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COMMUNITY ATTITUDE SURVEYS:

NOISE REMEDIES FOR THE AIRPORT COMMUNITY

> Prepared for: Peat, Marwick, Mitchell & Co. October, 1983

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I. INTRODUCTION

A. Purpose of Study

The Port of Seattle is currently in the process of updating the 1976 Noise Remedy Plan for the Airport Community. Final recommendations concerning appropriate noise remedies that can be applied within the community will take into consideration at least three parameters:

- o cost feasibility and effectiveness of program options
- o implementation feasibility
- o the community's views and concerns

The third parameter -- the community's perspective -- has been actively explored through the Community Involvement Program component of the Update process, including a series of Portsponsored neighborhood workshops, regular meetings of a Technical Advisory Working Committee, and a series of surveys in the community. This report covers the findings of the community surveys, which will be used as a guideline to determine:

- suitability and acceptability of various noise remedy programs in the community (in particular: purchase guarantee, cost sharing of noise insulation, direct purchase of homeowners' avigation easements)
- likely participation rates for each program option, in order to project the financial feasibility of various combinations of programs.
- o probable rate of participation in a purchase guarantee program in terms of time to help establish an overall program schedule
- o level of the Port's financial participation in program options.

The issues relevant to providing this input to the Port's planning were divided into two general categories and covered in two separate random sample surveys:

 Overall noise management issues, such as residential development in the Airport vicinity; mandatory fair disclosure of noise levels to home purchasers; usage and development of area parks. Covered in a <u>General Community</u> <u>Survey</u> of residents in a broad area surrounding the Jackson International Airport.

B. Approach to Study

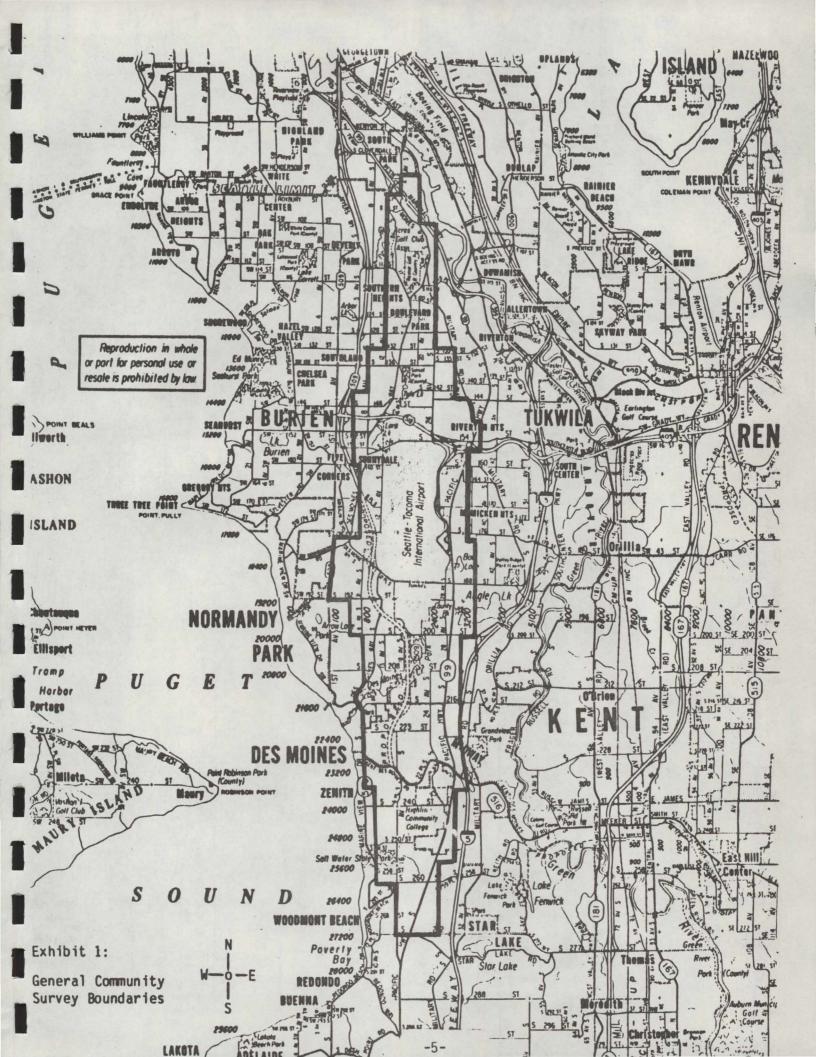
The geographic areas selected for study in the two random sample surveys were based upon the noise level (Ldn) measurements and projections presented in the SeaTac Noise Exposure Update (1982). The survey areas were defined by grid cell (the block measurement segments used in the Noise Exposure Update) as nearly as practicable.

Telephone interviewing was used for the two random sample surveys because achievable participation rates are higher for telephone interviewing than for other data collection methods and the sampling process is more controllable and thus more reliable. Appropriate steps were taken during the design of the questionnaires to ensure that survey respondents could understand and meaningfully answer the rather complex questions and issues presented in the interview. (See Appendix B for further detail concerning the telephone interviewing process.)

The three surveys can be summarized as follows:

- o General Community Survey: a random sample telephone survey among 151 residents (homeowners and renters) in areas substantially affected by airport noise. This area was defined as those grid cells currently experiencing measured Ldn levels of 70 and above, a fairly large geographic area (See Exhibit 1, page 5.) Although specific noise remedy programs are not appropriate throughout the entire area, general development and noise management issues do affect it. For this reason, the survey was designed to obtain community reactions to the general planning issues facing the Port and the Community: land use, park use and development, noise management (August, 1983).
- Survey of Community Workshop Participants: a selfadministered survey covering the same information as in the General Community Survey, distributed to all participants in a set of three community workshops. A total of 242 participants completed this survey. (August, 1983)
- o <u>Target Area Survey</u>: a random sample telephone survey of 734 homeowners in six areas selected as representative of neighborhoods that might be covered by specific noise remedy programs:
 - 1. Des Moines Corridor
 - 2. Des Moines Creek
 - 3. Riverton Heights
 - 4. North Corridor
 - 5. West Sunset
 - 6. Sunnydale

(See Exhibit 2, page 6)



II. SUMMARY OF FINDINGS

The Airport community, as represented by the General Community Survey, can be characterized as a stable area consisting primarily of modest, owner-occupied family homes:

- o Three out of four households have been established in the area for 10 years or longer; half for 20 years or longer.
- o The strong majority (82%) have an adult 25 64 years of age; a third have children in the home.
- o Three out of four residents (76%) live in their own home.
- o Average home value is \$77,500.
- o Average annual household income is \$29,700.

The area close-in to the airport, as represented by the Target Area Survey, has more rental units -36% -- but the owner-residents are equally long-term to the area and average home value is the same (\$77,400).

Airport noise is a significant although generally not unbearable problem to the Airport community, one that the majority of residents feel has not been improved substantially in the past 5 years. Findings from the General Community Survey include:

- Half (52%) cite airport noise as one of the two or three things they would most like to see changed or improved in their community.
- However, only one in five (19%) consider the noise close to unbearable; the majority (57%) rate airport noise negatively, but not overwhelming.
- Two thirds (66%) believe the noise level is either the same compared to five years ago or only somewhat changed (for better or worse). Two in five (42%) feel it has gotten worse (either somewhat or much).
- o The most-often cited reason for worsened noise levels is increased number of flights.

Despite the noise, most of those who live in the Airport vicinity want to maintain the area for residential use. The generally agreed-upon methods involve restricting noise impacts to narrow flight corridors, notifying new residents of noise impacts, and controlling new residential development:

- Direct purchase of the avigation easement for some percentage of their home's fair market value would be the preferred option for 9% of the most-impacted area homeowners.
- o If a purchase guarantee program were not available, noise insulation cost-sharing remains the more widely-preferred of the two remaining programs. Two in five (41%) would choose it over purchase of their avigation easement. However, 26% would prefer such a direct purchase if the purchase guarantee were not available. In that case (no purchase guarantee), 19% would not want any program involvement.

(Note: Although attitudes were surveyed regarding specifics of purchase assurance, sound insulation, and purchase of avigation easements, other remedies such as outright acquisition will not be precluded from consideration in the development of the noise remedy program. The interview format still provided an opportunity for respondents to discuss the option of other programs, e.g., 5% of the Target Area sample rejected the idea of a purchase guarantee program in favor of outright purchase.)

The programs are evaluated by homeowners from a cost perspective. Although the Target Area Survey format did not allow for detailed cost comparison, it is clear that the financial aspects of the programs are important to the acceptability of each:

- The method of determining fair market value (FMV) was the most-often cited concern about a purchase guarantee program.
- o Interest in a noise insulation cost-sharing program increased sharply with higher proposed levels of Port commitment: from 4% if the Port were to pay 25% of the cost to a total of 67% if the Port were to pay 100%.
- o Interest in direct purchase of their avigation easement increased as the percentage FMV figure increased: from 14% if the Port were to pay 5% of FMV to 31% if the Port were to pay 20% of FMV.

Method of FMV computation was cited as a concern about this program option as well.

Participation levels for each of the program options can be estimated based on the following assumptions:

- approximately 1300 owner-occupied dwelling units do not already have an avigation easement in their deed (At least 3% do have such an easement.)
- relevant program features will not differ substantially from those presented to the survey respondents.

- West Sunset is an older population, with 44% currently living in their own mobile homes. Residential change is moderate (25% in past 5 years). Although a purchase guarantee program would enjoy strong participation in this neighborhood, a direct purchase of the avigation easement is particularly acceptable, and projected participation in a noise insulation cost-sharing program is higher than elsewhere. This area may be less concerned with the specifics of the program and more concerned with receiving some reimbursement for its situation.

It is noteworthy that those areas with stronger interest in a purchase guarantee program evidence higher and more widespread levels of community awareness of and participation in the Noise Remedy Update program than do the three areas that are more receptive to other program alternatives. Overall, a third of those in the target areas (38%) were aware of the Update program at the time of the interview; almost half (46%) were aware of Portsponsored community meetings concerning airport noise. One in eight (13%) had actually attended one (or more) of those meetings.

There seems to be general satisfaction with the community meetings -- 73% of those who have attended would like them to continue. And those who attend are generally representative of community opinion. There is close correspondence between meeting participants' views and those of the overall Airport community on development and noise management issues. The only substantive exception to this concerns use of open land for additional park areas vs. commercial/light industrial. The community as a whole is more favorable toward expansion of park area; meeting participants are more likely to favor commercial development.

Usage of the more developed Airport area parks is widespread. In the three months prior to the General Community Survey, half the households had been to Saltwater State Park and a third to Angle Lake and Seahurst. However, current usage of North SeaTac and Des Moines Creek parks is more limited -- only about one in ten households. There is little support for increasing property taxes to fund further development of those two areas (66% oppose such an increase).

TABLE A-1: DEMOGRAPHIC CHARACTERISTICS OF AIRPORT COMMUNITY

Length of Residence:	At Current Address	In SeaTac Area
Under 2 years 2-5 years 5-10 years 10-20 years 20+ years	10% 27% 15% 22% 26%	2% 11% 11% 26% 50%
Current Home Is:	Owned	Rented
	74%	26%
Estimated Home Value*:		
Under \$50,000 \$50,000 - \$75,000 \$75,000 - \$100,000 \$100,000 - \$150,000 Over \$150,000 Don't Know/Refused	12% 46% 29% 10% 1% 4%	
Children Living at Home		
Yes No	34% 66%	
Anyone in Household Workin	ng for/at the Airport	
Yes No	5% 95%	
Age of Respondent		
Under 24 years 25-44 years 45-64 years 65 or over	3% 44% 38% 15%	
Annual Household Income		
Under \$15,000 \$15,000 - \$25,000 \$25,000 - \$40,000 \$40,000 - \$75,000 \$75,000 or over Don't Know/Refused	16% 28% 28% 16% 3% 8%	

* Among homeowners

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3. Perceived Community Problems

Respondents were asked to name the "two or three problems they would most like to see changed in their neighborhood." Comments related to noise were clarified as to source e.g. street/traffic or airport. Comments related to airport problems were specified to noise or pollution/other. The results of this question are shown below in Table A-2. They can be highlighted as follows:

- Half (54%) mentioned airport-related problems; the majority of these were specific to airport noise (52%), with about one in ten of these respondents mentioning other negative airport impacts such as air pollution (5%).
- Street repairs/traffic control is the next-most frequently mentioned area of community concern. 24% cited this as an issue, particularly street and/or sidewalk repairs (18%).
- o No other concern was mentioned by more than 10% of the respondents. Stricter law enforcement (8%), concerns about parks or schools (6%), inadequate recreational facilities for youth (3%), and complaints about landfilling (2%) were mentioned, and 21% of the population had other concerns which did not "cluster" meaningfully.
- One in six respondents (17%) said they had no specific complaints/concerns about their community.

TABLE A-2: PERCEIVED COMMUNITY PROBLEMS	%
Airport-Related Problems (NET*)	54
Noise	52
Pollution/Other	5
Street/Traffic (NET*)	24
Street/Sidewalk Repairs	18
Traffic and Noise Control	7
Landfill complaints	2
Law Enforcement	8
Parks/Schools	6
Youth Facilities	3
Other**	21
No problems	17

* % mentioning one or both of related items listed in category. ** Problems mentioned by no more than 2 respondents each.

