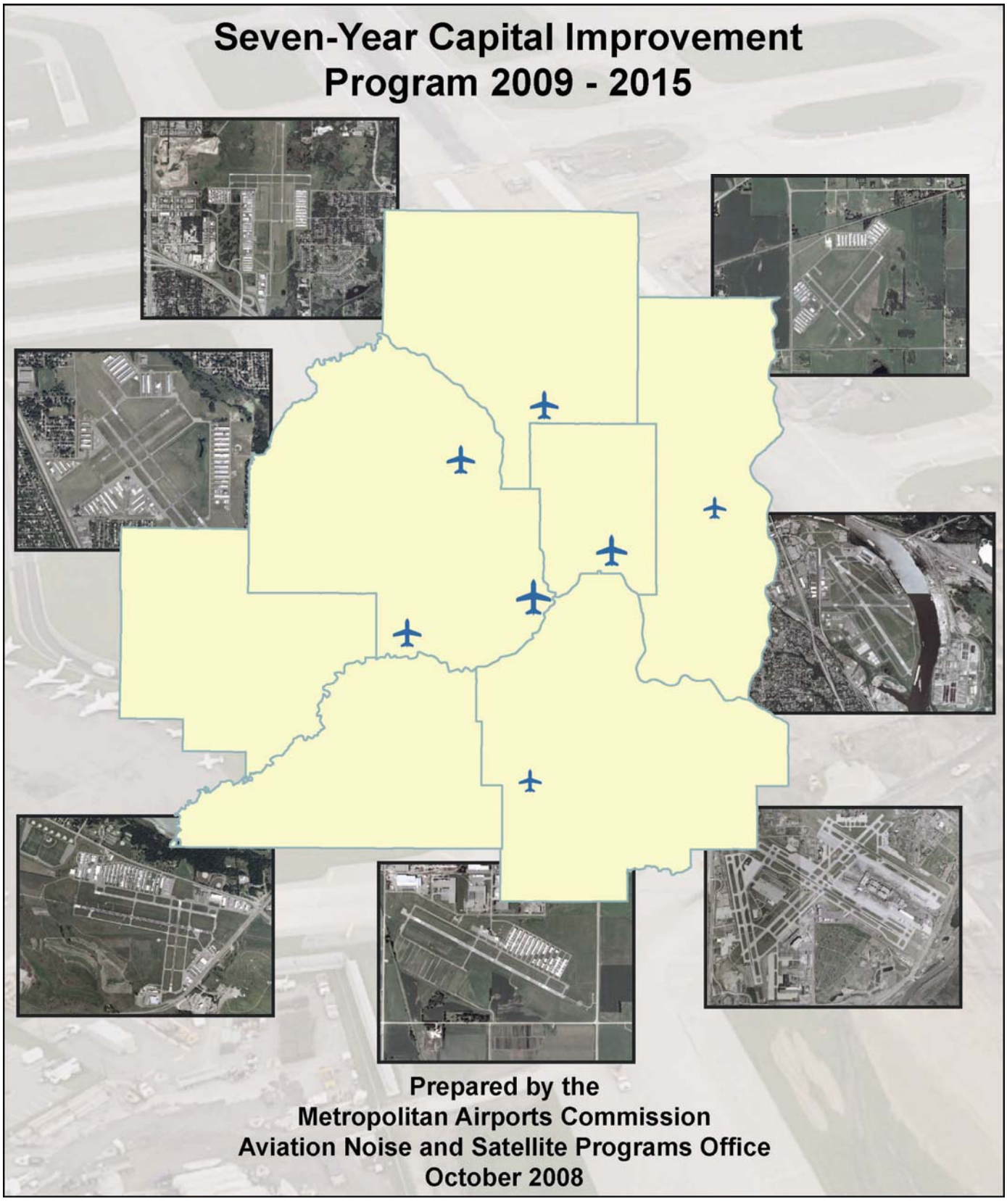
Metropolitan Airports Commission

# Assessment of Environmental Effects



# Table of Contents

## Sections



## Appendicies



## Tables



## Figures

Section

# 1 Introduction

This report is prepared in response to the requirements of Minnesota Statutes 1986, Chapter 473, as amended in 1988 and 1998. It presents an assessment of the environmental effects (AOEE) of projects in the Metropolitan Airports Commission (MAC) Seven-Year Capital Improvement Program (CIP) from 2009 to 2015 for each MAC airport. Under Minnesota law, the MAC is required to "examine the cumulative environmental effects at each airport of the projects at that airport (in the seven-year CIP), considered collectively." Many of the projects in the CIP entail repair or rehabilitation of existing facilities. Such work will not affect use of the facilities and as such will not add to, or subtract from, cumulative environmental effects. The anticipated measurable effects during construction are discussed under Section 2.

The amended 1986 law also requires the preparation of an Environmental Assessment Worksheet (EAW) under the Minnesota Environmental Policy Act (MEPA) for projects that meet all of the following conditions:

1. The project is scheduled in the CIP for the succeeding calendar year (2009 in this CIP);

2. The project is scheduled to cost $5 million or more at Minneapolis-St. Paul International Airport (MSP) or $2 million or more at any other MAC airport; and

3. The project involves the construction of: (i) a new or expanded structure for handling passengers, cargo, vehicles or aircraft; or (ii) a new runway or taxiway or the extension of an existing runway or taxiway.

Table 1-1 lists all projects included in the Seven-Year Capital Improvement Program for the years 2009 through 2015. An Environmental Assessment Worksheet (EAW), Environmental Assessment (EA) or Environmental Impact Statement (EIS) has been prepared for all projects scheduled to be implemented in 2009 that meet the above three conditions in Minnesota Statutes 1986, Chapter 473 for a mandatory EAW. These projects are presented in Table 1-2.

## Table 1-1

## 2009 - 2015 CAPITAL IMPROVEMENT PROGRAM

| Note | Project | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|
| **MSP Runway 4/22 Development Program** | | | | | | | | |
| (1) | North Side Storm Sewer | | | $4,500,000 | | | | |
| *Subtotal* | *Runway 4/22 Development Program* | | | *$4,500,000* | | | | |
| **MSP Noise Mitigation Program** | | | | | | | | |
| (1) | Noise Mitigation Settlement | $18,000,000 | $44,400,000 | $1,800,000 | $1,380,000 | $1,380,000 | $1,430,400 | |
| *Subtotal* | *Noise Mitigation Program* | *$18,000,000* | *$44,400,000* | *$1,800,000* | *$1,380,000* | *$1,380,000* | *$1,430,400* | |
| **MSP Taxiway C/D Complex Construction** | | | | | | | | |
| (1) | Taxiway C/D Complex | $6,500,000 | $6,000,000 | | | | | |
| *Subtotal* | *Taxiway C/D Complex Construction* | *$6,500,000* | *$6,000,000* | | | | | |
| **MSP Airfield Rehabilitation Program** | | | | | | | | |
| (2) | Airside Bituminous Rehabilitation | $500,000 | $500,000 | $500,000 | | | | |
| (2) | Pavement Rehabilitation - Aprons | | $1,900,000 | $1,500,000 | $1,400,000 | | | |
| (2) | Pavement Joint Sealing/Repair | $500,000 | $500,000 | $500,000 | | | | |
| *Subtotal* | *Airfield Rehabilitation Program* | *$1,000,000* | *$2,900,000* | *$2,500,000* | *$1,400,000* | | | |
| **MSP Runway Rehabilitation Program** | | | | | | | | |
| (2) | Taxiway P Reconstruction | $1,800,000 | | | | | | |
| (2) | Pavement Rehabilitation - Runway 12L/30R Seg. 2 | $23,700,000 | | | | | | |
| (2) | Natural Gas Main Replacement* | $300,000 | | | | | | |
| *Subtotal* | *Runway Rehabilitation Program* | *$25,800,000* | | | | | | |
| | *100% reimbursement by Centerpoint Energy | | | | | | | |
| **MSP Landside Rehabilitation & Repair Program** | | | | | | | | |
| (2) | Landside Pavement Rehabilitation | $400,000 | $400,000 | | | | | |
| (2) | Parking Structure Rehabilitation | $3,000,000 | $3,000,000 | | | | | |
| (4) | Terminal Modifications | $2,000,000 | $2,000,000 | | | | | |
| (4) | Building Exterior Rehabilitation | * | * | | | | | |
| (4) | Terminal Electrical Modifications | * | * | | | | | |
| (4) | Terminal Mechanical Modifications | * | * | | | | | |
| (4) | Terminal Miscellaneous Modifications | * | * | | | | | |
| (2) | Humphrey Terminal & MSP Campus Mods | * | * | | | | | |
| *Subtotal* | *Landside Rehabilitation and Repair Program* | *$5,400,000* | *$5,400,000* | | | | | |
| **Reliever Airport Program** | | | | | | | | |
| | Airlake | | | | | | | |
| (1) | South Building Area Development ** | | $2,500,000 | | | | | |
| (2) | Pavement Rehabilitation | | $200,000 | | | | | |
| | Subtotal | | $2,700,000 | | | | | |
| | **Funding for this project to be provided by others. | | | | | | | |
| | Anoka County - Blaine | | | | | | | |
| (1) | Building Area Development - East Annex ** | | | $2,400,000 | | | | |
| (1) | Building Area Development - Xylite St. Relocation | | | | $1,000,000 | | | |
| (1) | Building Area Development - West Annex ** | | | | $850,000 | | | |
| (2) | Pavement Rehabilitation | | $1,000,000 | $400,000 | | | | |
| | Subtotal | | $1,000,000 | $2,800,000 | $1,850,000 | | | |
| | **Funding for this project to be provided by others. | | | | | | | |

