

ATTACHMENT A

SEA-TAC INTERNATIONAL AIRPORT NOISE REMEDY PROGRAM UPDATE

WORK PROGRAM: PHASE AND TASK DESCRIPTIONS

The objectives of this study are to evaluate and update the schedule and scope of the aircraft noise remedy program contained in the 1976 Sea-Tac/Communities Plan. The study will address the updated noise projections presented in the 1982 Sea-Tac Noise Exposure Update Study, the extent of the progress made toward implementing the original noise remedy program, and the most recent assessment of present and future finances and local attitudes and interests. The updated noise remedy program will provide the Port of Seattle with recommendations of new or revised noise remedy/abatement measures. The study will follow the standards for developing an airport noise compatibility planning program under FAR Part 150.

The work program for the study consists of Design Elements, Project Elements, Miscellaneous Elements, and Administrative Elements. The sequence of tasks in each of these four elements and a project schedule are presented in Exhibit 1, and the project organization is shown in Exhibit 2.

Design Element tasks include a study design, coordination with governmental agencies as necessary to obtain federal funds for the study, and the development of an extensive Community Involvement Program.

Project Element tasks include the identification and evaluation of appropriate noise abatement/remedy measures and the development of an updated noise remedy program.

Miscellaneous Element tasks include the review of certain land use density guidelines as well as of Airport land use development guidelines.

Administrative Element tasks include community and intergovernmental coordination, a community attitude survey, and study summary documentation.

The output from the study will consist of a series of working papers documenting the work performed in each of the tasks. These working papers will be incorporated into a draft report. A final report and summary pamphlet will be prepared after comments on the draft report are received.

The study will be conducted by the Port of Seattle; Peat, Marwick, Mitchell & Co.; and McClure Research Company and will be coordinated with the Federal Aviation Administration (FAA) and King County. The study tasks and associated responsibilities and products are described below.

#### DESIGN ELEMENTS

##### Task 1: Prepare Study Design

Description: Peat Marwick will prepare a work program on the basis of a preliminary work scope outline prepared by the Port. The work program will include a description of each task, the responsibilities of study participants, the products of each task, and a schedule of costs and project timing. The content and format of the work program will follow Port and FAA guidelines so that it can be used as an attachment to both the FAA Airport Improvement Program grant application and the contract between the Port and Peat Marwick.

Responsibilities: Peat Marwick will write the draft work program. The Port, King County, and the FAA will review and comment on the draft, and then

Peat Marwick will prepare the final work program. Peat Marwick will provide a camera-ready copy of the final document to the Port for printing. The Port will approve the final work program and print copies as needed.

Task 2: Preapplication Coordination

Description: Federal participation in the funding of this study will require a memorandum of understanding between the planning staffs of the Port of Seattle and King County, an A-95 clearinghouse certification, an FAA grant application, and Port Commission acceptance of an FAA grant offer.

Responsibilities and Products: The Port will be responsible for the preparation of necessary documents, intergovernmental coordination, and obtaining necessary approvals.

Task 3: Community Involvement Program

Description: Peat Marwick and the Port will design a program to serve as a guideline for community involvement throughout the term of the study. The objectives of this program will be to inform the public of study progress, maximize public understanding of the Port's involvement in aircraft noise remedy planning, respond to public concerns, provide the opportunity for continued interaction between Airport management and the surrounding community, and provide for community input into the noise remedy program development. The program, which will satisfy Port of Seattle goals and objectives for community involvement, will:

- o Identify the type, format, composition, and objectives of meetings and advisory committees
- o Identify local, regional, state, and federal public agencies and organized private or semi-public community/interest groups to be invited to participate in the involvement program
- o Establish roles and responsibilities of community participants in the involvement program

- o Develop procedures for meeting notification and attendance, distribution of study products, consideration and response to public comments, etc.
- o Establish a schedule of key meetings and decision points coinciding with the conduct of the study
- o Identify the type and format of public information materials likely to be used during the course of the project, including any or all of the following (as appropriate and as needed): charts, maps, periodic information releases via newsletters, brochures, questionnaires, newspaper supplements, and video/audio tapes
- o Identify the responsibilities of the Port, Peat Marwick, and King County in the implementation of the involvement program

Responsibilities: Peat Marwick will prepare a draft and final working paper on the Community Involvement Program. The Port will assist Peat Marwick in the organization of this program, and the Port, King County, and the FAA will review and comment on the draft working paper.

