air cargo. (See page C34.) If this is the case, there is likely to be a corresponding increase in truck traffic at the airport, which is not discussed anywhere. A review of existing truck traffic by size and type, together with predicted future truck traffic, should be considered in the E.I.S.

* Our observation is that the transportation facilities in and around the airport are presently approaching capacity and that further major impacts of this nature will likely create unacceptable traffic congestion. This must be addressed in the E.I.S. In addition, the economic report at page C-3 in the Flightplan E.I.S. indicates that the various alternative airport locations, including Sea-Tac, would generate significant development "to the areas immediately surrounding each airport site . "Page C-3. This amounts to as much as 2 million square feet of office space, and as much as 11,000 new hotel and rooms. It is obvious that increased hotel and office development will generate significant traffic demand for customers, employees, service vehicles, and trucks. The traffic impact of such activity, together with the cumulative impact of these induced developments with increased airport passengers, must be considered.

For example, "widening International Boulevard" is considered as an improvement in the vicinity of the airport. However, we believe there is significant question as to whether International Boulevard can effectively be widened and whether this would bring relief to the volumes anticipated from airport expansion (and subsidiary development induced by the airport). It is insufficient to simply name the alternative without indicating what beneficial effects it will have on the overall congestion situation. Improvements to SR-518 and SR-509 are mentioned in the FlightPlan E.I.S., but without any idea of what is involved. What kind of improvements are proposed? How effective will the improvements be in increasing the carrying capacity of those streets?

* Predicted mode splits between various transportation means should be provided in the E.I.S. for all alternatives. The Flight Plan E.I.S. calculated passenger miles for each airport, but did not analyze which modes of transportation would typically be used to access the airports. Passenger miles may not be the sole criteria, if such mileage occurs on high occupancy vehicles such as trains, buses, shuttle vans, or mass transportation. Should a subsidized bus system or new rail system be considered as a necessary feature of new airport planning at any location? These alternatives should be considered.

* Discussion of average vehicle occupancy and accordingly the relationship between passenger trips and vehicle trips must be included in the E.I.S. Generally, information which should be considered a traffic and transportation analysis includes existing traffic and transportation conditions, forecast traffic conditions with or without the proposal, including background traffic conditions, and forecasted traffic conditions with the proposal. The E.I.S. should contain data on the present trip generation of the existing facility, including not only passengers, but service and other employees, as well as truck and transportation and additionally the mode split associated with passengers coming to the airport and how much the various shuttle bus, transit and other facilities serve the airport.

* A discussion or description of the primary road system serving the site, which would include the classification of primary roads, the number of lanes each road or group of roads serves, the current traffic volumes, or a cordon analysis of current volumes must be included in the E.I.S. Such a cordon analysis should be made near the perimeter of the site, as well as several miles away, to illustrate the availability of capacity on the local road and on the regional road network. Future conditions without the proposal should estimate the traffic forecasted volumes and the listing of specific road improvements and transit improvements that are expected to be in place to serve this demand. Financial costs of such improvements and who will pay for them should also be provided. Lacking any quantification of the capabilities of service levels associated with existing or future demands makes it impossible to evaluate the ability to serve this demand.

* The degree of relief brought by transit facilities in reduction of automobile and other trips should be evaluated at the various alternate sites, including Sea-Tac. With respect to mitigation measures, an evaluation should be made of the potential benefits to the airport operations derived therefrom.

* Level of service calculations should be provided for roads in the vicinity of each airport alternative, as well as where predicted levels of service are consistent with county, city and state transportation plans. Considering the large increases in MAP (two and one-half times) and the fact that levels of service drop at a rate faster than the rate of volume increase, it appears that forecasting here involves a shift of numerous passenger and other trips to transit. Is transit a plausible transportation mode for airline passengers carrying luggage? Documentation of such alternatives should be provided.

* The E.I.S. should evaluate the potential for funding of transit and other facilities. Transit and other facilities, including light rail, usually provides significant lead times and significant financial contributions from

all levels of government. An alternative means of providing transportation without such facilities should also be discussed.