4. Perceptions of Airport-Related Noise

In order to better understand residents' perceptions of airport noise and its impact on their community, two additional questions were asked specifically about that noise:

- o Rating of airport noise as it affected their home on a scale of 1-10 where 1 = "no problem" and 10 = "it's unbearable".
- Comparison of airport noise today to five years ago, and if different, perceived reasons for difference (better or worse.)

Table A-3 on the following page presents the results of these two questions. They can be highlighted as follows:

- o The average rating for airport noise is 6.29, with well over half (57%) rating it between 5 and 8. Only one in five (19%) rated it very negatively (9 or 10); one in ten (10%) rated it very positively (1 or 2).
- The majority of respondents (66%) see only some or no change in the level of airport noise over the past five years. However, they are much more likely to feel that the noise level has gotten worse than better (42% vs. 11%).
- The primary perceived reason for improvement in the noise level is quieter airplanes (71% of those saying the noise has gotten better.) Other reasons cited were changes in flight patterns (18%) and there being fewer flights (12%).
- o The primary perceived reason for worsening of the noise level is there being more flights (68% of those saying the noise has gotten worse.) The only other reason cited with any frequency is change in flight patterns (22%).

TABLE A-3: PERCEPTIONS OF AIRPORT NOISE

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Rating o	f Airpor	t-Rela	ted Nois	e
No pr	roblem -	1	% 5 7	
		2	5	10%
		3	47	
		4	95	13%
		5	17	0.5%
		6	9_	26%
		7	117	21.0
		8	20 5	31%
		9	47	1.00
Unbea	arable-	10	15	19%

Average Rating: 6.29

Comparison of Airport Noise to Five Years Ago

	<u>%</u>	
Very much better	2	
Somewhat better	9	
The Same	40 - 66%	
Somewhat worse	17	
Very much worse	25	
Don't Know	7	

5. Reactions to Alternatives

Respondents were presented with a series of six statements concerning various aspects of community development/noise management. For each, they were asked whether they agreed strongly, agreed moderately, disagreed moderately, or disagreed strongly with it. One of these related specifically to park development and is discussed in Section A-6 of this report. The remaining five cover the following issues:

- o allowing new homes to be built under flight paths (Statement A, next page)
- fair disclosure requirements to buyers of SeaTac area homes (Statement B)
- building code requirements for noise insulation in new homes (Statement C)
 - "fanning" airport noise vs. restricting it to single corridors (Statement D)
- o conversion of property to other uses vs. maintenance of residential stock (It should be noted that the wording of this statement in the interview was technically incorrect in that it implied that homes currently being acquired by the Port of Seattle could be maintained as residential stock; because this is not possible, the responses will not be considered further in this analysis.)

Table A-4 presents the results of this question series. They can be summarized as follows:

- Two thirds of the airport community (68%) opposes new residential development under flight corridors; half oppose it strongly (Statement A).
- Mandatory fair disclosure of noise levels to prospective home purchasers in the SeaTac area is favored by four out of five (79%), with half agreeing strongly (Statement B).
- o If new residential development is allowed, the majority (64%) of area residents agree that noise insulation should be required by code, despite resultant higher purchase prices (Statement C).
 - o The concept of "fanning" airport noise was rejected by two-thirds of the sample. 66% agreed that it is better to concentrate airport noise in a small area...than to spread the noise...over a large area (Statement D).

7. Differences Among Population Segments

Responses to the survey were cross-tabulated by several variables:

- o length of residence in current home (over/under 5 years)
- o estimated home value (under/over \$75,000)
- o residence in or out of year 2000 projected 75+Ldn areas
- o whether or not children are present in the household
- o home owners vs. renters.

Due to the small sample sizes, results of these cross-tabulations detected only major differences between population segments, rather than subtle ones. They can be highlighted as follows:

- o Airport-related problems, particularly noise, is of greater concern to long-term residents, homeowners, and those who live in the higher Ldn areas, than to more recent residents, renters and people in areas projected to have under 75 Ldn in the year 2000.
- o Those who consider airport noise more likely to be a significant community problem are more likely to be aware of the Airport Noise Remedy Update Study.
- o The sub-groups, as defined by the variables listed above, are similar in their reactions to development and noise management issues (opposition to new residential development; favoring mandatory fair disclosure of noise levels to new purchasers; requirement of noise insulation in new residential development; and opposition to "fanning" airport noise.)
- The sub-groups are similar in their reactions to park development issues (opposition to increasing property taxes to develop North SeaTac and Des Moines Creek Parks; moderate support for increasing park areas.)
- Households with children are more likely to use Angle Lake and Saltwater State Parks, but equally as likely to use the others as those without children.

B. Community Workshop Participants' Survey

The questionnaire used for the General Community (See Section A) was modified for distribution to participants in the three community workshops held by the Port of Seattle, August 29, 30 and 31. The modifications were made to ease self-administration, but the content was essentially the same. The questionnaire used is shown as Appendix A-2 to this report.

A total of <u>242</u> completed questionnaires were returned and tabulated, as follows:

Riverton meeting: 82 Des Moines meeting: 92 Highline meeting: 68

Overall, the workshop participants are quite similar in their opinions concerning what should be done about airport-related noise to the general airport community, despite some demographic and perceptual differences:

- Workshop participants were almost exclusively homeowners (98%), with estimated home values somewhat higher than for the community as a whole.
- Not surprisingly, workshop participants were more likely to consider airport noise to be difficult to live with -- an average rating of 8.76 (as compared to 6.29 community-wide), with most (90%) believing the noise is worse than five years ago.
- Specific community problems cited focused on airport noise (66%) remedy program concerns (especially use of vacant land), and street/traffic issues. This was not substantially different than among the general community.
- o Overall, workshop participants' opinions concerning community development and park policy issues mirror those of the general community, although more strongly. The participants:
 - oppose additional residential development in flight corridors (83%, as compared to 68% of the general community)
 - favor noise insulation requirements in the building code (80% vs. 64% of general community)

- favor mandatory fair disclosure of noise levels to new purchasers (83% vs. 79% of general)
- oppose "fanning" of airport noise (75% vs. 66% of general community)
- oppose increased property taxes to finance park development (76% vs. 68% of general community)
- workshop participants were more likely than the general community population to favor converting open spaces to commercial uses -- 64% vs. 46% of general population.

It should be noted that only 6% of the respondents to this Community Workshop Survey were also interviewed by telephone in the General Community Survey; this overlap would not affect overall results of either survey in any meaningful manner.

C. Target Area Surveys

1. Method of Study

Six residential areas were selected for inclusion in this phase of the study. Five were selected as representative of areas where the measured noise levels by grid cells and projected for the year 2000 are at or above 75 Ldn. These areas are as follows:

- 1. Des Moines Corridor
- 2. Des Moines Creek
- 3. Riverton Heights
- 4. North Corridor
- 5. West Sunset

A sixth area was added in response to community concerns as expressed through the Noise Remedy Update's Technical Working Committee -- Sunnydale. These six areas are shown outlined on the map in Exhibit 2 (page 6).

The survey sample was drawn from the Cole's reverse telephone directory, which lists all area households by their addresses. This process involved two steps: first, counting the number of households with published and/or non-published telephone listings in each area; second, listing all of the telephone households for the sample.

In actually attempting to reach the households, a certain number were disconnected or had been transfered out of the survey area(s). These were eliminated from the sample base, as well as a proportional number from the recorded number of non-published telephone households. At least three attempts were made to contact each listed household, with results as follows:

Identified Households	Total Area 2088	Des Moines <u>Creek</u> <u>815</u>	Des Moines <u>Corridor</u> <u>612</u>	River- ton <u>Heights</u> <u>146</u>	North Corridor <u>346</u>	Sunny- dale <u>62</u>	West Sunset 107
Non-Published Numbers	477	244	92	32	66	15	28
Published Numbers	1611	571	520	114	280	47	<u>79</u>
Not Reached After 3 Attempts Terminated/	312	133	104	7	42	5	21
Refused to Participate	141	45	39	10	42	3	2
Rent	425	101	204	13	96	3	8
Own (Completed Interview)	734	292	174	84	100	36	48

1

After calculating the proportion of owners vs. renters in the survey sample, a projection of the total number of owner-occupied dwelling units in each area can be made. The completion rates among homeowners in each sample area are shown below:

Projected # Owner- Occupied Dwelling Units	% of Owner- Occupied DU's Interviewed	% of Owner-Occupied DU's with Published Telephone Listings		Owner-Occupied DU's with Total Published Number of Maxim Telephone Completed Erro	Maximum Error <u>Range</u>
		Inter- viewed	Termi- nated*		
1338	55%	72%	9%	734	<u>+</u> 1.8%
603	48%	69%	8%	292	+ 3.0%
281	62%	72%	8%	174	+ 2.8%
129 176 57 92	66% 57% 64% 52%	87% 67% 84% 71%	8% 14% 7% 3%	84 100 36 48	+ 3.6% + 4.3% + 6.0% + 6.9%
	# Owner- Occupied Dwelling Units 1338 603 281 129 176 57	<pre># Owner- Occupied % of Owner- Owelling Occupied DU's Units Interviewed 1338 55% 603 48% 281 62% 129 66% 176 57% 57 64%</pre>	Projected Owner-Owne	Projected Owner-Occupied # Owner- % of Owner- Occupied % of Owner- Dwelling Occupied DU's Interviewed Inter- Inter- Termi- viewed nated* 1338 55% 603 48% 603 48% 603 48% 69% 8% 129 66% 87% 8% 176 57% 67% 14% 57 64% 84% 7%	Projected # Owner- Occupied Dwelling UnitsOwner- 0ccupied DU's InterviewedOwner- DU's with Published Telephone ListingsTotal Number of Completed Interviews133855%72%9%73460348%69%8%29228162%72%8%17412966%87%8%8417657%67%14%1005764%84%7%36

* due to language barriers, refusals, deafness, etc.

The overall sample is stable within a maximum + 1.8%. That is, results from the total survey (all six areas combined) are no more than 1.8% off in either direction in reflecting opinions and behavior of the population. The level of precision in the results in each of the six sample areas is shown in the chart above, in the far right hand column. Thus, where 50% of the homeowners interviewed in Des Moines Creek answered "Yes" to a certain question, the actual proportion of the Des Moines Creek homeowners who would have answered "yes" if they had been interviewed is between 47 -53%. This high level of precision in the results is due to having interviewed a high proportion of the homeowners in each area: between 48-66% of all homeowners (including those with non-published telephone numbers) and between 67-87% of those with published phone numbers. The variation in completion rates among the six areas is due to variations in termination rates (3-14%) and non-contacts after 3+ attempts. The overall termination rate (9%) is well within acceptable ranges of accuracy; most opinion surveys have termination rates between 15-25%.

It is also worth noting that the six target areas were included in the overall Study Area delineated for the General Community Survey (See Section A), and that some respondents (4% of the total Target Area Survey) were included in both surveys.

All interviewing was conducted by professional telephone interviewers during the period September 17 - October 6, 1983. Calls were placed between 5:00 - 9:00 pm on weekday evenings, 10:00 am - 5:00 pm Saturdays, and noon - 7:00 pm Sundays, except in those cases where a respondent specifically requested to be recontacted during the day.

The questionnaire covered seven major areas:

- o demographics/housing stock characteristics
- o homeowners' attitudes towards maintaining the residential character of their neighborhood
- o acceptability likelihood of participating in three noise remedy program alternatives:
 - purchase guarantee
 - cost-sharing of noise insulation
 - direct purchase of the avigation easement
- o preference among three program alternatives

o reactions to proposed guidelines for prioritizing participation in a purchase guarantee program.

A copy of the questionnaire used is shown as Appendix A-3 to this report.

Responses to each of these areas is presented in the following sub-sections of this report (C2 through 8).

The results are summarized and discussed in textual form. As collected, the tabular data presents the responses to each question for the total survey area population, and cross-tabulated by the following variables:

- o age of respondents
- o whether or not children are present in the household
- o annual household income
- o estimated home value
- o type of dwelling unit
- o whether want to move immediately or stay in the area
- o target area

The results in the six target areas (individually) are shown as they actually appear. Because the six areas were sampled slightly disproportionately to the total, data based on the total area population is weighted to reflect each target area's relative share of the overall survey area's homeowner population:

		ected ccupied ng Units %		tual rviews %	<u>Weight</u>
Des Moines Creek	603	45.1%	292	39.7%	1.14
Des Moines Corridor	281	21.0%	174	23.7%	.89
Riverton Heights	129	9.6%	84	11.6%	.83
North Corridor	176	13.1%	100	13.6%	.96
Sunnydale	57	4.3%	36	4.9%	.87
West Sunset	92	6.9%	48	6.5%	1.06
Total	1338	100.0%	734	100.0%	

2. Demographic/Housing Stock Characteristics of Target Area

As in the General Community Survey, respondents to the Target Area Survey were asked a series of questions concerning their demographic characteristics:

- o Length of residence at current address and in community
- o Respondent's age
- o Whether or not children (under age 18) live in the home
- o Whether or not someone in household works for/at SeaTac
- o Annual household income

In addition, housing stock characteristics in each area were identified:

- Home ownership vs. rental (Note: renters were not asked the full questionnaire)
- o Type of dwelling (single-, multi-family, mobile home)
- o Estimated market value of home

These characteristics are shown in Table C-1 and may be summarized as follows:

 Housing Stock Characteristics: Across the total Survey Area, i.e. the six target areas as a whole, two thirds (64%) of the households are owner-occupied. The strong majority of these (87%) are single-family detached homes; 8 % are trailers or mobile homes, and 5% are multi-family units.

