

# Laura Neuman’s Comments to the FEIS dated June 2004 for the Expansion of Flying Cloud Airport.

## Table of Contents

I.	<a href="#">Summary</a>	2
II.	<a href="#">The FEIS Timeframe of 3 Years Post Completion is Too Short</a>	3
III.	<a href="#">No “Alternatives” Are Provided as Required by Minnesota and Federal law</a>	4
A.	<a href="#">Sites</a>	4
B.	<a href="#">Technologies</a>	7
C.	<a href="#">Modified Designs or Layouts</a>	7
D.	<a href="#">Modified Scale or Magnitude</a>	8
IV.	<a href="#">There Is No Evaluation of Cumulative Impacts as Required by Minnesota and Federal Law</a>	8
A.	<a href="#">Air Quality</a>	9
B.	<a href="#">Noise</a>	11
C.	<a href="#">Water Quality</a>	12
V.	<a href="#">Noise Has Not Been Reasonably Evaluated</a>	12
A.	<a href="#">MAC Has Not Provided Reasonable Noise Data</a>	13
B.	<a href="#">The FEIS’s INM Output Is Flawed Because Inputs Are Incorrect and Unsubstantiated</a>	14
1.	<a href="#">Aircraft Such as the Gulfstream IV Cannot Be Eliminated from the INM Because MAC’s Use of the Weight Capacity as a Noise Restriction is Suspect</a>	14
2.	<a href="#">Nighttime Operations Input Are Incorrect and Unsubstantiated</a>	15
3.	<a href="#">Flight Paths/runway use Input Is Incorrect and Unsubstantiated</a>	17
3.	<a href="#">Fleet Mix Inputs for Stage-2 Jets Are Unsubstantiated</a>	17
C.	<a href="#">MAC Has Not Evaluated Noise Impact Data</a>	18
VI.	<a href="#">Impacts from Air Emissions Have Not Been Reasonably Evaluated</a>	19
VII.	<a href="#">MAC’s Cost/Benefit Analysis Is Inadequate and Unreasonable</a>	20
A.	<a href="#">Cost of “MSP Delay Benefits” is Unfounded and Exaggerated</a>	21
B.	<a href="#">MAC Has Not Reasonably Evaluated Losses from Decreased Property Values</a>	24
VIII.	<a href="#">MAC Has Failed to Evaluate the Issues of Safety and Security</a>	25

## I. Summary

The Final Environmental Impact Statement dated June 2004 (“FEIS”) for the proposed expansion at Flying Cloud Airport (“FCM”) is inadequate as a matter of law for the following reasons.

First, the FEIS does not provide an adequate time frame for evaluation of the proposed expansion. The expansion is supposed to be completed in 2007, and in the FEIS, impacts are evaluated only for the 2010 timeframe. FAA itself recommends noise evaluation for 5 to 10 years post-project completion in its environmental policy 1050.1e, Appendix A at pg. 63. The FEIS should evaluate impacts for the year 2017 instead of the year 2010. This FEIS provides only a 3-year post completion evaluation. The impacts from the proposed expansion cannot be reasonably evaluated with such a short timeframe after completion, and therefore the FEIS is inadequate.

Second, the FEIS fails to evaluate alternatives as required in Minnesota Rules Chapter 4410 and Federal law. Several alternatives were identified to MAC before the completion of the FEIS, which were not included in the FEIS. These alternatives include, but are not limited to, financial incentives to encourage the use of FCM over MSP, financial incentives for stopovers from FCM to use St. Paul Holman field where an adequate runway exists instead of MSP, and eliminating subsidies at the reliever airports so that demand reflects true market demand at FCM.

Third, the FEIS fails to evaluate cumulative impacts as required in Minnesota Rules Chapter 4410 and Federal law. There are several construction projects in the Eden Prairie area that will contribute to noise, air quality, and water run-off that have not even been identified by MAC in the FEIS, such as (1) construction of 494 and increased resulting traffic; (2) construction and increased traffic from Highway 312 extension; (3) construction and increased traffic from Pioneer Trail expansion; (4) construction and increased traffic from Highway 212; (5) MSP expansion and over-flights (including both criteria pollutants and toxic (HAPS) emissions). Most importantly on the issue of air quality, MAC has not provided information on the background levels of air toxics in the Eden Prairie area. Current air quality levels of some airport-associated emissions are already in excess of health benchmarks for adults and way in excess for children. MAC must evaluate the increase in toxic emissions the proposed expansion will have in addition to the increases from other projects, such as MSP and 494 expansions.

MAC’s cursory dismissal of the cumulative impact of noise from MSP in the FEIS for Eden Prairie flies in the face of reality. MAC admits 9 times in its own documents that in Eden Prairie, “A major source of noise impact during the hours monitored was

commercial jet aircraft overflight from the Minneapolis-Saint Paul International Airport.” This statement is made in every noise monitoring summary for noise monitoring conducted in Eden Prairie from 1993 to 2001 (after 2001 actual monitoring ceased). MAC must evaluate the impact its proposed expansion will have given the current state of the environment and other projects in the area, including noise from MSP.

Fourth, the FEIS fails to reasonably evaluate several impacts, specifically (1) noise impacts (2) air emissions impacts, (3) a cost/benefit analysis, and (4) security and safety. Information on noise impacts in the FEIS DO NOT inform residents how noise will change with expansion. The only thing noise curves show is a range of DNL dBA 60 –65, and obviously noise affects the environment at levels below 60 dBA. FAA itself states that supplemental noise metrics can be used to evaluate the noise impact in its environmental policy 1050.1e Appendix A at pg. 64.

Finally, the FEIS is inadequate because the Appendix is missing both material prepared in connection with the EIS and material that substantiates analyses fundamental to the EIS that are required as specified in MN Rule 4410.2300(J).

## **II. The FEIS Timeframe of 3 Years Post Completion is Too Short**

The FEIS does not provide an adequate time frame for evaluation of the proposed expansion. The expansion is supposed to be completed in 2007, and in the FEIS, impacts are evaluated only for the 2010 timeframe. FAA itself recommends noise evaluation for 5 to 10 years post-project completion in its environmental policy 1050.1e, Appendix A at pg. 63. The FEIS should evaluate impacts for the year 2017 instead of the year 2010. This FEIS provides only a 3-year post completion evaluation. The impacts from the proposed expansion cannot be reasonably evaluated with such a short timeframe after completion, and therefore the FEIS is inadequate.

It is apparent that there has been a **significant delay** in time from the scoping document to the FEIS. The world is a different place than it was 7 years ago when the scoping process began. This change in time frame is absolutely necessary to get a complete and more accurate picture of the project and impacts. The significant delays from the time of scoping until now have resulted from a combination of several unique circumstances that cannot be faulted to MAC/FAA: the events of September 11, 2001; the ensuing huge decline in aviation; security restructuring, and MAC’s loss of revenue have all taken the focus of MAC away from Flying Cloud. Northwest suing MAC over expansion at Flying Cloud has also caused delay. Use of the correct timeframe of 5 to 10-years post completion in the FEIS would in no way prejudice MAC or FAA or cause unduly delay given the delays that have already occurred.