## 2009 - 2015 CAPITAL IMPROVEMENT PROGRAM

| Note | Project | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|
| | Crystal | | | | | | | |
| (2) | Alleyway Rehabilitation | $350,000 | | $550,000 | | | | |
| (4) | Obstruction Removals | | | | $300,000 | | | |
| (2) | Pavement Rehabilitation | | $600,000 | | | | | |
| (1) | Runway 14R/32L Modification | | $1,000,000 | | | | | |
| | Subtotal | $350,000 | $1,600,000 | $550,000 | $300,000 | | | |
| | Flying Cloud | | | | | | | |
| (2) | Alleyway Rehabilitation | $415,000 | | $300,000 | | | | |
| (4) | Hangar/Building Removal | $300,000 | | | | | | |
| (2) | Pavement Rehabilitation | | $700,000 | | | | | |
| (2) | Runway 18/36 Reconstruction Seg. 3/Lighting | | $1,000,000 | | | | | |
| (1) | Runway10R/28LWidening/ Extension | $12,750,000 | | | | | | |
| (1) | South Building Area Development ** | $600,000 | $6,400,000 | $3,000,000 | | | | |
| | Subtotal | $14,065,000 | $8,100,000 | $3,300,000 | | | | |
| | **Funding for this project to be provided by others. | | | | | | | |
| | Lake Elmo | | | | | | | |
| (1) | East Building Area Development ** | | $2,300,000 | | | | | |
| (2) | Pavement Rehabilitation | $500,000 | | | | | | |
| (2) | Runway 14/32 Reconstruction | | | $2,000,000 | | | | |
| (1) | Runway 4/22 Extension | | | | $1,500,000 | | | |
| (1) | East Side Parallel Taxiway | | | | $900,000 | | | |
| | Subtotal | $500,000 | $2,300,000 | $2,000,000 | $2,400,000 | | | |
| | **Funding for this project to be provided by others. | | | | | | | |
| | St. Paul | | | | | | | |
| (4) | Compass Calibration Pad | | | | $850,000 | | | |
| (2) | Joint and Crack Repairs | | $100,000 | | | | | |
| (4) | MAC Building Maintenance | | $200,000 | | | | | |
| (2) | Pavement Rehabilitation | | $1,200,000 | $1,500,000 | $1,500,000 | | | |
| | Subtotal | | $1,500,000 | $1,500,000 | $2,350,000 | | | |
| *Subtotal Reliever Airport Program* | | *$14,915,000* | *$17,200,000* | *$10,150,000* | *$6,900,000* | | | |
| **Reliever Airports Utility Extension Program** | | | | | | | | |
| | Airlake | | | | | | | |
| (4) | Plane Wash & Restroom Facilities | $200,000 | | | | | | |
| | Lake Elmo | | | | | | | |
| (1) | Sanitary Sewer and Watermain Extensions | | | | $500,000 | | | |
| *Subtotal Reliever Airports Utility Extension Program* | | *$200,000* | | | *$500,000* | | | |

## 2009 - 2015 CAPITAL IMPROVEMENT PROGRAM

| Note | Project | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|
| **MSP Miscellaneous Field and Runway Program** | | | | | | | | |
| (2) (3) (4) | Miscellaneous Airfield Construction | $400,000 | $400,000 | | | | | |
| *Subtotal* | *Miscellaneous Field and Runway Program* | *$400,000* | *$400,000* | | | | | |
| | *Subtotal 2010 Program* | *$72,215,000* | *$76,300,000* | *$18,950,000* | *$10,180,000* | *$1,380,000* | *$1,430,400* | |
| **Post 2010 Program** | | | | | | | | |
| **10 - Lindbergh Terminal** | | | | | | | | |
| | Lindbergh Terminal Sprinkler System | | | | | | | |
| (4) | Concourses C & D | | $8,600,000 | | | | | |
| (2) | Elevator Modifications | $1,350,000 | | | | | | |
| (4) | Jet Bridge Card Reader Installation * | | $2,500,000 | | | | | |
| (4) | Lindbergh Terminal In-line Baggage Screening** | $25,500,000 | | | | $24,300,000 | | |
| (5) | Check Point/Passenger Screening Improvements | $300,000 | | | | | | |
| (2) | Upgrade Mezzanine Restrooms to meet ADA Code | | | | $600,000 | | | |
| (2) | Skyway HVAC | | | $1,200,000 | | | | |
| (2) | Skyway Flooring Replacement | | | $150,000 | | | | |
| (2) | Terminal Backlit Sign Replacements | | $1,650,000 | $1,700,000 | $1,800,000 | | | |
| (2) | Tug Drive Floor Repair | $2,100,000 | $1,050,000 | | | | | |
| (2) | Electrical Infrastructure Rehab Program | $2,400,000 | $1,800,000 | $1,700,000 | | | | |
| (2) | Ticketing Level Floor Replacement | | | | $4,000,000 | | | |
| (2) | Concourse E and C Renovations | | | | $14,100,000 | | | |
| (2) | Ticket Lobby Modifications | | | | $2,600,000 | | | |
| (2) | L Terminal Bag Claim/Make-up Area/Rehab. | | | $8,000,000 | | | | |
| (3) | Terminal Miscellaneous Modifications | | | $2,000,000 | $2,000,000 | $2,000,000 | $2,000,000 | $2,000,000 |
| (4) | Emergency Power Upgrades | $1,950,000 | $2,700,000 | $1,100,000 | | | | |
| (2) | Concourse E and F Floor Rehabilitation | $1,800,000 | $1,800,000 | | | | | |
| (4) | APM Tunnel Piping/Pumps Replacement | $350,000 | | | | | | |
| (5) | Lower Level Roadway/GTC Water Infiltration Mitigation | | $2,300,000 | | | | | |
| (2) | East Mezzanine Upgrade | | | $250,000 | | | | |
| (2) | LT Folded Plate Drain and Overflow Repair | $1,500,000 | | | | | | |
| (2) | Restroom Upgrade Program | | | $2,000,000 | $2,000,000 | $2,000,000 | $2,000,000 | $2,000,000 |
| (4) | Art in the Terminal | | | $500,000 | | | | |
| (4) | Checkpoint 5 Elevator/Escalator/Employee Checkpoint | | | $3,700,000 | | | | |
| (4) | Electric Video Information Display System Installation | $450,000 | | | | | | |
| (4) | Lindbergh Terminal Masterclock System | | | $450,000 | | | | |
| (2) | Meeter/Greeter/Freedom of Speech Booth Upgrades | | | $225,000 | | | | |
| (5) | Concessions Revenue Development/Upgrades | | $200,000 | $200,000 | $200,000 | $200,000 | $200,000 | $200,000 |
| (2) | Concourse A Food Court Upgrade | | | $200,000 | | | | |
| (4) | Public Access Videophones (PAVs) | | | $300,000 | | | | |
| (4) | MUFIDS - Phase 2 | $6,500,000 | | | | | | |
| (4) | MSP Radio-based Public Information System | | | | $3,500,000 | | | |
| (2) | LT/Humphrey FIS Meeter/Greeter Area | | | | $850,000 | | | |
| (5) | Terminal Seating Improvements | | | $900,000 | | | | |
| (4) | Concourse C Elevator to D Street | | | $400,000 | | | | |
| (4) | Open Architecture Building Automation (OABA) | $1,900,000 | $1,650,000 | | | | | |
| (4) | ADO Mechanical Room Relocation | | | | $8,200,000 | | | |
| (6) | ADO/Facilities/Landside Operatins Consolidation | | | | $8,200,000 | | | |
| (6) | IS Data Room Expansion | | | $1,500,000 | | | | |
| (4) | Curbside Check-In Expansion | | | $2,900,000 | | | | |
| (6) | Concourse G Extension - Site Preparation | | | | $16,700,000 | | | |
| (6) | Concourse G/H Tram | | | | $5,000,000 | $170,000,000 | | |
| | *Subtotal Lindbergh Terminal* | *$46,100,000* | *$24,250,000* | *$29,375,000* | *$69,750,000* | *$198,500,000* | *$4,200,000* | *$4,200,000* |

*100% reimbursement by airlines

**Project grant application has been forwarded to TSA for 100% reimbursement of costs. Project will only proceed if TSA grant is approved.