Projections based upon this survey data indicate a total of 1300 - 1375 owner-occupied dwelling units exist in the survey area:

<pre># of Survey Area Residents Living in:</pre>	Single family	Multi- family	Mobile Home	Total
Total Area	1164	67	107	1338
Des Moines Creek Des Moines Corridor Riverton Heights North Corridor Sunnydale West Sunset	525 247 128 167 55 50	18 31 1 7 2	60 3 2 2 40	603 281 129 176 57 92

Average estimated home value is \$77,368, with 11% of homes valued at \$100,000 or more and 11% valued at under \$50,000. The average estimate is different for the three types of dwelling units.

Single family	home	\$81,383
Multi-family*		\$79,768
Mobile Home**		\$46,556

- * It is not clear whether this estimate is for the entire building or the specific unit.
- ** It is not clear whether or not this estimate includes
 land value.

It should be noted, too, that the average value estimated for mobile homes/trailers are probably inflated, due to the use of value categories (e.g. "under \$50,000") in the calculation.

Average home value differs markedly in the six survey areas, beyond what could be attributed to the differences in housing unit types:

Des Moines Creek	\$67,663
Des Moines Corridor	\$89,583
Riverton Heights	\$75,765
North Corridor	\$77,604
Sunnydale	\$89,229
West Sunset	\$72,959

Few of the owner-occupied dwelling units already have an avigation easement in their deeds -- 3%. It is interesting to note that 18% of the homeowners interviewed were not sure whether or not the easement was included. All of the known easements are on single-family homes; 4% of this type of structure. This represents approximately 40-50 homes with easements, leaving a total pool of approximately 1125 single-family homes in the area without known easements. Virtually all of these are found in the Des Moines Creek area and they are more likely to be found on homes with lower estimated values.

 Demographic Characteristics: The home-owner population in the Target Survey area is a close mirror demographically to the larger airport community. (See Section A-2). Several correlations among demographics and housing stock characteristics bear note:

- Those who have purchased their current residence within the past 5 years are predominantly young, with children (76% are under 45 years old; 56% have children in the household). They are more likely to be living in multi-family units (11%) or mobile homes (15%).
- Long-term residents (10 years or more at their current address) tend to be older (84% are 45+ years of age, and 25% are 65+), and virtually all (96%) live in single family homes.
- Mobile home owners tend to have lower incomes -- 36% under \$15,000 annually, and a total of 84% under \$25,000.
- Not unexpectedly, older people (65+ years of age) tend to have lower incomes than do the younger households
 -- 69% have annual household incomes under \$25,000 compared to 31% of those aged 45 - 64 and 27% of those under 45 years of age.
- Thus, it is not surprising to find that a third of those living in mobile homes (30% are 65+ years of age).
- Multi-family owners are clustered in the younger, affluent segments: 45% have incomes over \$40,000 and 64% are 25-44 years of age.

There are also noteworthy differences between the six Survey Areas:

- Des Moines Creek has the highest proportion of younger families (44% are under 45 years of age; 45% have children at home). The area has a relatively higher level of new residents -- 23% have lived at their current address less than five years. One in ten live in mobile homes.
- <u>Riverton Heights</u> is the most established of the neighborhoods surveyed. 99% of its homeowners live in single-family homes, and only 10% are new to the area (within the past 5 years). The families are slightly older than in either Des Moines Creek or Des Moines Corridor (19% are 65+ vs. 12% and 10%).
- North Corridor homeowners are slightly older than Riverton Heights' -- 23% are 65+ years, and only 26% have children in the home (vs. 39% in Riverton Heights). However, one in five (19%) residents are new to the neighborhood.

TABLE C-1:

1

DEMOGRAPHIC CHARACTERISTICS OF TARGET AREA COMMUNITIES

Current Home Is:

Owned	64%
Rented	36%

Length of Residence:	At Current Address	In Airport Area
Under 2 years 2-5 years 5-10 years 10-20 years 20+ years	3% 20% 21% 26% 30%	1% 10% 15% 25% 49%
Estimated Home Value*: Under \$50,000 \$50,000 - \$75,000 \$75,000 - \$100,000 \$100,000 - \$150,000 Over \$150,000 Don't Know/Refused	11% 37% 35% 9% 2% 5%	
<u>Children Living at Home</u> * Yes No	38% 62%	
<u>Anyone in Household Working</u> Yes No	for/at Airport* 5% 95%	
Age of Respondent* Under 24 years 25-44 years 45-64 years 65 OR OVER	2% 39% 43% 16%	
Annual Household Income* Under \$15,000 \$15,000 - \$25,000 \$25,000 - \$40,000 \$40,000 - \$75,000 \$75,000 or over Don't Know/Refused	15% 20% 34% 17% 2% 12%	

* Among homeowners

- <u>Sunnydale</u> is an even older neighborhood, in terms of its homeowners' age -- 36% are 65+ years old, and only 22% have children at home. Home values and household income tend to be somewhat higher, with few new residents (11% in the past 5 years).
- West Sunset is similar to Sunnydale in terms of family composition, but it is less affluent and has more new homeowners (25% in the past 5 years). This is in line with its concentration of mobile homeowners (44%).

3. Attitudes Towards Maintaining Residential Character of Neighborhood

A key issue underlying reactions to various noise remedy program options is whether or not residents want to maintain the overall residential character of their neighborhood and their own home. Respondents to the survey were asked a series of questions to ascertain their position on this issue:

- o Whether they agree or disagree with two statements:
 - Your neighborhood should be maintained as a residential area
 - Building new homes in your neighborhood should not be allowed.
- o Which of the following two statements best describes how they feel about living in their neighborhood:
 - Prefer to move out of the neighborhood immediately if could get a fair market value for present home.
 - Prefer to stay in the neighborhood in present home if could be assured of selling home in the future, say, 10 years from now.

The results of these questions can be summarized as follows:

	A	Agree		sagree
	Total %	Strongly %	Total %	Strongly %
Your neighborhood should be main- tained as a resi- dential area	74	56	21	13
Building new homes in your neighbor- hood should not be allowed	42	30	50	25
	%			
Want to Move Immediately	37			
Want to Stay in Area for Im- mediate Future	59			
Don't Know	3			

There is fairly strong agreement that the survey target areas should be maintained as residential areas (74%) although feeling is not as widespread that residential stock should be increased through new development (50%). About one third of the homeowners in the survey areas would like to move immediately.

There are two notable exceptions to this pattern:

- o Homeowners in the Des Moines Corridor area and those with homes with values in excess of \$75,000 (Note that this area has a larger proportion of the more expensive homes than do other areas surveyed.) are particuarly concerned with maintaining the residential character of their neighborhoods and staying there.
- Resident home-owners of multi-family dwellings are somewhat less likely to want to stay in the area (58% would like to move immediately), but more likely to want to maintain the area's residential character (80% agree strongly with that idea, as compared to 55% of single-family homeowners).

In evaluating these results, it is important to keep in mind homeowners' general concern for changing, i.e. increasing levels of airport noise over time. Comments were made throughout the course of the interviews to the effect that "this is how I feel about it now...if the noise gets worse, I'll want to move" or the reverse -- "if it really does get better, I may not need to move." Homeowners experience themselves as caught between their own perceptions of noise level and what they "hear" as the Port's promises that "things will get better" even if flight volume increases. They are generally suspicious of these promises and fearful of losing control completely of their situation.

4. Preference Among Noise Remedies

Respondents were asked their reactions to three noise remedy program options:

- o outright purchase of an avigation easement, for a dollar amount equal to some percentage of their home's fair market value (5%, 10%, 20%)
- o noise insulation cost-sharing with the Port of Seattle paying some proportion of the costs (25%, 50%, 75%, 100%)
- o purchase guarantee, with the Port as buyer-of-last-resort

For each program option, respondents were asked how likely they would be to participate if that program were available to them. Then, after disucssion of all three options, respondents were asked which they preferred. The results of the overall preference questions are presented in this section as context for the detailed discussion of reactions to the individual options presented to Sections 5-7.

By far, a	purchase guarantee pr	ogram is	the preferred option
among the	homeowners surveyed,	with 59%	preferring it:

			First Choice Among Those Who Want To		
Prefer:	First Choice %	Second Choice*	Stay in Area %	Move Immediately %	
Purchase Guarantee	59	N/A	43	84	
Noise/insulation Cost-sharing	18	22	26	5	
Purchase of Easement	9	17	12	3	
Want Nothing	7	19	9	3	

* those preferring the purchase guarantee (first choice), were asked which alternative they would prefer if purchase guarantee were not available in their neighborhood.

For those who wish to move out of the area, the purchase guarantee is the overwhelming choice -- 84%. Among those wishing to stay in their homes, however, it is less desirable -- only 43% want it available to them.

It is worth noting that a third of those for whom the purchase guarantee is first choice (or 19% of the total target area homeowners) want the purchase guarantee or nothing.

In the absence of a purchase guarantee program, a total of 26% would prefer an outright purchase by the Port of an avigation easement; even if the guarantee program were available, 9% would prefer the buyout of an easement.

The noise insulation program is the most preferable alternative to 18%, and in the absence of a purchase guarantee program, to 40%. It is the preference of 26% of those who wish to remain in their homes.

Few of the survey area homeowners want nothing -- only 7%, and few are undecided when presented with the three alternatives -- 4%.

As could be expected, there are differences among population segments concerning program preferences:

- Purchase guarantee is more often the preferred option in the Riverton Heights (74%), West Sunset (73%), and Des Moines Creek (62%) areas than in the Des Moines Corridor (45%), North Corridor (53%) and Sunnydale (58%) area.
- In Des Moines Corridor and North Corridor, the noise insulation program is more acceptable (29% and 25%, respectively). This program is acceptable to only one in ten in Riverton Heights, West Sunset and Sunnydale. One in eight (16%) Des Moines Creek homeowners prefer noise insulation.

If a purchase guarantee program were not available, the cost-sharing noise insulation program is about equally preferred in all areas (35-46%) except Sunnydale (30%).

- Outright <u>purchase</u> of the <u>avigation</u> <u>easement</u> is relatively more preferable in the West Sunset (13% most preferred and 33% if no purchase guarantee available), Des Moines Corridor (11%) and North Corridor (10%) areas than elsewhere (6 - 8%).
- It is worth noting that homeowners in the Sunnydale area are rather polarized. One in four (25%) want nothing.
 Over half want a purchase guarantee (58%) and half of those (25%) want a purchase guarantee or nothing.

5. Interest in Purchase Guarantee Program

Respondents were asked four basic questions concerning a purchase guarantee program with the Port as the buyer of last resort:

- o acceptability of the program option (4 point scale: Very acceptable --> Not at all acceptable)
- o reasons for its not being acceptable (among all of those who did not find it "Very Acceptable")
- o likelihood of applying for purchase guarantee if respondent's home were eligible (4 point scale: Very likely --> Not at all likely)
- o estimate of how soon respondent would want to apply for the program (among all of those who say they would be at least "Not particularly likely to apply")

			int to
	Total %	Stay in <u>Area</u> %	Move Immediately %
Very acceptable solution Somewhat acceptable Not very acceptable Not at all acceptable Don't know	50 27 6 10 3	48 25 6 13 4	55 31 5 5 2
Very likely to participate Somewhat likely Not very likely Not at all likely Don't know	46 25 9 13 3	30 30 13 19 3	73 17 3 2 3
Would apply Immediately Within 2 years 3 - 5 years 6 - 10 years More than 10 years Don't Know Not likely to apply	24 16 18 12 9 4 16	4 8 22 19 14 6 22	50 29 11 2 1 5

The results of these questions can be summarized as follows:

The purchase guarantee program would be an acceptable solution for the majority of the survey area residents --77% would consider it at least somewhat acceptable, and half would find it very acceptable.

The primary reasons for non-acceptability generally relate to suspicion of the Port's proposed/"probable" methods. A third of those who consider the solution unacceptable express concern over the method of computing fair market value, and one in five simply said they are suspicious of anything the Port does.

Program-specific issues focus on two concerns: relocation cost reimbursement and the purchaser-of-last-resort concept. 5% of the sample rejected the program as described, preferring a direct buy-out. This was further elaborated upon by a number of respondents, who said they preferred the direct buy-out because it implied a reliable time frame, a firm date which could be counted upon.

The program is equally acceptable to those who wish to remain in the area as to those who wish to move. However, they project different probablities of participation. Overall, half (46%) of the survey sample said they would be very likely to participate if such a program were available to them, and 71% say they are at least somewhat likely to do so; three out of four of those who wish to move immediately (73%) say they would be very likely to do so and 86% would be at least somewhat likely. On the other hand, only 30% of those who want to stay in the area say they would very likely particpate, and 60% would be at least somewhat likely.