### **III. No “Alternatives” Are Provided as Required by Minnesota and Federal law**

Minnesota Rules 4410.2300(g) requires MAC to include the following alternatives to the expansion at FCM in its EIS:

Sites

Technologies

Modified designs or layouts

Modified scale or magnitude and

An alternative incorporating reasonable mitigation measures identified through comments on the scope or draft EIS.

After pointing out that the SDEIS failed to comply with this rule by not including a discussion of ANY of these alternatives, the FEIS has not been remedied. It therefore is inadequate as a matter of law. The FEIS includes only a brief and substandard discussion of each of MAC’s airports. What needs to be accomplished is a detailed look at alternatives and the alternatives’ impacts.

Again, MAC’s discussion in the FEIS of each of the alternatives should include AT LEAST the following. These are just examples of possible alternatives and are not meant to represent an exhaustive list.

#### A. Sites

MAC must evaluate the use and potential expansion of its other airports as alternative sites to the proposed expansion at FCM. This does not mean MAC simply says a runway length or additional hanger space is not available at its other airports. MAC claims the purpose of the FCM expansion is to reduce or eliminate general aviation (“GA”) from the Minneapolis/St. Paul International Airport (“MSP”). However, it fails to address possible use of the other reliever airports or Holman Field (STP) (which has an existing runway length over 5000 feet) as possible sites to accomplish its purpose (reduce congestion at MSP).

MAC claims over 2300 stopovers a year from FCM to MSP. For example, instead of expanding FCM to relieve any stopovers at MSP, MAC could use financial incentives for stopovers to go to STP to pick up fuel or passengers. Considering that stopovers are only 1.6% of total operations at FCM, it make sense not to spend 82.9 million dollars for expansion and have the stopovers go to STP instead of MSP through financial incentives. That would serve to accomplish the desired result without significant cost or negative

impacts. This alternative needs to be thoroughly investigated and its impacts discussed instead of saying STP's runway would be of no use because it is not in the West Metro area.

Northwest Airlines identified another alternative that should have been included in the FEIS. Northwest Airlines hired an economic consultant who showed MAC could use financial incentives to induce aircraft to use FCM instead of MSP. Northwest showed that MAC is unreasonably subsidizing the reliever airports in conflict with MAC's statutory authority to charge reasonable rents and fees, and is doing so to Northwest's detriment. MAC has *not* been charging operators at reliever airports as much as those at comparable airports around the country, and that MAC should increase its charges to operators at reliever airports. MAC had in its possession Northwest's document entitled "*Metropolitan Airports Commission Reliever Seminar April 29, 2004,*" **which laid out this alternative** in writing, yet MAC failed to include any analysis of this in the FEIS.

Northwest also points out that MAC already has two 5000-foot runways at MSP and Holman Field (STP) and should invest in the construction of a dike to better utilize STP.

Northwest also cites a 1994 US General Accounting Office (GAO) Report that said in part

**"FAA does not consider general aviation to be a significant factor in congestion at commercial airports today."**

**"FAA's analysis showed . . . [g]eneral aviation was not identified as a major cause of delay."**

**"Although congestion caused by general aviation at commercial airports was a consideration when the reliever program was established, it has largely ceased to be one now."**

The numbers MAC itself provides in the environmental review process show that expansion at Flying Cloud will *not* have an impact at MSP. Therefore other alternatives to FCM expansion should be adequately reviewed in the FEIS. For example, MAC conducted a survey in 1997 of six FBOs, in which they were asked

**"After taking off from Flying Cloud Airport, have you at any time in the past year had to take on additional fuel or pick up passengers at another metro airport such as St. Paul Downtown or Minneapolis-St. Paul International before continuing on to your final destination? Yes or No. If yes, how many times?"**

See Appendix D of the Flying Cloud Airport Expansion Technical Report Activity Forecasts November 1999 (emphasis added). Only 2 of the 6 FBOs responded yes to stopovers. MAC's own survey states: "The two firms combined for a total of 16-29 times." The survey does not specify whether the FBO went to MSP or STP. Even assuming they all went to MSP, obviously, 16-29 operations in a year compared to the

512,588 operations at MSP in a year in a year do not justify the expense of 82.9 million dollars. According to MAC's surveys, stopovers from Flying Cloud to MSP are only 0.006% of operations at MSP!

MAC's 1997 survey is very clear that the question asked was not round trip flights or how many times per week. The question asked was operations per year. Nevertheless from this survey information, MAC claimed in the Draft EIS and Supplement EIS that the stopover operations at MSP were 8,300 a year! In my SDEIS comments I questioned the accuracy of 8,300 stopovers because this number is so high that it equals the total number of ALL business operations at Flying Cloud a year for 1999!!! I am not splitting hairs. Remember, this is the very reason for MAC's proposed expansion and for its cost/benefit analysis! Again I ask, was MAC recklessly ignorant or deceptive when it came up with 8,300 stopovers after its survey showed 16-29?

How did MAC answer my question? MAC contacted the survey respondents again seven years later on January 6, 2004. MAC states in the FEIS that respondents now claim that seven years ago, they actually meant flights per week, not operations per year, and that since that time they have had this same number of stopovers, and they continue to have this number today. So, in the FEIS, MAC has now changed the number of stopovers from 8,300 to 2,340 (a significant decrease!) and claims maybe a few more if Flying Cloud runways are icy requiring landing at MSP.

Even assuming MAC's new number of 2,500 stopovers at MSP a year is correct, that is only 0.5% of total operations at MSP! Obviously stopovers from Flying Cloud are NOT causing congestion at MSP. Is it worth 82.9 million dollars to eliminate 0.5% of operations at MSP? Also, remember the two FBOs, Elliot Aviation and Executive Aviation, state that their stopovers have *not* increased in 7 years. Stopovers at FCM are only 1.6% of total operations. Then why do they need an 82.9 million dollar expansion? MAC has *never* been able to demonstrate congestion at MSP from general aviation. Even its biggest tenant at MSP, Northwest Airlines, says there is no congestion from general aviation. Northwest Airlines would know! Northwest wants the Flying Cloud expansion stopped.

Operations at Flying Cloud have been diminishing since 1994 (232,130 total operations) and were at one of the lowest levels in 2003 (155,837 total operations). In addition, the number of aircraft based at Flying Cloud has decreased since 1987 and is at an all time low of 463 based aircraft in 2003. Why are large amounts of new hanger space needed when the data shows usage of the airport has declined significantly?

Without discussion of the use of STP as the stopover location, financial incentives, and improvements at STP to prevent flooding, the FEI is inadequate as a matter of law. The Aviation Chapter of the Metropolitan Guide Policy 6 urges MAC to use *financial* considerations for encouraging reliever use.

To meet the requirements of Minnesota law, the above-mentioned surveys and their results must be included in the Appendix to the SDEIS because they are fundamental to

the proposed expansion. An analysis of alternative sites must include all data and documentation that MAC has that supports its claim that GA will come to FCM over MSP or other airport locations if FCM is expanded. Because such analysis substantiates the whole purpose for the FCM expansion, by law this documentation must be included in the Appendix. MN Rules 4410.2300(J).