## 2009 - 2015 CAPITAL IMPROVEMENT PROGRAM

| Note | Project | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|
| **13 - Energy Management Center** | | | | | | | | |
| (4) | Energy Savings Projects | $2,000,000 | $2,000,000 | $2,500,000 | $2,500,000 | $2,500,000 | $2,500,000 | $2,500,000 |
| | *Subtotal Energy Management Center* | *$2,000,000* | *$2,000,000* | *$2,500,000* | *$2,500,000* | *$2,500,000* | *$2,500,000* | *$2,500,000* |
| **21 - Field and Runway** | | | | | | | | |
| (4) | ALEC North Relocation | | | | | | $15,000,000 | |
| (4) | Runway 30R MALSF | | | | $1,800,000 | | | |
| (2) | Miscellaneous Field and Runway | | | $400,000 | $400,000 | $400,000 | $400,000 | $400,000 |
| (5) | Perimeter Fence/Gate Barrier System | $550,000 | $3,000,000 | | | | | |
| (5) | Baggage Quarantine Building | | | | $1,260,000 | | | |
| (5) | SIDA Incursion Upgrades | | $700,000 | | | | | |
| (2) | Sanitary Sewer/Manhole Repair - Runway 12L | $600,000 | | | | | | |
| (6) | Taxiway C Extension to Huphrey Remote | | | | $5,500,000 | | | |
| (4) | ASR Shadow Mitigation | $100,000 | | $5,000,000 | | | | |
| (4) | South Field Maintenance Building Wash Bay | | | | $1,300,000 | | | |
| (3) | Maintenance Building AHUs Replacement | | | $300,000 | | | | |
| (3) | Runway 12R/30L Tunnel Fans and Dampers | | | $200,000 | | | | |
| (3) | Runway Status Lights (RWSL)** | $300,000 | | | | | | |
| | *Subtotal Field and Runway* | *$1,550,000* | *$3,700,000* | *$5,900,000* | *$10,260,000* | *$400,000* | *$15,400,000* | *$400,000* |
| | ** Funding by FAA | | | | | | | |
| **23 - Control Tower** | | | | | | | | |
| (6) | Relocate Air Traffic Control Tower | | | | $5,800,000 | | $24,000,000 | $30,000,000 |
| | *Subtotal Control Tower* | | | | *$5,800,000* | | *$24,000,000* | *$30,000,000* |
| **26 - Terminal Roads/Landside** | | | | | | | | |
| (2) | Tunnel/Bridge Rehabilitation | $100,000 | $100,000 | $100,000 | $500,000 | $100,000 | $100,000 | $100,000 |
| | *Subtotal Terminal Roads/Landside* | *$100,000* | *$100,000* | *$100,000* | *$500,000* | *$100,000* | *$100,000* | *$100,000* |
| **31 - Parking** | | | | | | | | |
| (2) | Parking Structure Rehabilitation | | | $3,000,000 | $3,500,000 | $3,500,000 | $3,500,000 | $3,500,000 |
| (4) | Humphrey Ramp VMS/Revenue Control System Upgrade | | | $1,500,000 | | | | |
| (2) | Humphrey GTC Core Building Modifications | | | $850,000 | | | | |
| (1) | Humphrey Orange Ramp Outrigger Addition /Level 9&10 | | | | | | $58,700,000 | |
| (1) | Humphrey Purple Ramp Outrigger Addition | | | | $32,100,000 | | | |
| (4) | Lindbergh Terminal - New Parking Entrance/Transit Gate | $200,000 | | | | | | |
| (4) | Lindbergh/Humphrey Vehicle Detection/Counting | | | $400,000 | | | | |
| (4) | Valet Car Wash Equipment Replacement | $250,000 | | | | | | |
| (5) | Valet Garage Parking Inspection Booth Replacement | | | $700,000 | | | | |
| (6) | Valet Parking Waiting Area Improvements | | $400,000 | | | | | |
| (5) | Valet Garage Flammable Waste Traps/Floor Drains | $200,000 | | | | | | |
| | *Subtotal Parking* | *$650,000* | *$400,000* | *$6,450,000* | *$35,600,000* | *$3,500,000* | *$62,200,000* | *$3,500,000* |
| **36 - Humphrey Terminal** | | | | | | | | |
| (6) | Humphrey Terminal Expansion - Skyway | | $1,000,000 | | $63,500,000 | | | |
| (1) | Humphrey Terminal Expansion - North Expansion | | | | $7,500,000 | $48,000,000 | | |
| (4) | GSE Building Relocation | | | | $5,500,000 | | | |
| (3) | Fuel Farm Lease Extinguishment | | | | $3,500,000 | | | |
| (1) | Humphrey Fuel Farm Relocation | | | | $5,900,000 | | | |
| (4) | Ground Transportation Improvements | | | | | $1,100,000 | | |
| (1) | Auto Rental Facilities | | | | $3,500,000 | | | |
| (2) | Humphrey Jetbridge Replacement - 6&7 | | $1,600,000 | | | | | |
| (3) | Preconditioned Air | | | $1,650,000 | | | | |
| (3) | Emergency Voice Evacuation System | | | $3,600,000 | | | | |
| | *Subtotal Humphrey Terminal* | | *$2,600,000* | *$5,250,000* | *$89,400,000* | *$49,100,000* | | |

## 2009 - 2015 CAPITAL IMPROVEMENT PROGRAM

| Note | Project | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|---|---|---|
| **39 - Public Areas/Roads** | | | | | | | | |
| (1) | Airport Lane/34th Ave. Access Reconfiguration** | $1,600,000 | | | | | | |
| (2) | Landside Pavement Rehabilitation | | | $400,000 | $400,000 | $400,000 | $400,000 | |
| (4) | VMS Billboard Installation | | | | | $2,800,000 | | |
| (4) | Inbound/Outbound Road Electrical Pedestal Retrofit | $150,000 | | | | | | |
| (2) | Super America Taxi Cab Room Expansion | | | $800,000 | | | | |
| | *Subtotal Public Areas/Roads* | *$1,750,000* | | *$1,200,000* | *$400,000* | *$3,200,000* | *$400,000* | |
| | **MnDOT to reimburse MAC $500,000 for this project. | | | | | | | |
| **63 - Police** | | | | | | | | |
| (5) | Security Guard Shack | | | $1,100,000 | | | | |
| (6) | Public Safety Building | | | $23,000,000 | | | | |
| (4) | CCTV Program - Level 3 Upgrade | $1,125,000 | | | | | | |
| (4) | Security Gate 104 Power Retrofit | $300,000 | | | | | | |
| (5) | Perimeter Fence Intrusion Detection System | | | $2,200,000 | | | | |
| | *Subtotal Police* | *$1,425,000* | | *$26,300,000* | | | | |
| **66 - Fire** | | | | | | | | |
| (5) | Post Road Fuel Farm Fire Protection Improvements | | | $3,000,000 | | | | |
| | *Subtotal Fire* | | | *$3,000,000* | | | | |
| **70 - GO** | | | | | | | | |
| (6) | IS Data Room Expansion | | | $1,500,000 | | | | |
| | *Subtotal GO* | | | *$1,500,000* | | | | |
| **76 - Environment** | | | | | | | | |
| (2) | Stormwater Pond Dredging | | | $3,000,000 | | | | |
| (5) | North Fuel Island Oil/Water Separator | | | $700,000 | | | | |
| | *Subtotal Environment* | | | *$3,700,000* | | | | |
| **Reliever Airports** | | | | | | | | |
| | **81 - St. Paul** | | | | | | | |
| (6) | Holman Terminal Subdrain | | | $600,000 | | | | |
| (2) | Float Plane Stairway | $75,000 | | | | | | |
| (2) | Joint and Crack Repairs | | | | $100,000 | | $100,000 | |
| (5) | MAC Building Maintenance | | | | $200,000 | | $200,000 | |
| | *Subtotal St. Paul* | *$75,000* | | *$600,000* | *$300,000* | | *$300,000* | |
| | **85 - Crystal** | | | | | | | |
| (5) | Crystal - Security Gate Replacement | | | $200,000 | | | | |
| | *Subtotal Crystal* | | | *$200,000* | | | | |
| | **86 - Anoka** | | | | | | | |
| (5) | Anoka - Security Gate Replacement | | | $200,000 | | | | |
| | *Subtotal Anoka* | | | *$200,000* | | | | |
| | *Subtotal Post 2010 Program* | *$53,650,000* | *$33,050,000* | *$86,275,000* | *$214,510,000* | *$257,300,000* | *$109,100,000* | *$40,700,000* |
| | ANNUAL TOTAL CIP | $125,865,000 | $109,350,000 | $105,225,000 | $224,690,000 | $258,680,000 | $110,530,400 | $40,700,000 |
| | ALTERNATE FUNDING REVENUES | $27,200,000 | $13,700,000 | $5,400,000 | $850,000 | | | |
| | **ANNUAL NET CIP** | **$98,665,000** | **$95,650,000** | **$99,825,000** | **$223,840,000** | **$258,680,000** | **$110,530,400** | **$40,700,000** |

NOTES:

(1) A project that has potential substantive environmental effects.
(2) A repair, rehabilitation or reconstruction project that does not physically alter the original size (the project does not have substantive environmental effects; an EAW or EIS is not required).
(3) An electrical or mechanical device that monitors, indicates or controls existing conditions (the project does not have substantive environmental effects; an EAW or EIS is not required).
(4) A structural, mechanical or electrical device and/or modification of an existing system or structure that does not significantly increase size or passenger capacity (the project does not have substantive environmental effects; an EAW or EIS is not required).
(5) A project that consists of security enhancements, facility maintenance or upgrades (the project will not have substantive environmental effects; an EAW or EIS is not required).
(6) A new, replacement or expansion project that does not have substantive environmental effects; an EAW or EIS is not required.