To understand this high projected participation level among those who wish to stay in the area, it is useful to examine the timing of program applications they project. 79% of those who wish to move immediately would apply for a purchase guarantee program during its first two years of operation (50% would apply immediately). Only 12% of those who wish to stay in the area would apply within 2 years, but a full half (53%) would apply within first 10 years of program availability. This leads to the following projections concerning program applications for the overall survey area:

Total Owner-Occupied Households*	1300
Apply immediately	286
Within 2 years	221
3 - 5 years	247
6-10 years	156
More than 10 years	117
Don't know when, but would want	
to apply	52
Not likely to apply	221

* without current avigation easement

This can be detailed by area as follows:

	Des Moines Creek	Des Moines Corridor	River- ton <u>Heights</u>	North Corridor	Sunny- dale	West Sunset
Total households*	560	275	127	176	<u>57</u>	<u>92</u>
Immediately Within 2 years 3 - 5 years 6-10 years More than years Don't know when (TOTAL LIKELY TO APPLY)	153 96 107 59 35 26 (85%)	38 34 50 47 37 11 (79%)	30 14 26 18 12 (79%)	31 39 37 23 16 5 (86%)	5 8 6 11 9 2 (72%)	19 27 11 6 8 8 (86%)
Not likely to apply	84	58	27	25	16	13

* without current avigation easement

A cautionary note should be made concerning the precision of these projections: they are subject to the standard sampling error inherent in the survey process, and should be treated as estimates within $\pm 10\%$ for conservative planning.

It should also be noted that residents expressed a strong concern about the effect of purchase guarantee on neighborhood ambience and home values, i.e. "if everyone starts moving out, home values will fall, transients will move in, and the area will go commercial. Then I'd want to move, too." The effect of this chain reaction cannot be gauged at this time, but in our judgement would influence participation rates to a significant degree.

6. Interest in Insulation Cost-Sharing

Respondents were asked five questions concerning noise insulation as a remedy program.

- o acceptability of the program option (4-point scale: Very acceptable --> Not at all acceptable)
- o reasons program not acceptable (among all of those who did not find it "Very acceptable")
- o likelihood of participating in cost-sharing program if Port were to pay 25% of cost (4-point scale: Very likely --> Not at all likely); all of those who were not "very likely" to participate as 25% were asked how likely they would be to participate if the Port paid 50%, then at 75%; then at 100%. The objective here was to determine the acceptable level for Port/homeowner cost-sharing. The assumption was that those willing to participate with the Port paying 25% would also be willing to participate if the Port paid more.
- o reasons for non-participation among those who were not "very likely" if the Port were to pay 100% of the cost.
- o whether the respondent agreed or disagreed with the statement that "if new homes were allowed in your neighborhood the building codes should require the builder to put in noise insulation, even though that will make the price somewhat higher." This was not specific to the cost-sharing program, but served as context for understanding attitudes towards noise insulation in general.

The results of these questions can be summarized as follows:

		Want To		
	Total %	Stay In Area	Move Immediately %	
Very acceptable solution Somewhat acceptable Not very acceptable	27 26 13	29 28 12	23 22 15	
Not at all acceptable Don't know	29 2	25 2	35 1	
Likely to participate <u>if Port pays</u> 25% 50% 75% 100%	4 10 19 33 34 67	<u>*</u> <u>Cum</u> 3 13 16 21 37 <u>32</u> 69 69	4 6 10 18 28	

* Cumulative

Agree		Dis	sagree
Total	Strongly	Total	Strongly
74%	59%	19%	9%
	Total 74%		Total Strongly Total 74% 59% 19%

Overall reaction to the concept of noise insulation was relatively positive. Three out of four (74%) respondents to the survey agreed that new homes should be insulated against noise; 59% agreed strongly. This indicated a belief that noise insulation is effective to at least some degree as a noise remedy.

Half of the survey sample (53%) consider a noise insulation cost-sharing program an acceptable solution; one in four (27%) consider it very acceptable. Interestingly, the level of acceptance is only slightly higher among those who want to stay in the community than among those who want to move immediately -- 57% vs. 45%.

The Port's share of the cost of noise insulation is key to program acceptance, however. At 25% Port commitment, only 4% would participate. At 75%, 33% would participate, and at 100%, 67% would participate. This can be translated to approximate numbers of households:

Total Owner-Occupied Households*	1300
Likely to participate	
25%	52
50%	182
75%	429
100%	871

There is some difference among the six Survey Areas in their likelihood of participation in a cost-sharing noise insulation program:

	Des Moines Creek	Des Moines Corridor	River- ton <u>Heights</u>	North Corridor	Sunny- dale	West <u>Sunset</u>
Total households*	560	275	127	176	57	92
25% 50%	22 78	8 47	6	18 39	2	7
75% 100%	174 370 (66%)	121 206 (75%)	27 69 (54%)	72 121 (69%)	14 24 (42%)	17 72 (78%)

without current avigation easement.

These projections are probably conservative. At least some of those who said they would be somewhat likely to participate if the Port paid 75% to 100% would probably participate if it were the only program option available to them.

The primary objection to the noise insulation cost-sharing program is that it would not be effective in reducing noise either outside (yard) or inside the home. This was mentioned most frequently, by 17% of the total survey population. Other objections include:

Home is already insulated	14%
Purchase guarantee is only acceptable solution Noise should be controlled	8%
at source/all adverse effects should be eliminated Don't want to give avigation	7%
easement	4%

Distrust of the Port and the way in which the program would be implemented was far less prominent for this program alternative than for purchase guarantee (7% vs. 24%).

Finally, a few respondents expressed concern over negative health effects associated with noise insulation (asbestos and formaldehyde) and the "hassle of tearing up my home to put it in."

D. Awareness of Airport Noise Remedy Update Program

Respondents to all three surveys were asked a series of questions concerning their awarenesss of and participation in the Airport Noise Remedy Update Program:

- o awareness of overall program process
- awareness of and participation in Port-sponsored community meetings
- o how heard of those community meetings
- o how they would get (more) information about the program if they wanted to do so.

The results of these questions can be summarized as follows:

General Community Total (151)	Aware of Noise Remedy Update Program % 27	Aware of Port- Sponsored Community <u>Meeting</u> % 25	Attended Port- Sponsored Community Meeting % 6	Want Meetings to <u>Continue</u> % 4
Community Workshop Participants Total (242) Riverton Heights (82) Des Moines (92) Highline (68)	N/A	N/A N/A N/A N/A	N/A N/A N/A N/A	73 63 79 73
Target Area Residents Total (734) Des Moines Creek (292 Des Moines Corridor (174) Riverton Heights (85) North Corridor (100) Sunnydale (36) West Sunset (48)	38	46 53 36 53 48 39 15	13 16 8 20 8 17 2	N/A N/A N/A N/A N/A N/A N/A

Awareness of the Airport Noise Remedy Update process is higher in those areas closer to the Airport which tend to experience higher measured levels of aircraft noise. 27% of the current 70+ Ldn level area residents (General Community) are aware of the process as compared to 38% of those in the Survey Target Areas (projected Ldn levels of 75+ in 2000). Awareness of the Port-sponsored community meetings is at about the same level in the General Community (25%). Interestingly, homeowners in the six closer-in, Survey Target Areas tend to be more aware of the community meetings than of the overall Program Update Process -- 46% have heard of the meetings and 13% claim to have attended one or more.

There are some differences among the six Survey Target areas:

- o Homeowners in Des Moines Creek and Riverton Heights are most likely to be aware of the community meetings (53% in each) and to have attended (16% and 20%). In the two areas, about a third of those who were aware of the meetings attended.
- Homeowners in the North Corridor are also generally aware of the meetings (48%) but few attended - 8% of the total, or one in six of those who were aware of them.
- o Des Moines Corridor homeowners were not as likely to be aware of the meetings (36%); among those who were aware of them, one in four (8% of the total) attended.
- In West Sunset, awareness of the meetings was lowest -- only 15% of the total -- and only 2% (or one in seven of those who knew of them) attended.
- o More than a third of Sunnydale homeowners (39%) were aware of the meetings, and two out of five (44%) of those who had heard of them attended (17% of the homeowners).

The majority of those who participated in the community meetings want to see them continue -- about three out of four (73%). Participants in the Riverton Heights meeting were somewhat less interested in additional meetings -- 63% want them to continue as compared to 79% of Des Moines participants and 76% of those attending at Highline.

Among those who were aware of the meetings, how they got the information about them is relevant to planning future community involvement efforts.

	How heard of meetings				
Among those Aware of Meetings Community Workshop Participants	Local <u>Newspaper</u> %	Word of Mouth %	Daily <u>Newspaper</u> %	News- letter/ <u>Brochure</u> %	
Total Riverton Heights Des Moines Highline	47 38 47 57	50 42 52 43	23 17 28 24	30 25 25 41	
Target Area Residents					
Total (334) Des Moines Creek (155) Des Moines Corridor (63) Riverton Heights (45) North Corridor (48) Sunnydale (14) West Sunset (7)	60 54 75 53 67 57 86	35 38 22 60 29 14	11 10 8 16 17 14 14	10 6 5 40 13 	

- o In general, those who actually attend the community meetings had heard of them through more than one source. The local newspaper is the most widely-cited information avenue that can be utilized by the Port; half of those who attended (47%) were aware of local newspaper coverage.
- Local newspaper coverage was also the most frequently cited information source among respondents in the Survey Target Areas who were aware of the meetings -- 60% overall. It was clearly the most important source in Des Moines Corridor and West Sunset.
- o The newsletter was particularly effective for the Highline participants -- 41% cited it as an information source for the community meetings. A third (30%) of all participants mentioned it. However, few homeowners in the overall Survey Target Areas (11% of those aware of the meetings) recalled the newsletter. The exception to this was Riverton Heights, where 40% of those who were aware of the meetings recalled the newsletter.
- Daily newspaper coverage was mentioned with about equal frequency as the newsletter -- 23% of those who attended the meetings and 11% of those in the Survey Target Areas who were aware of the meetings.

- Word-of-mouth was a significant factor in communicating information about the meetings, among those who attended (50%) and those who were aware of them overall (35%).
- Radio and television coverage were less frequent sources of information -- 19% and 15% of participants respectively. Neither were particularly noticed among Highline participants.

Half of the General Community (53%) would not know how or where to get more information about the SeaTac Noise Remedy Update Program. This was also the case in the Survey Target Areas (53%), particularly West Sunset (73%). Among those who do consider information to be relatively accessible, the majority would call the Port of Seattle (45% general population; 57% Survey Target area) or the Airport (17% general population; 7% Survey Target areas). No other avenue was mentioned by more than about one in ten respondents (word-of-mouth -- e.g. friends, neighbors; local government; news media; community groups). A few exceptions are worth noting:

- o In West Sunset, 85% would call the Port of Seattle
- In Riverton Heights, word-of-mouth is seen as a stronger resource than elsewhere (36%).

IV. APPENDICES

- A. Questionnaires
 - 1. General Community Survey
 - 2. Community Workshop Participants
 - 3. Target Area Survey
- B. Copy of Letter to Technical Working Committee RE: Survey Reliability

APPENDIX A: QUESTIONNAIRES

McClure Research Company	#508 I.D.#: (1-3)
Address	Phone #	

Hello, this is from McClure Research Company, an opinion research firm here in Seattle. We're conducting a survey today for the Port of Seattle concerning various issues that might affect your community. First, I need to verify your address to make sure you live within our study area. Is it... (address)? (IF NOT, TERMINATE AND RECORD ON CALL RECORD SHEET AS "OUT OF AREA".) Can you tell me the cross-street closest to where you live on (street)?

 Are you the (male) (female) head of this household? (IF NOT, ASK TO SPEAK TO SOMEONE WHO IS.) IF NOT AVAILABLE, ASK FOR AND RECORD TIME FOR CALLBACK ON CALL RECORD SHEET)

2a.	First of all, how long have		02a	025
	you lived at this address?		(5)	(6)
		UNDER 2 YEARS	1	1
2b.	And how long have you lived	2-5 YEARS	2	2
	in this general community?	5+ - 10 YEARS	3	3
		10+ - 20 YEARS	4	4
		MORE THAN 20 YEARS	5	5

3. Thinking about what it's like to live in your community, what are the two or three things you would most like to see changed or improved there?

1		

(IF NOISE MENTIONED, CLARIFY TYPE/SOURCE, E.G. AIRPORT, FREEWAY, ETC.)

- 4. One of the issues we'd like to talk about is airport noise. Overall, how would you rate the level of airport noise that you get in your own home? Using a scale of 1-10 where "1" means it hardly bothers you at all and "10" means you find it unbearable, what number would you give the airport noise?
 - 13--

9

4-

5a. Thinking back to at least five years ago, would you say the airport noise is different now than it was then?

SKIP TO Q. 6 SAME (14)

Would you say it's gotten better or	DIFFERENT	
worse? Very much (better) (worse)	Better	
or somewhat (better) (worse)?	Very Much	2
	Somewhat	3
	Worse	
	Very much	4
	Somewhat	5
SKIP TO 0. 6	DON'T KNOW	6

5b. What do you think has made the airport noise (better) (worse) over the past five years or so?