Products: Draft and final working papers.

#### PROJECT ELEMENTS

##### Task 1: Study Background

Description: An overview of how (and in what ways) the Port and the surrounding communities affected by Sea-Tac operations have been involved in the planning and implementation of noise remedy programs will be prepared. This overview will consist of:

- o A summary of prior noise-related studies and plans
- o A list of Port policies and objectives as they relate to noise remedy programs at Sea-Tac
- o A statement of the goals of communities and other agencies and guidelines or rules and regulations as they relate to noise remedy programs at Sea-Tac

Responsibilities: The Port will prepare the draft and final working paper on the study background. Peat Marwick will assemble a bibliography on the effect of aircraft noise on health and property values and a summary statement on the findings of the research on these subjects. Peat Marwick, King County, and the FAA will review and comment on the draft working paper.

Products: Draft and final working papers, bibliography, and summary statement on the effect of aircraft noise on health and property values.

Task 2: Assemble Data on Existing and Forecast Conditions:

Description: Previous analyses, reports, and other documents that define existing and forecast environmental and socioeconomic conditions at Sea-Tac and its surrounding communities will be assembled and reviewed. In addition, the staffs of federal, state, regional, county, and local agencies will be interviewed to identify any key issues or concerns that are not described in existing documents.

Information will be assembled on existing and forecast conditions at Sea-Tac and the surrounding communities that will be needed to evaluate noise remedies. At a minimum, this information will include land use plans and zoning, traffic forecasts, population forecasts, future housing needs,

projections of noise exposure levels, forecasts of aviation demand and airport and airspace operations. Whenever possible, existing documents will be used as sources for this information.

Responsibilities: Peat Marwick will prepare the draft and final working papers on existing and forecast conditions. The Port will define the study area and also provide Peat Marwick with a copy of the Sea-Tac Noise Exposure Update Study (1982) and the Sea-Tac Land Use and Population Update Report (1982). The Port will assist Peat Marwick in determining the availability of other needed documents. The Port, King County, and the FAA will review and comment on the draft working paper.

Products: Draft and final working papers.

### Task 3: Identify Potential Noise Abatement/Remedy Measures

Description: Noise abatement/remedy measures that could potentially be undertaken by the various agencies and political jurisdictions having the authority to mitigate adverse effects of Sea-Tac operations or that are contained in the Sea-Tac/Communities Plan's noise remedy program will be identified and reviewed. Such agencies and political jurisdictions include the Port, King County, affected Sea-Tac communities, the FAA, airline and aircraft operators at Sea-Tac, and the State of Washington. Noise abatement/remedy measures will be listed and described in accordance with categories that reflect the agency or agencies responsible for implementation, including but not limited to the following:

- A. Implementation authority of the Port of Seattle as owner and operator of the Airport
  - o Residentially oriented programs as defined in the Sea-Tac/Communities Plan (land acquisition, purchase guarantee, cost-sharing insulation, limited cost-sharing insulation, etc.)

- o Aircraft noise reduction policies as developed in the Sea-Tac/Communities Plan (support of the adoption of all operational procedures effective in reducing noise exposure, engine run-up curfews and specific run-up locations, noise monitoring program, etc.)
  - o Aircraft access restrictions (noise level restrictions, time-of-day restrictions, limits to number of aircraft operations, etc.)
  - o Miscellaneous noise abatement measures (noise barriers, run-up noise suppressor facilities, etc.)
- B. Implementation authority vested in King County and other local units of government by the State of Washington
- o Zoning and subdivision regulations
  - o Soundproofing of public buildings
  - o Building permits and housing codes
- C. Implementation authority vested in the FAA
- o Preferential runway system
  - o Noise abatement takeoff or approach procedures
  - o Modification of flight tracks
  - o Displaced runway thresholds
  - o Navigational aid improvements (if not covered above)

Noise abatement/remedy measures that have been considered, recommended, or implemented in other areas of the United States (as well as in connection with Sea-Tac) will be documented. This task will explore a full range of noise remedy/abatement options.