3.2.3.2 Vehicular Traffic

* The E.I.S. must provide an analysis of current vehicular traffic levels on the transportation corridors surrounding the sites of each of the proposed alternatives, as well as projections of vehicular traffic for the years 2020, 2030 and 2050.

3.2.3.3 Waterborne, Rail and Air Traffic

* The E.I.S. must describe in detail all components of current and proposed transportation systems and the interrelationship of these components on the proposed alternatives with the land, sea and air transportation systems. The functions and relationship of each of the elements of the land transportation system including conventional rail systems, projected high speed rail systems, road systems, freight forwarders, etc. Levels of operation for each of these components must be estimated for the present, the year 2020, 2030, and 2050.

3.2.3.4 Parking

* The subject of parking in each of the proposed alternatives must be discussed. With respect to induced land use, significant satellite parking lots have cropped up adjacent to Sea-Tac in the past several years. With respect to induced land use, a discussion of the potential for induced new parking lots is required. Given that parking lots are generally lower levels of economic uses than office, light industrial, or hotel, please indicate where such lots may be located. A survey of parking lots including the existing parking facilities should be discussed. The question needs to be addressed as to whether the recent immense increase in SeaTac parking garage space, and other facilities, and the need to rent these out, or face large losses, is driving all or any of the SeaTac master plan update and the 3rd runway.

3.2.4 Public Services and Utilities

3.2.4.1 Fire

* The E.I.S. must address the impacts on local fire service. Expansion of Sea-Tac increases the probability the fire districts surrounding the airport may have to join the Port of Seattle Fire Fighting Force in extinguishing an aircraft accident fire on the field or it's environs. The extent and cost of increased capacity needed by local fire districts should be provided. The expansion of Sea-Tac will deprive the local fire districts of a significant portion of the tax base they depend on for their operation. The extent to which the tax base is eroded must be defined.

3.2.4.2 Police

* The E.I.S. must address the impacts on local fire police service. Construction of a third runway will require an inordinate amount of landfill that will have to be trucked to the airport greatly disrupting vehicle traffic in or adjoining the cities of Normandy Park, Sea-Tac, Burien, Des Moines, Tukwila and Federal Way. Required traffic control will place above normal burdens on the cities Police Departments and substantially increase

operating costs. The increased work load and cost should be identified. Once the expansion is completed, increased auto traffic to and from the airport will be greater than pre expansion traffic and increase the traffic control problem. Police protection for induced businesses will place more demands on local police. The increased workload and cost of traffic control and police protection should be identified. The extent to which airport expansion will diminish the tax base through urban blight, etc. of the cities surrounding the airport and decrease the moneys available for police support must be identified.

3.2.4.3 Schools

* The E.I.S. must address the impacts on local schools and school districts. The effects of a Sea-Tac third runway on the facilities of the school districts surrounding the airport must receive critical attention. A third runway will require some school closures and the construction of replacement units. The schools not closed but under the third runway flight path will be plagued with added noise and aircraft burnt fuel emissions. The cost of replacing the closed schools and insulation remaining schools must be provided, as well as the loss of school tax base due to the removal of homes in the new buffer zone that the third runway will require. The E.I.S. must show maps of the locations of all schools impacted.

* Effects from changes in the school populations due to land use and property value changes must be addressed. As property values drop, the demographic cross section of the school population changes, often attracting those who need more attention or are "at risk" burdening the local school district.

* The noise impacts reduce the ability of children to learn and those impacts must be addressed.

* Disparate impacts on minority children and adults must be discussed. Flight corridors, especially on the north side of the airport, travel over neighborhoods with high concentrations of minority and low income residents. Disparate impacts on them and especially on their children's ability to get a quality education must be fully investigated and disclosed. Are any civil rights violations potentially involved through giving minorities and/or low income citizens a disproportionate amount of aircraft noise and pollution? This paragraph applies to all the EIS scoping comments, not just schools.

* Loss of property tax base to schools must be addressed.