The importance of evaluating alternative sites is emphasized by the Environmental Quality Board (“EQB”) which cautions that public project proposers should not take actions regarding site acquisitions or project commitments prior to completing the EIS process because of the legal requirement to evaluate alternative sites. See the EQB’s Guide to Minnesota Environmental Review Rules at page 13. MAC’s acquisition of property near FCM for expansion prior to final EIS approval is unlawfully premature.

### B. Technologies

MAC claims that a runway length of 5000 feet will allow specific aircraft to use FCM that cannot now use it. However, MAC has failed to demonstrate by any data or survey information that such specific aircraft operators would use FCM if expanded. MAC can utilize other technologies to determine whether specific operators would utilize an expanded FCM over other locations. A failure to do so makes the FEIS inadequate.

Another example of using alternative technologies would be an evaluation of a need for expansion at FCM at all if the proper year 2015 is the impact timeframe. Aircraft technology is developing to allow take-offs and landings at shorter distances, therefore an extended runway may not be necessary. MAC claims that newly advanced, quieter jets would utilize an expanded FCM, however, it does not evaluate aircraft advances in take-off and landing distances as alternatives to expansion for the 2015 timeframe. Such an omission makes the FEIS inadequate.

Finally, other technologies could be used to reduce GA traffic at MSP other than an extended runway, such as lease incentives for moving GA from MSP, an increase in hanger space alone, and/or reducing GA hanger space at MSP. In addition, alternative technologies that could reduce the noise impacts, such as sound barriers for maintenance run-ups. None of these alternatives have been addressed. FEIS is inadequate as a matter of law.

### C. Modified Designs or Layouts

MAC has not provided any insight as to modifying the design or layout of FCM that could reduce environmental impacts. For example, this could include the construction of alternative sites for maintenance run-ups or barriers to reduce noise. It also could

include the placement of hanger space to reduce noise. In addition, modified designs of or layouts for hanger space may serve as an incentive to move GA traffic to FCM without the need for runway expansion. Alternative modified designs or layouts also could include a study regarding dispersion of aircraft emissions to provide information as to optimum flight paths and runway use to reduce the impact of air emissions. See the following section in this comment on impacts from air emissions. MAC's failure to look at these alternatives makes the FEIS inadequate as a matter of law.

#### D. Modified Scale or Magnitude

MAC has not provided any alternatives for an expansion with a runway less than 5000 feet, or analyzed which aircraft at what capacities could use a runway length between 3900 and 5000 feet. Nor has MAC evaluated a smaller expansion in conjunction with the use of the other reliever airports or Holman Field. MAC should also include an evaluation for limiting nighttime flights to specific runways in addition to preferential flight paths to reduce noise impacts. All such alternatives must be evaluated; otherwise the FEIS is inadequate as a matter of law.

The rule requiring an evaluation of alternatives emphasizes that MAC should not eliminate alternatives based simply on its prior planning process. MAC cannot eliminate any of these alternative analyses based simply on the argument that such alternatives were not in the Metropolitan Council or its planning documents. In addition, MAC's discussion of these alternatives must include a discussion of the impacts and benefits and any potential mitigation measures for each. Without adequate discussion on alternatives, the FEIS is inadequate as a matter of law.

#### IV. There Is No Evaluation of Cumulative Impacts as Required by Minnesota and Federal Law

Minnesota rules define cumulative impact as "the impact on the environment that results from the incremental effects of the project in addition to other past, present, and reasonable foreseeable future projects regardless of what person undertakes the other projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time." MN Rules 4410.0200, subpart 11.

MAC cannot evaluate the proposed FCM expansion in a vacuum and the sparse discussion of MSP and Pioneer expansion in the FEIS are not even close to adequate.

## A. Air Quality

The FEIS is inadequate in its discussion of cumulative impacts on air quality. First, there is no discussion of the current state of air quality in Eden Prairie/SW Metro area. MAC has not provided information on the background levels of air toxics in the Eden Prairie area. Current air quality levels of some airport-associated emissions are already in excess of health benchmarks for adults and way in excess for children.

There are other known projects that will contribute to impacts on air quality in Eden Prairie/SW Metro: (1) construction of 494 and increased resulting traffic; (2) construction and increased traffic from Highway 312 extension; (3) construction and increased traffic from Pioneer Trail expansion; (4) construction and increased traffic from Highway 212; (5) MSP over-flights (including both criteria and toxic (HAPS) emissions). For the construction and traffic related air quality impacts, MAC need only to consult with DOT and EPA to obtain CAA criteria and HAPS emissions. EPA calculates criteria pollutant and toxic emissions for mobile sources all of the time. For MSP, FAA and MAC have needed data to compute criteria and HAPS emissions. This is a no-brainer. MAC must evaluate the increase in toxic emissions the proposed expansion will have in addition to the increases from other projects. All of these projects will have an impact on air quality in Eden Prairie.

MAC's contention that there is no synergistic or cumulative effect from MSP aircraft emissions flies in the face of scientific evidence. FAA is fully aware that aircraft emit toxic emissions and has known it for a long time. Various government agencies and universities have been researching this subject for years. One year ago, FAA printed a document entitled "Select Resource Materials and Annotated Bibliography on the Topic of Hazardous Air Pollutants (HAPS) Associated with Aircraft, Airports, and Aviation" dated July 2003. **In this document FAA admits that environmental assessments of toxic emissions have taken place at other airports, including airports in California, Illinois, New Jersey and Massachusetts area.** How can MAC and FAA continue to ignore requests for toxic emission information at our airports?

Specifically, the concentrations of toxic aircraft emissions for an airport can be calculated by taking the known amounts of hydrocarbon exhaust specific to each type of aircraft, multiplied by the number of operations of that type of aircraft, breaking the hydrocarbon exhaust down into the specific toxic chemicals, and using a sophisticated model to calculate concentrations of those individual toxic chemicals. **The calculation of specific toxic chemicals from aircraft emissions is being done at other airports and should be done at Flying Cloud and MSP too.**

In the FEIS, FAA tries to downplay toxic emissions by stating that actual air monitoring placed on the ground at runways at various airport has found toxic chemical levels to be the same as background levels for the urban areas. But FAA omits in its answer the logical and scientific explanation: the high heat of the exhaust coming out of the plane

causes the toxic plume to rise above the ground where the monitors aren't located. FAA itself came out with a "Final Report: The Use of LIDAR to Characterize Aircraft Initial Plume Characteristics" in February 2004 showing how aircraft exhaust plumes rise. This does not mean that the toxic chemicals disappear, only that they rise away from monitoring devices on the runways and then eventually drift back down. FAA should include MSP air quality impacts because of its proximity to Flying Cloud and over-flights.