**Table 1-2**
**Summary Environmental Assessment of 2009 Projects in the MAC 2009-2015 Capital Improvement Program that require an EAW or EIS**

| Project Description | Are the Effects of the Project Addressed in an Approved EAW, EA or EIS? | Environmental Categories Affected by the Project | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | **Air Quality** | **Compatible Land Use** | **Fish, Wildlife and Plants** | **Floodplains and Floodways** | **Hazardous Materials, Pollution Prevention and Solid Waste** | **Historical, Architectural, Archaeological and Cultural Resources** | **Light Emissions and Visual Effects** | **Parks, Recreation Areas and Trails** | **Noise** | **Water Quality (Storm, Waste and Ground Water)** | **Wetlands** | **Infrastructure and Public Services** | **Farmland** | **Erosion and Sedimentation** |
| **MSP PROJECTS** | | | | | | | | | | | | | | | |
| Taxiway C/D Complex | Yes<br>2010 LTCP FEIS, May 1998 | No effect | No effect | No effect | No effect | No effect | No effect | No effect | No effect | No effect | **Effect*** | No effect | No effect | No effect | No effect |
| **RELIEVER AIRPORT PROJECTS** | | | | | | | | | | | | | | | |
| **Flying Cloud** | | | | | | | | | | | | | | | |
| Runway 10R/28L Widening/Extension | Yes<br>FCM Expansion FEIS, June 2004 | **Effect*** | **Effect*** | No effect | No effect | No effect | **Effect*** | No effect | No effect | **Effect*** | **Effect*** | No effect | No effect | No effect | No effect |

* All required mitigation is being completed as part of the project.

Section 2

# Projects with Potential Environmental Effects and Effects During Construction

## Projects with Potential Environmental Effects

Table 1-2 identifies the environmental effects categories evaluated by the EAWs prepared for the CIP projects scheduled to be implemented in 2009. Table 1-1 identifies those projects in the CIP that do not have a potential substantive effect on the environment (such as the repair, reconstruction or rehabilitation of pavement and buildings, and replacement of existing facilities). The notes in Table 1-1 offer further explanation of the type of work that each project entails and why this work will not affect the environment. Appendix A provides a description of each project in the CIP to be implemented in the years 2009 and 2010 and for only those projects that have potential substantive environmental effects to be implemented in 2011 through 2015. The descriptions of those projects scheduled to be implemented in 2011 through 2015 are preliminary and subject to change.

## Effects During Construction

Typical mitigation measures will be used during construction to minimize potential adverse environmental effects caused by the construction process, including noise, dust, and erosion. The environmental effects of construction are temporary and do not constitute cumulative, long-term effects. As a result the environmental effects from construction of projects in the CIP are not discussed in Section 3 of this document, which describes cumulative environmental effects.

The CIP includes the planned rehabilitation of MSP Runway 12L/30R in 2009. As discussed in detail in Appendix B, this does not require an EAW. However, during the project the Federal Aviation Administration (FAA) will temporarily reroute air traffic. MAC recognizes that the rerouting of aircraft traffic will cause temporary changes in over flight noise patterns for certain communities. During the Runway 12L/30R reconstruction, MAC anticipates that FAA will redistribute aircraft operations to other active MSP runways. This will result in increased arrival and departure operations on Runways 12R/30L, 4/22, and 17/35. MAC understands that FAA will employ departure procedures that minimize aircraft noise during the runway reconstruction. In addition, to encourage on-time completion of the project in the shortest time possible, the MAC construction contracts for the project will provide for significant liquidated damages if the contractor does not commence and complete construction as scheduled. Appendix B includes a detailed discussion of FAA's and MAC's efforts to minimize aircraft noise during the duration of the project.

Although the 12L/30R reconstruction project will modify runway use at MSP, the construction activities associated with the project are temporary and of short duration, will occur wholly within the airport boundary, and will not change the capacity of the airport. As a result, the project is exempt from environmental review under the Minnesota Environmental Policy Act (MEPA). In addition, after reviewing the project's effects in light of the requirements of the National Environmental Policy Act (NEPA) and its implementing regulations, FAA determined that the project meets the requirements for a Categorical Exclusion (Cat-Ex). A Cat-Ex is a category of actions that FAA has previously determined does not have a significant effect on the environment and does not require an EA or an

EIS. A detailed discussion of the potential environmental effects of the Runway 12L/30R reconstruction project is presented in Appendix B. A copy of FAA's Cat-Ex determination for the project is provided in Appendix C.

Section 3

# Cumulative Environmental Effects

An EAW, EA or EIS requires an assessment of cumulative effects. A cumulative effect is the effect on the environment that results from the incremental effect of a project in addition to other past, present, and reasonably foreseeable future project regardless of what entity or person undertakes the other projects. Cumulative effects may result from individually minor but collectively significant projects taking place over a period of time.

## MSP Projects

The effects of CIP projects in the MSP 2010 LTCP were addressed in the Dual Track Airport Planning Process Final EIS (Dual Track FEIS). The Dual Track FEIS assessed the cumulative environmental effects of the MSP 2010 LTCP and 2020 Concept Plan. The 2010 LTCP is the first-phase implementation of the 2020 Concept Plan and includes the new north-south runway and related projects, as well as interim improvements to the Lindbergh and Hubert H. Humphrey (HHH) terminals and parking. FAA and MAC circulated the Dual Track FEIS for public comment on May 7, 1998. FAA determined in its September 23, 1998 Record of Decision that the Dual Track FEIS, together with supporting documents and responses to comments on its adequacy, met the requirements of NEPA for projects in the MSP 2010 LTCP. On October 26, 1998, the Minnesota Environmental Quality Board (EQB) determined that the Dual Track FEIS met the requirements of MEPA.

The CIP also includes projects for MSP that were not included in the Dual Track FEIS. The CIP projects for MSP not included in the Dual Track FEIS but that have the potential for substantive environmental effects are evaluated in the 2015 Terminal Expansion Project Draft Environmental Assessment (EA). The 2015 Terminal Expansion Project Draft EA evaluates Phases 1 and 2 of the 2020 Development Program. MAC and FAA prepared the EA. Minnesota Rule 4410.1300, which implements MEPA, allows an EA to be circulated in place of a MEPA EAW so long as the EA addresses each of the environmental effects identified in the EAW form. The MAC is the responsible government unit under MEPA for the 2015 Terminal Expansion Project.

The 2015 Terminal Expansion Project EA addresses each of the environmental effects identified in the EAW form and therefore is the equivalent of an EAW under MEPA. In July 2005, MAC circulated the 2015 Terminal Expansion Project EA for public comment. In December 2005, the MAC determined that the 2015 Terminal Expansion Project EA met the requirements of a MEPA EAW. In addition, MAC determined that the 2015 Terminal Expansion Project did not have the potential for significant environmental effects, and that MAC need not prepare an EIS for the project under MEPA. The 2015 Terminal Expansion Project EA assessed the cumulative environmental effects for past, present and reasonably foreseeable future projects at MSP, including those MSP projects in the 2009 - 2015 CIP.

The major environmental impact of projects planned for implementation in the CIP at MSP is water quality. Projects that create additional impervious surface (runoff) or increase the generation of sewage/wastewater or the use of glycol in deicing aircraft may affect water quality, including groundwater and discharge to receiving waters.

The Taxiway C/D Complex project will result in additional impervious surface and therefore additional storm water runoff, which will be accommodated by existing storm water detention facilities. The Humphrey Parking Expansion project will result in an estimated additional emission of 60 tons of carbon monoxide (CO) annually, which is minimal since it is less than one-half of one percent of the existing annual CO emissions (approximately 20,670 tons). The project, in conjunction with the proposed expansion of the Humphrey Terminal, will also result in additional traffic on 34th Avenue South and congestion at the intersection with Airport Lane. The Airport Lane/34th Avenue Access Reconfiguration project will mitigate this impact. The parking expansion and Airport Lane reconfiguration will not have a significant effect on surface water runoff because these projects are being constructed on existing impervious surfaces.