3.2.4.4 Parks and other Recreational Facilities

* The E.I.S. must address the impacts on local parks, libraries, and recreation facilities. Parks under or near the sidelines of the proposed third runway will be adversely impacted by increased noise and aircraft exhaust emissions. The Nature Trail Park in Normandy Park, to cite an instance, is currently afflicted by airport operations. The third runway will substantially increase noise and emission pollution in the park. The North Sea-Tac Park will be afflicted similarly. The E.I.S. should provide Maps showing all parks and recreation facilities in the affected areas, identify impacts on each, and provide mitigation measures to reduce the impact thereon. Parks in all surrounding cities will be negatively affected by impacts.

3.2.4.5 Water/Storm Water

* The E.I.S. must address the impacts on the local water and storm water system. The addition of a third runway at Sea-Tac and terminal expansion will place increased demands on suppliers of water and the system used to carry off storm water flowing off the enlarged runway surface area of an expanded Sea-Tac. The demands may well be greater than either suppliers or storm water systems can handle. Miller and Des Moines Creeks must be protected from further poisoning due to airport spillage and contaminated surface water of the field facility. (see also, water) Concurrence of water districts should provide evidence that water supplies are adequate. Site surveys and maps showing water runoffs should be provided.

3.2.4.6 Sewer/Solid Waste

* The E.I.S. must address the impacts on local sewer and solid waste services. The addition of a third runway and passenger terminal expansion will increase the burden on the sewer districts serving the airport. The sewer capacity requirements issue must be critically addressed. The E.I.S. should identify the types and quantities of solid waste generated by each of the alternatives, the manner in which it will be disposed of, the capacity required by removal equipment, location(s) to which it will be hauled and the extent to which recycling will be accomplished.

4.0 Aircraft/ Passenger/ Ground Population Safety

Analyses of airport system safety aspects have been noticeably missing from previous studies of airport alternatives. They are particularly important at Sea-Tac where there is increased probability of runway incursion with a proposed third runway. The following safety considerations, as a minimum, need to be analyzed in the E.I.S.:

- a. Runway utilization alternatives
- b. Use of 7000 ft runway for landing high gross weight 747's and 600 passenger aircraft
- c. Crossing of two active runways by aircraft landing on a proposed third runway, especially in bad weather.
- d. Limited taxi way space between runways to hold aircraft waiting to cross
- e. Use of "hold short of" landing practices
- f. Close proximity of terminal and aircraft parking areas to main runway.
- g. Margins of safety with 150-200 foot deep embankment west of proposed new third runway.
- h. Safety implications of 'side-step' maneuvers on side by side landings, if used.
- i. Increased Sea-Tac traffic interaction with Boeing Field, Renton airport, and adjacent airports.
- j. In -trail spacing requirements for 600 passenger advanced aircraft
- k. Undue closeness of 2nd and proposed 3rd runways.

5.0 Cost vs. benefit

One of the primary purposes of the E.I.S. process under both SEPA and NEPA is to provide public officials with the necessary data to evaluate the costs, including environmental costs, versus the benefit, including environmental benefit for each alternative and this E.I.S. should include such an analysis for each alternative. Further under SEPA, the Port of Seattle must provide a detailed cost benefit analysis of its proposed action, including all analysis and response deferred in the Flightplan E.I.S.

The impact statement must also address the specific issues list below:

* A detailed return on investment calculation should be made for the third runway at Sea-Tac, other changes to the master plan, and all other alternatives. Such a calculation is crucial to the analysis of the cost and benefits to the public. Who benefits? Who pays? Who suffers? Who pays if projections are not met and landing fees are insufficient to cover costs?

* Data Must be developed regarding both direct and all indirect costs and social costs to compare these to benefits derived from Sea Tac expansion. All cost estimates should include the who pays for the cost and any interest and other debt service costs that will be incurred. Moreover, costs should be presented as gross costs, not net costs. For example, the gross costs for the runway should be given; not gross minus assumed delay improvement costs. Furthermore, the benefits should be consistent with the need and purpose defined above. For example, benefits of the existing facility cannot be used as benefits from addition of a third runway or other specific proposals for change. Another example, benefits from "reduced delays" should be calculated only for delays that would be reduced by a third runway not for delays due to fog or waiting to cross to cross active runways, or mechanical failure.

It is the position of the RCAA that past expansion efforts and the third runway proposal currently being considered shift substantial, if not the majority, of the real costs associated with Sea-Tac to the residents, businesses and public institutions surrounding the airport and located in the flight path. Any cost estimates must include these costs as well.