EPA's National-Scale Air Toxics Assessment uses computer models from emission information in each state and has determined that in Minnesota, 1,3-butadiene, acrolein, benzene, formaldehyde, and POM were at levels in *excess* of health benchmarks (the levels above which are thought to cause adverse health effects in *adults*). Recent monitoring measurements taken by MPCA in Minnesota confirm that formaldehyde and benzene in our air are in excess of health benchmarks. MPCA did not monitor POMs and is unable to measure relevant amounts of 1,3-butadiene and acrolein in the air given limitations on the monitoring equipment. MPCA also has not yet calculated the measurements for airborne lead. See MPCA's "Air Toxics Monitoring in the Twin Cities" dated January 2003.

What does this mean? It means that many of the toxic chemicals found in aircraft exhaust are *already* at high enough levels in our state to cause adverse health effects in adults. For children in our state, it is a much graver picture. Because children breathe more frequently and eat and drink more compared to their sizes than adults, and because a lot of children's systems are still developing, EPA and California agencies are re-evaluating health benchmarks for children. They have identified adverse health effects from toxic chemicals at significantly lower levels than adult levels. These lower, child-health benchmarks include studies on benzene, lead, acrolein, POM, and formaldehyde--the very chemicals that are found in aircraft emissions. See for yourself the alarming health impacts these toxic chemicals have on children at the following website, [http://www.oehha.ca.gov/air/toxic\\_contaminants/SB25finalreport.htm](http://www.oehha.ca.gov/air/toxic_contaminants/SB25finalreport.htm).

It is also a known fact that there is a cumulative effect from air toxics that increases harm to human health. See MPCA 1999 Staff Paper on Air Toxics and Air Quality in Minnesota 2001 Legislative Report.

Toxic aircraft emissions *do* exist and it is clear that NEPA and MEPA require an evaluation of the air quality impact, including cumulative effects from other sources other than just Flying Cloud, especially given that the baseline in Minnesota, before any proposed expansion at Flying Cloud, is already at levels that impact health. The purpose of NEPA and MEPA is to gather information to enable us to make informed decisions about choices between transportation and air quality. We deserve to know the truth about air quality and the impacts from proposed transportation.

## B. Noise

The FEIS is inadequate in its discussion of cumulative impacts on noise. There are other known projects that will contribute to impacts on noise in Eden Prairie/SW Metro: (1) construction of 494 and increased resulting traffic; (2) construction and increased traffic from Highway 312 extension; (3) construction and increased traffic from Pioneer Trail expansion; (4) construction and increased traffic from Highway 212; (5) MSP over-flights. For the construction and traffic related noise impacts, MAC need only to consult with DOT. This is a no-brainer.

As to noise from MSP, MAC's statement in the FEIS that over-flights from MSP have no impact in Eden Prairie flies in the face of logic and reality, no matter what type of math manipulation is done to distort the truth.

**MAC itself has identified noise from MSP over-flights to be a "major source of noise impact" for every year since 1993 to 2001 in its yearly monitoring reports from Flying Cloud .** For example, for the year 2001 monitoring MAC states:

**"A major source of noise impact during the hours monitored was commercial jet aircraft overflight from the Minneapolis-Saint Paul International Airport.** During the 321 hours monitored, 2190 jet and commuter aircraft overflight operations from MSP were recorded ranging from 42.3 dBA to 82.0 dBA."

Even though MAC describes these noise impacts as "single events" and not "cumulative," they still are a *noise impact* that need to be identified, quantified and evaluated as part of the NEPA and MEPA process. Single events in the 82.0 dBA are certainly annoying. Neither NEPA nor MEPA state that impacts from noise only matter if they are above a weighted average over the period of a day. Neither NEPA nor MEPA state that noise is evaluated only if it is above DNL 60dBA. Single events of loud noise that happen several times an hour are still considered to be noise pollution. Even MAC considers MSP overflight noise to be "**a major source of noise impact.**" How can MAC identify a noise impact as "major" and then not include it in its cumulative impact analysis?

To include noise from MSP is a no brainer. MAC currently has actual noise monitoring data for Eden Prairie that includes MSP aircraft noise, which has not been included in the FEIS. In addition, MAC continuously monitors noise from MSP and has access to information enabling MAC to identify, quantify and evaluates noise from MSP aircraft. As to cumulative noise impacts highway expansions, MAC needs only to obtain information from DOT. If this information is not included, the FEIS is inadequate.

### C. Water Quality

The FEIS is inadequate in its discussion of cumulative impacts on water quality. There are other known projects that will contribute to impacts on water quality in Eden Prairie/SW Metro: (1) construction of 494 and increased runoff; (2) construction and increased runoff from Highway 312 extension; (3) Construction and increased runoff from Pioneer Trail expansion; (4) construction and increased runoff from Highway 212. For the construction and additional runoff effects on water quality, MAC needs to consult with DOT.

Environmental impacts cannot possibly be evaluated without adequate information as to the current status of noise and air pollution, and the future effects of other projects. Without information on the cumulative effects from proposed expansion at FCM, the FEIS is inadequate as a matter of law.

### V. Noise Has Not Been Reasonably Evaluated

The FEIS is inadequate because it has failed to reasonably assess the noise impacts from expansion, which along with air emissions, is the most significant environmental impact.

First, as explained above, MAC has not provided enough data on aircraft and other sources of noise, which is readily available and necessary to evaluate the proposed expansion's impact. Second, the noise curves provided in the FEIS are flawed because they are based on faulty and unsubstantiated information. Finally, MAC has not reasonably evaluated noise impact data to determine the effects on homes, school, churches, parks, and wildlife areas. MAC should be required to compare noise generated from the INM with actual noise monitoring data because the INM is consistently under evaluating the amount of noise compared to actual noise monitoring.

## A. MAC Has Not Provided Reasonable Noise Data

As a citizen representative on the former City of Eden Prairie's Airport Advisory Commission, I repeatedly asked MAC representatives in commission meetings for more information as to present and future FCM noise. I asked for noise curves at values outside of the 60 dBA levels and was told that was impossible. I asked for specific monitoring to be conducted in residential areas, and was told that during summer months, there is some actual monitoring conducted. I was provided with some of that actual monitoring data, but no monitoring has taken place since 2001. I also asked for the specific parameters or inputs that were used in the INM for generating the noise curves, and never received an answer.

At the public hearing for the SDEIS in September 2001, I asked Mr. Roy Fuhrmann how it was possible to list in the SDEIS specific DNL values for "noise-sensitive receptors" in the year 2010. See e.g., pages V18-V19 in the SDEIS. Mr. Fuhrmann informed me that the INM could be used to generate specific noise data points, instead of noise curves, and that the INM with 2010 operations was used to calculate the DNL for those specific sites identified as "receptor sites." I asked Mr. Fuhrmann if it was then possible to use the INM to list specific noise points for all areas in Eden Prairie, not just points listed as "receptor sites," to which he said "yes." I told Mr. Fuhrmann that I had *repeatedly* asked for this kind of information, and that such information would be extremely useful for residents of Eden Prairie and others to evaluate the noise impacts. I asked Mr. Fuhrmann to provide a map of Eden Prairie with specific noise points around the entire city area, instead of noise curves, to which he responded that such data is "unreliable" given the limitations of the INM. I replied that MAC *itself* was relying on such "unreliable points" in its SDEIS in Tables Q-2 and Q4, and therefore MAC couldn't argue that the use of point-specific noise data was unwarranted. I have never received a map of Eden Prairie with generated noise points from the INM. It appears from Tables Q-2 and Q-4 that the INM can also generate point values for Peak SEL, Lmax, and time above certain noise levels in minutes per day.