Responsibilities: Peat Marwick will prepare the draft and final working papers on the identification of noise abatement/remedy measures. The Port, King County, and the FAA will assist Peat, Marwick in compiling the final list of noise abatement/remedy measures. The Port, King County, and the FAA will review and comment on the draft working paper.

Products: Draft and final working papers.

#### Task 4: Perform Initial Evaluation

Description: The noise abatement/remedy measures identified in Task 3 will be evaluated in order to eliminate from further consideration those measures which:

- o Do not reduce land uses that are incompatible with Sea-Tac or reduce the number of people exposed to high levels of aircraft noise
- o Do not reduce existing or projected annual average noise levels presented in Sea-Tac Noise Exposure Update (1982)
- o Do not reduce impacts (e.g. financial) on population exposed to aircraft noise
- o Impose an undue burden on interstate and foreign commerce
- o Results in unjust or unreasonable discrimination to airport users or others

Responsibilities: Peat Marwick will prepare the draft and final working papers on the initial evaluation. The Port will provide Peat Marwick with the results of any noise analyses that may require use of the Integrated Noise Model. The Port, King County, and the FAA will review and comment on the draft working paper.



## Task 5: Perform Final Evaluation

Description: Those noise abatement/remedy measures remaining from the initial evaluation in Task 4 will be developed in more detail. They will be divided into two groups: (1) airport and aircraft remedial measures and (2) community remedial measures. All noise abatement/remedy measures will then be evaluated by criteria which will include but not be limited to the following:

- o Compatibility with the operation of Sea-Tac and its associated airspace
- o Aircraft operational safety considerations
- o Aircraft noise reduction
- o Reduction of incompatible land uses and the related number of people exposed to adverse aircraft noise levels.
- o Community attitudes and opinions
- o Social and induced socioeconomic impacts
- o Relationship to existing Airport Layout Plan, Airport Master Plan, Regional Airport System Plan, applicable community plan(s), and Port, King County, and other community goals and guidelines, with particular emphasis to compatibility with the Sea-Tac/Communities Plan
- o Program and/or unit costs
- o Economic and financial feasibility of implementation
- o Timing of implementation action(s)

Responsibilities: Peat Marwick will prepare the draft and final working papers on the final evaluation of noise abatement/remedy measures. The Port will provide Peat Marwick with the results of any noise analyses that may require use of the Integrated Noise Model. The Port, King County, and the FAA will review and comment on the draft working paper.

Products: Draft and final working papers.

Task 6: Updated Noise Remedy Program

Description: An updated noise abatement/remedy program will be developed on the basis of the final evaluation in Task 5. The program will include the following:

- o A description of the relative contribution of each selected noise abatement/remedy measure to the overall program
- o Land use recommendations for properties acquired under this program which were not identified for acquisition in the Sea-Tac/Communities Plan
- o A schedule for implementation of the program
- o Implementation documents and responsibilities (e.g. implementation recommendations to the County, NOTAMS, resolutions, letters of agreement, etc.)
- o Actions required to facilitate program implementation
- o Sources of funding (existing and anticipated)
- o Future actions for monitoring progress and for the periodic review and refinement of the program

- o Procedures for revising the Sea-Tac/Communities Plan, the Airport Master Plan, and applicable off-Airport public plans, if necessary, so that these documents can and will conform with the updated noise remedy program

The updated noise remedy program will reflect comments of the project committees, elected officials, and the general public. Those agencies, political jurisdictions, or organizations responsible for implementing each recommended measure, either individually or jointly, and the financial implications associated with these implementing groups will also be identified.

