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GOVERNOR'S

Airport Community Stabilization Funding Task Force



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Preamble

Community public officials, the airline industry, metropolitan area planners and the Minnesota Legislature recognized long ago that Minneapolis/St. Paul International Airport (MSP) may not be large enough to accommodate future air travel demands. Alternative sites south of the developed areas of the Twin Cities were considered and ultimately rejected. In 1996, the Minnesota Legislature effectively ended the prospect of relocating the airport by directing the expansion of airport facilities, including the construction of a new North/South Runway, at the existing airport. Construction of the new runway began in 1999.

The direct capital cost savings associated with expanding the existing airport rather than constructing a new facility in another location are estimated to be approximately two billion dollars.

The economic and social value of a vital, viable Minneapolis/St. Paul International Airport is unquestioned. The airport is one of the state's primary economic engines and is routinely marketed as a major state asset to businesses who are interested in locating facilities in Minnesota. However, keeping and expanding the airport at its current location will have a direct impact on the neighboring communities and its citizens.

Mitigation efforts related to current noise impacts have consisted of the insulation of neighboring homes and school buildings in the cities of Minneapolis, Richfield, Bloomington, and Mendota Heights, and the acquisition of homes in the City of Richfield. As of August 20, 1999, \$119.8 million has been spent to insulate over 5,000 homes and \$37 million has been or is being spent for school sound abatement projects. Although mitigation measures have primarily consisted of insulation, the Metropolitan Airports Commission (MAC) has also spent roughly \$50 million on the acquisition of approximately 400 homes in the New Ford Town and Rich Acres areas in Richfield. These insulation and acquisition mitigation measures have been financed through Metropolitan Airport Commission revenues consisting of passenger facility charges, airport revenues, and Airport Improvement Program funds.

While mitigation of current noise impacts is underway, the new North/South Runway will bring with it additional noise and other impacts. Airport expansion will result in community localized impacts that must be mitigated in order to assure the compatibility of the airport with surrounding land uses. The costs of additional mitigation activities associated with airport expansion are substantial. To date, there has not been agreement on either the scope of additional mitigation activities or the appropriate funding sources.

In response to the need to identify appropriate funding sources, the 1999 Minnesota Legislature created the Governor's Airport Community Stabilization Funding Task Force. Briefly stated, the Task Force's mission is to identify appropriate federal, state, MAC, and community funding sources for mitigation projects associated with the airport expansion.

The report that follows implicitly recognizes both the value of the airport to the state and the need to mitigate the community impacts of airport expansion. The report does not reiterate the debate of the merits of airport expansion. It is not a technical analysis of noise or other airport impacts in adjacent communities. Rather, the report is a recommendation to the Minnesota Legislature on possible funding scenarios for specific mitigation activities.

Executive Summary

Background

In 1996, the Minnesota Legislature made a decision to expand the Minneapolis/St. Paul International Airport at its present location rather than relocate it and build a new airport elsewhere. The 1996 Legislature also required the MAC to form a committee to develop a noise mitigation plan for MSP. This action produced the 1996 MSP Noise Mitigation Program Report.

The Governor's Airport Community Stabilization Funding Task Force was created by the 1999 Minnesota Legislature in response to the need to identify and recommend funding sources to implement noise mitigation measures resulting from the expansion of MSP as identified in the 1996 MSP Noise Mitigation Report and by the Low Frequency Noise Policy Committee. The Task Force was organized by the Minnesota Department of Trade and Economic Development (DTED) in June and July of 1999 and includes representatives from the Governors Office, DTED, the Metropolitan Airports Commission, the Minnesota Department of Finance and the cities of Minneapolis, Bloomington, Richfield, Eagan, and Burnsville. Task Force membership also includes two at-large members representing the Federal Aviation Administration (FAA) and the Metropolitan Council. The first Task Force meeting was held on July 29, 1999.

As stated in Minnesota Laws, Chapter 223, Article 2, Section 78, the Task Force must make funding recommendations to the Minnesota Legislature by January 15, 2000. In addition, the recommended funding sources must include federal, state, Metropolitan Airports Commission, and local sources.

Findings

There are 13 principal findings of the Governor's Airport Community Stabilization Funding Task Force. Those findings appear, in brief, as follows:

- ➔ The Task Force finds that MSP provides a significant economic benefit to the State of Minnesota, its residents and businesses.
- ➔ The Task Force finds that the Minnesota Legislature's decision to expand, rather than relocate MSP will save state taxpayers approximately \$2 billion in capital costs.
- ➔ The Task Force finds that the expansion of MSP will create additional noise related negative impacts on residential and commercial areas in the communities represented on this Task Force.
- ➔ The Task Force finds that the MAC has committed \$200.8 million for housing and school noise mitigation inside the 65 DNL contour as of August 20, 1999.

- ✈ The Task Force finds that the MAC is committed to spending \$82 million to complete insulation of structures inside the 65 DNL contour and is committed to spending \$6 million to complete its school insulation program.
- ✈ The Task Force finds that MAC is committed to spending \$139.5 million through the year 2006 on a program to mitigate noise between the 60-65 DNL contour provided it is approved by the FAA. Based on MAC policy, additional funding is provided annually in its Capital Improvement Plan (which currently extends to 2006) until mitigation between the 60-65 DNL is complete.
- ✈ The Task Force finds that, based on current estimates, the cost of mitigating noise impacts associated with MSP expansion over and above what is completed or committed by the MAC or other sources is estimated to exceed \$155 million. However, the actual amount will be determined through the Mitigation Plan Process Review discussed on page 41.

Summary of findings related to funding:

MAC noise mitigation expenditures to date	\$200.8 million
Additional MAC noise mitigation commitments to complete noise mitigation inside the 65 DNL contour and to complete it's school insulation program	\$88 million
Additional MAC noise mitigation commitment to mitigate noise from 60-65 DNL (contingent on FAA approval)	\$139.5 million
Estimated unfunded noise mitigation activities	\$155 million+

- ✈ The Task Force finds that the MAC is neither capable nor should they be required to finance all of the needed noise mitigation activities on their own.
- ✈ The Task Force finds that the cost of unfunded community impacts is relatively well known in Richfield, but is less understood in the other communities represented on the Task Force. Consequently, the total cost of mitigating all of the adverse impacts of the MSP expansion will require more research.

- ➔ The Task Force finds that there are a number of unfunded noise mitigation activities including additional sound insulation of homes, businesses and schools, acquisition of some properties, redevelopment of some areas into airport noise compatible uses, and purchase protection programs.
- ➔ The Task Force finds that the cost of mitigating negative impacts associated with MSP expansion, over and above what is committed by the MAC, is greater than any single federal, state or local funding source can support.
- ➔ The Task Force finds that all of the identified funding sources are subject to a review and approval process (including congressional, legislative, and/or regulatory) that could consume a significant amount of time and, in reality, may never be available for noise mitigation activities.
- ➔ Finally, the Task Force finds that the State of Minnesota should be a financial partner in the mitigation of noise resulting from the state's decision to expand MSP at its present location.

Potential Funding Sources

In response to the previous findings, the Task Force recommends that additional funds from a variety of sources be utilized to conduct future noise mitigation activities. The Task Force further recommends that these sources be appropriated specifically and exclusively for MSP noise mitigation activities and that the duration of these appropriations coincide with the duration of the mitigation activities. The duration of noise mitigation activities is estimated to be approximately 10-15 years. The Task Force has identified the following potential funding sources for noise mitigation projects. The list is subdivided into two categories: those sources whose use requires FAA approval and those sources whose use does not.

Sources Requiring FAA Approval

The use of the following funds will require the MAC to obtain FAA approval:

- ➔ **Part 150 - FAA Airport Improvement Program.** A federal grant program that could net approximately \$5 million per year for noise mitigation projects.
- ➔ **Parking Surcharge.** A MAC collected revenue stream from the automobile parking ramps at the airport. A 1% increase in parking fees would generate \$350,000 annually.
- ➔ **Miscellaneous Airport Concession Fees.** Total concession fees from food, beverage, services, and ground transportation currently generates about \$8.4 million in revenues each year. An increase in these fees could generate additional funds for noise mitigation.

Revenues generated from airline rates and charges also require FAA approval. The following charges are the result of significant negotiation between the MAC and the airlines. Increases would also be negotiated.

- ➔ **Landing Fee Surcharge.** The MAC generates approximately \$30 million in revenues from aircraft landing fees. An additional \$300,000 could be generated annually by a 1% increase.
- ➔ **Aircraft Ramp Fees.** The MAC generates approximately \$4.8 million in aircraft ramp fees. Similar to a landing fee surcharge, additional revenues could be generated by increasing aircraft ramp fees.
- ➔ **Terminal Rentals.** The MAC charges for space in the Lindbergh Terminal on a square footage basis. Increases in rent could generate funds for noise mitigation.
- ➔ **Passenger Facility Charges (PFCs).** Based on a \$3 per passenger ticket charge, the MAC currently collects about \$37.5 million dollars in PFCs. Congress is considering a proposal to increase PFCs by up to an additional \$3 dollars (with a corresponding elimination of the federal Airport Improvement Program). The MAC supports this increase. Additional PFCs could be utilized for noise mitigation projects. A \$.50 per passenger increase in PFCs would generate an additional \$6.25 million per year for noise mitigation measures. A \$1 increase in PFCs would generate an additional \$12.5 million per year.
- ➔ **Air Flight Property Tax.** This state tax on the value of the airline's aircraft generates about \$8.7 million annually for airport improvements around the state. An additional \$2.1 million in new revenue would be generated for each 1% increase in this tax.
- ➔ **Aviation Fuel Tax.** Similar to the air flight property tax, this tax is collected by the Minnesota Department of Revenue and used for airport maintenance and improvements around the state. A one cent per gallon increase would generate an additional \$654,000.

Sources that Do Not Require FAA Approval

FAA approval for the use of the following funding sources would not be required because they are not charged to the airlines or generated at the airport, or in the case of sales taxes/motor vehicle rental taxes they are not exclusively collected at the airport, .

- ➔ **Auto Rental Taxes and Charges.** Auto rentals are relatively inexpensive in Minnesota. For each 1% increase in the statewide motor vehicle rental tax (which would amount to approximately \$.29 per day on a Ford Taurus) an additional \$1.6 million would be generated annually. A 3% increase (amounting to roughly \$.87 per day on a Ford Taurus) would generate \$4.8 million per year.

- ➔ **Designated Increase in Sales Tax.** Increases in sales tax receipts resulting from increased retail sales at the airport could be dedicated to noise mitigation activities. By establishing a base year (1996, for example, is the year the decision was made to expand the airport at its existing location) and designating any increase in sales taxes generated at the airport over the base year, an estimated \$3 million could be made available for noise mitigation activities per year (based on the estimated \$15 million in 1999 less \$12 million collected in 1996). The estimated \$3 million is likely to increase each year as new parking becomes available and new retail shops are opened.
- ➔ **State General Fund Appropriation.** State general funds are the most flexible source for noise mitigation projects. The funds could be used for sound insulation outside of FAA approved contours in communities near the airport and as supplemental funds for other mitigation activities.
- ➔ **State General Obligation Bonds.** Several proposed noise-related redevelopment activities within communities near the airport may be state G.O. Bond eligible. In addition, school insulation activities would also be bond eligible.
- ➔ **MAC Property Tax Levy.** The MAC has the authority to levy a property tax on all taxable real estate in the seven county Twin City area. A tax rate change which would increase the tax on a \$160,000 home by \$1.72 and a \$1,000,000 business by \$26.40 would generate about \$2 million per year.
- ➔ **Real Estate Taxes at MSP.** Because the MAC is a public entity and the owner of most airport real estate, the MAC does not pay property taxes. A property tax equivalent to a city, school district or special district tax could be imposed on privately owned and leased buildings on airport property. While this method does not require FAA approval, it does duplicate funds from the same entities (airport businesses) as several previously mentioned potential revenue sources. Based on 1999 figures obtained from the Hennepin County Assessor, MSP has a market value of approximately \$266 million which translates into a tax capacity of approximately \$8.9 million.
- ➔ **Tax Abatement/Tax Increment Financing.** This source is available to the cities affected by airport noise. However, because this report is based on projected rather than existing noise related problems, deterioration of neighborhoods has not yet occurred. Special tax abatement/TIF districts would need to be created in order to address decay before it actually happens.