In order to reasonably evaluate the noise impact from expansion, MAC must provide a map of Eden Prairie with specific noise points for at least the years 1999 and 2010. I think the more reasonable information is for a time period from years 2004 to 2017 given that 2004 reflects the current all time low number of operations and that 2017 is 10 years post completion. FAA itself recommends noise evaluation for 5 to 10 years post-project completion in its environmental policy 1050.1e, Appendix A at pg. 63. These data points should include DNL, Peak SEL, Lmax, and Time above 60 dBA in minutes per day. The current noise curves DO NOT inform residents how noise will change with expansion. The only thing noise curves show is a range of DNL dBA 60 –65, and obviously noise affects the environment at levels below 60 dBA. FAA itself states that supplemental noise metrics can be used to evaluate the noise impact in its environmental policy 1050.1e Appendix A at pg. 64.

In addition, DNL is only part of the noise impact picture. Also extremely important is the weighted maximum noise one will experience in an area, the length of time of extreme noise, and the sound exposure level. These values should be provided in the format of a map of Eden Prairie with specific points, not noise curves. Only by providing all of this data can the impact from noise be properly evaluated.

#### B. The FEIS's INM Output Is Flawed Because Inputs Are Incorrect and Unsubstantiated

MAC has failed to address this discrepancy in the FEIS. The INM is the key tool used in evaluating several environmental impacts. It is used to generate noise data, including noise curves for the 1999 and 2010 no-action and proposed expansion comparison. The fleet mix and number of operations used in the INM are the basis for the Emissions and Dispersion Modeling System (EDMS) to calculate CO and Sulfur dioxide emissions. MAC's inputs for the INM include types of aircraft, number of operations, and runway use/flight tracks for departures and closed traffic or touch-and-gos, and the time of day of operations. Nighttime operations are given a heavier weight than daytime operations.

##### 1. Aircraft Such as the Gulfstream IV Cannot Be Eliminated from the INM Because MAC's Use of the Weight Capacity as a Noise Restriction is Suspect

When the City entered into negotiations with MAC, both MAC and the City *required* FAA to be involved in the process to avoid any potential problems with their settlement agreement. The City did not want a repeat of what happened with Ordinance 51—after lots of hard work to have the deal unacceptable to FAA.

In December 2002, MAC heralded the 60,000 lb weight capacity of the FCM runways as a restriction preventing larger aircraft from using Flying Cloud. In the MAC/City December 2002 Agreement, MAC promises not to increase the weight capacity of the runway. In short, the 60,000 lb restriction was a big part of the deal that FAA participated in

However, one and a half years later, MAC in its FEIS describes this weight restriction in its “noise mitigation” plan, and reduces predicted noise from expansion from the INM given that larger aircraft cannot use the runways. And now, FAA is calling such weight restrictions into question. In a “Proposed Policy” published in the Federal Register in July 2003, FAA says that weight capacity of the runways **cannot** entirely prohibit aircraft above those weights and **cannot** be used to mitigate noise, because doing so would be unjustly discriminatory in violation of grant assurances. This policy would affect all runways in the country, not just Flying Cloud.

FAA printed this position in July 2003; however, FAA had already made a decision that the weight bearing capacity of a runway could *not* be used to prohibit larger aircraft from

using an airport in February 2002 (just two months after the MAC/City Agreement). Given it takes FAA months to make a decision, surely FAA knew in December when the MAC/City Agreement was made, that FAA would *not* allow a restriction of aircraft based on weight capacity of the runway. FAA said nothing in December. Did MAC also know in December that such weight restrictions were suspect?

Given FAA's policy printed in July 2003, I have no doubt that because (1) MAC describes the runway weight capacity as "noise mitigation," (2) MAC reduces its over-60,000 lb aircraft in its fleet mix for the INM, and (3) MAC promises not to increase the runway strength, that FAA will determine the weight capacity cannot be used as a restriction prohibiting larger aircraft at Flying Cloud and will find it unjustly discriminatory in violation of grant assurances.

There now seems to be no guarantee that larger business jets over 60,000 lbs won't use Flying Cloud. To me, MAC's actions seem very calculated in order to achieve this result. When the City and MAC entered into the Agreement, the weight bearing capacity of the runway was in *no* way described as "noise mitigation" nor did MAC state it would reduce the fleet mix in the INM as a result of the weight capacity of the runway. In the MAC/City Agreement it simply states that an engineering study found the capacity top be 60,000 lbs and that MAC wouldn't increase it unless required by State law. Never in the previous Draft EIS or Supplement EIS did MAC discuss weight capacity as noise mitigation until *after* FAA published its policy that calls it discriminatory.

Moreover, it is clear that FAA will not allow weight capacity to be an all out bar on 60,000 plus aircraft, therefore it is unreasonable to eliminate them in the INM and air quality emission models.

## 2. Nighttime Operations Input Are Incorrect and Unsubstantiated

There are several problems with MAC's inputs. First, the inputs rely on the fleet mix and flight paths and time of day of the operations. There is NO possible way to obtain any information on these inputs for nighttime flights. The Control tower is closed at night and during one of the busiest hours at FCM 6:00 am to 7:00 am. MAC's estimates for nighttime flights, and for the busiest hour of 6-7am, are unreliable in the FEIS.

According to the FEIS, nighttime noise data comes from the extrapolation of monitoring that took place by MAC consultants for **72 hours total** on the days of April 2, 3, and 19, 1997. From 72 hours of monitoring on three days, MAC concludes that nighttime flights are about 3.8 percent of the daytime total. It is incredulous to me how MAC can base its entire evaluation of **all environmental impacts** on 72 hours worth of data! MAC's response in the FEIS that the inputs for nighttime flights is correct because of a *single survey conducted for three days in one year is ludicrous*. How can such an **important** input be based solely upon such paltry information conducted in 1997!

In my comments, I reported that MAC has actual monitoring data collected for nighttime flights at FCM during the summertime months for the years 1993-2001. There is no doubt that several years of monitoring over entire summertime periods are far more accurate than a 3-day survey by a consulting company that continually screws up survey information (like the number of stopovers being 8300 when total business jet operations are only 5876 in a year!).

Actual monitoring data obtained during MAC's summer monitoring program covers the years 1993-2001 and contains at least 225 hours of actual monitoring. That summertime data that I have shows a range from 6.5% to 34.6% of nighttime flights. The following table is from actual monitoring data:

Year	Hours Monitored During Nighttime Hours of 10 pm to 7 am (percent of time monitored, percent of total nighttime hours)	Annual Nighttime Operations According to Monitoring Data	Total Annual Operations According to Monitoring Data*	Percent of Nighttime Flights According to Monitoring Data
1996	25 (18 %, 0.8%)	35,609	103,002 (217,703)	34.6 %
1997	20 (14%, 0.6%)	6,570	100,812 (198,199)	6.5%
1998	48 (12%, 1.5%)	9,308	90,249 (210,907)	10.3%
1999	18 (6%, 0.5%)	7,848	106,960 (192,737)	7.3%

\* ( ) indicates the total annual operations according to Tower, which does not count nighttime operations when it is closed. Obviously, actual monitoring data does not come close to capturing the amount of operations at FCM counted by the Tower.