Responsibilities: Peat Marwick will prepare the draft and final working papers on the updated noise remedy program. The Port will provide Peat Marwick with the information needed to develop the program schedule, determine needed actions to implement the program, and identify fund sources for those measures of the program recommended to be carried out by the Port. The FAA will provide Peat Marwick with the information needed to develop the program schedule, determine needed actions to implement the program, and identify fund sources for those measures of the program recommended to be carried out by the FAA. King County will provide Peat Marwick with the information needed to develop the program schedule, determine needed actions to implement the program, and identify fund sources for those measures of the program recommended to be carried out by King County. The Port, King County, and the FAA will review and comment on the draft working paper.

Products: Draft and final working papers.

MISCELLANEOUS ELEMENTS

Task 1: Review Density Guidelines

Description: As part of the process that led to an acceptable plan of development for North Sea-Tac Park, the FAA developed density guidelines. (North Sea-Tac Park is an area of about 420 acres located directly north of Sea-Tac.) These guidelines, essentially expressed in the form of "people per acre," are intended for use by the Port and others in limiting the size of gatherings directly under aircraft flight paths. The FAA's concern in developing the guidelines are related to aviation safety and compatible land uses--particularly in the runway clear zones and adjacent aircraft approach areas.

Questions about the density guidelines have arisen from time to time since their formulation by the FAA in August 1979. Of particular concern is the 60-person limit at any one time for activities at the Sunset facility, a former public school complex situated within the approach area to Runways 16L and 16R.

A review of these density guidelines will therefore be undertaken, and an assessment will be made as to what changes or refinements (if any) are needed. This task will be carried out in accordance with the Community Involvement Program.

Responsibilities: The Port will conduct the review and prepare draft and final working papers on the subject of density guidelines. The FAA, King County and Peat Marwick will review and comment on the draft working paper.

Products: Draft and final working papers.

Areas involved are called "approach protection areas" or "extended clear zones". Their boundaries are based on existing FAA criteria and not on environmental impact, although it is known that the designated areas have major noise exposure problems. The approach surface extends up to 2 miles from the end of the runway. This is the area in which the extended climb-out landing approaches occur. Less concern for land use outside the approach surface outside the clear zones over

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Task 2: Review Compatible Land-Use Guidelines

Description: The land-use patterns, policies, and guidelines of the 1976 Sea-Tac/Communities Plan will be reviewed, and suggestions for changes or refinements, if any, will be documented. The current relationship of Port-acquired lands to the overall Airport Environs use pattern, as depicted in the Sea-Tac/Communities Plan, will be examined in light of changes that have occurred since the Plan was completed in 1976.

Responsibilities: Peat Marwick will conduct the review and prepare draft and final working papers on the subject of compatible land-use guidelines. The Port, King County, and the FAA will review and comment on the draft working paper.

Products: Draft and final working papers.

## ADMINISTRATIVE ELEMENTS

### Task 1: Community and Intergovernmental Coordination

Description: Coordination will be conducted continuously throughout the entire project for the purpose of administering project activities and community or intergovernmental interactions. To assist and guide such activities among the Port, local agency participants, the FAA, and the consultant(s), formal coordination procedures will be established and initiated. In addition, a formal procedure for the review of working papers, reports, and other products of the project will be established.

The Community Involvement Program will also be implemented.

Responsibilities: The Port will handle meeting arrangements, chair all sessions, and record the proceedings. The Port will also prepare, print, and distribute meeting notices and newsletters. Peat Marwick will prepare and present consultant-derived material at meetings. The Port will review and comment on the meeting materials prepared by Peat Marwick. The Port will prepare a synopsis of the Community Involvement Program.

Peat Marwick will be available for meeting presentations during four three-day trips and ten two-day trips. Peat Marwick will be represented by the Project Manager or an alternative approved by the Port on all trips and by the Project Manager and the Principal-in-Charge on at least seven of the fourteen trips.

Peat Marwick will also provide a Community Involvement Assistant to support implementation of the Citizen Involvement Program for the term of the study as defined by Exhibit 1. The Port will provide the Assistant with office space and appropriate office supplies.