We will attempt here to delineate as categories of cost as possible. However, it is extremely difficult to provide comprehensive comments by February 25, 1994 on a "Plan" that was just presented to the Public at an open house on February 9, 1994. This is especially true when the "Plan" is little more than a concept without any site configuration or dimensional drawings without even an artists concept of how this "Plan" would look if constructed. One other procedural point that needs to be made is the concurrence of the Sea-Tac Master Plan Project with the FAA request for this E.I.S. It seems to us that the Sea-Tac Master Plan should be completed before an E.I.S. is started. Until the planning for growth is complete, how can the Public be expected to make comprehensive comments on the project? We believe the process is flawed by this staggered, but essentially concurrent, approach to Master Plan and E.I.S. Sixteen days to comment on a plan that is not really a plan that by the most conservative estimates will spend \$500,000,000 public dollars!

* Construction Costs must be included

The proposed third runway is expected to cost \$500,000,000 if we believe the proponents disclosures. Our belief is that this much money will be

required to merely place and prepare the fill required. However, if we use \$500m as the cost, Sea-Tac's third runway would be the most expensive ever built and when completed would not be an independent runway.

* How many extra planes could take off as a result of the dependent 3rd runway?

* Costs of comparable size runways need to be analyzed.

* Alternative solutions need to be proposed and analyzed at SeaTac and elsewhere.

* Runway construction costs at Sea-Tac must include not only the costs of laying concrete and obtaining and hauling the 14-17 million cubic yards of fill dirt, but also the costs of mitigating environmental impacts of hauling operations to control air and water pollution. Costs for other airport alternatives must be included, including costs for a new airport.

* The detraction of being a dependent runway must be factored in, as well as safety problems from crossing two active runways and other operational and safety factors which limit its use.

* Since public money will be used the cost analysis must include the interest that will be paid on the funds borrowed for construction over the life of those borrowings.

* An associated issue connected to the high construction cost is the third runway's role in depleting revenue sources for future airport planning at existing or new airports other than Sea-Tac and construction which might be used to better effect, and this must be factored in.

* Ground Support and Infrastructure Costs must be included.

The proponents would have us believe that once the \$500m is spent for the third runway that is the end of the cost. The costs for more terminal capacity, more vehicle storage capacity and more vehicle traffic capacity must be factored into the EIS.

* Availability of land for terminal and vehicle storage needs to be analyzed and, if available, the cost needs to be analyzed in conjunction with the construction cost of these facilities.

* The feasibility of adding vehicle traffic capacity must be analyzed and the cost of expanding this capacity or providing alternative means of getting passengers to and from the airport must be calculated and included. If the alternatives such as park and ride lots close to the airport are the solution, a convenience cost must be factored in for the additional time each passenger will pay.

* Available Alternative Costs must be included

At first glance, available alternatives would seem to be concerned with placing some of the region's airport capacity at some other location and that is certainly a cost vs. benefit comparison that needs to be analyzed. However, there are some alternatives that do not require an additional site.

* The cost of increased airport efficiency, and therefore capacity, through the use of improved navigational aids needs to be related to the benefits provided and this cost/benefit relationship compared to the cost/benefit relationship expected with the proposed third runway solution.

* The current pricing system at Sea Tac needs to be evaluated. Presently there are no provisions for the allocation of space by peak period pricing. Much of the benefit ascribed to the proposed third

runway is from eliminating carrier delay. Since the airport has periods of open capacity and the delays are created primarily during peak operating hours then a peak hour pricing system would allow a shift of cost to those flight operations that could not use other periods of the day.