The above table and information shows several things. One, if actual monitoring shows total operations consistently lower than total operations from reported tower hours (which doesn't include nighttime operations), then the total number of monitored nighttime operations is way under the actual number of nighttime flights occurring at FCM. Second, actual monitoring data shows that MAC's estimates for nighttime operations is way underestimated. Observe that the longer nighttime monitoring is actually conducted, the larger the percentage nighttime flights are found. The only information to actual nighttime flights is monitoring data. This data shows that nighttime flights are probably close to 15% of total operations.

Because nighttime operations are a huge factor in noise output from the INM, this evidence that MAC's nighttime estimates are severely flawed means that the INM output is severely flawed. MAC must provide more accurate information for nighttime operations.

A far more accurate way to obtain nighttime flights at FCM would be to use radar data from MSP. All of the INM and emissions information needs to be corrected with increases in the nighttime flights to at least 15% as described above.

### 3. Flight Paths/runway use Input Is Incorrect and Unsubstantiated

In response to this comment, MAC states that the flight paths used in the INM are based on the preferred flight paths for noise mitigation. That pilots will actually use the preferred flight paths is debatable, however, even assuming they are, preferred flight paths are relevant only for the noise generated under the mitigation INM. For the proposed expansion Alternate F without mitigation, it cannot be assumed that mitigation flight paths will be used. Different flight paths must be used for the without mitigation alternative. More important, given that MAC admits that only 50% compliance with requests for prohibiting nighttime flights, it is an *inaccurate assumption* to use the noise mitigation flight paths for *all* flights. To be consistent, MAC must use mitigation flight paths only 50% compliance and actual flight paths the other 50% of the time for the INM.

### 3. Fleet Mix Inputs for Stage-2 Jets Are Unsubstantiated

In its FEIS, MAC provides that given the results of a 1999 survey conducted to determine Stage-2 jet aircraft usage of FCM, a substantial change in the fleet mix/operations was made to significantly limit the number of daytime Stage-2 operations and eliminate nighttime Stage-2 operations. A survey was made of Minnesota and it was determined that one Stage-2 operator would use FCM during the daytime. A survey was then conducted of IN, MI, OH, and WI. The FAA registry lists 81 Stage-2 jet aircraft in the Great Lakes Region, however, only 11 owner/operators for 14 Stage-2 aircraft were reached in the survey. Those 11 owner/operators provided that they would account for an estimated 77 operations at FCM per year, with 7 of those operations at night. *Sixty-seven Stage-2 jet aircraft in the Great Lakes Region (83%) were not evaluated in that survey.*

Obviously, if 83% of the stage-2 jet aircraft did not respond, the data is unreliable. There are other flaws in the survey. The survey should have been conducted for the *entire* country given that Stage-2 aircraft could come from anywhere in the U.S. In addition, the survey reached such a small number (17%) of total Stage-2 aircraft in the Great Lakes Region that 77 daytime/7 nighttime operations is not representative of what happens at FCM. *Even the FAA takes issue with the validity of the study with so few respondents. See FAA letter dated October 13, 2000 at page 6 (survey information is "speculative.")* How can MAC claim a significant reduction in daytime use, and the elimination of

nighttime use by Stage-2 jets! Especially when these survey results are only a very small portion of the Stage-2 aircraft in the country that could access to FCM. This obviously skews the noise curves to give the appearance of less noise impact.

This survey and its results must be included in the FEIS Appendix as a matter of law. It is material made for the preparation of the EIS documents and is very important information that supports the noise curves. MN Rules 4410.2300(J). Moreover, the results of the Minnesota survey and all information obtained (not just Stage-2 aircraft) as to whether FCM would be used by any operator if the runways were lengthened is pertinent information and should be included in the Appendix. Without such information in the Appendix, the FEIS is inadequate as a matter of law.

### C. MAC Has Not Evaluated Noise Impact Data

MAC has not reasonably evaluated noise impact data to determine the effects on homes, school, churches, parks, and wildlife areas. Nor has MAC conducted any study or hired appropriate experts to evaluate the impact that noise will have on property values. The only “evaluation” MAC has conducted in the FEIS is to list the number of homes in the DNL range of 60-65dBA and to state that there are no schools or churches within the DNL dBA 65 curves. This is no “evaluation,” and therefore the FEIS is inadequate.

Contrary to MAC’s response in the FEIS, NEPA and MEPA *do not provide* that only noise above 60 dBA DNL needs to be evaluated. Just because MAC and FAA limit their determination of “significant noise” to be a day/night average over a 24 hour period of time that is 60 dBA DNL doesn’t mean that the noise impact has been reasonably evaluated. In Minnesota, noise pollution is treated like other types of pollution for analysis and cannot be ignored. If noise increases such a single noise events affect the citizens of Minnesota, then the impact must be evaluated.

Key information about the whole noise impact from expansion is missing, including the noise changes that will result outside of the noise curves MAC has provided. What will be the noise impact to Cedar Ridge Elementary School from the proposed expansion, which is in a direct flight path of FCM? MAC has not conducted any surveys or interviewed teachers at Cedar Ridge to determine what current effect noise has at the school. What will be the effect at the Senior Center at Cty. Rd. 4 and Cty. Rd. 1? What will be the effect on the Presbyterian Church on Cty Rd. 4 and Prairie Lutheran on Pioneer Trail? What will be the effect at the outdoor center at Staring Lake and the Hennepin County Vocational School? Only by providing more noise data as described in Section IIIA of this commentary can noise impacts be thoroughly evaluated.

MAC has not conducted any significant monitoring that provides insight as to current noise impacts from FCM. Actual monitoring performed during the summer months is

sporadic and incomplete. MAC must conduct more monitoring and at more locations in order to determine current noise impacts from FCM and whether the INM model of current conditions is accurate. With this information, INM data for future noise impacts can be better evaluated. MAC should compare noise generated from the INM with actual noise monitoring data.

## VI. Impacts from Air Emissions Have Not Been Reasonably Evaluated

Air emissions data provided in the FEIS are incorrect because of the incorrect fleet mix and number of operations used for 1999 and 2010 years, and because of questionable flight paths/runway use as explained in the section on noise impacts as explained above.

More important, the FEIS is inadequate because the only information that MAC has provided for the proposed expansion is air emissions information on CO and Sulfur Dioxides (“criteria pollutants”). It is a known fact that aircraft have numerous other hazardous emissions including nitrous oxides that lead to the formation of ozone, and several air toxics that cause adverse health effects to people, animals, and vegetation near airports. See Section IV on cumulative impacts.