The cumulative effects of the MSP projects in the CIP are as follows: The forecast of aircraft operations for the year 2015 in the 2015 Terminal Expansion Project Draft EA was the basis for determining the cumulative air emissions and noise values contained in the Draft EA for all past, present, and reasonably foreseeable future projects at MSP. The primary pollutant emission of concern from vehicular air and ground traffic is CO, because the Twin Cities Metropolitan Region is a designated maintenance area for CO under the Clean Air Act. CO emissions forecast in the 2015 Terminal Expansion Project EA would increase as compared with CO emissions in 2004. However, the 2015 forecast of aircraft operations is the same with the proposed projects evaluated in the 2015 Terminal Expansion Project EA as without the proposed projects (no action). Given the identical 2015 forecast aircraft operations, and because the MSP projects in the CIP and evaluated in the Terminal Expansion Project EA will reduce delays at terminal gates, the proposed projects will actually result in lower CO emissions in 2015 than under the no action alternative. Also, there would be slightly fewer persons adversely affected by aircraft noise in 2015 under the proposed projects as compared to no action (primarily as a result of changes in runway use).

By way of background, the four major watersheds on MSP property include approximately 2,700 acres, of which approximately 1,400 acres are covered with impervious surfaces. Surface water discharges to the airport storm sewer system consist primarily of storm water runoff. This storm water may come into contact with aircraft deicing fluids (ADF), pavement deicing chemicals, sand, and the residual effects of any unwanted releases (petroleum or otherwise) that have the potential to impact the storm water. The primary pollutant of concern is the carbonaceous biochemical oxygen demand (CBOD5) that is exerted on the receiving waters by the glycol component found in ADFs. The airport has a National Pollutant Discharge Elimination System (NPDES) Permit that regulates the discharge of CBOD5 to the receiving waters.

Over the last 15 years the airport has invested well in excess of $150 million dollars in capital improvements and best management practices to help minimize the impact of airport operations on the quality of storm water discharge. The improvements include plug and pump contained deicing locations, dedicated deicing pads, contained snow melters, glycol recovery vehicles, state-of-the-art deicing equipment, pavement brooming equipment, storm water retention ponds, a new glycol management facility, elimination of urea usage, and other measures to reduce the impacts of airport operations on the receiving waters. These efforts have helped to achieve an over 80 percent reduction in CBOD5 discharge to the receiving waters.

The proposed CIP projects would have limited impact on surface water discharges from MSP. The various project sites are located primarily on previously developed, impervious areas. The CIP projects will add fewer than five acres of impervious surfaces to MSP. This added impervious area is negligible compared to the 1,400 acres of existing impervious area at MSP. As previously noted, existing detention ponds will accommodate any additional storm water runoff that the proposed CIP projects generate.

The proposed projects will have no impact on the groundwater or the hydro-geologic conditions at MSP. Construction activity related to the projects is not anticipated to occur at depths that would

penetrate the Glenwood Shale confining layer. If construction penetrates the confining layer, engineered controls will be used to re-establish existing confining conditions (thus preventing vertical migration of groundwater) and to either contain or divert groundwater flow in the immediate area. These construction practices have been employed successfully during past construction projects at MSP. There are no known groundwater impacts in the area of the CIP projects for MSP. The CIP projects may have minor hydro-geologic effects on the local groundwater, but they are not expected to have a significant effect on hydro-geologic conditions at MSP.

Expansion of the MSP terminals would require an expansion of the existing fuel hydrant system. Although this would not affect the groundwater, it does create a potential source of groundwater impacts should the hydrant system have an unwanted release. Leak detection equipment, system maintenance procedures, and best management practices currently employed with the MSP hydrant system would be applied to the new system to ensure that the potential for undesired releases is minimized.

Wastewater discharges from MSP are conveyed to the MCES Metro Plant on Childs Road. This plant has a design capacity of 250 million gallons per day (MGD). The proposed projects are expected to increase passenger loads by approximately 50 percent between 2004 and 2015. This passenger growth will be accompanied by an approximately equivalent increase in wastewater discharges.

Wastewater is discharged to the Metro Plant through the MCES sewer interceptor system. Discharges from MSP are conveyed to the interceptor system through three different sewer systems. The majority is discharged from the airport to a tunnel near the Mississippi River that discharges into the interceptor system. A small volume of wastewater is discharged into the City of Minneapolis sewer system prior to reaching the MCES interceptors. Wastewater from the south west portion of MSP is discharged through the City of Richfield sewer system prior to reaching the MCES interceptors.

The estimated 50 percent increase in passenger loads is predicted to increase the daily sanitary discharge volume by approximately 0.35 MGD. This increase would be conveyed through the “tunnel” and Richfield systems. Assuming a 2.5 peak loading factor, this would amount to a peak addition of approximately 37,000 gallons per hour. This increase in loading is not expected to be an issue with the Metro Plant’s total capacity, because the increase amounts to less than 0.2 percent of the plant’s daily treatment capacity. However, there could be potential issues with the wet-weather conveyance capacity of the interceptor system from other municipal sources. The MCES has informed MAC staff and consultants that there is sufficient dry-weather capacity in the MCES interceptor system to handle the proposed increase in flow (see discussion below regarding wet-weather capacity). In addition, the Richfield system is oversized to provide options for the City of Bloomington to divert their discharges through the Richfield system to the Metro Plant if Bloomington’s conveyance to the Seneca Treatment Facility is obstructed. Recent upgrades to the Bloomington conveyance system make Bloomington’s use of the Richfield system unlikely. Therefore, the Richfield system should have adequate capacity.

Currently, the City of Minneapolis and the MCES have been working diligently to reduce the combined sewer overflow (CSO) problems that exist within the sanitary sewer network. Due to old infrastructure in and around the city, certain storm sewers are conveyed into the sanitary system, which can overwhelm the system and cause spilling out into the Mississippi River during significant precipitation events. Any additional wastewater conveyed through the system during a potential CSO condition will add to the total volume of flow and therefore potentially increase the frequency of CSOs. Any amount of development in areas served by the City of Minneapolis interceptor, including airport growth, may exacerbate the problem. Although the issue is not unique to airport growth, MAC is considering the matter in future planning for MSP.

Whether or not the proposed CIP projects for MSP are implemented, the MAC-owned sanitary sewer infrastructure may require upgrades to convey the higher volume of wastewater from the Lindbergh and/or Humphrey Terminals (upstream of the “tunnel” and Richfield systems). As it makes

development decisions, MAC will evaluate the existing capacity of the MAC-owned sanitary sewer system to determine where and when capacity limitations may be encountered.

## Anoka County – Blaine Reliever Airport Projects

MAC and FAA prepared and approved a Final EIS for the Anoka County-Blaine reliever airport in January 2003. The Final EIS included the East and West Annex Building Area projects that are a part of the CIP. These projects may affect water quality and wetlands by increasing impervious surface area, which will result in increased storm water runoff. To protect wetland areas, storm water detention ponds or ditches will accommodate the increased runoff. Wetlands impacted by construction will be mitigated according to watershed district and/or Minnesota DNR requirements. These projects will proceed only if funding from sources other than MAC can be found.

The East Building Area Annex project is planned for 2011. MAC will complete the necessary environmental studies prior to implementation of the project.

## Airlake Reliever Airport Projects

MAC recently completed an update to the Long-Term Comprehensive Plan for the Airlake Airport. The recommendation in the plan includes a south building area development and the extension of Runway 12/30 from 4,098-feet to 5,000-feet. MAC prepared an EAW for the Airlake Airport South Building Area Development project in January 1999. The EAW addressed the storm water runoff and designated trout stream impacts. In 2001, the initial grading for the building area was completed with the construction of a storm water detention pond to capture runoff before it enters the designated trout stream. The trout stream was also relocated under a permit by the Minnesota DNR as part of the project. The second phase of construction is scheduled for completion in 2010. It will involve the placement of aggregate base and asphalt material for the hangar area taxilanes, along with the installation of sanitary sewer and water services. This work was also evaluated in the 1999 EAW.

The Long-Term Comprehensive Plan for the airport is currently under review by the Metropolitan Council. Should the Council approve the plan, MAC will determine the appropriate schedule and identify funding sources for implementation of the proposed runway extension. MAC will not proceed with the runway extension project until the necessary environmental review is completed.

## Lake Elmo Reliever Airport Projects

MAC recently completed an update to the Long-Term Comprehensive Plan for the Lake Elmo Airport. The recommendation in the plan includes the construction of the East Building Area and extension of Runway 4/22 from 2,499-feet to 3,200-feet. MAC prepared an EAW for the East Building Area development in October 2001. The document identified increased storm water runoff, the removal of approximately thirty-two acres of farmland on MAC property, and an impact of 0.016-acres to a 3.30-acre Type 3 (small, shallow) wetland. As with past airport projects, MAC will design the project to accommodate the storm water runoff onsite and will obtain all environmental permits necessary to implement the project.

The Long-Term Comprehensive Plan for the airport is currently under review by the Metropolitan Council. Should the Council approve the plan, MAC will determine the appropriate schedule and identify funding sources for implementation of the proposed runway extension. MAC will not proceed with the runway extension project until the necessary environmental review is completed.

The CIP for the airport also includes a project, scheduled for 2010, to reconstruct Runway 14-32. The reconstruction project will not physically alter the original size of the runway.