Conclusions and Recommendations

The Task Force finds that the State of Minnesota should be a financial partner in future noise mitigation projects resulting from the expansion of MSP. The Task Force also finds that no single funding source is suitable for the range and scope of proposed mitigation activities.

The Task Force recommends that the MAC continue with the existing noise mitigation efforts including updating the Part 150 Plan for insulation of homes affected by noise levels between 60-65 DNL.

The funding solutions recommended by the Task Force are intended to fund mitigation programs that are not currently funded under existing mitigation programs. The Task Force in no way wishes to diminish the importance of the existing mitigation programs or to undermine existing mitigation funding sources. Rather, the recommendations are intended to provide additional funding sources needed to mitigate the negative impacts associated with expanding MSP at its existing location.

Therefore, the Task Force recommends that the Minnesota Legislature, in cooperation with the FAA, MAC, the airline industry and the Task Force communities, appropriate funds from the previously identified sources to conduct noise related mitigation activities. In addition, while the Task Force has identified several potential funding sources, the Task Force is recommending the following sources. The potential yield from these sources can be found on pages 6-8 of the Executive Summary and also in Section X (Potential Financing for Unfunded Community Impacts) on pages 33-40 of this report.

The Task Force recommends that the Minnesota Legislature consider the following sources in the order in which they are listed.

Recommended Funding Sources (In Order of Task Force Recommendation)	Steps Needed to Secure Funding
<i>Sources Requiring State Approval</i>	
1) General Sales Tax (Designated Increment)	Act of Minnesota State Legislature
2) Auto Rental Sales Tax Increase	Act of Minnesota State Legislature
3) Tax Abatement/Tax Increment Financing	Step 1: Act of Minnesota State Legislature Step 2: Approval by Local Governing Board
4) State Issued G.O. Bond	Act of Minnesota State Legislature - this is a one time act and would need to be resubmitted on a project by project basis
5) State General Fund Appropriation	Act of Minnesota State Legislature - resubmitted on a biennial basis

<i>Sources Requiring Federal Approval</i>	
1) FAA Airport Improvement Program	This requires FAA approval on an annual basis
2) Passenger Facility Charges	Step 1: Act of Congress to raise the PFC cap Step 2: MAC application to the FAA for an increase in the local PFC rate in this purpose Step 3: FAA approval of rate increase and for mitigation purposes

The Task Force also recommends that, prior to the distribution of any funds, the affected communities conduct additional mitigation planning activities. The purpose of the planning is to:

- ➔ Continue to refine knowledge about the level and types of impacts within the cities.
- ➔ Continue to identify the types of mitigation activities to address the impacts.
- ➔ Gather public input on the mitigation plans.
- ➔ Identify the amount of funds required to complete mitigation activities.

Community and Regional Economic Impact of the Minneapolis/St. Paul International Airport

The Minneapolis/St. Paul International Airport connects Minnesota businesses with suppliers, customers, and freight and improves the state's ability to attract tourists. The Metropolitan Airports Commission retained the services of Martin Associates to study the economic impacts of passenger and air freight activity on the local and regional economies for the calendar year 1997. The methodology used by Martin Associates in this analysis has also been used to estimate the economic impacts generated by 12 airports around the nation, as well as in three previous studies for Minneapolis/St. Paul International Airport. The 1997 MSP study aimed to quantify the economic impact of 30.2 million passengers and more than 820 million pounds of air freight on the Twin Cities metropolitan area and the State of Minnesota.

Jobs

The study concluded that 27,593 jobs were directly generated by the airport and 40,800 direct jobs were generated by local air visitors' expenditures. The study defines jobs in visitor industries as "jobs created in the service and retail industries in the Twin Cities area as a result of out-of-town residents purchasing lodging, food, and entertainment." Direct airport generated jobs are those that would be discontinued if airport activity ceased. These include jobs with airlines serving the airport, government agencies, concessions at the airport, rental car companies, taxi cabs, vans and limos, hotels, restaurants, air freight operators, freight forwarders, couriers, and construction and architectural/engineering companies providing services to the airport and airlines. The majority of these jobs were held by residents of Dakota County (30%), Minneapolis (21%), St. Paul (12%), and Hennepin County (outside of Minneapolis) (10%).

Local purchases by the 27,593 direct airport employees generated an additional 14,490 jobs in the local economy and local purchases by the 40,843 employees directly employed in the visitor industry generated an estimated 13,357 jobs. These individuals spent their wages and salaries on goods and services such as schools, real estate, financial services, law, state and community government agencies, grocery stores and restaurants.

An additional 3,178 jobs were generated by community purchases by firms indirectly dependent on the airport. These jobs include local machine and parts firms, office supply firms, transportation service firms, and maintenance and repair firms.

Economic Impacts	Airport Generated	Visitor Industry	Total
Direct jobs	27,593	40,800	68,393
Induced jobs	14,490	13,357	27,847
Indirect jobs	3,178	N/A	3,178
Total	45,261	54,157	99,418

Personal Income

The study also estimated that the 27,593 direct airport employees earned about \$1.1 billion of wages and salaries in 1997 or an average salary of \$38,300. In contrast, data from the U. S. Department of Labor, supplied to the Minnesota Department of Trade and Economic Development, indicated that the average salary for the Twin Cities metropolitan area was \$31,941. Therefore, direct airport employees earned about 20% more than the average salary in the metropolitan area. The 40,800 direct visitor industry employees, including part-time workers in lodging, food, entertainment, retail and transportation, received wages and salaries totaling \$481 million or an average salary of approximately \$11,800.

Economic Impacts	Airport Generated	Visitor Industry	Total
Direct Personal Income (\$1,000)	\$1,100,000	\$481,000	\$1,581,000

Taxes

Federal, state, county and municipal tax impacts are tax payments to the Federal, state, county, and municipal governments by firms and individuals whose jobs are dependent on activity at Minneapolis/St. Paul International Airport. Airport activity at MSP generated an estimated \$550 million of state, county, and municipal taxes. Direct airport activity generated \$267 million of these taxes. Of this, approximately \$175 million was received by the State of Minnesota, about \$88 million by the local county governments, and approximately \$4 million by the municipal governments. In addition, more than \$275 million of state, county, and municipal taxes were generated as a result of the 4.3 million visitors arriving by air to the Twin Cities metropolitan area.

Economic Impacts	Airport Generated	Visitor Industry	Total
Direct State and Community Taxes (\$1,000)	\$267,000	\$275,000	\$550,000
Induced & Indirect State and Community Taxes (\$1,000)	\$283,000	N/A	N/A
Total	\$550,000	\$275,000	\$825,000

Environmental Impacts of the Minneapolis/St. Paul International Airport

The City of Richfield and the MAC are working with the Low Frequency Noise Policy Committee to measure the impact of low frequency noise on the City of Richfield. At the time of release of this report, the Low Frequency Noise Policy Committee Report is not complete. Therefore, the environmental impacts that follow are based on information gathered at other airports and extrapolated for MSP. Consequently, the environmental impacts determined by the Low Frequency Noise Policy Committee could supercede the data in this section.

The noise generated by the airport can be identified by two categories: 1) higher frequency noises; and 2) low frequency noise (LFN). Higher frequency noise is present when aircraft are in flight and on the ground. Its effects have long been recognized and mitigated. Initial efforts to mitigate this noise focused on mandating quieter aircraft. Since the early 1990s, however, activities have also included corrective land use measures, purchase guarantees, and insulation of homes and schools affected by high frequency noise.¹ High frequency noise is recognized and can be quantified in terms of severity.

Low frequency noise does not have the same long-time recognition as high frequency noise. Unlike high frequency noise which is caused by aircraft overflight, low frequency or ground level noise is most prevalent during take-off and landing operations. In particular, low frequency noise is caused by acceleration of aircraft during take-off and use of reverse thrust for deceleration on landing. In lay terms, low frequency noise can be characterized as the rumbling sound associated with powerful engines. It is capable of causing rattling, shaking, and vibrations in windows, walls, and objects in homes. Human hearing is less sensitive to low frequency sound than it is to higher frequency sounds. The low frequency energy is radiated more strongly to the rear and side of the aircraft and can propagate over considerable distances without being reduced as much as higher frequency sound energy.

It is anticipated that the new North/South Runway will cause low frequency aircraft noise to adjacent communities. A number of studies have been undertaken to determine how much of an impact low frequency noise produced from the North/South Runway will have on the communities surrounding the airport.

Dr. Sanford Fidell of BNN systems of Canoga, California conducted two studies in 1997 to determine the extent of low frequency noise. The studies found that aircraft operation on a proposed North/South Runway at MSP will elevate ambient noise levels. The low frequency noise produced by jet aircraft operations on the North/South Runway will be sufficient to create audible rattling noises inside residences, including residences with conventional higher frequency "acoustic insulation" treatments.

¹ As of August 20, 1999, the MAC has spent a total of \$200.8 million on mitigating higher frequency noises.

However, the likely extent of the annoyance associated with such vibration and rattle could not be directly determined from the acoustic measurements. Consequently, a second study developed information about the annoyance of low frequency aircraft sideline noise through direct questioning of residents of an appropriately situated community at an existing airport. A total of 644 residents living in El Segundo, California, between 1,000 and 5,000 feet to the side of Runway 25R at Los Angeles International Airport were interviewed as a part of this study. Overall, 69% of the respondents reported annoyance with aircraft noise while at home. About half of the respondents (53%) reported notice of aircraft-produced vibration or rattling sounds in their homes. Of these people, 71% reported that they were annoyed by the rattling sounds.

The reason low frequency noise has become such an issue at MSP is because of the proximity of the North/South Runway to existing residential neighborhoods, with the average LFN event lasting an average of 45 seconds versus 15 seconds for the average overflight noise event. Further, based on projected use of the North/South Runway at MSP, there will be approximately 300 to 400 aircraft operations per day or one every 3.6 minutes.

In Richfield, the proposed North/South Runway at MSP is within 1,350 feet of residential property. Thus, Richfield residents are expected to experience similar annoyances as a result of low frequency noise from the North/South Runway as residents in El Segundo, California.

However, there are no standards in either federal or state law for low frequency sounds. Expert noise consultant Andrew Harris of Harris Miller Miller & Hanson (HMMH) on behalf of the MAC recommended a C-weighted level of 80 dB as the standard or threshold for the onset of disruptive effect of low frequency noise.

Baltimore-Washington International Airport (BWI) used similar criteria for evaluating low frequency noise when it authorized special low-frequency insulation of homes within the 80 decibel low-frequency noise contour². Using this criteria, the cities adjacent to MSP believe that there will be houses in their cities that are affected by low frequency noise. Thus, these houses could be affected by perceptible house vibrations. Sound levels on the order of 80 dB are capable of producing indoor rattling noises in residences as well.