(D0	NOT	READ	LIST;	MULTIPLE	ANSWERS OKAY)	(15 - 19)
					QUIETER AIRPLANES	1
					NOISIER AIRPLANES	2
					CHANGES IN FLIGHT PATTERNS	3
					CHANGES IN . FLIGHT TIMES	4
					MORE FLIGHTS	5
					FEWER FLIGHTS	6
					BIGGER AIRPLANES	7
					OTHER:	8

DON'T KNOW

Now I'm going to read some statements about ways of handling different issues in the communities near SeaTac, and for each one, I'd like you to tell me if you agree or disagree with it. The first is... (START WITH X'D ITEM FOR ROTATION.) Do you agree strongly, agree somewhat, disagree somewhat, or disagree strongly with that statement?

			Agree		Disagree		Don't	
			Strongly	Somewhat	Strongly	Somewhat	Know	
(()	Building new homes under SeaTac flight paths should not be allowed.	1	2	3	4	5	(20)
(()	When someone sells their home in the SeaTac area, they should be required by law to tell the buyer the real level of noise in that home.	1	2	3	4	5	(21)
(()	The building codes for new homes in the Sea Tac area should require the builder to put in noise insulation, even though that will make the price somewhat higher.	1	2	3	4	5	(22)
(()	It would be better for the the open spaces currently set aside for parks to be developed into commercial uses that are compatible with noise, like warehousing and light industry.	1	2	3	4	5	(23)
		SeaTac (PORT OF SEATTLE) is in the process of buying houses that are most affected by airport noise. It would be better for the community if these homes were sold to new people than if they were cleared for some other use like parks or warehousing.	1	2	3	4	5	(24)
(()	It is better to concentrate airport noise in a small area by restricting aircraft to as few flight corridors as possible than to spread the noise and	1	2	3	4	5	(25)

7a. The next few questions are about parks in the SeaTac area. I'm going to read a list of parks, and for each one, please tell me how often you or anyone in your family has used it in the past three months.

flight patterns over a large

area.

Number Time Used	26
:	27
2	28
2	29
:	30
:	31

6.

8a. The North SeaTac Park area is located north of SeaTac between Highway 518 and 136th Street. SeaTac is also buying the property up to 128th Street, which will be cleared and used either to expand the park area or for other things like warehousing or offices. Do you think the park area should be expanded or used for other things?

	(32)
EXPAND	1
USE FOR OTHER THINGS	2
DON'T KNOW	3

8b. In order to develop North SeaTac Park and Des Moines Creek Park, money has to be raised. There is some consideration of raising property taxes somewhat to pay for it. Would you favor or oppose increasing property taxes to pay for developing those parks? Strongly or moderately?

1	(33)
FAVOR	
STRONGLY	1
MODERATELY	2 .
OPPOSE	
STRONGLY	3
MODERATELY	4
DON'T KNOW	5

9a. Finally, I'd like to talk about the SeaTac Noise Remedy Program. In 1977, SeaTac set up a program to handle the airport noise in the surrounding communities. This year, they are doing an update of that program. Had you heard of that process going on this year?

	(34
YES	1
NO	2

9b. Had you heard of any meetings or workshops being held by the airport in the area about the SeaTac noise remedy plan this year?

	YES	1
SKIP TO	Q.10a NO	2

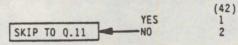
9c. Do you remember how you heard about those meetings or workshops? (How?) (DO NOT READ LIST, MULTIPLE ANSWERS OKAY).

(3	D	-3	9	

)

		(20-2
	NEWSPAPER NE IGHBORHOOD	1 2 3 4
	DAILY	2
	RADIO	3
	TV NEWSLETTER/	4
	BROCHURE/FLYER	5
	WORD-OF-MOUTH	5 6 7
	COMMUNITY MEETINGS OTHER:	7
		8
	DON'T REMEMBER	9
Have you attended any of those meetings?		
		(40)
	YES	1
SKIP TO Q.10a	NO	2
Would you like to see them continue?	•	
		(41)
	YES	1
	NO	2
	DON'T KNOW	3

10a. If you wanted to get more information about the SeaTac noise remedy plan, would you know how to get it?



10b. How would you do it?

9d.

9e.

	This last set of questions is so that we can group your answers w people like yourself. What is your age? (DO NOT NEED LIST.)	(44)
	UNDER 24	
	25-44	1 2 3 4 5
	45-64	5
		3
	65 OR OVER	4
	REFUSED	5
12.	Are there any children under age 18 living in your home?	
		(45)
	YES	1
	NO	2
	REFUSED	(45) 1 2 3
13.	Is there severe in your beyerheld who works for on at SanTac?	
13.	Is there anyone in your household who works for or at SeaTac?	IAES
	VEC	(46)
	YES	1
	NO	2
14a.	Do you own or rent your home?	
		(47)
	OWN	
	SKIP TO Q.15 RENT	2

	(48)	
Under \$50,000	1	
\$50,000-75,000	2	
\$75,000-100,000	3	
\$100,000-150,000	4	
Over \$150,000	5	
REFUSED/DON'T KNOW	6	

Finally, what is your annual household income, including everyone who lives in your home? Is it... 15.

	(49	
Under \$15,000	1	
\$15,000-25,000	2	
\$25,000-40,000	3	
\$40,000-75,000	4	
Over \$75,000	5	
REFUSED/DON'T KNOW	6	

That concludes our survey. Thank you so very much for your time and cooperation.

Interviewer:____ Date:

Refer Questions to Diane Summerhays at Port of Seattle (382-3320).

	SEATAC NOISE REMEDY PROGRAM: COMMUNITY ATTITUDE SURVEY	DO NOT WRITE IN THI SPACE
	Please write in your address or the cross-streets closest to your home:	I.D.# (1-3) 4-
•	How long have you lived at that address? (CHECK BOX BELOW IN FIRST COLUMN)	
•	How long have your lived in your community? (CHECK BOX BELOW IN SECOND COLUMN)	
	Lived at Current AddressLived in CommunityUnder 2 years 2-5 years 5-10 years 10-20 years More than 20 years() () ()() () ()	5- 6-
	What are the two or three things you would most like to see changed or improved in your community? (PLEASE BE SPECIFIC)	
	1	7-8-
	2	9- 10-
	3	11- 12-
	Overall, how would you rate the level of <u>airport</u> noise that you get in your own home? Use a scale of 1-10 where 1 = hardly bothers you at all	
	(CIRCLE RATING BELOW) 10 = you find it unbearable	
	Hardly Bothers You Find It You Unbearable	
	1 2 3 4 5 6 7 8 9 10	13-
	Thinking back to at least five years ago, how would you compare noise now to how it was then?	
	What do you think has made the difference in airport noise over the past 5 years or so? Same Very Much Better () Somewhat Better () Very Much Worse () Somewhat Worse ()	14- 15- 16- 17- 18- 19-

Below are some statements about ways of handling different issues in the communities near SeaTac. For each one, please indicate whether you agree or disagree with it by checking the appropriate box.

			ree ongly		ree ewhat			Disa				
	Building new homes under SeaTac flight paths should not be allowed.	()	()	()	()	()	20-
	When someone sells their home in the SeaTac area, they should be required by law to tell the buyer the real level of noise in that home.	()	()	()	()	()	21-
	The building codes for new homes in the Sea Tac area should require the builder to put in noise insulation, even though that will make the price somewhat higher.	()	()	()	()	()	22-
	It would be better for the the open spaces currently set aside for parks to be developed into commercial uses that are compatible with noise, like warehousing and light industry.	()	()	(.)	()	()	23-
	SeaTac (PORT OF SEATTLE) is in the process of buying houses that are most affected by airport noise. It would be better for the community if these homes were sold to new people than if they were cleared for some other use like parks or warehousing.)	() .	()	()	().	24-
	It is better to concentrate airport noise in a small area by restricting aircraft to as few flight corridors as possible than to spread the noise and flight patterns over a large area.	()	()	()	()	()	25-
7	a. The next few questions an each park listed below, p or anyone in your family	olea	se wr	ite	in th	e num	ber	of ti	mes	you		
	Angle Lake Salt Water State Park Tyee Valley Golf Course Seahurst Park North SeaTac Park						Num	ber T	imes	Us	ed	26- 27- 28- 29- 30-

31-

6.

Des Moines Creek Park

8. The North SeaTac Park area is located north of SeaTac between Highway 518 and 136th Street. SeaTac is also buying the property up to 128th Street, which will be cleared and used either to expand the park area or for other things like warehousing or offices. Do you think the park area should be expanded or used for other things? 32-EXPAND USE FOR OTHER THINGS DON'T KNOW 9. In order to develop North SeaTac Park and Des Moines Creek Park, money has to be raised. There is some consideration of raising property taxes somewhat to pay for it. Would you favor or oppose increasing property taxes to pay for developing those parks? 33-FAVOR STRONGLY FAVOR MODERATELY **OPPOSE MODERATELY** OPPOSE STRONGLY DON'T KNOW 10a. The next few questions are about these community workshops (such as the one you're attending tonight) sponsored by the Port of Seattle. How did you first learn of these workshops? (CHECK BOX BELOW IN FIRST COLUMN) 34-35Z 10b. From what other sources have you heard of these workshops? 36-(CHECK AS MANY AS APPLY IN SECOND COLUMN) First Heard of Also Heard of Workshops Workshops Through: Through: 37-Neighborhood newspaper Daily newspapers 38-39-Radio Television Newsletters, brochures, or flyers Word-of-mouth 40Z) Other: (PLEASE WRITE IN) 10c. Would you like to see these workshops continue? YES 41-NO DON'T KNOW

11.	This last set of questions is so that we can group your answers with other people like yourself. What is your age?	42 - 43Z
	UNDER 24 () 25-44 () 45-64 () 65 OR OVER ()	44-
12.	Are there any children under age 18 living in your home?	
	YES () NO ()	45-
13.	Is there anyone in your household who works for or at SeaTac?	
	YES () NO ()	46-
14a.	Do you own or rent your home?	
	OWN RENT ()	47-
14b.	(If you own your home:) What would you estimate your home's market value to be?	
	Under \$50,000 () \$50,000-75,000 () \$75,000-100,000 () \$100,000-150,000 () 0ver \$150,000 ()	48-
15.	What is your annual household income, including everyone who lives in your home?	
	Under \$15,000 () \$15,000-25,000 () \$25,000-40,000 () \$40,000-75,000 () 0ver \$75,000 ()	49-

Hello, this is from McClure Research Company, an opinion research firm here in Seattle. We're conducting a survey today for the Port of Seattle concerning the SeaTac Noise Remedy Program and how it affects your community. First, I need to verify your address to make sure you live within our study area. Is it... (address)? (IF NOT, TERMINATE AND RECORD ON CALL RECURD SHEET AS "OUT OF AREA".)

 Are you the (male) (female) head of this household? (IF NOT, ASK TO SPEAK TO SOMEONE WHO IS.) IF NOT AVAILABLE, ASK FOR AND RECORD TIME FOR CALLBACK ON CALL RECORD SHEET)

2. Do you own or rent your home?

<u></u>		01	IN
TERMINATE AND RECORD	ON	RE-RE	NT
CALL RECORD SHEET AS	"RENT"		

McClure Research Company

#508 I.D.#: (1-3) Area: 4-

3

Addr	ess:	Phone #:		1	
3a.	How long have you lived at this address?	UNDER 2 YEARS	03a (5)	03b (6)	
3b.	And how long have you lived in this general community?	2-5 YEARS 5+ - 10 YEARS	23	2 3	
		10+ - 20 YEARS MORE THAN 20 YEARS	4 5	45	

4. The purpose of this study is to help the Port of Seattle (WHICH OWNS SEATAC) to really understand what people in the surrounding neighborhoods want to see happen here. I'm going to read some statements about ways of handling different issues in the neighborhoods near SeaTac, and for each one, I'd like you to tell me if you agree or disagree with it. The first is...(READ FIRST ITEM). Do you agree strongly, agree somewhat, disagree somewhat, or disagree strongly with that statement?

		Acree		Disagree		
	Strongly	Somewhat	Strongly	Somewhat	Know.	
Your neighborhood should be maintained as a residential area.	1	2	3	4	5	(7)
Building new homes in your neighborhood should not be allowed.	1	2	3	4	5	(8)
If new homes were allowed in your neighborhood, the buildi codes should require the builder to put in noise insulation, even though that will make the price somewhat higher.	1 ng	2	3	4	5	(9)

5. Which of the following two statements best describes how you and your family feel about living in your neighborhood? (READ STATEMENTS, ROTATING)

	GO TO PINK QUESTIONNAIRE		You'd prefer to move out of the neigh- borhood immediately if you could get a fair market value for your present home.	1	(10)
ASK Q.6 AND THEN	GO TO YELLOW QUESTIONNAIRE	-()	-OR- You'd prefer to stay in the neighbor hood in your present home if you could be assured of selling your home in the future, say, 10 years from now.	2	

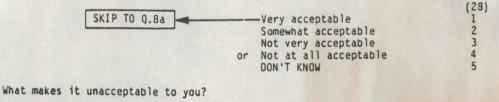
DON'T KNOW

6.

The Port of Seattle is considering a number of different programs to meet the needs of homeowners in your area with respect to noise issues. I'm going to briefly describe several of these program ideas and ask for your opinions about each. Your answers will be used to help the Port decide what programs would work best in each area, so we would really appreciate your thoughtful replies. One thing to keep in mind as we go through this survey is that whatever program is adopted will include an avigation easement. That's a legal guarantee purchased by the airport operator from the homeowner of the airport's right to perform aircraft operations over the property, including those that might cause noise, vibrations, and other effects. Does your home already have one of these avigation easements in its deed?