## Crystal Reliever Airport Projects

MAC recently completed an update to the Long-Term Comprehensive Plan for the Crystal Airport. The recommendation in that plan is to close two of the airport's four runways. At this time, the document is under review by the Metropolitan Council. Should the document be accepted by the Metropolitan Council, MAC will determine the best course of action for implementing the long-term plan. The FAA must also approve the proposed runway closures.

The CIP includes the Runway 14R-32L Modifications project, scheduled for 2010. This project involves the reconstruction of the existing runway pavement into a taxiway. This project will not be implemented until the necessary approvals and environmental study associated with the runway closure are completed.

## Flying Cloud Reliever Airport Projects

In June 2004, MAC and FAA prepared and approved a Final EIS that included the Runway 10R/28L Widening/Extension and South Building Area Development projects. The projects will affect water quality, land use, noise and air quality. However, as documented in the Final EIS, the effects of the projects do not exceed state and federal standards or thresholds. Approximately 258 acres of land have been acquired to prevent development incompatible with the operation of the airport. To improve airfield safety, eleven historic hangars will be demolished. An agreement has been executed between the MAC and the State Historic Preservation Office (SHPO) regarding the appropriate mitigation for the hangar demolition.

In February 2006, the Minnesota Environmental Quality Board (EQB) determined that the Final EIS was adequate and satisfied the requirements of MEPA. Following review of the June 2004 Final EIS and a May 2008 written evaluation of the Final EIS, the FAA in May 2008 issued a Record of Decision approving the Final EIS and the associated airport expansion.

## St. Paul Downtown Reliever Airport Projects

In January 2006, the MAC and FAA prepared a Final EA for the Perimeter Dike and Runway Safety Area Improvements Projects. The Perimeter Dike project is nearing completion. The CIP also includes the Runway Safety Area Improvements project. The project, which is presently under construction, involves the installation of an Engineered Material Arresting System (EMAS) at both ends of Runway 14/32, the relocation of the Runway 32 localizer antenna, and minor modifications to some Runway 14 instrument landing system aids.

# Appendix A

## Description of Projects in the 2009 – 2015 Capital Improvement Program

# Figure A-1

## MSP Projects with Potential Environmental Effects

### Minneapolis - St. Paul International Airport
### 2009-2015


**Project Schedule**

**2009**

Taxiway C/D Complex

Airport Lane/34th Ave. Access Reconfiguration

*Noise Mitigation Settlement*

**2010**

Taxiway C/D Complex

*Noise Mitigation Settlement*

**2011**

North Side Storm Sewer

*Noise Mitigation Settlement*

**2012**

Humphrey **Purple** Ramp Outrigger Addition

Humphrey Terminal North Expansion

Humphrey Fuel Facility Relocation

Auto Rental Facilities

*Noise Mitigation Settlement*

**2013**

Humphrey Terminal North Expansion

*Noise Mitigation Settlement*

**2014**

Humphrey **Orange** Ramp Outrigger Addition

*Noise Mitigation Settlement*

**2015**

None for MSP

*Projects in italics are not shown on map*

## 2010 Development Program

### Noise Mitigation Program

Noise Mitigation Settlement $18,000,000

The project implements the noise mitigation program based on the 2007 Noise Exposure Map contained in the Part 150 Update, consistent with the terms and conditions of the court-ordered Consent Decree.

### Taxiway C/D Complex Construction

Taxiway C/D Complex (see Figure A-1) $6,500,000

This project will be the fifth phase in a multi-phase program to reconstruct and reconfigure Taxiways C and D between Taxiway A and Taxiway P. The ultimate location for Taxiways C and D will provide for Group V aircraft on both taxiways, which is a significant improvement over the existing geometrics that limit the aircraft wingspan allowed. In addition, the existing Taxiway D pavement has reached the end of its useful life, presents a Foreign Object Damage (FOD) potential, and therefore needs reconstruction. This project includes the reconstruction and relocation of a segment of Taxiway D from Taxiway H to Taxiway C6 including the reconstruction of Taxiway C5. This project is shown also in Figure A-2.

### Airfield Rehabilitation Program

Airside Bituminous Rehabilitation $500,000

This is an ongoing program to construct or reconstruct bituminous pavements within the Air Operations Area. Due to increased bus traffic and accelerated deterioration, it is proposed to reconstruct and strengthen a segment of the airport perimeter service road parallel to Taxiway S along with other airfield areas in need of bituminous repair.

Pavement Joint Sealing/Repair $500,000

This is an ongoing program to provide for the resealing of joints in existing concrete pavements. The project also provides for limited crack and surface repairs. This year's project includes segments on each end of Runway 12L/30R. The work will coincide with the closure of Runway 12L/30R for reconstruction.

### Runway Rehabilitation Program

Taxiway P Reconstruction (see Appendix B) $1,800,000

This project provides for the reconstruction of Taxiway P from Taxiway P3 to Taxiway P4. The existing concrete pavement is 12-inches in thickness versus the 16-inches on all other taxiways and was installed in1967. This pavement has reached its useful life and is in need of reconstruction. The north edge of the taxiway will also be widened to align with Taxiway P west of Runway 4/22. This project will

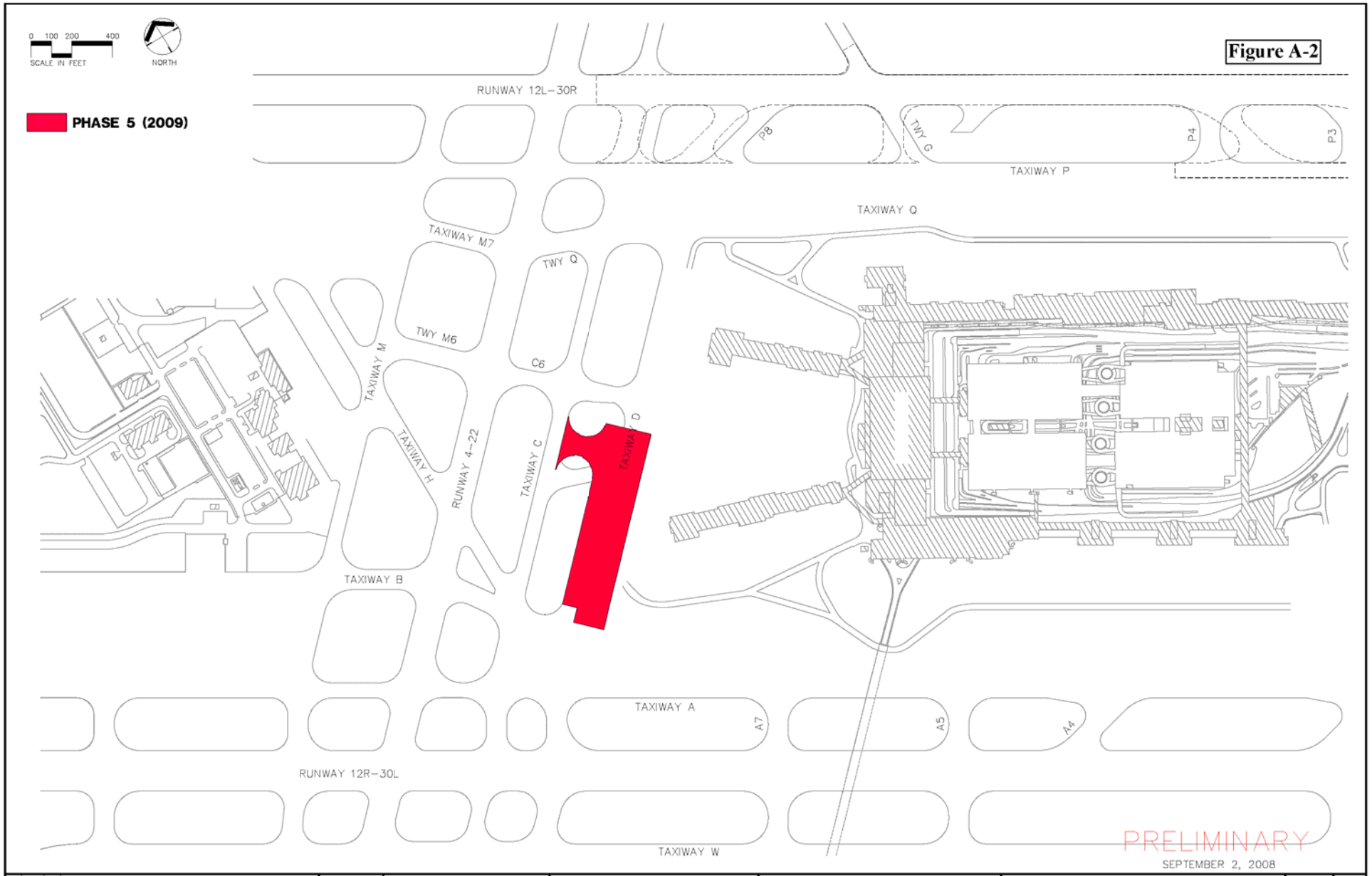


Figure A-2
0 100 200 400
SCALE IN FEET
NORTH
PHASE 5 (2009)
RUNWAY 12L–30R
TAXIWAY P
TWY G
P8
P4
P3
TAXIWAY Q
TAXIWAY M7
TWY Q
TWY M6
C6
TAXIWAY M
TAXIWAY H
RUNWAY 4–22
TAXIWAY C
TAXIWAY D
TAXIWAY B
TAXIWAY A
A7
A5
A4
RUNWAY 12R–30L
TAXIWAY W
PRELIMINARY
SEPTEMBER 2, 2008
NO. DATE BY DESCRIPTION OF REVISIONS
DESIGNED
DRAWN
CHECKED
I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA
XXX XX, XXXX
NAME
LIC. NO. 00000
TKDA
ENGINEERS•ARCHITECTS•PLANNERS
Metropolitan Airports Commission
GENERAL OFFICES
6040–28TH AVENUE SOUTH
MINNEAPOLIS, MINN. 55450
CONSTRUCTION STAGING PLAN
TAXIWAY C–D COMPLEX
PROJ. NO. 14104
MSP
DRAWING NO. 2008

be the final phase in the reconstruction of the taxiway and will be located between Taxiways P3 and P4. The required closure for Taxiway P for construction will coincide with the proposed Runway 12L/30R runway closure and reconstruction.