* Also associated with the imposition of a peak period pricing system is the attribution of costs in a cost/benefit analysis of the third runway. Since there is presently enough capacity to handle all of the flight operations and still have open takeoff/landing slots, the cost of the third runway must be analyzed as a comparison of cost incurred versus the benefit in reduced delays during those peak periods and inclement weather periods. The revenue scheme created must make the flight operations that are the real beneficiaries of the increased capacity pay the bill; peak period pricing. What does Seattle Tacoma International Airport have to sell? A typical answer to this question is that it has runway and terminal facilities to sell to air carriers who provide passenger and freight services to the community, the state, the region, the nation and the world. However, given flight safety consideration, it can be said that what Sea Tac has to sell is a given number of time intervals each day, or each week, where it can safely land or launch an aircraft. And this is constrained, at times, by weather conditions. With this as our basis and assuming no peak periods it would seem that each time slot should be priced equally. Given that there are peak periods and open slots at off peak periods, the peak time slots should be priced higher. Where there are significant open slots they might be offered at an incentive price to obtain utilization on a temporary basis reverting to standard unit price as demand increases. The present policy of charging for these slots on the gross weight of the equipment used needs to be reviewed and its effect on the marginal unit cost/benefit compared to the cost/benefit of the third runway. All of these points need to be covered in the EIS.

* Alternative airport sites needed to be developed and analyzed on the basis of fully allocated costs for acquisition, construction, infrastructure and impact costs to each community. The data presented to date does not adequately reflect the full economic cost, direct and indirect, of siting a third runway at Sea Tac and overstates the real benefits of this dependent operational runway. The data to date overstates the "convenience" costs of a remote site and to understate the convenience costs of Sea-Tac which must be accessed through a traffic jam. This data needs to be reviewed and analyzed in light of the higher speed rail upgrading taking place in Western Washington.

* Commuter operations which utilize forty percent of Sea Tac capacity to serve eight percent of its passenger traffic must be scrutinized. Alternatives to intensive commuter use of Sea Tac need to be developed from a cost/benefit standpoint and presented in the E.I.S.

* The direct and indirect cost of failure to undertake or complete mitigation, along with the costs and timeline to complete previous mitigation commitments must be included.

Normally one would speak just to impact costs when commenting on an E.I.S- However, the proponent of the third runway proposal has failed to achieve even one third of the costs of mitigation it committed to in 1976 and

most of the money spent in this area has been committed in the last few years after much pressure by the community. Even then, most of this "mitigation" effort was in the area of increasing the flight line safety zones to satisfy, to some degree, the concerns of the FAA and insurance companies over the safety of an airport perimeter that is only one fourth as large as FAA standard. With this as evidence of the historical concern of the proponent for neighboring community impacts, we feel this neglected mitigation from prior expansion must be addressed as a cost of any further expansion. The proponents estimate of the remaining mitigation costs is \$256,000,000. This estimate is short by at least \$100,000,000 by our calculations prior to any consideration of adjusted noise contours derived from actual measurement not from a computer model noise contour.

* Worst case analysis costs must be included. This will be the most expensive runway ever built and, as such, what happens if passenger increases do not occur? If it was a private project, no problem, but as a public project a very careful and conservative analysis of these recent projections are necessary, as the proponent is telling us that the air carriers will pay it off, but given the financial shape of the air carriers the public exposure seems high. If we put this kind of money into this proposal with its payoff projected over 20-30 years, where does the money come from to study and develop another airport to replace this one that everyone agrees will only be able to handle the growth for 10-15 years after it is built.

* The following impacts caused by environmental deterioration must be included :

* The largest dollar impact from this project is in the reduction of mainly residential real estate values due to noise and/or air pollution. On the basis of several generalized wide area calculations, this cost could range from \$400,000,000 to \$1,300,000,000. With an impact of this magnitude it is unbelievable that preliminary studies, at least, have not been done by the proponent in the way of presentation of its plan. A detailed computer modeling study needs to be done to assess past and future impact on real estate values due to Sea Tac. Property values in a ten mile radius of Sea-Tac have been adversely affected by the increase in operation at Sea-Tac to 355,000 per year. Models should include modeling of appreciation in value of real estate within 10 miles of SeaTac by removing some or all operations at Sea-Tac to another airport.

* The impact on public facilities, primarily schools, needs to be assessed to determine the cost increase required to allow airport impacted students the same opportunity to learn as non-impacted students. A study of the monetary impact caused to the schools due to removal of housing stock and therefore students must be done.