Other airports that have published studies of the audibility and impact of low frequency noise are: San Francisco International Airport, Logan International Airport, and Los Angeles International Airport. Pursuant to the City of Richfield and the Metropolitan Airports Commission Agreement, the MAC and Richfield have agreed to address the issue of low frequency noise at MSP. Consequently, the Low Frequency Noise Policy Committee and an expert panel consisting of Sanford Fidell, Louis Southerland and Andrew Harris has been convened. The findings of this committee will be incorporated into the MAC's Part 150 Plan if prudent and feasible.

² The average cost of this special insulation at BWI is \$55,000-\$60,000. The total project cost is about \$1.8 million. The mitigation is approved by the FAA and will be financed largely with Airport Improvement Program grant funds.

Summary

There are no clear guidelines on how to address low frequency noise and only a handful of airports in the nation have studied the issue. The reason low frequency noise has not been extensively studied in the past is because it primarily impacts people located in close proximity to operational runways and until the construction of the new North/South Runway at MSP, runways have not been built this close to existing residential areas. It is clear that low frequency noise cannot be mitigated in the same fashion as higher frequency noises. Studies have shown that there is no meaningful difference in low frequency noise reduction in homes that have received standard over-flight acoustic treatment vs. homes that have received no sound insulation.

Aircraft on the runway during take-offs and landings generate significantly more low frequency noise, or low rumbling sounds, than do aircraft in flight. Low frequency noise can cause vibration, rattling of windows, walls, floors, pictures, and other objects in buildings.

Mitigation Efforts Within Current Federal Regulation

While the purpose of this report is to identify funding options for airport noise mitigation projects, it is important to provide information on current mitigation efforts and commitments. By providing information on 1) the scope of federally approved mitigation activities; 2) mitigation efforts and expenditures to date and; 3) future mitigation commitments, the task force hopes to provide an appropriate context for the discussion of additional future mitigation efforts. This chapter discusses the scope of federally approved mitigation activities and mitigation efforts and expenditures to date. Item number three, future mitigation commitments, is discussed in the following chapter.

Federally Approved Mitigation Activities

Noise mitigation measures may be approved by the Federal Aviation Administration as part of the federal finding associated with an environmental document or as part of a Noise Compatibility Plan prepared under Part 150 of the Federal Aviation Regulations. The original Minneapolis-St. Paul International Airport Part 150 Plan submitted by the Metropolitan Airports Commission was partially approved by the FAA in 1990 and a subsequent update was partially approved in 1994. Both the original and updated Part 150 plans contained measures approved by the FAA to address non-compatible land uses through insulation and acquisition mitigation.

The FAA's policy permits airport revenue to be used for implementation of measures approved in the Part 150 Plan. As of August 20, 1999, the MAC has spent a total of \$200.8 million on acquisition and insulation mitigation efforts approved through the current Part 150 Plan. This means that airport revenues such as passenger facility charges have been used to finance these mitigation measures. However, if mitigation measures are not included and approved by the FAA through an environmental document or Part 150 Plan, they may not qualify for use of airport funds such as passenger facility charges. Thus, mitigation efforts not approved by the FAA may not have adequate financing sources.

Mitigation Measures Accomplished by MAC to Date

As of August 20, 1999, the Metropolitan Airports Commission has spent a total of \$200.8 million on insulating and acquiring homes in the 65 or greater DNL contour and on a school insulation program. The program to insulate within the 65 DNL is expected to be complete in 2002. The efforts are being financed by the Metropolitan Airports Commission's Residential Sound Insulation Program. MAC is financing the program through: 1) airline rates and changes, 2) Passenger Facility Charge revenues, and 3) Airport Improvement Program Grant Funds.

The MAC has spent approximately \$119.8 million on a residential sound insulation program. At the request of the city of Richfield, it has also spent about \$50 million on a residential acquisition project in the City of Richfield and approximately \$31 million has been spent on school sound abatement projects. Thus, the Metropolitan Airports Commission has spent a total of \$200.8 million on mitigation efforts approved through the current Part 150 Plan.

Residential Sound Insulation Program

MAC's Residential Sound Insulation Program began in 1992. 5,152 homes have enrolled in the residential sound insulation program for a total cost of \$119.8 million as of August 20, 1999. Insulation has been completed at 4,773 of the homes as of August 20, 1999. The majority of the homes that have been insulated, or 3715, are located in the City of Minneapolis. 634 of the homes that have been insulated are located in the City of Richfield while Bloomington, Eagan, and Mendota Heights have respectively had 158, 181, and 85 homes insulated through MAC's Residential Sound Insulation Program. Homes are currently being insulated at a rate of approximately 600/year at an average cost of \$40,400 per house. The actual cost is dependent upon the type of home and what insulation methods are being utilized.

School Sound Abatement Projects

School sound abatement projects began in 1981 with the St. Kevin's school in Minneapolis. Since then, seven additional schools have been or are in the process of being insulated for sound in Minneapolis. Three school sound abatement projects have been completed or are underway in the City of Richfield and two school sound abatement projects have been completed in Mendota Heights. In total, thirteen schools have been or are being completed for noise abatement projects. To date, the MAC has spent approximately \$31 million on school sound abatement projects and will spend an additional \$6 million to complete this activity in 2000-2001. These efforts are being financed through 1) airline rates and charges, 2) PFCs, and 3) AIP grants.

New Ford Town/Rich Acres Acquisition Project

In response to a request from the City of Richfield based on the high level of noise in the New Ford Town and Rich Acres areas of Richfield, the MAC acquired 335 single family homes and 67 apartment units. The cost of this acquisition was approximately \$50 million. This property has subsequently been converted for construction of the North/South Runway. The property was acquired under the Part 150 Program for noise compatibility.

Additional Mitigation Commitments By MAC

To identify mitigation projects that do not have adequate sources of funding, it must be determined if there is an existing program to finance the project, or whether there is a realistic expectation of financing through a future mitigation program. The following is a list of future commitments to mitigate airport noise:

Completion of School Sound Abatement

The MAC is committed to spending \$6 million to complete its school noise mitigation program. As seen in the previous section, the MAC has spent approximately \$31 million on school noise abatement while the total cost of this program is approximately \$37 million. The MAC's commitment to complete this program and expend an additional \$6 million will be realized in 2000-2001.

Completion of Housing Insulation Inside the 65 DNL Contour

It is expected that the MAC will spend an additional \$82 million to complete the insulation of homes inside the 65 DNL contour. As of August 20, 1999, the MAC spent a total of \$119.8 million on this housing insulation program. It is expected that an additional \$82 million will be spent in 2000-2002 to complete the program.

Mitigation from the 60-65 DNL

It is anticipated that homes affected by noise levels between 60-65 DNL will be insulated through a future MAC program. The MAC is updating their Part 150 Plan to include a program for insulation at these levels. This update will include the affects of changes to airport operations due to the opening and use of Runway 17-35. It is anticipated that the FAA will approve the revised Part 150 Program and, therefore, airport funds, such as passenger facility charges and concessions revenue, will be used for this insulation.

Pending FAA approval, MAC will spend \$139.5 million through the year 2006 to mitigate noise impacts on homes in the 60-65 DNL contour. The MAC's Capital Improvement Program extends through 2006. However, based on MAC policy, additional funding is to be provided annually until mitigation at the 60-65 DNL contour is complete. Although the program and contour have not been completely formulated, it is expected that the program will extend to the year 2010 or beyond.

Other MAC Commitments

The MAC has made other commitments to noise mitigation including those that stem from an agreement between the City of Richfield and MAC whereby the MAC agrees to evaluate low frequency noise, compensate Richfield for neighborhood parks that were acquired for the construction of the North/South Runway, and to support the land use conversion project in Richfield through legislative initiatives and seeking FAA approval.

Further, the City of Bloomington has identified 75 homes that experience aircraft overflight noise from Runway 4-22 (commonly referred to as the Crosswind Runway). The insulation of these 75 homes has been deferred until the MAC decides whether or not to modify the airport runway use system to allow for more frequent use of Runway 4-22 for arrivals and departures. These 75 homes were within the 65 DNL contour for the updated 1996 Part 150 Program. However, the homeowners agreed to forgo sound insulation pending the possibility of their homes being acquired if the 4-22 Crosswind Runway Use System is implemented. The City of Bloomington feels that the owners of these 75 homes should not be penalized for waiting for the MAC policy outcome, and believes these 75 homes should be eligible for sound insulation whether or not they fall within the 60 DNL contour in the new Part 150 Plan that is currently being updated.

Summary

The MAC has contributed significant resources to noise mitigation activities near MSP. In addition, MAC will expend significant amounts of money on mitigation measures in the future. However, the expansion of a major international airport within an area containing mostly residential land uses will create significantly greater impacts than can be accommodated through airport programs alone. These unfunded impacts will be discussed in the following chapter.

Unfunded Community Impacts

The previous two sections of this report indicate the significant amount of mitigation activities undertaken and proposed for the future. The Metropolitan Airports Commission has made significant contributions through past spending and future commitments.

When the Dual Track Study ended through 1996 legislative action and it was decided that the airport would remain and expand in Minneapolis-St. Paul, it became evident that additional negative impacts to Minneapolis, Richfield, Bloomington, Burnsville and Eagan would occur as a result of the airport expansion. While the state's decision to expand rather than relocate the airport was driven by cost-savings and support for existing airport related businesses, individual residents and non-airport related businesses do not benefit from this decision. It is equally clear that the affected communities lack the financial resources to mitigate the negative affects of airport expansion. Some of these negative effects will be mitigated through existing programs while others will not. Thus, we must determine which mitigation projects will not fall into an existing program and ensure the mitigation of these additional, unaddressed impacts.

The reader should note that the impacts identified in this section were prepared and presented by the Task Force cities prior to the completion of a report by the Low Frequency Noise Policy Committee. At the time of release of this report, the report of the Low Frequency Noise Policy Committee is still not complete. When complete, the Low Frequency Noise Policy Committee Report may provide information that could supercede some of the assumptions in this section.

City of Richfield

The City of Richfield is located in unique proximity to the new North/South Runway currently under construction at the Minneapolis/Saint Paul International Airport (MSP).

During the 1999 legislative session, the Minnesota Legislature created an Airport Impact Zone in East Richfield running parallel to the new North/South Runway. The zone encompasses roughly 50 blocks of residential and light commercial use along the city's eastern border running from Hwy. 62 on the north to I-494 on the south and 16th Avenue on the west to Cedar Avenue on the east. The homes in the area primarily consist of single-family detached houses that were built in the 1940s and 1950s for returning World War II veterans.

The City of Richfield has spent several years studying the impact of the new runway on the community and its residents and businesses. Studies by the City of Richfield have found that aircraft operations on the North/South Runway will substantially elevate (including low frequency) noise levels in areas of Richfield up to a mile from the new runway. The increased noise levels produced by the operation of the new North/South Runway are expected to create audible rattling inside residences in eastern Richfield, including some residences that may have already undergone acoustical insulation treatments. Additionally, some of the residences that may experience ambient noise may be further west from MSP than the current 60 dB DNL

contour, and are outside the area that the Federal Aviation Administration would consider to be eligible for sound insulation funding. Currently, the federal noise insulation program addresses noise impacts from overflight noise. These programs do not address the impact from ground level noise. The FAA has stated that it is their intention to develop standards to address ground level noise for situations that exist at airports like MSP. However, it is not clear when those standards will be complete.