Pavement Rehabilitation – Runway 12L/30R Seg. 2 (see Appendix B) $23,700,000

This project provides for the reconstruction of the middle section of Runway 12L/30R located between Runway 4/22 and Taxiway P3 and associated taxiway connectors. This segment of the runway is made up of two pavement sections originally constructed in 1967. The existing concrete pavement is only 10 to 16 inches thick compared to the 20-inches on all other runways. The existing bituminous section is a 4 to 6 inch overlay on 10 to 12-inch concrete. Both require year-round maintenance and a significant amount of rehabilitation every two to three years. The pavement has reached the end of its useful life, presents a Foreign Object Damage (FOD) potential, and therefore needs reconstruction. Reconstruction will result in a pavement section matching other runways and will include significant subgrade work to provide the necessary pavement strength long-term. Reconstruction of the two end segments was completed in previous years with Segment 2 being the final section of pavement requiring reconstruction.

Natural Gas Main Replacement $300,000 **

In conjunction with the reconstruction of Runway 12L/30R, MAC will be working with Center Point Energy to replace approximately 1300 feet of 10-inch high pressure natural gas main with a new 12-inch main. MAC contractors will provide the excavation required for the new main and Center Point contractors will install the new main. Center Point will reimburse the MAC for the excavation costs.

**Center Point Energy to provide 100% funding for this project.

Landside Rehabilitation & Repair Program

Landside Pavement Rehabilitation $400,000

This is an ongoing program to reconstruct the airport's roadways and parking lots. Proposed work includes the seal coating or micropaving of the parking lot at the General Office as well as the employee parking lot on Post Road. Other pavements will be evaluated in the spring of 2009 to determine whether additional pavement repair is needed.

Parking Structure Rehabilitation $3,000,000

This is an ongoing program to maintain the integrity of the airport's multi-level parking structures. Projects typically include concrete repair, joint sealant replacement, expansion joint repairs, concrete sealing and lighting improvements. This project will implement recommendations made in the "Condition Assessment and Management Program Report" completed in 2007 as well as include additional repairs that are required.

Terminal Modifications $2,000,000

Each year, MAC staff compiles a list of "maintenance" projects that are beyond the capability of the MAC's maintenance staff. These projects are then prioritized and completed either as a series of contracts or as purchase orders. A list was compiled for 2008 and any projects that did not fit within the budget will be carried over into 2009. New projects will be discussed in early 2009.

Summarized below are the categories of the projects which are included in the Terminal Modifications program:

Building Exterior Rehabilitation *

This is a continuation of the program to rehabilitate the exterior of the Lindbergh Terminal and other MAC buildings including roof and curtain wall rehabilitation.

Terminal Electrical Modifications *

This is an ongoing program to address electrical issues in the terminals due to age and deterioration of the existing systems or modifications necessary for improved reliability.

Terminal Mechanical Modifications *

This is an ongoing program to address mechanical issues in the terminals due to age and deterioration of the existing systems or modifications necessary for improved reliability.

Terminal Miscellaneous Modifications *

This is an ongoing program to update and remodel areas within the terminals to keep abreast with changing requirements. This may be accomplished through a series of small individual projects to meet the requirements of the various tenants or may be consolidated into a single project.

Humphrey Terminal & MSP Campus Modifications *

This is an ongoing program to modify or remodel areas within the West Terminal Complex, the Humphrey Terminal and other facilities around the MSP Campus to meet the needs of the various tenants/general public/MAC departments utilizing the facilities

*Historically, projects have been defined for each of these five categories. With reduced dollars available to fund non-revenue generating projects, a total dollar allocation of $2,000,000 has been allocated to fund the highest priority projects within any of these project categories.

## Reliever Airport Program

### CRYSTAL

Alleyway Rehabilitation $350,000

This is an ongoing program to rehabilitate aircraft operational areas (runways, taxiways, aprons) through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. This project will include reconstruction of taxilanes in portions of the west and south building areas and will also include any necessary airfield crack repairs. This project represents a preservation project in the Reliever funding model that is to be funded by the $0.05 surcharge being collected from the tenants.

### FLYING CLOUD

Alleyway Rehabilitation $415,000

This is an ongoing program to rehabilitate aircraft operational areas (runways, taxiways, aprons) through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to

a smooth, even condition and improve overall operating conditions. This project will include the reconstruction of taxilanes in a portion of the north building area and will include any necessary airfield crack repairs. This project represents a preservation project in the Reliever funding model that is to be funded by the $0.05 surcharge being collected from the tenants.

Hangar/Building Removal $300,000

Two rows of hangars on Mustang Lane are obstructions to the existing and ultimate approach to Runway 28L and require removal per FAA standards prior to opening the extended runway at 5,000 feet. This project is one phase of a multi-phase airport improvement program.

Runway 10R/28L Widening/Extension $12,750,000

This project includes the construction of a 1,200 foot extension to Runway 10R/28L along with the widening of the existing runway pavement from 75 feet to 100 feet. The project also includes the relocation of the VOR, MALSR, and glide slope equipment via a FAA reimbursable agreement, and guidance sign relocations to reflect the extended runway length. This is the second runway project in the multi-phase airport improvement program. This project is shown also in Figure A-3.

South Building Area Development $600,000 **

This project will provide for the initial grading of the new South Building Area that must be completed with the extension of Runway 10R/28L.

**Funding for this project is to be provided by others.

LAKE ELMO

Pavement Rehabilitation $500,000

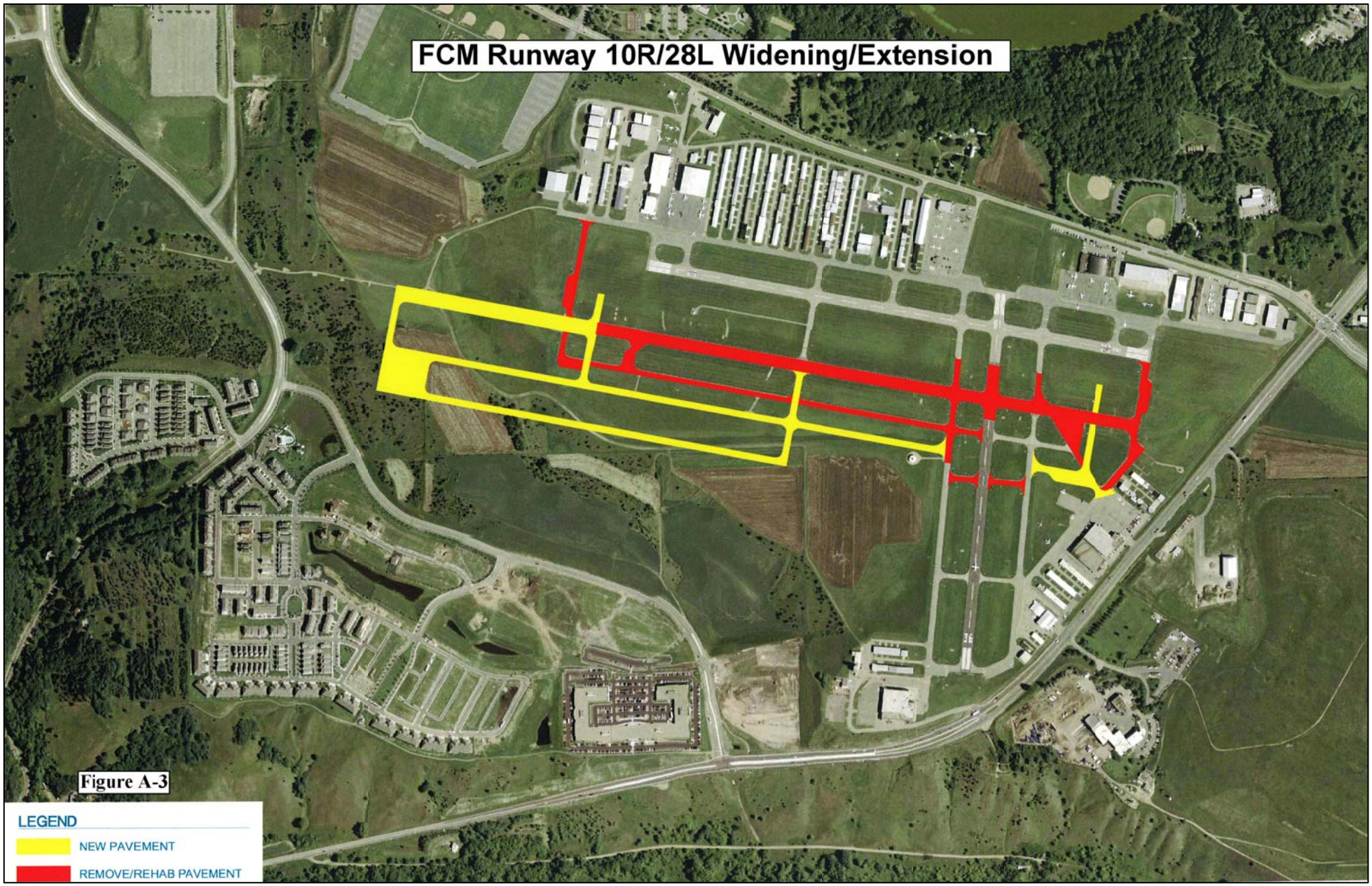
This is an ongoing program to rehabilitate aircraft operational areas (runways, taxiways, aprons) through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. This project will include reconstruction of the airfield apron/run-up area in front of the MAC maintenance building and replacement of the pavement on the main entrance road and loop. This project will also include required airfield crack repairs.