Products: Community Involvement Program synopsis and other products yet to be identified (e.g., newsletters, fact sheets, meeting handouts, audio-visual aids, etc.).

## Task 2: Community Attitude Surveys

Description: Local attitudes and opinions will be surveyed within the Study Area (refer to Exhibit 1 of the 1982 Port of Seattle report: Sea-Tac International Airport Land Use and Population Update). The survey, or surveys, as appropriate, will be designed to determine how affected individuals and groups feel about (a) proposed refinements to the noise remedy program component of the Sea-Tac/Communities Plan, and (b) noise remedy program options that may be available to property owners affected by prescribed aircraft noise exposure levels.

This task will be carried out in accordance with the Community Involvement Program. Where possible, survey procedures will be developed that maximize assistance and inputs by neighborhood associations, citizen groups, and other parties of interest.

Responsibilities: McClure Research will conduct the survey(s) and prepare the draft and final working papers documenting findings and applicable correlations. The Port and Peat Marwick will assist McClure in developing the questionnaire(s). The Port will provide postage as required for the distribution of the questionnaire(s). The Port, King County, the FAA, and Peat Marwick will review and comment on the draft working paper.

Products: Community attitude survey results in the form of draft and final working papers.

## Task 3: Report Production

Description: A draft and final project report and a summary pamphlet will be produced. The draft report will consist of the various working papers prepared for each of the tasks (with exception of the working papers prepared for the Miscellaneous Elements), introductory and summary chapters, and appendixes as needed. When the draft report is approved, a final report will be prepared and published. The summary pamphlet will be prepared concurrently with the final report and will be produced for wide public distribution.

Responsibilities: Peat Marwick will provide the Port with camera-ready copy of all consultant-prepared text and accompanying graphics for the draft and final reports. Peat Marwick will provide the Port with a draft and final summary pamphlet. The pamphlet will involve no more than 3 colors and will be similar in format to the 1976 Sea-Tac/Communities Plan Summary. Peat Marwick will coordinate style and format requirements with the Port before preparing camera-ready text, graphics, and summary pamphlet. Peat Marwick will also provide appropriate graphics at a size suitable for display and presentation.

The Port will prepare the introductory and summary chapters of the project report. The Port will print the working papers, the draft and final reports, and the summary pamphlet. The Port, King County, and the FAA will review and comment on the draft report and draft summary pamphlet. The Port will approve the final report and final summary pamphlet.

Products: Working papers, 200 draft reports, 400 final reports, and 5000 summary pamphlets.



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<i>Design Elements</i>	STUDY DESIGN																		
	PREAPPLICATION COORDINATION																		
	COMMUNITY INVOLVEMENT PROGRAM																		
<i>Project Elements</i>	STUDY BACKGROUND																		
	EXISTING AND FORECAST CONDITIONS																		
	IDENTIFICATION OF NOISE ABATEMENT/REMEDY MEASURES																		
	INITIAL EVALUATION																		
	FINAL EVALUATION																		
	RECOMMENDED NOISE REMEDY PROGRAM																		
<i>Miscellaneous Elements</i>	DENSITY GUIDELINES																		
	LAND USE DEVELOPMENT GUIDELINES																		
<i>Administrative Elements</i>	COMMUNITY AND INTERGOVERNMENTAL COORDINATION																		
	COMMUNITY ATTITUDE SURVEY																		
	REPORT PRODUCTION																		

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Consultant  
Authorization  
to Proceed

**LEGEND**

WP Working Paper

**PRIMARY RESPONSIBILITY**

- JOINT PEAT, MARWICK, MITCHELL & CO. - PORT OF SEATTLE
- PEAT, MARWICK, MITCHELL & CO.
- PORT OF SEATTLE

Exhibit 1  
Noise Remedy Program Update  
Sea-Tac International Airport  
**PROJECT SCHEDULE**  
Peat, Marwick, Mitchell & Co. January 1983