The City of Richfield is concerned that the area included within the defined Airport Impact Zone will experience a number of significant and unique adverse environmental and socioeconomic impacts directly associated with the operation of the new North/South Runway, particularly relating to low frequency noise.

Low frequency noise from aircraft taxiing, landing (from engine reverse thrust) or taking off on the new North/South Runway will cause a deep, thunder like rumbling likely to shake and rattle walls, windows and objects in nearby homes. These low frequency noise events will be produced by each of the 300 or more daily jet flights (one every few minutes) that are expected to use the new runway, and may last as long as 30-45 seconds per flight. Overall, the homes within this area may be exposed to greater levels of noise than the New Ford Town and Rich Acres neighborhoods that were previously acquired by MAC.

The City of Richfield is concerned that the residents and businesses that are located near the new North/South Runway will find the increased noise to be intolerable and will eventually want to move. The city is concerned that the more annoyed its residents become from the increased noise, the faster they will leave the area in search of quieter neighborhoods elsewhere. As a result, degradation of the neighborhood seems inevitable as residents start selling their homes at reduced prices. Additionally, as more people begin thinking of selling their homes (realizing they might have to sell at a loss), maintenance and home improvements become a low priority. As the quality of life and the values of the homes in the area continue to decline, more and more residents will sell their homes at even lower prices in hopes of leaving a rapidly deteriorating neighborhood before it is too late.

In order to prevent this scenario from occurring, the City of Richfield is proposing to buy-out the residential and business properties within the Airport Impact Zone to redevelop the area into commercial and residential uses that are more compatible with the neighboring airport. By doing so, the city will be able to control the types of development that will occur within the Airport Impact Zone to ensure that the redevelopment of the area is consistent with airport use. More importantly, the city will prevent the area from becoming a blighted, rundown neighborhood. This change in land use is consistent with Metropolitan Council Aviation Guide land use guidelines.

As a result of the city purchasing the homes and businesses within the Airport Impact Zone to redevelop the area into more suitable uses, the following impacts will likely occur. It should be noted that the following impacts are anticipated to be temporary since the city proposes to

redevelop the Airport Impact Zone area. It should also be noted that the following impacts may change as a result of the findings of the Low Frequency Noise Policy Committee.

Loss of Housing Units

The City of Richfield projects that up to 650 single-family homes and up to 403 multi-family units will be lost. This is in addition to the 335 single-family homes and 67 multi-family residential units that were lost through the New Ford Town/Rich Acres buyout.

Loss of Businesses

The city also projects that as many as 45 existing businesses will be displaced. Two businesses were previously lost through the New Ford Town/Rich Acres buyout.

Loss of Tax Base

As a result of the temporary loss of housing units and businesses within the Airport Impact Zone, the city projects a temporary loss of tax capacity of up to \$1.5 million. This is in addition to the \$383,173 in tax capacity that was previously lost through the New Ford Town/Rich Acres buyout.

Loss of Population

The city projects that as many as 2,895 residents may be displaced. This is in addition to the 1,092 residents that were relocated when the New Ford Town and Rich Acres areas were acquired to make way for airport expansions. Combined, the city anticipates losing 11% of its total population (3,987 persons) as a result of the acquisition.

Loss of Students and School Revenues

The loss of students is a significant burden on the community for several reasons. Schools are typically the most important consideration when choosing housing, even for people without school age children. The temporary loss of students has the compound impact of reducing curriculum options as well as reducing revenues to pay for fixed cost of operating a school. This is an especially difficult issue for older first ring suburban communities facing competition from districts with newer schools and larger enrollment.

Aside from the loss of tax base, the Richfield School District anticipates losing \$1.77 million annually in revenues as a result of a temporary loss of students and reduced state aid. Through the Metropolitan Airports Commission's purchase of the New Ford Town and Rich Acres neighborhoods, the Richfield School District lost 170 students.

Through the Airport Impact Zone, the Richfield School District will have a temporary loss of approximately 286 Students. The number of classroom teachers would be reduced to reflect the decrease in enrollment. However, it would not be possible to achieve savings of \$1.77 million without eliminating programs and services impacting the balance of the students. The mitigation plan prepared by the city, if funded, would gradually replace housing units and restore school enrollment. It is expected that this could be achieved over a 10-year period.

Recreational Loss

The City of Richfield will lose nearly 30% of its total park space, 100% of its golf course (which was being leased to the city by the MAC), and over 50% of its softball and baseball fields.

While it is difficult to place a specific dollar value on these losses, they do have a direct impact on the quality of life for the residents of the city.

Loss of Environmental Buffer

As a result of a legislative act, the land between the existing airport had been specially contoured with berms to serve as an environmental barrier to reduce the noise impacts on adjacent residential property. The loss of these berms and the spatial separation will serve to increase the impact of existing airport noise on adjacent residential property in addition to adding a new noise source.

Existing Level of Effort

The City of Richfield has undertaken a number of actions to address the existing and expected impacts from the airport. Those actions include:

- ➔ **Housing revitalization.** Airport impacts, combined with other conditions within an aging first right suburb prompted Richfield to invest in an aggressive single family housing revitalization program. The nationally recognized program includes substandard housing replacement, home remodeling, and transformation housing expansion. The city has invested approximately \$4 million to date for these efforts.
- ➔ **Housing replacement.** The loss of homes in New Ford Town and Rich Acres seriously impacted both the school and city. The loss of students reduced school revenue and forced significant cuts in curriculum and services. City services were similarly impacted. As a result, in 1997, the city initiated an effort to increase the number of housing units with a goal of adding 500 housing units within five years and 1,000 units in ten years. Currently, there are 420 new housing units under construction and 100 approved, but not yet under construction. The cost to the city to establish these housing units currently under construction is approximately \$6.2 million.
- ➔ **Neighborhood revitalization.** Experience within other airport-impacted communities indicates the need to address commercial deterioration, which frequently occurs in areas heavily impacted by airport noise. Failure to do so often results in residential deterioration. Richfield has targeted commercial revitalization in East Richfield with several projects including the Cedar Avenue Business Area redevelopment and East 66th Street redevelopment. The city costs for these projects approximately \$4.6 million.

City of Bloomington

The City of Bloomington is concerned that the increase in noise resulting from the operation of the new North/South Runway will substantially elevate noise levels east of Old Cedar Avenue in Bloomington which may degrade certain neighborhoods and the quality of life that the residents enjoy. An Environmental Impact Statement projects that 1240 dwelling units in Bloomington will be within the 60 DNL contour in 2005. The Part 150 study indicates the number is likely to be higher. Additionally, office and hotel properties close to the airport may be adversely affected by increased noise from the operation of the new North/South Runway in terms of business disruptions and perhaps even loss of business/hotel guests.

The City of Bloomington has also identified low frequency and ground noise as a concern. The pending Low Frequency Noise Policy Committee Study will predict the degree of low frequency noise impact expected in Bloomington. The city may have additional mitigation projects that arise as a result of the study.

There are 258 single family dwellings, 78 townhouses and 947 units in multi-family dwellings located east of Old Cedar Avenue in Bloomington. The City of Bloomington has recommended that 33 single family dwellings and two apartment complexes with 63 units located within the 65 DNL contour be acquired and redeveloped with airport compatible uses.

Owners of the remaining single family homes east of Old Cedar Avenue will experience a dramatic change in environment when the North/South Runway opens in 2003. They will go from almost no aircraft overflights to an estimated 400 daily jet overflights – most of them takeoffs.

The City of Bloomington proposes to engage these owners and residents in a process to determine whether they prefer to remain and be insulated, or whether they prefer to sell their homes to be redeveloped for commercial and residential uses designed to be compatible with the neighboring airport. The redevelopment would prevent neighborhood deterioration similar to the program described in this report for the City of Richfield.

The time to make this redevelopment decision is before funds are spent for sound insulation of these homes. The \$40,400 per home sound insulation cost is 20% to 30% of the total value of these homes. This amount budgeted for sound insulation could be a major component in funding redevelopment. The mitigation and neighborhood stability achieved by redevelopment will be greater than that achieved by insulating the existing homes.

City of Minneapolis

The City of Minneapolis has identified aircraft noise from the operation of the new North/South Runway as a concern of its residents. As in Richfield and Bloomington, the city does not want to see its neighborhoods near the airport deteriorate. The city has identified 9,900 dwelling units within the city that will be within the 60-75 DNL in the year 2005. The city is concerned that the increased aircraft overflight noise may negatively impact the learning environment in area schools through classroom disruptions. The city has expressed concerns with recreational impacts as residents may no longer fully enjoy the many parks within the city due to increased aircraft overflight noise. The city has also expressed concerns that the increased noise levels from the new North/South Runway may have a negative impact on commercial/business properties.

City of Burnsville

The City of Burnsville has expressed concern with increased aircraft overflight frequency and related noise impacts in residential areas that have never experienced overflights in the past. The city does not want to see its residents leaving the area in search of quieter neighborhoods elsewhere. The city has also identified additional concerns related to the safety of increased overflights over NSP's Black Dog Power Plant and Minnegasco's natural gas site (the FAA, through the EIS process, has reviewed this issue and does not share the City's concern.)

The City of Burnsville has identified several elementary schools in the northeast corner of the city within 4 miles of the new North/South Runway that may be impacted by aircraft overflight noise in terms of classroom and playground disruption. The city does not want the quality of its schools to be jeopardized by a deteriorated learning environment.

City of Eagan

The city is concerned with increased aircraft overflight frequency and related noise impacts in residential areas that have never experienced overflights in the past. The noise levels in many instances will double or triple with the 3 new flight tracks that will cover the entire city. The city does not want its residents leaving the area in search of quieter neighborhoods elsewhere.

Summary

The previously mentioned community-identified unfunded impacts could result in serious consequences for the five communities if left unaddressed. It should be noted that, in the cities of Bloomington, Richfield, and Minneapolis, the scale or scope of these impacts will be further refined and articulated when the report of the Low Frequency Noise Policy Committee is completed and released. The cities of Richfield, Bloomington, Minneapolis, Burnsville, and Eagan are searching for resources to help mitigate these unfunded impacts.

Cost Estimates of Unfunded Community Impacts

The previous section of this report identified community impacts that do fall into an existing noise mitigation program. This section will go one step further and provide cost estimates to mitigate the previously identified unfunded community impacts.

Background

In 1996, the Minnesota Legislature decided to keep the airport at its current location and required MAC to prepare a noise mitigation plan to be delivered to the state legislature. A report, entitled MSP Noise Mitigation Program, dated November 1996, was prepared by MAC with the participation of the cities of Minneapolis, Mendota Heights, Eagan, Bloomington, Richfield, Inver Grove Heights, Burnsville, St. Paul, the Metropolitan Council, and Northwest Airlines. The report adopted recommendations that were included in an earlier joint study "Metropolitan Council, MAC Community Protection Plan."

The 1996 report to the legislature outlined four basic areas of mitigation for the expanded airport. Those areas include: insulation, community stabilization, airport operations and runway use. Measures identified within community stabilization included: land use conversion, purchase and property value guarantees, and housing replacement. The activities and projects described herein refer to those measures included within the MAC approved MSP Noise Mitigation Report but remain unfunded.