(11) SKIP TO Q.14A -Yes 2 NO DON'T KNOW 3

One possibility that SeaTac (PORT OF SEATTLE) is considering is a purchase guarantee 72. plan. The Port of Seattle would guarantee the homeowner to buy their home <u>only</u> if <u>no other purchaser could be found</u>. If such a guarantee were available to you, would you consider it an acceptable solution to your situation? Would you consider it...



8a. If your home were eligible for a purchase guarantee, how likely is it that you would apply for one? Would you say you'd be ...

	Very likely to apply Somewhat likely to apply Not particularly likely
SKIP TO Q.9a	-Or not at all likely to apply
	DON'T KNOW

When would you estimate that you'd want to apply for the program and move out of the community? Would you say...

	(34)
Immediately	1
Within the next 2 year	·s 2
Within the next 3-5 ye	
Within the next 6-10 y	
More than 10 years fro	
DON'T KNOW	

29-30-31 -32-

8b.

7b.

One issue involved in setting up a Purchase Guarantee Program is how to determine which homes would be bought first, if there were a lot of people eligible for the program. I'm going to read some things that might be used as guidelines for who bought first in a Purchase Guarantee program, and for each one, please tell me if you think it's a reasonable guideline or not, using a 1 to 5 scale, where "5" means it's a very reasonable guideline and a "1" means it's a very unreasonable guideline for who bought first in a Purchase Guarantee program. The first is... (START WITH X'D ITEM FOR ROTATION).

	Very Unrei	asonabl	e	Reason	Very		Most M Impor- 1 tant 1	tant
() How long ago a person bought their home, so that people who'd lived there longer would be bought before people who'd bought more recently.	1	2	3	4	. 5	6(35)	(44) 1	(45)
() How close to the air- port the home is, regardless of how much noise the house actually gets, so that the closest homes would be bought before people who lived farther away.	1	2	3	4	5	6(36)	2	2
() Whether or not the home is part of the 1976 SeaTac Purchase Assurance area, so that a home that was in that area would be bought before one that wasn't.	1	2	3	4	5	6(37)	3	3
() The actual level of noise that a home gets from the airport so that homes with higher measured noise levels would be bought before quieter homes.	1	2	3	4	5	6(38)	4	4
() The age of the home- owner, so that an older person would be bought before a younger person.	1	2	3	4	5	6(39)	5	5
() Whether or not the home- owner has particular medi- call or financial hardship so that people with a hardship would be bought before those who don't.	1	2	3	4	5	6(40)	6	6
() The homeowner proving that they were unable to sell their house at a fair market price, so that someone who had tried to sell their house would be bought before someone who hadn't.	1,	2	3	4	5	6(41)	7	7

9b. Is there some other guideline you feel would be a good way to determine who should be bought first for a Purchase Guarantee program?

42-

8 8

Next

(IF MORE THAN ONE ITEM A "5", ASK:)

9c. You said that (GUIDELINES) are all very reasonable ways to decide who bought first in a Purchase Guarantee program -- you rated each of those a "5". Which of those do you feel is the most important part of deciding who should be bought first? (IF THREE OR MORE, ASK:) Which do you feel is next most important? (RECORD ABOVE)

9a.

10a. For homes that will not be eligible for the Purchase Guarantee Program, another possibility in return for the avigation easement would be for the Port of Seattle to share with the homeowner the cost of insulating homes against noise. If your home were not eligible for a purchase guarantee, how acceptable would the Port's sharing in the cost of noise insulation be to you as a solution to your situation? Would you consider it...

SKIP TO Q.11a		, i
5K11 10 4.114		-
	Somewhat acceptable	4
	Not very acceptable	. 3
	Not at all acceptable	A
		-
	DON'T KNOW	5

10b. What makes it unacceptable to you?

- 16-17-18-19-
- 11a. How likely do you think you would be to participate in a cost-sharing program for noise insulation if the Port were to pay 25% and you were to pay 75% of the cost? Would you say you'd be...

SKIP TO Q.12a	-Very likely to participate	(20
	Somewhat likely to participate	2
	Not very likely to participate	3
or	Not at all likely to participate	4
	DON'T KNOW	5

11b. How likely would you be to participate if the Port paid 50% of the cost for noise insulation and you paid 50%? (21)

			161
SKIP TO 0.1	2a -	-Very likely to participate	1
		Somewhat likely to participate	2
		Not very likely to participate	3
	or	Not at all likely to participate	4
		DON'T KNOW	5

11c. How likely would you be to participate if the Port paid 75% of the cost and you paid 25%?
(22)

SKIP 10 Q.12a	-Very likely to participate	1
	Somewhat likely to participate	4
	Not very likely to participate	3
or	Not at all likely to participate	4
	DON'T KNOW	5

11d. What if the Port paid 100% of the cost for noise insulation? Would you be ...

			(23)
SKIP TO Q.12a	-Very likely to participate		1
	Somewhat likely to participate		2
	Not very likely to participate		3
or	Not at all likely to participate	•	4
	DON'T KNOW		5

11e. What makes you unlikely to participate?

24-25-26-2712a. Another possibility that has been considered in some cities is outright purchase from the homeowner of the avigation easement. In this program, the homeowner might be paid 5% of the fair market value of their home, and the homeowner would grant the airport the right to perform aircraft operations over the property. If that were available to you, how likely is it that you would participate? Would you say...

	SKIP TO Q.13a -Very likely to participate	(12)	
	Somewhat likely to participate Not very likely to participate or Not at all likely to participate DON'T KNOW	2 3 4 5	
125.	What if the homeowner received 10% of the fair market value of their home for avigation easement? How likely would you be to participate?	the	
		(13)	

SKIP TO Q.13a	Very likely to participate	1
Non-to-opening and an	Somewhat likely to participate	4
	Not very likely to participate	3
	or Not at all likely to participate	4
	DON'T KNOW	5

12c. What if the homeowner received 20% of the fair market value for the home? How likely would you be to participate? (14)

or

		11
	Very likely to participate	1
	Somewhat likely to participate	2
	Not very likely to participate	3
•	Not at all likely to participate	4
	DON'T KNOW	5

. One possibility that has been considered in some cities is outright purchase from the homeowner of the avigation easement. In this program, the homeowner might be paid 5% of the fair market value of their home, and the homeowner would grant the airport the right to perform aircraft operations over the property. If that were available to you, how likely is it that you would participate? Would you say...

SKIP TO Q.8a	-Very likely to participate	1
	Somewhat likely to participate	2
	Not very likely to participate	 3
or	Not at all likely to participate	4

7b. What if the homeowner received 10% of the fair market value of their home for the avigation easement? How likely would you be to participate?

SKIP TO Q.8a	Very likely to participate	1
	Somewhat likely to participate	2
	Not very likely to participate	3
	or Not at all likely to participate	4
	DON'T KNOW	5

7c. What if the homeowner received 20% of the fair market value for the home? How likely would you be to participate? (14)

01

		(14)
	Very likely to participate	1
	Somewhat likely to participate	2
	Not very likely to participate	3
r	Not at all likely to participate	4
	DON'T KNOW	5

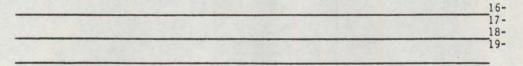
(12)

(15)

8a. Another possiblity that SeaTac (PORT OF SEATTLE) is considering, in return for the avigation easement, is to share with the homeowner the cost of insulating homes against noise. If such a program were available to you, how acceptable would that be to you as a solution to your situation? Would you consider it...

SKIP TO Q.9a		-Very acceptable	(1:
		Somewhat acceptable	2
		Not very acceptable	3
	or	Not at all acceptable	4
		DON'T KNOW	5

8b. What makes it unacceptable to you?



9a. How likely do you think you would be to participate in a cost-sharing program for noise insulation if the Port were to pay 25% and you were to pay 75% of the cost? Would you say you'd be...
(20)

e 1
ipate 2
ipate 3
icipate 4
5
c

9b. How likely would you be to participate if the Port paid 50% of the cost for noise insulation and you paid 50%?
(21)

SKIP TO 0.10a	-Very likely to participate	12.
	Somewhat likely to participate	2
	Not very likely to participate	3
	Not at all likely to participate	4
	DON'T KNOW	5

7a.

9c. How likely would you be to participate if the Port paid 75% of the cost and you paid

	25%?		
			(22)
		y likely to participate	1
		ewhat likely to participate	2
		very likely to participate	3
		at all likely to participate	4
	DON	'T KNOW	5
9d.	What if the Port paid 100% of the co	st for noise insulation? Would you	be
			(23)
	SKIP TO 0.10a -Ver	y likely to participate	1
	Som	ewhat likely to participate	2
		very likely to participate	3
	Not	at all likely to participate	4 5
0			
9e.	What makes you unlikely to participa	te?	
			24-
			25-
			26-
			27-
10a.	Another possibility that SeaTac (POR guarantee plan. The Port of Seattle only if no other purchaser could be you, would you consider it an accept	would guarantee the homeowner to bu found. If such a guarantee were ava	y their home ilable to
			(28)
	SKIP TO Q.11A	Very Acceptable	1
		Somewhat acceptable	2
		Not very acceptable	3
		Not at all acceptable DON'T KNOW	4 5
106.	What makes it unacceptable to you?		
			29-32
11a.	If your home were eligible for a pure		at you would
	apply for one? Would you say you'd I	be	(22)
		Many likely to see .	(33)
		Very likely to apply	1
		Somewhat likely to apply	2
		Not particularly likely	3
	SKIP TO Q.12a	Or not at all likely to apply DON'T KNOW	4 5
11b.	When would you estimate that you'd wa community? Would you say	ant to apply for the program and mov	e out of the
			(34)
		Immediately	1
		Within the next 2 years	2 3 4 5
		Within the next 3-5 years	3
		Within the next 6-10 years	4
		More than 10 years from now	5
		DON'T KNOW	6

12a. One issue involved in setting up a Purchase Guarantee Program is how to determine which homes would be bought first, if there were a lot of people eligible for the program. I'm going to read some things that might be used as guidelines for who bought first in a Purchase Guarantee program, and for each one, please tell me if you think it's a reasonable guideline or not, using a 1 to 5 scale, where "5" means it's a very reasonable guideline and a "1" means it's a very unreasonable guideline for who bought first in a Purchase Guarantee program. The first is... (START WITH X'D ITEM FOR ROTATION). Next

		Very Unreas	sonable		V Reasona	ery		tant	Next Most Impor- tant
()	How long ago a person bought their home, so that people who'd lived there longer would be bought before people who'd bought more recently.	1	2	3	4	5	6(35)	(44) (45) 1
()	How close to the air- port the home is, regardless of how much noise the house actually gets, so that the closest homes would be bought before people who lived farther away.	1	2	3	4	5	6(36)	2	2
()	Whether or not the home is part of the 1976 SeaTac Purchase Assurance area, so that a home that was in that would be bought before one that wasn't.	I	2	3	4	5	6(37)	3	3
()	The actual level of noise that a home gets from the airport so that homes with higher measured noise levels would be bought before quieter homes.	1	2	3	4	5	6(38)	4	4
()	The age of the home- owner, so that an older person would be bought before a younger person.	1	2	3	4	5	6(39)	5	5
()	Whether or not the home- owner has particular medi- cal or financial hardship so that people with a hard- ship would be bought before those who don't.	1	2	3	4	5	6(40)	6	6
()	The homeowner proving that they were unable to sell their house at a fair market price, so that someone who had tried to sell their house would be bought before someone who hadn't.	1	2	3	4	5	6(41)	7	7

12b. Is there some other guideline you feel would be a good way to determine who should be bought first for a Purchase Guarantee program?

8 8

42-43-

(IF MORE THAN ONE ITEM A "5", ASK:)

12c. You said that (GUIDELINES) are all very reasonable ways to decide who bought first in a Purchase Guarantee program -- you rated each of those a "5". Which of those do you feel is the most important part of deciding who should be bought? (IF THREE OR MORE, ASK:) Which do you feel is next most important? (RECORD ABOVE)

13a. We've talked about a number of different possibilities for the kinds of programs the Port could have in your community -- purchase guarantee, sharing the cost of noise insulation, outright buying of the avigation easement for your home. If you could choose to participate in any one of the programs, or not participate at all, which would you choose?

		(40)
	Purchase Guarantee	1 2
SKID TO O 14	-Noise Insulation	2
SKIP TO Q.14a	- Purchase of Easement	3
	- Nothing	4
	DON'T KNOW	5

13b. If the Purchase Guarantee Program weren't available in your area, would you prefer to participate in the noise insulation program or the Port's outright buying of the avigation easement, or neither?

1

14a. Finally, I'd like to talk about the SeaTac Noise Remedy Program. In 1976, SeaTac set up a program to handle the airport noise in the surrounding communities. This year, they are doing an update of that program. Had you heard of that process going on this year? (48)

	(4
YES	1
NO	2

14b. Had you heard of any meetings or workshops being held by the airport about the SeaTac noise remedy plan this year?
(40)

YES	1
SKIP TO Q.15a NO	2

14c. Do you remember how you heard about those meetings or workshops? (How?) (DO NOT READ LIST, MULTIPLE ANSWERS OKAY).