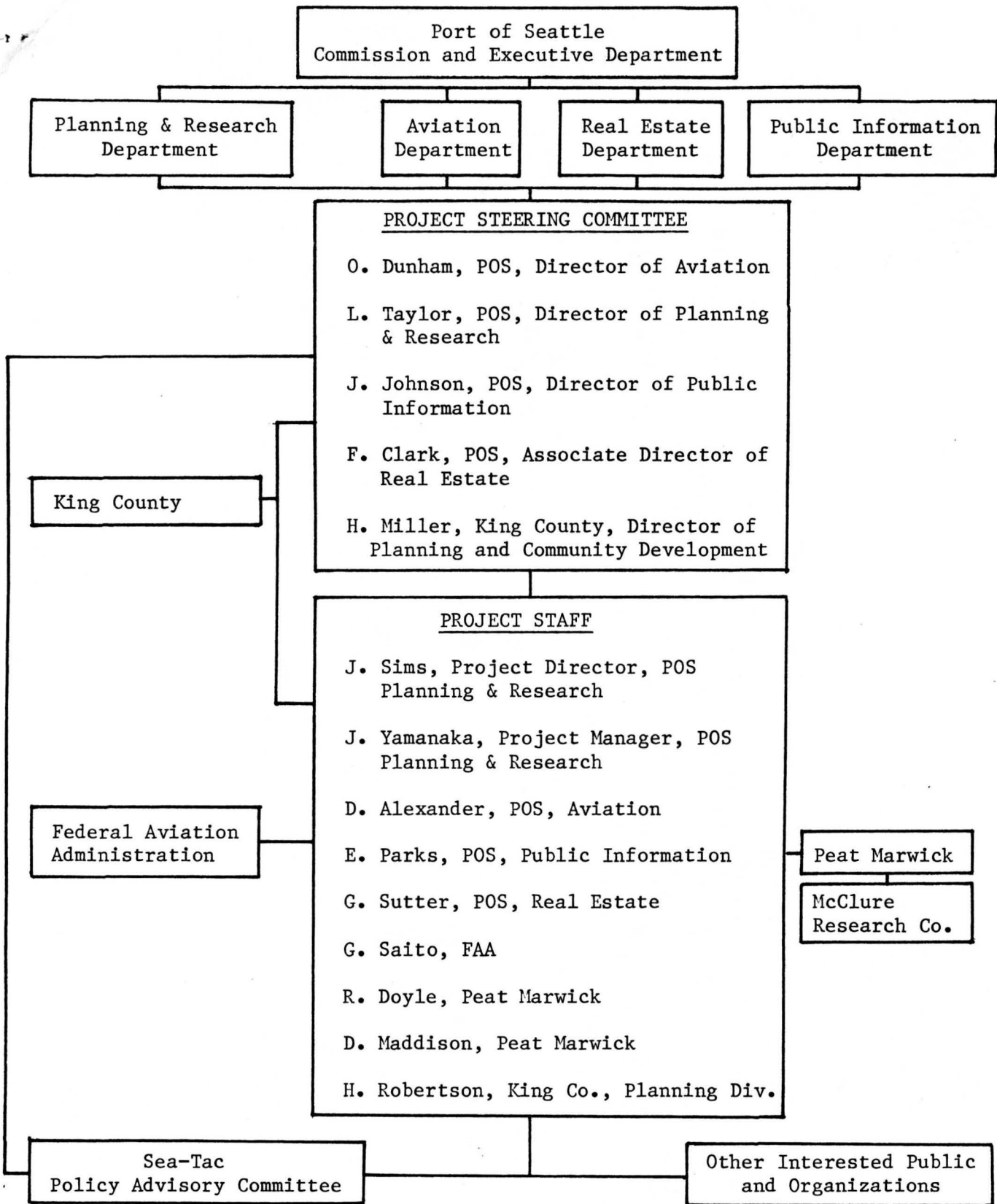


Exhibit 2

Noise Remedy Program Update  
Sea-Tac International Airport

PROJECT ORGANIZATION

January 1983