Sound Insulation

The Low Frequency Noise Policy Committee is addressing the extent and cost of necessary additional insulation to address low frequency noise impacts on existing residential properties. It is likely that there will be additional costs to address this impact. Using standards established for low frequency noise insulation at Baltimore-Washington International Airport (BWI), the cities of Richfield and Bloomington believe that there are existing homes which may be eligible for some level of noise treatment.

The City of Bloomington has also identified 75 homes within the "4-22 Deferred Area" that would be eligible for acquisition or insulation depending upon implementation of the 4-22 Runway Use System. The insulation of these homes has been deferred until the 4-22 Runway Use System has been resolved. The City of Bloomington would like to see the 75 homes within the "4-22 Deferred Area" become sound insulated, regardless of the new Part 150 contours, if the 4-22 Runway Use System is not implemented and these 75 homes are not acquired. At an average cost of \$37,000 per home, the estimated cost to sound insulate these 75 homes in Bloomington is \$2.8 million.

The City of Minneapolis is concerned that some of its commercial establishments will experience increased aircraft overflight noise and may want to relocate their business. It is likely that some community businesses may experience some of the same noise interruptions as do other area residential property owners, nursing homes, and schools. MAC, to date, has not funded the

insulation of commercial properties since this activity has not been approved under the FAA Part 150 Plan. As a result, any soundproofing of commercial establishments will have to be done using resources that do not require FAA approval. The City of Minneapolis estimates that the cost of soundproofing commercial establishments could range between \$28 to \$30 million.

The Cities of Burnsville and Eagan are concerned that the new North/South Runway will produce increased aircraft overflight noise in residential areas that have never experienced this type of noise in the past. In Burnsville alone, approximately 945 homes have been identified that are outside of the DNL 60 contour and as a result, would be ineligible under MAC's existing sound insulation program. Nevertheless, these homes will be subject to intense **new** aircraft overflight activity and deserve some compensation for that fact. Unlike homes around the airport today, these homeowners bought their homes with a reasonable expectation of not living beneath traveled air flight paths. Any soundproofing conducted outside of the DNL 60 contour will need to be funded by resources that do not require FAA approval. It is estimated that the cost to sound insulate these 945 homes that fall outside of the DNL 60 contour is approximately \$19 million.

Additionally, the cities of Burnsville and Eagan are concerned that some elementary schools may be impacted by increased aircraft overflight noise relating to the operation of the new North/South Runway. Again, these schools are located just outside of the DNL 60 contour. The estimated cost to sound insulate these elementary schools is approximately \$2.25 million.

The creation of a state capitalized revolving fund for noise mitigation activities that do not qualify for FAA approved projects, but are directly related to aircraft noise, would be an ideal solution for these types of noise mitigation needs.

Community Stabilization-Land Use Conversion

In order to comply with Metropolitan Council land use guidelines the most appropriate mitigation project for the Richfield Airport Impact Zone established by the 1999 Minnesota Legislature would be to redevelop the area into airport compatible uses (please see previous section for additional information). A plan to accomplish this has been prepared by the City of Richfield and approved by the Metropolitan Council. Land use conversion would serve the dual purpose of eliminating the incompatible uses within this area and would also reduce the project cost by land sale proceeds. Additionally, if the City of Richfield was permitted to qualify a TIF district prior to any blight occurring, a portion of the acquisition cost could be picked up through the use of tax increment financing. These sources could potentially fund about 37% of land acquisition. The following estimates for this activity were prepared using 1996 values provided the following project budget:

	Estimated Land Acquisition Cost	\$145 Million
minus:	Land sale proceeds	(\$30 Million)
minus:	TIF proceeds	(\$25 Million)
equals:	Gap	\$90 Million

The gap requirement is likely to be impacted by the following variables: First, market conditions will impact both the land sale and TIF proceeds. Currently, the commercial market is good but the market for office space appears to be falling. Second, TIF regulations and tax rate changes will directly impact TIF proceeds. Finally, the general market will impact the cost of land.

Community Stabilization-Property Value Assurance

Property value assurances could be used to reduce fears that the airport impact will reduce property values within the impact communities. This program could be modeled after a similar successful program in Illinois¹. The Property Value Assurance Program would be based on the premise that noise mitigation efforts will essentially assure that there will not be any reduction in property values as a result of the airport expansion. It should be noted that there is no data showing that MSP has had a negative impact on area property values. In fact, studies have shown that the property values around the airport have increased. Therefore, the only likely cost associated with a property value assurance program would be administrative. The benefit to such a program would be a reduction or elimination of panic sales and deferred maintenance.

Community Stabilization-Replacement School Aid

It is anticipated that the schools in Richfield will experience, at least temporarily, a loss of students and financial resources due to the Airport Impact Zone redevelopment project. The efforts to develop airport compatible uses accompanied by housing replacement, if implemented, may reduce or eliminate this impact over time. In the interim, a temporary adjustment in school aids would permit the school to gradually adjust curriculum offerings and facilities as necessary to reflect student enrollment changes. The cost of this assistance is expected be around \$1.7 million annually, lasting for a ten year period.

Community Stabilization-Housing Replacement

Based on the most recent estimates, the cost of acquisition, relocation, and demolition of property within the Richfield Airport Impact Zone is \$145 million. The Legislatively defined Richfield Airport Impact Zone includes up to 650 single-family homes, 403 multi-family housing units, and 43 businesses.

Many of the existing housing units impacted by the airport expansion are affordable, according to Metropolitan Council guidelines. Both the City of Bloomington and the City of Richfield expect to construct affordable mixed income housing to replace older incompatible units. The City of Richfield's goal is to construct 200 affordable mixed income housing units within the Richfield Airport Impact Zone. The new housing units in both cities will be constructed with materials that can withstand a greater amount of noise. It is estimated that the public subsidy needed to replace the existing incompatible housing units with new affordable (airport compatible) housing units will be approximately \$8 million or \$40,000 per unit.

¹ In Illinois, the City of Oak Park implemented a racial integration program and provided property value assurances to existing property owners. Although this program was not related to airport noise, it had the same impact by reassuring existing property owners that they would not loose any money due to decreased property values.

Community Stabilization-Recreation Facility Enhancement

The City of Richfield will realize recreational facility losses as a result of the airport expansion, primarily relating to youth ball fields and a golf course. The state has provided \$2 million for construction of replacement youth ball fields. Another \$2 million is needed to complete this effort. The City of Richfield, Minneapolis Park and Recreation Board, MAC, DNR and several federal agencies are currently developing a plan for the golf course replacement. It is anticipated that the total development cost will be around \$6 million.

Summary

The cost of unfunded community impacts is relatively well known in Richfield, but is less understood in the other communities represented by the Task Force. Consequently, the total cost of mitigating the adverse impacts of MSP expansion is unknown. What is understood is that the projected cost estimates of unfunded mitigation activities is greater than what MAC has the ability to finance. As a result, it is evident that other funding sources must be sought to assist in mitigating the previously identified unfunded community impacts.

Potential Financing for Unfunded Community Impacts

Previous sections of this report have identified several mitigation activities that fall within the parameters of existing financing programs and several additional mitigation activities that do not. The purpose of this section is to identify potential funding sources for activities that currently do not fall within the parameters of existing funding sources and programs. DTED has conducted a search to identify whether other states have provided funding for mitigation activities outside the Part 150 program. However, given the variability of governance over airport activity and particulars of various mitigation projects, this information is not accessible. For the purposes of this section, the potential funding sources will be divided into two types - those whose collection and use would require FAA approval, and those whose collection and use fall outside of FAA's jurisdiction.

The cost of unfunded community impacts is relatively well known in Richfield, but is less understood in the other communities represented by the Task Force. Consequently, the total cost of mitigating the adverse impacts of MSP expansion is unknown. What is understood is that the projected estimated cost of known unfunded mitigation activities is greater than any single funding source can reasonably be expected to finance. In addition, there are instances where some funding sources could not technically be utilized for some of the activities identified in this section. Consequently, the Task Force concludes that multiple sources of financing need to be identified in order to appropriately match mitigation activities with funding sources. Minnesota Laws, 1999, Chapter 223, Article 2, Section 78 requires the Task Force to identify federal, state, MAC and community sources of funding for mitigation projects. The discussion of each potential funding source identified in this section will include a statement describing the origin of the source.

The inevitability of custom packaging of financing sources for mitigation projects would be best accomplished through the creation of financing "programs." These programs should be relatively short-term (current information suggests a 10-year period) and created specifically and exclusively for mitigation projects associated with MSP expansion. The duration of funding sources created to finance the activities should correspond to the estimated duration of the projects funded from these sources. Program administrators would need to work out specific funding details with each community. Sources would be matched with activities based on funding availability, project type, project scope, FAA eligibility determinations, legal restrictions placed on the sources, and other considerations. Program administration could be centralized at the MAC, Metropolitan Council, or a state agency.

It should be noted that most of the mitigation activities identified in this report represent physical construction or other relatively-lengthy processes. As a result, there may be some flexibility in the timing of mitigation appropriations. For instance, some tax-side funding sources such as aviation fuel taxes could be "blink on - blink off" taxes based on the actual cash needs for approved mitigation activities. Property tax levies, bonding, or general fund appropriations would be generated through more traditional processes.

The information that follows begins with a brief background on recent Legislative funding decisions and subsequent FAA action, and follows with a discussion of potential funding sources for mitigation activities. The funding sources are categorized as follows:

- ✈ Funding sources whose use requires prior FAA approval. This section is subdivided as follows:
 - Federal funding sources,
 - MAC sources/revenues generated from airport uses, taxes and fees, and
 - Revenues generated from airline rates and charges
- ✈ Funding sources whose use does not require prior FAA approval.

Legislative Funding Decisions

The Final Environmental Impact Statement (FEIS), for the Minneapolis-St. Paul International Airport 2010 Long Term Comprehensive Plan was completed by the FAA on May 6, 1998. The Plan included the new North/South Runway. The FEIS identified certain mitigation measures, and the FAA previously concurred in the use of airport revenues to fund some of those measures.

The FAA's Final Record of Decision, issued September 23, 1998, included a commitment by the MAC to study the impact of low frequency noise on the City of Richfield and to take appropriate mitigation measures to the extent such noise has an adverse impact on areas within the City of Richfield adjacent to the airport. If supported by studies, MAC has agreed to prepare and implement a low frequency noise mitigation program for the affected communities as part of an update to the MSP Part 150 Noise Compatibility Plan. The FAA, in turn, may approve the use of MAC funds to conduct the mitigation activities since the mitigation measures would be included in an approved Part 150 Program.

The 1999 State Legislature approved, in the omnibus tax bill, language authorizing MAC to issue and sell \$30 million of general obligation bonds for airport mitigation related purposes. The proceeds of the MAC's bond sale were to be transferred to the City of Richfield by January of 2000. The language of the bill also states that the MAC shall not be required to violate federal law in issuing \$30 million of general obligation bonds and transferring the proceeds to Richfield.

On August 4, 1999, the FAA issued a letter to the MAC indicating that, at the present time, the transfer of funds to Richfield (as stated in the omnibus tax bill) would be a violation of the FAA's revenue use policy. The primary reason for this conclusion is that there was insufficient evidence that low frequency noise would be a significant problem in Richfield, and the findings of the Low Frequency Noise Policy Committee were not available at the time the omnibus tax bill was passed. In addition, the Richfield project was not included in MAC's FAA approved noise mitigation plans.

Funding Sources Needing FAA Approval

In order to utilize the following sources of funds, the proposed mitigation activities must be approved by the Federal Aviation Administration.