In addition, MAC must provide data and evaluate cumulative effects from aircraft emissions from MSP operations. It cannot provide air emission impacts from a proposed FCM expansion in a vacuum. MAC has access to all relevant information on air emissions from MSP aircraft, and can calculate air emissions from proposed expansion at MSP. Without an evaluation of all toxic emissions and without evaluating cumulative effects, the FEIS is inadequate as a matter of law. See Section IV on cumulative impacts.

Analysis for toxic emissions associated with airports have been conducted for numerous airports, including the following:

1. LAX
2. O’Hare
3. Oakland International Airport
4. John Wayne and Orange County International Airports
5. Santa Monica Municipal Airport.

Technology and information is available to MAC to provide both current and expanded emissions from aircraft, current air toxic levels in Eden Prairie, dispersion models to determine where aircraft emissions will travel, and health risk assessments for residents in Eden Prairie. See, e.g., EPA’s “Evaluation of Air Pollutant Emissions from Subsonic Commercial Jet Aircraft,” dated April 1999; *Berkeley Keep Jets Over the Bay Committee v. Board of Port Comm’rs*, A086708, California Court of Appeals, 1<sup>st</sup> Dist.,

Div.2, August 30, 2001; MPCA's data and maps on air toxics in the metro area at its web site. All of this information is needed in order to provide a reasonable assessment of air emissions from an expanded FCM and potential adverse health consequences that could result.

## VII. MAC's Cost/Benefit Analysis Is Inadequate and Unreasonable

The "Flying Cloud Airport Expansion Technical Report: Benefit-Cost Analysis" referenced in the DEIS<sup>1</sup> cannot be the basis for support for the FEIS because of significant changes in forecasts made in the FEIS and because it does not address all of the items listed in Table H-6. For example, the values for benefits to operators; ground travel time savings; reduced costs to Eden Prairie; job, earnings, and output impacts; noise benefits and safety have been changed without support and without explanation as to how numbers were calculated.

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<sup>1</sup> The "Flying Cloud Airport Expansion Technical Report: Benefit-Cost Analysis" referenced in the DEIS should have been included in the Appendix as a matter of law because it substantiates analyses fundamental to the EIS as specified in MN Rule 4410.2300(J).

## A. Cost of “MSP Delay Benefits” is Unfounded and Exaggerated

In response to my comments about MAC’s fictitious numbers for the stopovers at MSP from FCM, MAC had to concede in the FEIS that its numbers were ludicrous. MAC changed 8,300 stopovers to 2,340 (which again I prove to be unbelievable in the following paragraphs) and stated that additional benefit resulted from some mystical “forecast of diversion of operations from MSP to FCM.” In 4 \_ years, upon repeated requests to produce data or information supporting claims that general aviation will move from MSP to FCM as a result of expansion, MAC has come up with nothing.

Now in the FEIS, MAC states for the first time in 4 \_ years that “Some businesses with aircraft operating at MSP have told MAC staff they would relocate to FCM if hanger space is available and the runway is lengthened to 5,000 feet.” FEIS at II-4. Obviously, without more detailed information the claim lacks justification. A FEIS should have substance, not unsubstantiated hearsay. What are the names of the business? How many aircraft would they move from MSP to FCM as a result of expansion? How many operations would change from MSP to FCM as a result of the move? Was a survey conducted? Was it a telephone call or letter, or just some conversation over coffee? It is incredulous to believe that a business would give up a substantial investment at MSP and incur moving expenses to relocate to FCM. Without real information, not anecdotes, no one can evaluate this claim. This conjecture cannot be the basis for an 82.9 million dollar expansion. Give us real data.

Interestingly, the number of based aircraft at FCM has declined since 1987 (565) to an all time low in 2003 of 463 based aircraft. With fewer aircraft being based at FCM, why expand?

The numbers reveal the truth about MAC’s proposed expansion. The numbers MAC itself provides in the environmental review process show that expansion at Flying Cloud will *not* have an impact at MSP. First, MAC conducted a survey in 1997 of six FBOs, in which they were asked

**“After taking off from Flying Cloud Airport, have you at any time in the past year had to take on additional fuel or pick up passengers at another metro airport such as St. Paul Downtown or Minneapolis-St. Paul International before continuing on to your final destination? Yes or No. If yes, how many times?”**

See Appendix D of the Flying Cloud Airport Expansion Technical Report Activity Forecasts November 1999 (emphasis added). Only 2 of the 6 FBOs responded yes to stopovers. MAC’s own survey states: “The two firms combined for a total of 16-29 times.” The survey does not specify whether the FBO went to MSP or STP. Even assuming they all went to MSP, obviously, 16-29 operations in a year compared to the 512,588 operations at MSP in a year do not justify the expense of 82.9 million

dollars. According to MAC's surveys, stopovers from Flying Cloud to MSP are only 0.006% of operations at MSP!

MAC's 1997 survey is very clear that the question asked was not round trip flights or how many times per week. The question asked was operations per year. Nevertheless from this survey information, MAC claimed in the Draft EIS and Supplement EIS that the stopover operations at MSP were 8,300 a year! In my SDEIS comments I questioned the accuracy of 8,300 stopovers because this number is so high that it equals the total number of ALL business operations at Flying Cloud a year for 1999!!! I am not splitting hairs. Remember, this is the very reason for MAC's proposed expansion and for its cost/benefit analysis! Again I ask, was MAC recklessly ignorant or deceptive when it came up with 8,300 stopovers after its survey showed 16-29?

How did MAC answer my question? MAC contacted the survey respondents again seven years later on January 6, 2004. MAC states in the FEIS that respondents now claim that seven years ago, they actually meant flights per week, not operations per year, and that since that time they have had this same number of stopovers, and they continue to have this number today. So, in the FEIS, MAC has now changed the number of stopovers from 8,300 to 2,340 (a significant decrease!) and claims maybe a few more if Flying Cloud runways are icy requiring landing at MSP.

Even assuming MAC's new number of 2,500 stopovers at MSP a year is correct, that is only 0.5% of total operations at MSP! Obviously stopovers from Flying Cloud are NOT causing congestion at MSP. Is it worth 82.9 million dollars to eliminate 0.5% of operations at MSP? Also, remember the two FBOs, Elliot Aviation and Executive Aviation, state that their stopovers have *not* increased in 7 years. Then why do they need an 82.9 million dollar expansion? Total stopovers of 2500 a year is only 1.6% of total operations at FCM. MAC has *never* been able to demonstrate congestion at MSP from general aviation. Even its biggest tenant at MSP, Northwest Airlines, says there is no congestion from general aviation. Northwest Airlines would know! Northwest wants the Flying Cloud expansion stopped.

Operations at Flying Cloud have been diminishing since 1994 (232,130 total operations) and were at one of the lowest levels in 2003 (155,837 total operations). Why are large amounts of new hanger space needed when the data shows usage of the airport has declined significantly? MAC claims of needed expansion need to be verified and documented before they can mystically quantified as a 67 million dollar benefit.

This +82.9-million dollars is going to be spent exclusively to increase the types of business jets at Flying Cloud, however, according to MAC's data, currently **only 3% of flights at Flying Cloud are business jets** to begin with! That means that 97% of operations at Flying Cloud are recreational or flight training operations that don't need the expansion.