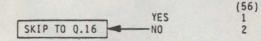
(50-54)

57--

(AG)

	NEWSPAPER NEIGHBORHOOD DAILY RADIO TV NEWSLETTER/ BROCHURE/FLYER WORD-OF-MOUTH COMMUNITY MEETINGS OTHER:	
	DON'T REMEMBER	9
of those meetings?		(55)
	YES	(55) 1 2

15a. If you wanted to get more information about the SeaTac noise remedy plan, would you know how to get it?



15b. How would you do it?

14d. Have you attended any

16. This last set of questions is so that we can group your answers with other people like yourself. What is your age? (DO NOT READ LIST.)

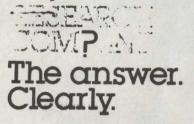
	(58)
UNDER 24	1
25-44	2
45-64	3
65 OR OVER	4
REFUSED	5

17.	Are there any children under age 18 living in your home?		
		s	(59)
	N	and the second	2
		FUSED	3
18.	To these serves is not been been a served as a server se		
10.	Is there anyone in your household who works for or at SeaTac?		(60)
	YI	S	1
	N)	2
19.	Which of the following best describes your current home (READ I	IST)	
			(61)
	Single family home		1
	Multi-family home with 4 or few	ver units	2
	Multi-family home with 5 or mon	re units	3
	Trailer or mobile home		4
20.	What would you estimate your home's market value to be? Would you	u say	
			(62)
	Under \$50,00		1 2
	\$50,000-75, \$75,000-100		3
	\$100,000-150		3 4
	Over \$150,00	00	5
	REFUSED Don't know		67
	DON T KNOW		'
21.	What is your annual household income, including everyone who lives it	in your h	inme? 1
			(63)
	Under \$15,00 \$15,000-25,0		1 2
	\$25,000-40,		3
	\$40,000-75,		4
	Over \$75,000)	5
	REFUSED		67
	DON'T KNOW		1.
22.	Finally, as far as you know did somebody in your household answer the past month about the SeaTac Noise Plan?	a survey w	nthin
			(64)
	YE		1
	NO))N'T KNOW	23
	That concludes our survey. Thank you so very much for your time a	ind coopera	tion.
	Interviewer: Date:		

Refer Questions to Diane Summerhays at Port of Seattle (382-3320).

APPENDIX B: COPY OF LETTER TO TECHNICAL WORKING COMMITTEE RE: SURVEY RELIABILITY

APPENDIX B



read read in sur-

Ms. Jody Yamanaka Port of Seattle Pier 61 Seattle, WA September 9, 1983

Dear Jody,

In reviewing the questions raised about the upcoming neighborhood survey at the August 31st meeting of the Technical Working Committee, I believe that one in particular deserves a more complete response than was possible at that time. This concerns the issue of the survey's underlying validity. Can people really be expected to understand the implications of the questions being asked? Are the questions constructed in such a way that they make sense to people? Are the questions over-simplifications of complex issues? These are important questions for the Committee to be asking; if the questionnaire is not reliable, the survey itself is meaningless. In designing it, we are going through several steps to ensure that it works.

First, we will be conducting a careful pre-test of the questionnaire. We will be test-interviewing ten people who live near the target areas (near enough that the questions will make sense, but not within the areas, so that we use the final version with each target area resident). We will be listening for any wording or question sequences that cause people to hesitate, ask that the question be repeated, or show some other misunderstanding. At the end of the interview, we ask the person if there were any questions that seemed unclear. This pretesting process makes sure that question sequence and wording work.

The next level of validity checking is on the actual interviews. We go through each completed questionnaire and make sure that the answers to all of the questions make sense and are internally consistent. For the first survey (the one that is already completed), I personally checked the first 75 interviews for internal consistency. For example, did this person say that airport noise is very annoying in Question #4, but not mention it at all in Question #3 ("What are the two or three things you would most like to see changed or improved in your community?")?

Finally, we select a number of questions where answers should be consistent and cross-tabulate them by computer to make sure that, in fact, they are. Another side of the validity issue is the impact of people refusing to be interviewed. On a survey of this nature, where the topic and the results are of such vital interest to people, refusal rate is predictably low (under 15%). A good example is a survey we completed a few years ago in the Snoqualmie Valley concerning flood damage prevention techniques (building dams, putting houses on stilts, moving houses, etc.); more than 90% of the households contacted participated. On an employee survey conducted for Alaska Airlines, 98% participated. I do not expect this to be a problem on this survey.

Finally, there is the issue of the reliability of random sampling methods per se. Properly followed, statistically accurate sampling procedures (including how you select households for the sample and making up to four attempts to reach each household on different days at different times) demonstrably yield measurably accurate results.

I appreciate the Committee's concern for the survey's being meaningful. I would like to reassure them that it is our concern, as well.

Cordially,

any Smalline

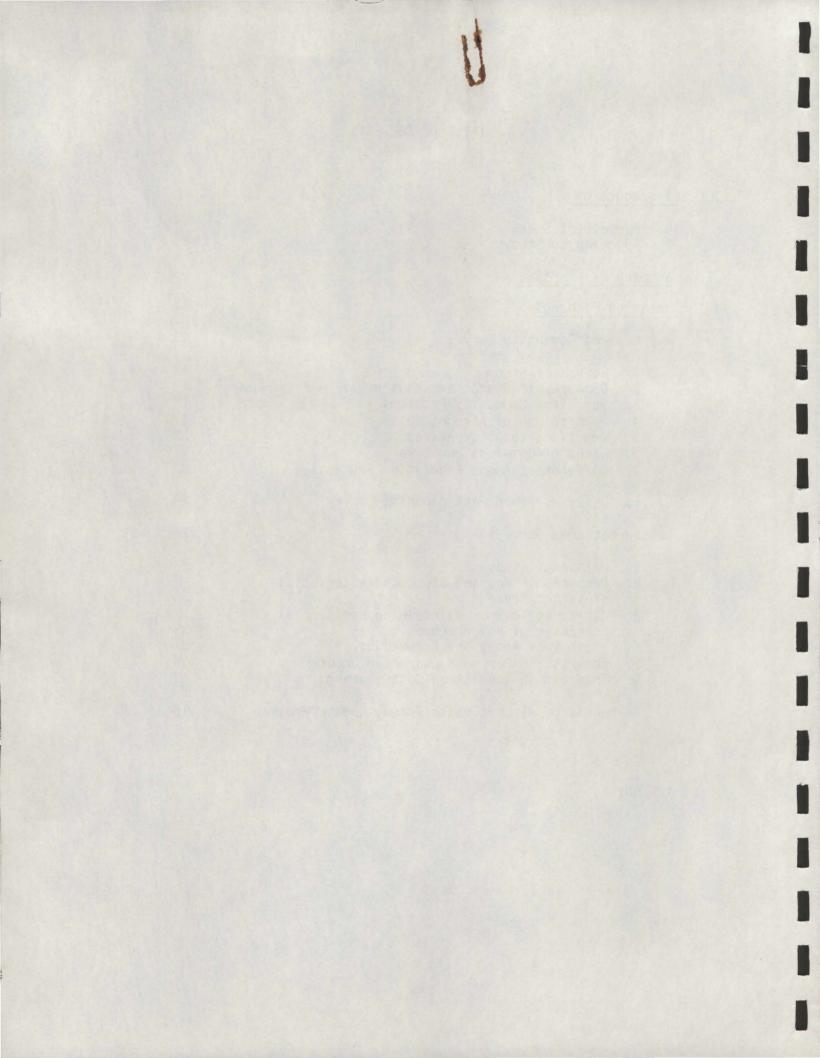
Mary S. McClure President

MSM: jo

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APPENDIX



I. INTRODUCTION

A. Purpose of Study

The Port of Seattle is currently in the process of updating the 1976 Noise Remedy Plan for the Airport Community. Final recommendations concerning appropriate noise remedies that can be applied within the community will take into consideration at least three parameters:

- o cost feasibility and effectiveness of program options
- o implementation feasibility
- o the community's views and concerns

The third parameter -- the community's perspective -- has been actively explored through the Community Involvement Program component of the Update process, including a series of Portsponsored neighborhood workshops, regular meetings of a Technical Advisory Working Committee, and a series of surveys in the community. This report covers the findings of the community surveys, which will be used as a guideline to determine:

- suitability and acceptability of various noise remedy programs in the community (in particular: purchase guarantee, cost sharing of noise insulation, direct purchase of homeowners' avigation easements)
- likely participation rates for each program option, in order to project the financial feasibility of various combinations of programs.
- o probable rate of participation in a purchase guarantee program in terms of time to help establish an overall program schedule
- o level of the Port's financial participation in program options.

The issues relevant to providing this input to the Port's planning were divided into two general categories and covered in two separate random sample surveys:

 Overall noise management issues, such as residential development in the Airport vicinity; mandatory fair disclosure of noise levels to home purchasers; usage and development of area parks. Covered in a <u>General Community</u> <u>Survey</u> of residents in a broad area surrounding the Jackson International Airport. Specific reaction to noise remedy program concepts (purchase guarantee, cost sharing of noise insulation, direct purchase of homeowners' avigation easements) and related participation issues. Covered in a Target Area Survey of residents in six specific areas that are particularly impacted by airport noise.

In addition, a third survey was conducted among participants in several of the Port-sponsored neighborhood workshops to gauge the extent to which those participants are representative of the general community's ideas and opinions.

The community opinions and attitudes delineated by these three surveys will be used to supplement and refine the Port's understanding of community viewpoints as expressed through other aspects of the Community Involvement Program of the Airport Noise Remedy Update. They will also be used to help improve the overall Community Involvement Program in this and future planning efforts.

B. Approach to Study

The geographic areas selected for study in the two random sample surveys were based upon the noise level (Ldn) measurements and projections presented in the SeaTac Noise Exposure Update (1982). The survey areas were defined by grid cell (the block measurement segments used in the Noise Exposure Update) as nearly as practicable.

Telephone interviewing was used for the two random sample surveys because achievable participation rates are higher for telephone interviewing than for other data collection methods and the sampling process is more controllable and thus more reliable. Appropriate steps were taken during the design of the questionnaires to ensure that survey respondents could understand and meaningfully answer the rather complex questions and issues presented in the interview. (See Appendix B for further detail concerning the telephone interviewing process.)

The three surveys can be summarized as follows:

- o <u>General Community Survey</u>: a random sample telephone survey among 151 residents (homeowners and renters) in areas substantially affected by airport noise. This area was defined as those grid cells currently experiencing measured Ldn levels of 70 and above, a fairly large geographic area (See Exhibit 1, page 5.) Although specific noise remedy programs are not appropriate throughout the entire area, general development and noise management issues do affect it. For this reason, the survey was designed to obtain community reactions to the general planning issues facing the Port and the Community: land use, park use and development, noise management (August, 1983).
- Survey of Community Workshop Participants: a selfadministered survey covering the same information as in the General Community Survey, distributed to all participants in a set of three community workshops. A total of 242 participants completed this survey. (August, 1983)
- Target Area Survey: a random sample telephone survey of 734 homeowners in six areas selected as representative of neighborhoods that might be covered by specific noise remedy programs:
 - 1. Des Moines Corridor
 - 2. Des Moines Creek
 - 3. Riverton Heights
 - 4. North Corridor
 - 5. West Sunset
 - 6. Sunnydale

(See Exhibit 2, page 6)

Five of these areas (excepting Sunnydale) are projected to experience Ldn levels of 75+ in the year 2000.

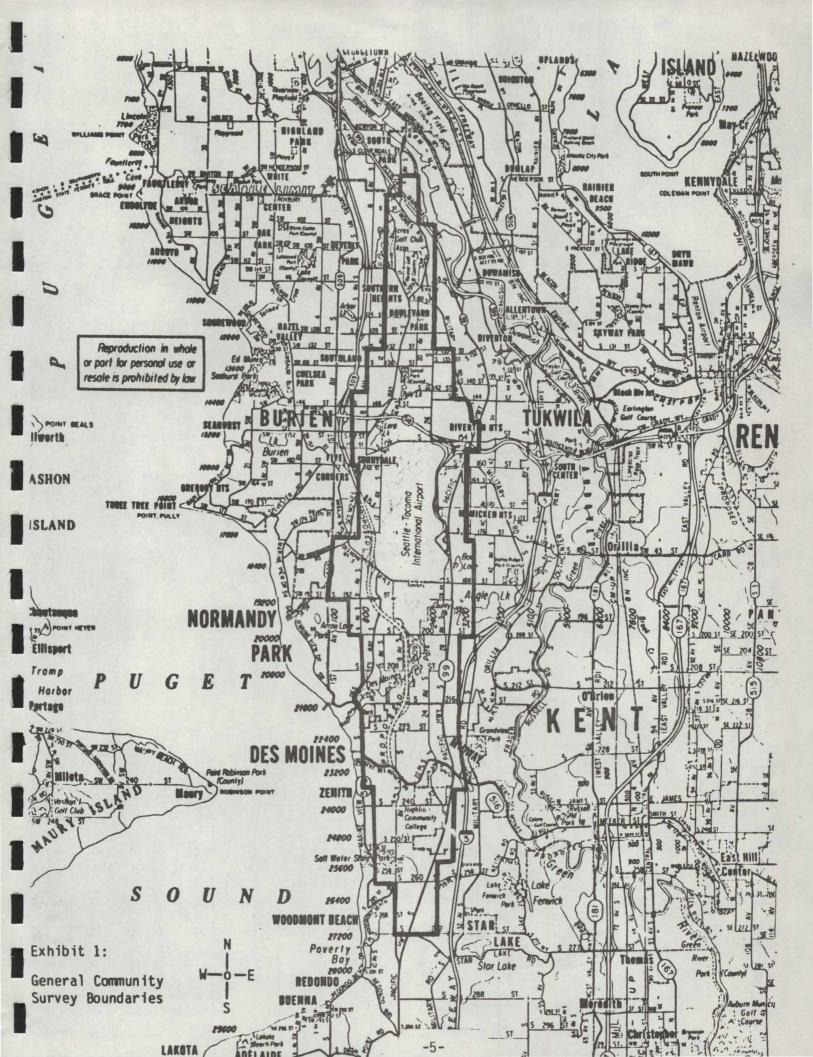
This survey covered specific reactions to the noise remedy program alternatives, purchase guarantee priority guidelines, and housing stock characteristics. The sample sizes provide high degrees of reliability within each target area and overall. The process also provided estimates of actual numbers of homeowners currently living in each area (September - October, 1983).