Part 150 - FAA Airport Improvement Grant Program

The Federal Aviation Administration currently funds airport noise mitigation activities using grant funds from the Airport Improvement Program. Grant eligible expenditures must be included as approved measures in the Federal Aviation Regulation Part 150 Program.

In 1999, FAA received \$1.9 billion derived from a trust fund of revenues generated by passenger ticket taxes, air cargo and other various airline taxes. These funds must be appropriated each year by Congress as part of the FAA's re-authorization. MAC currently receives an entitlement of \$4 million per year in FAA grant funds through the Airport Improvement Program (AIP). In 1999, however, MAC received an additional \$8 million in AIP discretionary grant funds for noise mitigation projects. MAC could apply for additional AIP discretionary funds each year to be used for noise mitigation activities, provided the noise mitigation activities have been approved by the FAA and are included in the Federal Aviation Regulation Part 150 Program. MSP applications for FAA discretionary funds would compete against similar applications from other airports around the nation. Consequently, this source is available, but is not necessarily reliable.

MAC Sources/Revenues Generated from Airport Uses, Taxes & Fees

Each year, the MAC receives revenues from the following sources for airport operations and improvements. It is important to note that the Task Force does not recommend diverting any of the existing revenues the MAC currently generates from any of the following sources. Rather, the task force is recommending that increases in any or all of the following sources might be considered for noise mitigation activities. It should also be noted that current fees and assessment rates are the result of significant negotiation between the MAC and the rate payers (airlines). Any increases to these fees, taxes or assessments must also be negotiated.

Parking Surcharge

The MAC currently generates approximately \$36.3 million in revenues from automobile parking ramps at the airport. If the parking fees were increased at the airport, it is estimated that an additional \$350,000 in revenues could be generated for each 1% increase.

Sales Tax Increase

Approximately half of the current estimated \$15 million in overall sales tax revenue collected by the Department of Revenue from retail sales at the airport each year is related to car rentals. One alternative to designating a portion of the sales taxes currently generated at the airport to fund noise mitigation activities might be to increase the general (6.5%) sales tax rate at the airport. If the general sales tax rate at the airport was increased, an estimated \$2.5 million in new sales tax revenues could be generated for each 1% increase. Additional sales tax on rental vehicles alone at the airport could generate approximately \$1 million for every 1% increase. With a combined increase of 1% on the general sales tax rate (from 6.5% to 7.5%) and an increase in the sales tax on rental cars (from 6.2% to 7.2%), an additional \$3.5 million in revenues could be generated at

the airport each year. Since these sales tax increases would be airport specific, FAA approval would be required for use of the funds.

Miscellaneous Airport Concessions

Food and beverage sales concessions at the airport generate approximately \$3 million per year in revenues. Merchandise and service sales concessions at the airport also generate approximately \$3 million per year in revenues. Ground transportation concessions (including: taxi license fees, limos, hotel vans, and off site automobile rentals) generate approximately \$2.4 million each year in revenues (source: MAC 1999 Operating Budget). Any of these concession fees could potentially be increased to generate additional revenue to be used for noise mitigation measures.

Revenues Generated From Airline Rates & Charges

The revenue sources listed below are generated through direct charges to the airline industry. Any increase in costs to the airlines will likely result in increased costs to airline service consumers.

Landing Fee Surcharge

The MAC currently generates approximately \$30 million in revenues from aircraft landing fees each year. Landing fees are calculated in the following manner: total cost divided by landed weight = unit cost (\$31,643,540 divided by 25,113,921 [landed weight] = \$1.26). This calculation will vary every year depending on the costs of the runway/taxiway system, the expected airline activity and other variables. If landing fees were increased, roughly an additional \$300,000 could be generated for each 1% increase.

Aircraft Ramp Fees

The MAC currently generates approximately \$4.8 million per year in aircraft ramp fees. Aircraft parking ramp fees are calculated in the same manner as landing fees. Ramp fees are determined by dividing terminal ramp expenses by total lineal feet of ramp available. The calculation is as follows: total cost divided by ramp footage = ramp fee (\$4,860,341 divided by 8,874 [ramp footage] = \$548.72 [ramp fee per lineal foot]). The same comment applies here as for landing fees. Major air carriers are responsible for 8,496 feet and regional carriers are responsible for 378 feet. With airline agreement, an increase in aircraft ramp fees could be a potential source for noise mitigation activities.

Terminal Rentals

Combined, the MAC currently generates approximately \$19.2 million in revenues per year from terminal rentals at the airport. Airline building rates are calculated by allocating the total rentable square footage in the Lindbergh Terminal. Airlines are charged for the space they occupy. Under this calculation, costs are recovered from the airlines in a proportion to the rentable space they occupy in the terminal building. Based on the 1999 MAC Operating Budget, airlines are charged \$34.64 per square foot for exclusive space and \$38.54 per square foot for exclusive janitored space. This charge will vary every year. An increase in the per square foot charges, only with that agreement, could potentially generate a source of funds for noise mitigation activities.

Passenger Facility Charges (PFCs)

Federal legislation authorizes a per passenger ticket charge of up to \$3. These ticket charges are built into all airline tickets and are referred to as Passenger Facility Charges (PFCs). PFCs currently generate approximately \$37.5 million annually for the MAC. Federal legislation has been offered to allow an additional charge of \$3 per passenger, which could essentially double the \$37.5 million that the MAC receives in PFCs each year. The MAC supports this increase. PFC revenue is currently being used by the MAC to fund air side improvements and noise mitigation at MSP. It is important to note that, based on current congressional proposals, an increase in Passenger Facility Charges would eliminate the passenger entitlement funds received by the MAC under the Airport Improvement Grant Program. The cargo entitlement funds received by the MAC would not be impacted by an increase in PFCs and the MAC could still compete for discretionary grant funds.

The State Legislature could extend an existing law requiring the MAC to fund noise mitigation on the basis of a portion of PFC revenue receipts. The current state law (Chapter 473.661, Subdivision 4 [c]) calls for the MAC to expend no less than \$185 million between 1996 and 2002 from any source of funds for noise mitigation. After 2002, the state could require the MAC to use a certain percentage of its total PFCs for noise mitigation. In previous years, state law required the MAC to use an amount equal to the following percentages of its total PFC revenues for noise mitigation purposes.

Year	% of PFCs to be spent on noise mitigation
1994	20 percent
1995	35 percent
1996	40 percent

If the State Legislature would require MAC to set aside some of its PFC receipts for noise mitigation activities each year, approximately \$12.5 million would be made available for every \$1 of PFCs. Even a 50¢ increase would generate a significant amount of revenues each year (\$6.25 million) for noise mitigation measures. If the Federal government authorizes the \$3 per passenger increase in PFCs, MAC could receive a total of \$75 million each year in PFC funds. A 20% set-aside of \$75 million would generate \$15 million in noise mitigation resources each year.

Air Flight Property Tax

The Minnesota Department of Revenue assesses airlines based on the aircraft cost less depreciation (for airplanes only). No state assessments (or taxes) are charged for airline owned ground equipment or buildings. Each year the state collects about \$8.7 million from aircraft assessments which is designated to the MN Department of Transportation for airport maintenance and improvements around the state. If the state would increase the air flight property tax, an additional \$2.1 million in new revenues would be generated for each 1% increase (based on 1999 estimates provided by the MN Department of Revenue).

Aviation Fuel Tax

The Minnesota Department of Revenue currently collects 5 cents per gallon that is dedicated to the MN Department of Transportation and applied to the state airport fund (funds used for smaller airports maintenance and improvements). Currently, the state receives approximately \$3.3 million per year in aviation fuel taxes. If the state would increase the aviation fuel tax by 1 cent per gallon, an additional \$654,000 could be generated each year (based on 1999 estimates provided by the MN Department of Revenue). It should be noted that there have been no increases in aviation fuel taxes since 1988.

Non-FAA Approved Sources

Because the following sources of funding are not generated at the airport or charged to the airlines, FAA approval for the use of the funds would not be required.

Designated Sales Tax

Sales taxes at MSP currently generate an estimated \$15 million in revenues each year (based on 1999 estimates). The state could maintain the same sales tax rate at the airport, establish a base amount to be collected each year (\$12 million for example), and then designate any increases/increment in new sales tax revenues to noise mitigation measures. The \$12 million figure is based on 1996 figures which is the year the decision was made to expand the airport at its existing location. By establishing 1996 as the base year and designating any sales taxes collected over the \$12 million base, an estimated \$3 million could be made available for noise mitigation activities each year. The following table lists the sales taxes generated at the airport through retail sales each year for the past 9 years:

Year	Sales Tax Generated at the Airport through Concessions
1990	\$ 6.0 million
1991	\$ 6.4 million
1992	\$ 7.5 million
1993	\$ 8.3 million
1994	\$ 9.1 million
1995	\$10.4 million
1996	\$12.0 million
1997	\$13.4 million
1998	\$14.3 million
1999	\$15.0 million
Source: MAC Estimates	

Auto Rentals

In 1998, the Department of Revenue collected approximately \$9.9 million in revenues from the Motor Vehicle Rental Tax statewide. This is in addition to the 6.5% general sales tax and the 3% Motor Vehicle Rental Fee for registration and licensing of rental cars. The current 6.2% Motor Vehicle Rental Tax could be increased to generate additional funds for noise mitigation measures. For each 1% increase (approximately \$.29 per day on a Ford Taurus rented from Budget Rent A Car) an additional \$1.6 million in new revenues would be generated. The automobile rental rates are relatively low in comparison with other states. Other locations around the U.S. charge considerably higher tax rates. The following table shows various taxes, fees and miscellaneous charges for a number airports around the United States.

1 Day (24 Hours) Rental Car Rates - Ford Taurus - Various US Locations			
Location	Daily Base Rental Rate	Taxes, Fees & Misc. Charges	Total 1 Day Rental Charge
New York (Laguardia)	\$85.99	\$11.39	\$97.38
Boston	\$49.99	\$19.70	\$69.69
Salt Lake City	\$47.94	\$13.35	\$61.29
Seattle	\$46.99	\$13.30	\$60.29
Chicago (Midway)	\$42.99	\$10.49	\$53.48
Orlando	\$43.99	\$9.46	\$53.45
New Orleans	\$40.99	\$9.74	\$50.73
Phoenix	\$37.99	\$11.66	\$49.65
Las Vegas	\$36.89	\$8.57	\$45.46
Chicago (O'Hare)	\$31.99	\$8.51	\$40.50
Minneapolis/St. Paul	\$28.99	\$8.97	\$37.96
Source: Budget Rent A Car - 12/4/99 (based on same type of car, for a 24 hour period, at different locations)			

State General Fund Appropriation

By expanding the airport at its existing location rather than constructing a new facility in another location, the State of Minnesota will be saving an estimated \$2 billion in infrastructure costs. The expansion of the airport at its existing location, more specifically, the new North/South Runway, is the primary reason for the immediate need for additional resources to undertake noise mitigation measures. In Richfield, for example, airplanes will be taking off and landing every four minutes within 1,350 feet of homes. MSP's new North/South Runway is being built closer to a residential area than any other major airport runway in the United States. While the state

saved an estimated \$2 billion in infrastructure costs by not relocating the airport, an incompatible land use situation has been created.

To help mitigate the negative impacts associated with increased noise created by expanding the airport at its existing location, a state general fund appropriation could be created for noise mitigation activities.

Since the use of state general funds are not subject to FAA approval, they would be the most flexible resource available to communities near the airport in terms of being able to use the funds for noise mitigation projects outside of the DNL 60 contour.