Even with the proposed expansion, MAC estimates the total business jet operations to increase only to 8% of total operations at Flying Cloud in ten years. According to MAC

data in the FEIS, Flying Cloud had the following estimated total operations and estimated business operations.

	<b>1999</b>	<b>2010 (with expansion)</b>
<b>Total Operations</b>	234,475	302,982
<b>Business Jet Operations</b>	5,876 (3% of all operations)	24,440 (8% of all operations)

MAC has not even claimed that all of this 5% increase in business jets would result *because* of expansion. Even assuming all increases in business jet operations for 2010 resulted from the expansion, would you spend +82.9 million dollars for a runway that results in a 5% increase of business jet flights in 10 years! Can anyone prove to me that a 5% increase in business jets in ten years at Flying Cloud is worth over 82.9 million dollars? Remember the expansion is not necessary for increasing operations, it's just to increase the types of larger jet business aircraft at the request of two FBOs.

Finally, no explanation is given at all as to where the values for benefits to aircraft operators, ground travel savings and reduced costs to Eden Prairie come from. These numbers have the appearance of being pulled out of thin air because they are unsupported and are not explained. MAC's own surveys show that no current GA at MSP would move to an expanded FCM and there is no evidence in the DEIS or SDEIS that any new operators would come to an expanded FCM over MSP. As such, any savings from fewer delays at MSP is unfounded. Ground travel savings is also unsupportable because no operators have been identified who would change from MSP to FCM and who reside closer to FCM than MSP. What are the specific reduced costs to Eden Prairie? The FEIS is inadequate without explanation or support for these cost savings.

The City of Eden Prairie lists its lost revenue as a total of almost 127 million dollars for the proposed expansion for lost taxes and fees. This is not included in the cost/benefit analysis as it should be.

Moreover, the economic benefit that MAC lists as 90 million dollars for FCM is inaccurate because it is based on 1997 data. Both operations and the number of based aircraft have significantly decreased since then. Moreover, the only relevant data is "first round" benefits from the airport at 42 million dollars (Met Council report at 4-41). The revenue from GA visitors cannot be attributable to FCM because there is no way to prove that the only basis for their arrival to the metro area is because of FCM. Without FCM, GA visitors may still have come to the metro, such as through MSP, and therefore would still have the same economic benefit of 9.89 million that cannot be attributable to FCM. In other words, GA visitors come for the Mall of America, the sporting events, etc., they do not come because of FCM.

Also, “secondary benefits” from FCM cannot be included in the economic benefit unless secondary benefit losses from expansion are included. For example, because of expansion, Eden Prairie has lost 500 homes. Those 500 homes would have had the economic benefit from construction costs, furnishing costs, cost of living expenses, and so on, which have not been included in the FEIS. Secondary benefits also would have resulted from the businesses that would have been located on the 80 acres zoned for office and industrial space. None of this was included in the FEIS. Finally, secondary benefits are too speculative, and therefore the economic benefit of FCM should be limited to direct first round benefits for 2004 data, without including GA visitors who may have come to the metro without FCM.

#### B. MAC Has Not Reasonably Evaluated Losses from Decreased Property Values

As I stated in my comments to the DEIS, MAC cannot use one anecdotal story of a developer to support the claim that Eden Prairie property values will not be diminished by an expansion at FCM. MAC must hire expert appraisers to conduct a study as to how much property values will be affected by noise. These kind of property valuations are done ALL OF THE TIME! Without such an evaluation, the FEIS is inadequate.

A comparison to the effect on property values near MSP or any other urban property near an international airport is not applicable to Eden Prairie where most residents do not use FCM--a predominately recreational airport--and property is valued based on environmental amenities because it is *suburban* property, not urban property. Increases in aircraft noise, air pollution, and traffic will turn valued suburban property into urban-like property, without the benefit of proximity to an international, commercial airport. MAC must do the applicable study on property devaluation as a result of expansion.

MAC cannot simply assert that there is no effect on property values when several studies show that property values are negatively impacted by aircraft to an amount of at least 0.5% for every decibel above average noise. See Bragdon, Clifford R. (1989), “Control of airport- and aircraft-related noise in the United States,” *Transportation Research Record*; Nelson, John P. (1980), “Airports and property values: a survey of recent evidence,” *Journal of Transport Economics and Policy*; Tomkins, J., et al. (1998) “Noise versus access: the impact of an airport in an urban property market,” *Urban Studies*; Knack, Ruth Eckdish and Jim Schwab (1996) “Learning to live with airports,” *Planning*; Mieszkowski, Peter and Arthur M. Safer, (1978), “An estimate of the effects on airport noise on property values,” *Journal of Urban Economics*; McDonald, John F. and Clifford I. Osuji (1995), “The effect of anticipated transportation improvement on residential land values,” *Regional Science and Urban Economics*; O’Byrne, Patricia Habuda, et al. (1995), “Housing values, Census estimates, disequilibrium, and the environmental cost of airport noise: a case study of Atlanta,” *Journal of Environmental Economics and*

*Management*; Harvey, Milton E., et al. (1979), "Cognition of a hazardous environment: reactions to Buffalo airport noise," *Economic Geography*.

In 1994, FAA itself commissioned Booz-Allen & Hamilton, Inc. to study property devaluation as a result of aircraft noise. It created a report "*The Effect of Airport Noise on Housing Values: A Summary Report*." The study found that the effect of noise on prices was highest in moderately priced and expensive neighborhoods. For two moderately priced neighborhoods north of LAX, the study found "an average 18.6 percent higher property value in the quiet neighborhood, or 1.33 percent per dB of additional quiet."

A 1996 study found that the expansion of the Seattle-Tacoma Airport would cost nearby cities \$500 million in property values. The study found that "all other things remaining equal, the value of a house and lot increases by about 3.4% for every quarter of a mile the house is farther away from being directly under a flight track."

In 1997, Randall Bell, MAI, Certified General Real Estate Appraiser, Licensed Real Estate Broker and instructor for the Appraisal Institute examined 190 sales near the LAX, John Wayne, and Ontario airports. He found a diminution in value due to airports averaging 27.4%.

#### VIII. MAC Has Failed to Evaluate the Issues of Safety and Security

Noncommercial air travel is far more dangerous than commercial air travel. The accident rate for general aviation is ten times higher than for commercial airlines according to the National Transportation Safety Board data. Within the two years, there have been two crashes at FCM, including one fatality. MAC has failed to evaluate this safety risk of increase accidents at FCM as a result of increased traffic, especially considering the unknown operations that occur when the control tower is closed. Without such an evaluation, the FEIS is inadequate.

In addition, since September 11, 2001, security issues at airports are extremely important. Significant security changes have occurred at commercial airports, but little to none have taken place at general aviation airports. Given this and the proposed expansion's ability to allow larger jets at FCM, MAC needs to address security issues at FCM for the proposed expansion, including but not limited to nighttime security, record-keeping of operations in to and out of FCM, and security at hangers and fueling stations.