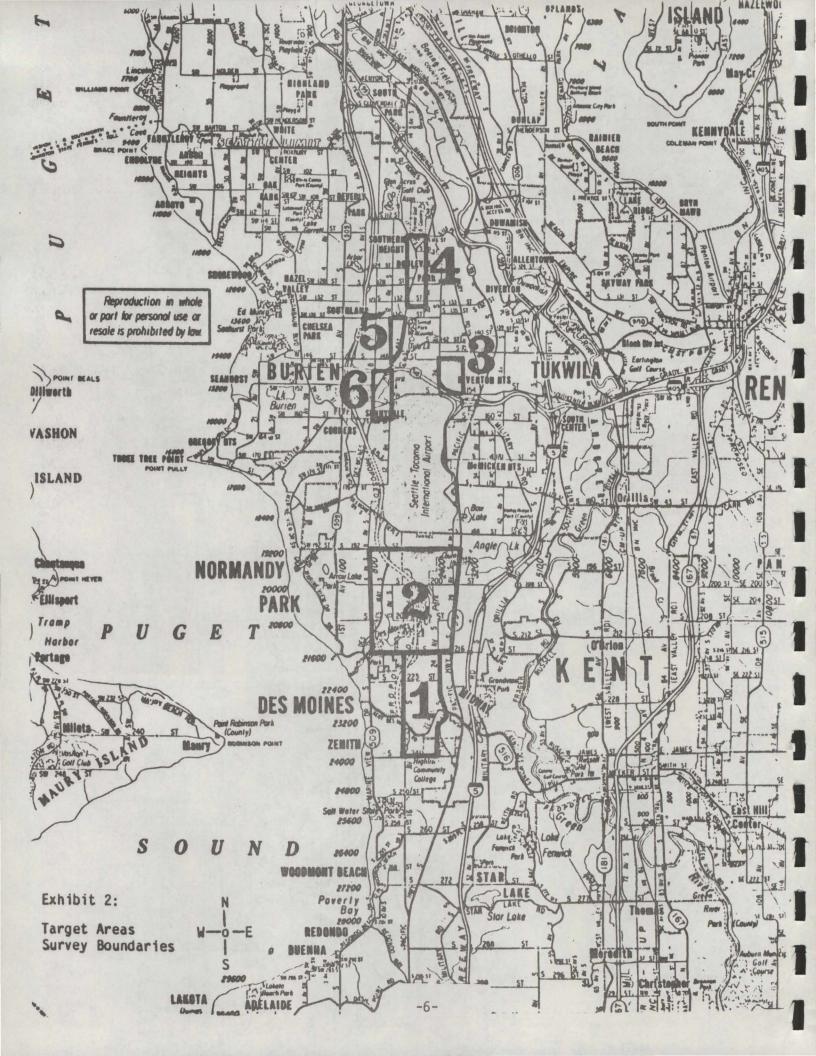
All three surveys included question series concerning awareness of and participation in the community involvement aspects of the Update Program.

This report presents the findings from each survey, sequentially as to their date of implementation. The final section of the report covers the information concerning community awareness of and participation in the Update Program from all three surveys.

In each section of this report a more detailed discussion of survey method precedes the presentation of results. Key data is then summarized in tabular format with textual analysis. The questionnaires used in each survey are included as Appendix A.

The surveys, as one component of the Airport Noise Remedy Update, were sponsored by the Port of Seattle and the Federal Aviation Administration. Peat, Marwick, Mitchell & Co., under contract to the Port of Seattle to prepare the Update, subcontracted to McClure Research Company to conduct the survey process and analyze the survey results.





II. SUMMARY OF FINDINGS

The Airport community, as represented by the General Community Survey, can be characterized as a stable area consisting primarily of modest, owner-occupied family homes:

- o Three out of four households have been established in the area for 10 years or longer; half for 20 years or longer.
- o The strong majority (82%) have an adult 25 64 years of age; a third have children in the home.
- o Three out of four residents (76%) live in their own home.
- o Average home value is \$77,500.
- o Average annual household income is \$29,700.

The area close-in to the airport, as represented by the Target Area Survey, has more rental units --36% -- but the owner-residents are equally long-term to the area and average home value is the same (\$77,400).

Airport noise is a significant although generally not unbearable problem to the Airport community, one that the majority of residents feel has not been improved substantially in the past 5 years. Findings from the General Community Survey include:

- Half (52%) cite airport noise as one of the two or three things they would most like to see changed or improved in their community.
- However, only one in five (19%) consider the noise close to unbearable; the majority (57%) rate airport noise negatively, but not overwhelming.
- Two thirds (66%) believe the noise level is either the same compared to five years ago or only somewhat changed (for better or worse). Two in five (42%) feel it has gotten worse (either somewhat or much).
- o The most-often cited reason for worsened noise levels is increased number of flights.

Despite the noise, most of those who live in the Airport vicinity want to maintain the area for residential use. The generally agreed-upon methods involve restricting noise impacts to narrow flight corridors, notifying new residents of noise impacts, and controlling new residential development:

-7-

- Three out of four homeowners (74%) in the most noise-impacted areas agree that "My neighborhood should be maintained as a residential area." Half agree strongly. [Target Area Survey]
- Two thirds of the overall Airport community (66%) disapproves of the concept of "fanning" airport noise. [General Community Survey]
- Two thirds of the community (68% of the Geneal Community survey sample) oppose new residential development under flight corridors, but only 42% of those in the Target Areas favor restricting new residential construction entirely.
- o Two thirds of the overall community (64% of the General Community Survey Sample) and three out of four in the most-impacted areas (74% of the Target Area Survey sample) believe that building codes should be revised to require noise insulation in new residential developments.
- Four out of five in the overall community (79%) approved of mandatory fair disclosure to potential home buyers concerning actual noise levels. [General Community Survey]

In the most-impacted areas, as represented by the Target Area Survey, the majority of homeowners (59%) plan to stay in their neighborhood at least in the near future (10 years or so). About a third (37%) would prefer to move more immediately. However, this needs to be considered in the context of uncertainty that surrounds many homeowners' view of the trends in airport noise. They collectively view the Port of Seattle with suspicion and concern that noise levels will get worse because of increased number of flights over the next few years. Thus, their reactions to noise remedy program alternatives seem to involve a measure of "insurance" against the future, particularly among those who prefer to stay in the community for the time being.

- o A purchase guarantee program is the preferred option for a majority (59%) of those living in the most-impacted areas. Even among those who want to stay in their neighborhoods for the time being, 43% prefer this approach. And even with the program positioning the Port as buyer-of-last-resort, 77% consider it an acceptable solution. (Only 5% specifically objected to this feature of the program, preferring outright acquisition.)
- o A noise insulation program with the Port sharing its cost is the preferred option for one in five (18%) of homeowners in the most-impacted areas. Half (53%) consider it an acceptable solution. Interestingly, it was almost as acceptable to those who wish to move in the near future as to those who wish to stay in the neighborhood -- 45% vs. 57%.

- o Direct purchase of the avigation easement for some percentage of their home's fair market value would be the preferred option for 9% of the most-impacted area homeowners.
- o If a purchase guarantee program were not available, noise insulation cost-sharing remains the more widely-preferred of the two remaining programs. Two in five (41%) would choose it over purchase of their avigation easement. However, 26% would prefer such a direct purchase if the purchase guarantee were not available. In that case (no purchase guarantee), 19% would not want any program involvement.

(Note: Although attitudes were surveyed regarding specifics of purchase assurance, sound insulation, and purchase of avigation easements, other remedies such as outright acquisition will not be precluded from consideration in the development of the noise remedy program. The interview format still provided an opportunity for respondents to discuss the option of other programs, e.g., 5% of the Target Area sample rejected the idea of a purchase guarantee program in favor of outright purchase.)

The programs are evaluated by homeowners from a cost perspective. Although the Target Area Survey format did not allow for detailed cost comparison, it is clear that the financial aspects of the programs are important to the acceptability of each:

- The method of determining fair market value (FMV) was the most-often cited concern about a purchase guarantee program.
- o Interest in a noise insulation cost-sharing program increased sharply with higher proposed levels of Port commitment: from 4% if the Port were to pay 25% of the cost to a total of 67% if the Port were to pay 100%.
- o Interest in direct purchase of their avigation easement increased as the percentage FMV figure increased: from 14% if the Port were to pay 5% of FMV to 31% if the Port were to pay 20% of FMV.

Method of FMV computation was cited as a concern about this program option as well.

Participation levels for each of the program options can be estimated based on the following assumptions:

- approximately 1300 owner-occupied dwelling units do not already have an avigation easement in their deed (At least 3% do have such an easement.)
- relevant program features will not differ substantially from those presented to the survey respondents.

o participation estimates are based on Target Area Survey respondents' stated intention to participate, without regard to other programs that might be available. Thus, if all three programs were available, estimated participation in the direct purchase of avigation easement or noise insulation cost-sharing programs should be adjusted downwards.

It should be noted that Target Area Survey homeowners who projected participation in a purchase guarantee program 6+ years from now frequently commented that a change in neighborhood characteristics (transient, commercialized) would probably encourage them to move sooner.

There are notable differences among the six areas targeted for study in their current characteristics and reactions to the remedy program alternatives:

- o Three areas were particularly inclined towards a purchase guarantee program:
 - Des Moines Creek has a higher proportion of young families and greater mobility (23% of the homeowners are new to the area in the past 5 years). One in ten homeowners lives in a mobile home.
 - Riverton Heights has a relatively higher proportion of somewhat older families, and a high degree of residential stability (10% new to the area in the past 5 years.)
 - Sunnydale also has a higher proportion of older families and a high degree of residential stability (11% new to the area). It is also more affluent than most of the areas, as indicated by average estimated home value and annual household income. Interestingly, this neighborhood was the most polarized -- it actually has the lowest but most adamant level of interest in purchase guarantee; 42% would not participate in any program if the guarantee weren't available.
- o Three areas were relatively less inclined towards purchase guarantee and more favorable towards noise insulation cost-sharing and/or direct purchase of avigation easements:
 - Des Moines Corridor has a higher proportion of younger families and the highest concentration of multi-family owner-occupied residences (e.g. duplexes, condominiums) and residential change(31% new in past 5 years). It is the most affluent of the target areas, with the strongest stated interest in maintaining the area's residential character.
 - North Corridor is a relatively older area, with comparatively moderate residential stability (19% new in past 5 years).

- West Sunset is an older population, with 44% currently living in their own mobile homes. Residential change is moderate (25% in past 5 years). Although a purchase guarantee program would enjoy strong participation in this neighborhood, a direct purchase of the avigation easement is particularly acceptable, and projected participation in a noise insulation cost-sharing program is higher than elsewhere. This area may be less concerned with the specifics of the program and more concerned with receiving some reimbursement for its situation.

It is noteworthy that those areas with stronger interest in a purchase guarantee program evidence higher and more widespread levels of community awareness of and participation in the Noise Remedy Update program than do the three areas that are more receptive to other program alternatives. Overall, a third of those in the target areas (38%) were aware of the Update program at the time of the interview; almost half (46%) were aware of Portsponsored community meetings concerning airport noise. One in eight (13%) had actually attended one (or more) of those meetings.

There seems to be general satisfaction with the community meetings -- 73% of those who have attended would like them to continue. And those who attend are generally representative of community opinion. There is close correspondence between meeting participants' views and those of the overall Airport community on development and noise management issues. The only substantive exception to this concerns use of open land for additional park areas vs. commercial/light industrial. The community as a whole is more favorable toward expansion of park area; meeting participants are more likely to favor commercial development.

Usage of the more developed Airport area parks is widespread. In the three months prior to the General Community Survey, half the households had been to Saltwater State Park and a third to Angle Lake and Seahurst. However, current usage of North SeaTac and Des Moines Creek parks is more limited -- only about one in ten households. There is little support for increasing property taxes to fund further development of those two areas (66% oppose such an increase).