Depending on the amount, a general fund appropriation could be a one-time event. These funds would be available for a wide variety of uses including: sound insulation of homes, businesses, nursing homes and schools, buy-outs of both residential homes and businesses of properties that are located too close to the new North/South Runway, demolition of incompatible structures near the airport, housing replacement, property value guarantees, and/or relocation assistance to displaced residents and businesses. Some of the funds could be used to capitalize a revolving fund for insulation activities.

State General Obligation Bonds

The City of Richfield has developed a plan to mitigate the noise impacts from the new North/South Runway at MSP. The plan calls for the acquisition and relocation of 650 single family homes, 403 multi-family homes and 43 businesses. These homes and businesses will be replaced with airport compatible uses and structures creating a model that links jobs, housing and transportation together. The redevelopment area encompasses nearly 50 city blocks and is referred to as the Richfield Airport Impact Zone that was created by the 1999 State Legislature as part of the omnibus tax bill.

Much of the redevelopment within the Richfield Airport Impact Zone contains activities such as acquisition of land for public improvements (i.e., green belts, ball fields and parks, and streets and right-of-ways), removing the existing public infrastructure that is inconsistent with the proposed land use conversion, and constructing new public infrastructure (i.e., green belts, ball fields and parks, streets, water and sewer mains, storm sewers, and walking/bike paths). All of these uses would be considered bond eligible under Article XI, § 5(a) of the Minnesota Constitution.

MAC Property Tax Levy

MAC currently has the authority to levy a property tax in the seven county metro area. Based on information obtained from the Minnesota Department of Revenue in November 1999, the estimated total tax capacity for the seven county metro area for 2000 is \$2.423 billion. If the MAC would levy a property tax of .0008%, approximately \$2 million in revenues would be generated each year. The following table shows how much property tax would be added to specific homestead and business properties at a tax rate of .0008%.

Home Value	Annual Tax Burden	Business Value	Annual Tax Burden
\$80,000	\$.66	\$100,000	\$1.92
\$100,000	\$.92	\$200,000	\$4.64
\$120,000	\$1.19	\$300,000	\$7.36
\$130,000	\$1.32	\$500,000	\$12.80
\$160,000	\$1.72	\$1,000,000	\$26.40
\$200,000	\$2.24	\$2,000,000	\$53.60
\$250,000	\$2.90	\$4,000,000	\$180.00
\$300,000	\$3.56	Source: MN Department of Revenue	

Real Estate Property Taxes at MSP

Currently, the MAC owns all of the land and most of the buildings located at MSP. The MAC does not pay property taxes to the county, cities, school districts, or special districts for its buildings or land. The MAC leases space within the MAC owned buildings (hangers), to businesses such as restaurants, bars, car rental companies and merchandise shops. All leased areas within buildings owned by the MAC are taxed as personal property at a tax rate of 1.84% and collected by Hennepin County. No taxes are collected by school districts, cities or special tax districts (i.e., Met Council) on these leased areas. If these businesses were located on non-airport land, in Richfield for example, they would be subject to the normal property taxes to be paid to the community school district, city, and any other authority such as special tax districts (Met Council).

Real estate property taxes are, however, generated from the value of privately owned buildings located on MAC owned land. Hennepin County assesses privately owned real estate (i.e., Northwest & Sun Country hangers) located on MAC owned land at the same rate as the leased areas on airport property (1.84%). Again, the privately owned real estate is not subject to city taxes, school district taxes, or special district taxes since they are located on MAC owned land. According to the Hennepin County Assessors Office, these businesses actually pay a lesser amount than they would if they were located at the Crystal Airport. At the Crystal Airport, businesses would be subject to city taxes, school district taxes, and other special district taxes. In fact, the privately owned businesses that own real property at Crystal Airport pay real estate taxes equal to the amount that the businesses would pay if they were not located on airport property. Additional property taxes could be generated at MSP if the leased areas were subject to the same property taxes as off-site businesses or businesses at other airports.

At a minimum, since the airport is located within the seven county metro area, the Metropolitan Council could be collecting its share of property taxes from businesses located at the airport based on its current levy authority. The amount of funds that the Metropolitan Council collects

each year could be designated towards noise mitigation activities. Additionally, the Metropolitan Council could potentially consider collecting a city's (normal share) of property taxes on businesses located on airport property since the airport is not located in a particular city. Based on 1999 figures obtained from the Hennepin County Assessor, MSP has a market value of approximately \$266 million which translates into a tax capacity of approximately \$8.9 million.

Tax Abatement/Tax Increment Financing

Tax Abatement and Tax Increment Financing could be used to assist with redevelopment activities such as those within the Bloomington and Richfield Airport Impact Zones. However, state law limits Tax Abatement and TIF use to fund projects where deterioration has already occurred.

In the Task Force communities, deterioration is not likely to occur until after the North/South Runway is complete and in use. If it occurs at all, deterioration will likely result from the residents becoming annoyed from the increased noise and may create a desire to move to quieter neighborhoods elsewhere. As more people begin thinking of selling their homes (realizing they might have to sell at a loss), maintenance and home improvements become a low priority. As the quality of life and the values of the homes in the area continue to decline, more and more residents will sell their homes at even lower prices in hopes of leaving a rapidly deteriorating neighborhood before it is too late. Some changes in the current TIF law could be used to permit for land use compatibility and mitigation purposes, particularly for the Richfield Airport Impact Zone.

In the Richfield Airport Impact Zone, the City of Richfield could create a tax increment finance district coupled with a tax abatement district to be used to finance the acquisition of homes and businesses, to demolish the acquired properties, to facilitate infrastructure improvements and to prepare the site for redevelopment.

Summary

The cost of mitigating negative impacts associated with MSP expansion, over and above what is committed by the MAC, is greater than any single federal, state or local funding source can support.

All of the identified funding sources are subject to a review and approval process (including congressional, legislative, and/or regulatory) that could consume significant time. For example, an increase in Passenger Facility Charges requires congressional approval. Additionally, the use of Passenger Facility Charges requires FAA approval. In reality, some of the identified funding sources may never be available for the proposed noise mitigation activities.

Conclusions and Recommendations

The Governor's Airport Community Stabilization Funding Task Force began meeting in July of 1999. The following recommendations and conclusions have been reached after six months of in depth discovery and debate. Members of the Task Force agree that the airport provides a significant economic benefit to both the State and the region. The Task Force also acknowledges that MAC has committed significant resources towards mitigating the negative impacts associated with airport expansion, but that they are not capable nor should they be required to mitigate all of the impacts on their own. The decision to keep and expand MSP at its current location was a State decision and as such the responsibility to mitigate the impacts should also be shared by the State.

The funding solutions recommended by the Task Force in the conclusions and recommendations section of the report are intended to fund mitigation programs that are not currently funded under existing mitigation programs. The Task Force in no way wishes to diminish the importance of the existing mitigation programs or to undermine existing mitigation funding sources. Rather, the recommendations included in this report are intended to provide additional funding sources needed to mitigate the negative impacts associated with expanding MSP at its existing location.

Mitigation Plan Process Review

The construction of the new North/South Runway creates a unique and complex situation. The Task Force is unaware of any similar runway being constructed this close to existing residential neighborhoods anywhere in the Country. Although there is general agreement on which communities will be negatively impacted by the expansion of the airport, the uniqueness of the North/South Runway has complicated the ability of individual cities to understand and plan for the impending impacts. At this time there is a substantial difference in the level and detail of planning that individual cities have completed. In order to assure these communities the ability to develop mitigation plans consistent with community goals and airport expansion plans, the Task Force recommends that the Legislature adopt a mitigation process that impacted communities will need to go through in order to have access to State funding.

The purpose of the process is:

- ➔ For cities to continue to refine the level and type of impacts within their community.
- ➔ To continue to identify types of mitigation activities within the city.
- ➔ To gather public input on the city's mitigation plan.
- ➔ To identify the amount of funding required to complete mitigation projects.

Step 1: Refine the scope of impact on the community

Each community in conjunction with MAC should refine the level and scope of the impact on their community. In determining the scope of the impact communities should use the FAA's overhead noise guidelines and the Low Frequency Noise Policy Committee's Expert Panel report to determine the low-frequency noise impacts. Cities should also take into account additional environmental, transportation, and economic impacts associated with airport expansion.

Step 2: Develop mitigation plan

After the scope of the impact is determined, each community needs to determine the most effective form of mitigation for the impact. Some appropriate forms of mitigation that communities can use are:

- ➔ Insulation (overhead and low frequency)
- ➔ Land use conversion
- ➔ Property value assurance

Step 3: Plan Review

After each community plan has undergone community review and been approved by its community governing body it will be brought to the administering agency. The administering agency shall hold an open period of public comment, after which they will approve, disapprove, or return for further information each section of the plan to the submitting community.

Step 4: Funding

Mitigation plans become eligible for funding after they have been approved by the administering agency. The administering agency will administer the funds that have been made available by the legislature, MAC, or federal action.

Recommendations

The Task Force recommends that the MAC continue with the existing noise mitigation efforts including updating the Part 150 Plan for insulation of homes affected by noise levels between 60-65 DNL.

The Task Force recommends that the Minnesota State Legislature give approved mitigation plans a special designation giving them priority for existing state programs.

The Task Force recommends that the Minnesota Legislature make money available to school districts that will suffer a temporary decrease in student population (i.e. state funding) while mitigation activities are under way. This funding would be used to cover fixed costs, without a reduction in services to remaining students, while mitigation activities are underway.

The Task Force has concluded that additional funding sources are needed to mitigate the negative impacts associated with airport expansion. The Task Force recognizes that no single funding source or governmental unit should bear the entire cost of mitigating these impacts. The Task Force recommends that the legislature allow the use of several different funding sources to create a revenue stream (mitigation account) that can be used by communities after their mitigation plan has been approved.

The funding sources would be under the supervision of the administering agency. Possible administering agencies could include: the MAC, the Metropolitan Council, or a state agency.

The Task Force recommends that the Minnesota Legislature consider the following sources for noise mitigation measures:

Funding Sources Requiring FAA Approval

Part 150 - FAA Airport Improvement Grant Program (AIP)

The Task Force recommends that the MAC continue to apply for a minimum of \$5 million in AIP Discretionary Grant Program funds per year to the extent that they have projects meeting eligibility requirements and funds remain available. These grant funds will assist in noise mitigation activities that are approved by the FAA in a Part 150 Plan.

Passenger Facility Charges (PFC)

The Task Force along with the MAC supports federal legislation to increase the Passenger Facility Charges by \$3 per passenger which could essentially double the \$37.5 million that the MAC could receive in PFCs each year for eligible projects.

It is important to note that an increase in Passenger Facility Charges could eliminate the passenger entitlement funds that the MAC currently receives each year under the Airport Improvement Program. The cargo entitlement funds received by the MAC would not be impacted by an increase in Passenger Facility Charges and the MAC could still compete for discretionary grant funds under the Airport Improvement Program.

The Task Force recommends that Minnesota Legislature consider recommending a \$1 set-aside (or equivalent percentage) of any new PFCs to be used for MSP noise mitigation activities. A \$1 set-aside of any new PFCs would provide approximately \$12.5 million for noise mitigation resources each year. A \$.50 set-aside of any new PFCs would provide approximately \$6.25 million for noise mitigation resources each year.