* The impact on land use planning by surrounding communities as it effects their Comprehensive Plans and the economic viability of their business districts. What is the cost to these communities in lost opportunities when Sea Tac condemns residential land for safety and noise reasons. When that same land, which has been removed from surrounding communities gets put back into the market as industrial use land by the POS, and when it competes with private industrial use land in those communities to their economic detriment., what is the cost?

* Noise is a harmful pollutant, not a mere annoyance, and can adversely affect the health those exposed, causing for example high blood pressure. Costs of secondary health impacts should be factored in.

* Disruption of work and activities from noise should also be factored in. A 1984 NASA study using conservative methodology estimated that there are 25 million Americans living with jet noise of 55 Ldn or higher; that on average activities of 15 per cent of these people are disrupted by each fly over and that the total dollar value of their time lost solely to jet noise disruptions, at \$10 per hour totals \$37 million a day and nearly \$14 billion nationwide. A similar calculation should be made for Sea-Tac and the impact of adding the additional operations projected with the third runway included.

* Dr. Lynn Michaelis, former chair of the National Association of Business Economists prepared a March 22, 1992 detailed letter to Ms. Mary McCumber of PSRC, of costs, benefits, and analyses which need to be covered in the Flightplan E.I.S., most of which were deferred to the "site-specific E.I.S." We include his letter into in our comments and demand that all studies he says must be included, answers to his questions, and analyses he asks for, be included in this E.I.S. It is shown as Appendix 2.

* Irreversible and irretrievable commitments of Resources must be identified and fully disclosed, both those that include commitments of money as well as other resources. NEPA requires that irreversible and irretrievable commitments of resources be addressed in the E.I.S. before a proposed action may be implemented so that decision-makers are able to evaluate the risks of embarking on a path from which there may be no return and to assess alternatives to the proposed action in light of those risks.

Most of the proposed runways at other airports would be longer than the runway proposed at SEA. In addition, most would allow parallel independent operations, which a third runway at SEA would not permit. Consequently, most of the other runways would yield twice as much benefit in airport capacity than would be provided by the proposed runway for Sea Tac. Building and implementing an inadequate and expensive third-runway project at Sea-Tac may foreclose future opportunities to address the real long-term transportation needs of the Puget Sound region. This would inflict permanent economic harm to the region and to the state. There are finite financial and community resources -- and a scarcity of air space -- for undertaking significant investment in transportation capacity and enhancing trade opportunities. These resources should not be squandered on what the Port admits to be a short-term solution.

The E.I.S. must examine all of the above implications of SEA expansion for the long-term aviation needs of the region and consider the extent to which construction of the proposed third runway and the other actions proposed in the Port's Master Plan Update would constitute an irreversible and irretrievable commitment of environmental and economic resources.

6.0 Sources of Funding

Sources of funding for all construction/expansion elements involved for all alternatives must be provided, including Federal, State, County, City, passenger fees, Airline fees, bond issues, etc.

7.0 Governance

The intent of the EIS is to consider airport system alternatives that include utilization of other airports, including existing and new. Whereas the Port of Seattle owns and operates Sea Tac, the Port has no jurisdiction over "other and new airports". The E.I.S. should specify who is responsible for construction, development and operation of existing and new airports of the Washington State regional airport system. The financial capability and obligation of said organizations should be specified. How these organizations will work together in terms of administration facilities, services, revenue and cost sharing should be discussed in detail.

To pass this issue off as not being within the scope of this study or outside the jurisdiction of involved government bodies is unacceptable. For an adequate airport system to be developed for this region, governance issues must be resolved before any decision is made. This must be included in the EIS.

The EIS should also include addressing all the issues contained in the Minority Report of the Washington State Air Transportation Commission (AIRTRAC) including the November 1993 cover letter from the Chairman.

The EIS should address all of the issues included in the Washington State Air Transportation Commission Resolution #477 dated December 16, 1993 and attached herewith as Appendix 3.

- APPENDIX 1: Aircraft Noise Coalition Press Release, March 24, 1993
- APPENDIX 2: General Comments on the Draft E.I.S. by Dr. Lynn O. Michaelis, March 22, 1992.
- APPENDIX 3: Resolution No. 477 of the Washington State Air Transportation Commission (AIRTRAC) dated November 16, 1993