Non-FAA Approved Funding Sources

Auto Rental Sales Tax Increase

The Task Force recommends that Minnesota Legislature consider increasing the current 6.2% auto rental sales tax by 3% on all auto rentals statewide. If the auto rental sales tax rate is increased to 9.2%, an estimated \$4.8 million in new revenues would be generated each year (estimated based on 1998 collections) which could be designated to noise mitigation activities. This 3% increase amounts to approximately \$.87 per day on a Ford Taurus, based on the same information presented in the chart on page 36 of this report. Even with this additional \$.87 per day increase, the car rental rates in Minnesota are comparatively low. While this statewide auto rental sales tax increase would impact all auto rentals in the state, the greatest percentage of auto rentals within the state takes place at the airport. As a result, the greatest amount of revenues collected from this source would be collected from outside travelers.

Since the proposed 3% increase would not be specific to only those auto's rented at the airport, FAA approval would not be necessary for the expenditures of the new \$4.8 million generated each year from this source. This would be one of the most flexible sources of revenues generated for noise mitigation measures.

General Sales Tax (Designated Increment)

The Task Force recommends that Minnesota Legislature consider maintaining the same general sales tax rate at the airport. The Task Force further recommends that Minnesota Legislature consider designating any amount over \$12 million in sales tax revenues collected each year from retail sales at the airport towards noise mitigation activities. In 1996, the Department of Revenue collected approximately \$12 million in retail sales taxes at the airport. By establishing a base amount (\$12 million collected in 1996 which was the year the decision was made to expand the airport at its existing location) and designating any increment in sales taxes collected over the base amount, it is estimated that an additional \$3 million could be made available each year for noise mitigation activities. The designation of general sales tax revenues collected from retail sales at MSP are not subject to FAA approval since the general sales tax rate (6.5%) is not being increased at the airport and since the 6.5% sales tax is not airport specific (it applies to all sales statewide).

State General Fund Appropriation

The Task Force recommends that Minnesota Legislature consider a state general fund appropriation in the amount of \$2 million a year (or \$4 million per biennium) over the next 5 bienniums to create a revolving fund to help mitigate the negative impacts associated with increased noise as a result of expanding the airport at its existing location. Since the use of state general funds are not subject to FAA approval, they would be one of the most flexible resources available to communities near the airport in terms of being able to use the funds for noise mitigation projects outside of the DNL 60 contour.

State General Obligation Bonds

The Task Force recommends that Minnesota Legislature consider issuing a G.O. Bond in the amount of \$5 million for acquisition of land for public improvements (i.e., green belts, ball fields and parks, and streets and right-of-ways), removing existing public infrastructure that is inconsistent with land use conversion, and constructing new public infrastructure (i.e., green belts, ball fields and parks, streets, water and sewer mains, storm sewers, and walking/bike paths).

Tax Abatement/Tax Increment Financing

The Task Force recommends that Minnesota Legislature consider providing communities near the MSP airport the flexibility to qualify Tax Abatement and Tax Increment Financing Districts prior to any blight taking place.

The Task Force recommends two modifications to existing TIF law for airport impact TIF districts. First, the Task Force recommends that airport impact TIF districts be exempt from qualifying TIF districts as blighted. This provision will be repetitive as the airport impact TIF districts will already have been qualified for future blight when the cities go through the mitigation account approval process. Second, the Task Force recommends the Minnesota Legislature consider a change in TIF law allowing airport impact TIF districts to be exempt from paying fiscal disparities. These costs could be picked up by the state as a state contribution for impacts caused by a facility that has statewide benefits. The Task Force also recommends that communities utilize Tax Abatement and Tax Increment Financing to the maximum feasibility to assist with redevelopment activities such as those within the Richfield Airport Impact Zone.

Summary

The Task Force recommends that the Minnesota Legislature, in cooperation with the FAA, the MAC, the airline industry and the Task Force communities, appropriate funds from the previously identified sources to conduct noise related mitigation activities. In addition, while the Task Force has identified several potential funding sources, the Task Force is recommending the following sources in the order in which they are listed:

Recommended Funding Sources (In Order of Task Force Recommendation)	Steps Needed to Secure Funding
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<i>Sources Requiring State Approval</i>	
1) General Sales Tax (Designated Increment)	Act of Minnesota State Legislature
2) Auto Rental Sales Tax Increase	Act of Minnesota State Legislature
3) Tax Abatement/Tax Increment Financing	Step 1: Act of Minnesota State Legislature Step 2: Approval by Local Governing Board
4) State Issued G.O. Bond	Act of Minnesota State Legislature - this is a one time act and would need to be resubmitted on a project by project basis
5) State General Fund Appropriation	Act of Minnesota State Legislature - resubmitted on a biennial basis

<i>Sources Requiring Federal Approval</i>	
1) FAA Airport Improvement Program	This requires FAA approval on an annual basis
2) Passenger Facility Charges	Step 1: Act of Congress to raise the PFC cap Step 2: MAC application to the FAA for an increase in the local PFC rate in this purpose Step 3: FAA approval of rate increase and for mitigation purposes

Glossary of Terms

A-weighted Sound Level (dBA)

The ear does not respond equally to sound frequencies. It is less efficient at low and high frequencies than it is at medium or speech-range frequencies. Thus, to obtain a single number representing the sound level of a noise having a wide range of frequencies in a manner representative of the ear's response, it is necessary to reduce the effects of the low and high frequencies with respect to the medium frequencies. The resultant sound level is said to be A-weighted, and the units are decibels (dB); hence, the abbreviation is dBA. The A-weighted sound level is also called the noise level. Sound level meters have an A-weighting network for measuring A-weighted sound level.

Acceptable (DNL not exceeding 65 decibels)

The noise exposure may be of some concern but common building constructions will make the indoor environment acceptable and the outdoor environment will be reasonably pleasant for recreation and play.

Airport Improvement Program (AIP)

A program administered by the Federal Aviation Administration to provide financial grants-in-aid for airport planning, airport development projects, and noise compatibility programs. The program was established through the Airport and Airway Improvement Act of 1982, which was incorporated as Title V of the Tax Equity and Fiscal Responsibility Act of 1982 (P.L. 97-248).

Ambient Noise

The total of all noise in a system or situation, independent of the presence of the specific sound to be measured. In acoustical measurements, strictly speaking, ambient noise means electrical noise in the measurement system. However, in popular usage, ambient noise is also used to mean "background noise" or "residual noise."

C-weighted Sound Exposure Level

Sound exposure level, as defined below, where C-weighted sound pressure is used instead of A-weighted sound pressure.

Contour

See Noise Contour.

Day-Night Average Sound Level (DNL)

A method for predicting, by a single number rating, cumulative aircraft noise that affects communities in airport environs. The DNL value represents decibels of noise as measured by an A-weighted sound-level meter (see also). In the DNL procedure, the noise exposure from each aircraft takeoff or landing at ground level around an airport is calculated, and these noise exposures are accumulated for a typical 24-hour period. (The 24-hour period often used is the

average day of the peak month for aircraft operations during the year being analyzed.) Daytime and nighttime noise exposures are considered separately. A weighting factor equivalent to a penalty of 10 decibels is applied to operations between 10 p.m. and 7 a.m. to account for the increased sensitivity of people to nighttime noise. The DNL values can be expressed graphically on maps using either contours or grid cells. DNL may also be used for measuring other noise sources, such as automobile traffic, to determine combined noise effects.

Decibel (dB)

A unit for measuring the volume of a sound, equal to the logarithm of the ratio of the intensity of the sound to the intensity of an arbitrarily chosen standard sound.

FAR Part 150

Federal Aviation Regulations Part 150, "Airport Noise Compatibility Planning." An FAR Part 150 Program is an FAA-assisted study designed to increase the compatibility of land and facilities in the areas surrounding an airport that are most directly affected by the operation of the airport. The specific purpose is to reduce the adverse effects of noise as much as possible by implementing both on-airport noise abatement measures and off-airport noise mitigation programs. The basic products of an FAR Part 150 program typically include (1) noise exposure maps for the existing condition and for five years in the future; (2) workable on-airport noise abatement measures, such as preferential run-way use programs, new or preferential flight tracks, curfews; (3) off-airport noise mitigation measures (land use control programs and regulations), such as land acquisition, soundproofing, or special zoning; (4) an analysis of the costs and the financial feasibility of the recommended measures; and (5) policies and procedures related to the implementation of on- and off-airport programs. A community involvement program is carried on throughout all phases of development of the program.

Federal Aviation Administration (FAA)

The FAA is the agency of the U.S. Department of Transportation that is charged with (1) regulating air commerce to promote its safety and development; (2) achieving the efficient use of navigable airspace of the United States; (3) promoting, encouraging, and developing civil aviation; (4) developing and operating a common system of air traffic control and air navigation for both civilian and military aircraft; and (5) promoting the development of a national system of airports.

Impact

In environmental studies, the word "impact" is used to express the extent or severity of an environmental problem, e.g., the number of persons exposed to a given noise environment. As indicated in CEQ 1500 (Section 1508.8), impacts and effects are considered to be synonymous. Effects or impacts may be ecological, aesthetic, historic, cultural, economic, social, or health related, and they may be direct, indirect, or cumulative.

Land Use Compatibility

The compatibility of land uses surrounding an airport with airport activities and particularly with the noise from aircraft operations.

Land Use Compatibility Assurance

Documentation provided by an airport sponsor to the FAA. The documentation is related to an application for an airport development grant. Its purpose is to assure that a reasonably appropriate action, including the adoption of zoning laws, has been taken or will be taken to restrict the use of land adjacent to the airport or in the immediate vicinity of the airport. Such uses are limited to activities and purposes compatible with normal airport operations, including the landing and takeoff of aircraft.

Low Frequency Noise

Low frequency noise is sound energy with frequencies less than about 100 to 200 Hz (cycles per second). Human hearing is less sensitive to low frequency sound than it is to higher frequency sounds. Low frequency sound is the energy that can cause buildings to vibrate and it more readily penetrates through structures than high frequency sound. The low frequency energy is radiated more strongly to the rear and side of aircrafts and can propagate over considerable distances without being reduced as much as higher frequency sound energy. Low frequency noise from aircrafts taxiing, landing (from reverse thrusting of the engines) or taking off on the new North/South Runway will cause a deep, thunder like rumbling that will shake and rattle walls, windows and objects in nearby homes. This type of noise will occur with each of the anticipated 300-400 daily flights (about one flight every 4 minutes) that are expected to use the new North/South Runway and will last about 45 seconds for every flight.

Mitigation Measure

An action that can be planned or taken to alleviate (mitigate) an adverse environmental impact. Mitigation includes:

- (1) Avoiding the impact altogether by not taking a certain action or parts of an action.
- (2) Minimizing the impact by limiting the degree or magnitude of the action and its implementation.
- (3) Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- (4) Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- (5) Compensating for the impact by replacing or providing substitute resources or environments.

An action that can be planned or taken to alleviate (mitigate) an adverse environmental impact.

Mitigation includes: A proposed airport development project, or alternatives to that project, may constitute a mitigation measure.

Noise

Any sound that is considered to be undesirable because it interferes with speech and hearing, or is intense enough to damage hearing, or is otherwise annoying.

Sound Exposure

Time integral of squared, instantaneous frequency-weighted sound pressure over a stated time interval or event. Note: If frequency weighting is not specified, A-frequency weighting is understood.

Sound Insulation

- (1) The use of structures and materials designed to reduce the transmission of sound from one room or area to another, or from the exterior to the interior of a building.
- (2) The degree of reduction in sound transmission by means of sound insulating structures and materials.