Reliever Airports Utility Extension Program

AIRLAKE

Plane Wash & Restroom Facilities $200,000

This project will include the construction of an airplane washing facility and a common use restroom facility west of the MAC maintenance building. This project is contingent upon the City of Lakeville and Eureka Township resolving issues regarding sanitary sewer and water main installation.


FCM Runway 10R/28L Widening/Extension
Figure A-3
LEGEND
NEW PAVEMENT
REMOVE/REHAB PAVEMENT

### Miscellaneous Field and Runway Program

Miscellaneous Airfield Construction $400,000

This is an ongoing program to consolidate various incidental items beyond the capabilities of the maintenance personnel, projects too small to be accomplished independently or to handle airside problems requiring repair which come up unexpectedly.

## Post 2010 Program Projects

### 10 – Lindbergh Terminal

SAFETY/SECURITY PROJECTS

Elevator Modifications $1,350,000

The new Minnesota Elevator Code that has been adopted will require the upgrade of existing MAC facilities. Work will include modifications to the fireman's service operation, the replacement/modification of hydraulic cylinders, escalator skirt modifications, adding signage to machine/equipment rooms, installation of escalator safety brushes, and the replacement of elevator car door glass panels.

Lindbergh Terminal In-line Baggage Screening Expansion $25,500,000 **

This project will begin Phase 2 of a 3 phase program to provide the Lindbergh Terminal with an automated, in-line Explosives Detection System (EDS). Phase 2 will provide a replacement building and in-line, automated EDS system for the Lindbergh Terminal's existing "bus-stop" semi-automated system. This upgrade will improve baggage screening, overall system reliability, and reduce labor costs.

**Project grant application has been forwarded to TSA for 100% reimbursement of costs. Project will only proceed if TSA grant is approved.

Check Point /Passenger Screening Improvements $300,000

This is an on-going project to accommodate changing technologies, space requirements, and amenities for the travelling public and employees utilizing screening areas. While the check points are controlled and operated by TSA, the passenger queues are in MAC space. This program will allow additional design assistance to the TSA to accomplish screening goals utilizing new technologies and construction of MAC desired passenger screening amenities including seating and tables, improvements to screening rooms, and TSA unfunded mandates.

FACILITY REHABILITATION

Tug Drive Floor Repair $2,100,000

The membrane waterproofing system on the tug drive floor is deteriorating and coming apart in various areas or has been damaged allowing water to leak into work areas, electrical vault rooms, the valet garage and other operational areas. The membrane system is nearing the end of its designated life of 5 years and will be replaced in a phased program.

Electrical Infrastructure Rehab Program $2,400,000

There are fifty-three electrical substations that serve the Lindbergh Terminal complex. It is imperative that these substations be inspected, cleaned and upgraded in order to ensure their continued performance. This is the second phase in a three phase program that began in 2008.

Emergency Power Upgrades $1,950,000

Field surveys of existing Lindbergh Terminal emergency power system components will be completed. The capabilities/limits of the existing Lindbergh Terminal generator and transfer switch control and monitoring will be studied. In addition, the emergency lighting within the Lindbergh Terminal will be evaluated to determine if the existing emergency lighting provides the current code required minimum light levels. Based on the results of the surveys and studies, corrective work to the emergency power and lighting systems will be implemented.

Concourse E and F Floor Rehabilitation $1,800,000

The concrete slab and expansion joints on Concourses E and F are being damaged and failing due to the age of the floor and the cart and delivery traffic. The repair and replacement would be similar in scope to work completed by MAC on Concourse C and by Northwest Airlines on Concourse G and would include the main walkway areas, not the gate-hold rooms. This project will be phased over a three year period.

APM Tunnel Piping/Pump Replacement $350,000

The galvanized piping and sump pumps that remove groundwater from the APM tunnel are corroding due to the mineral content of the groundwater and its chemical reaction with the pipe and pump materials. This project will replace approximately 3,000 feet of 4-inch and 6-inch galvanized piping with Schedule 80 PVC pipe as well as replacement of ten sump pumps and basin liners.

LT Folded Plate Drain and Overflow Repair $1,500,000

Drains in the folded plate roof in the Lindbergh Terminal have deteriorated resulting in several water leaks. Long-term water infiltration through the folded plate roof structure will result in further deterioration and will shorten the life of the structure. This project will repair the existing drains in the folded plate with a membrane and liner that will prolong the life of the structure.

PASSENGER AMENITIES

Electric Video Information Display System (EVIDS) Installation $450,000

This project will install Electronic Video Information Display Systems (EVIDS) at all Lindbergh Terminal checkpoints. The EVIDS will provide passengers awaiting screening with static and dynamic information. The EVIDS would replace all of the existing TSA and regulatory signage at the checkpoints, provide additional information for passengers waiting to be screened, and allow the MAC to provide visual paging at these locations.

MUFIDS – Phase 2 $6,500,000

The Multi-User Flight Information Display System (MUFIDS) provides MSP travelers with up-to-date arrival and departure information for all airlines at the Lindbergh Terminal. A Phase 1 pilot project was completed in 2008 in both the Lindbergh and Humphrey Terminals. The second phase of the MUFIDs program will build on the technology and software purchased with Phase 1.

OPERATIONAL IMPROVEMENTS

Open Architecture Building Automation (OABA) $1,900,000

This project will upgrade all MAC building automation systems to the LonMark open protocol so that the airport can bid maintenance and construction contracts more competitively. This project will replace Siemens controllers and legacy Honeywell controllers with LonMark controllers from Honeywell, Circon, Distech, or TAC systems that are all LonMark certified product lines. This project is the second in a three year phased program.

13 - Energy Management Center

Energy Savings Projects $2,000,000

A program was initiated in 2002 to provide for the implementation of projects that would save the Commission energy costs in its operating budget. Discussions with both Xcel and Reliant have identified additional projects that are eligible for energy saving rebates and will save the Commission additional energy costs. Due to the long-term cost savings associated with energy savings projects, the budget for this program has been increased from the $1,000,000 budgeted for in previous years.

21 - Field and Runway

Perimeter Fence/Gate Barrier System $550,000

This project is part of a phased program to strengthen the perimeter security fence and airfield access gates. Proposed work includes the installation of the final segments of fence with reinforcement of the existing chain link fence with steel cables, and in specified locations, welded wire mesh on concrete barriers.

Sanitary Sewer/Manhole Repair – Runway 12L $600,000

The 12-inch sanitary sewer that is located in the approach to Runway 12L was constructed in 1948 utilizing vitrified clay pipe and brick and mortar manholes. Cleaning of this sewer has been hindered by blockages in the pipe and this line was televised to determine the condition of the pipe. The televising report indicated cracked and broken sections of pipe. A complete replacement of the pipe and manholes is being considered versus repairing only those pipe sections that have deteriorated. It is proposed to complete this project while the reconstruction of Runway 12L/30R is in process and the runway is closed.

ASR Shadow Mitigation $100,000

The Airport Surveillance Radar (ASR) provides FAA approach and departure control and air traffic with aircraft separation information for a 40-mile radius around MSP. This is a vital tool in FAA's arsenal to provide safe separation of aircraft using MSP and the surrounding airports. The radar is a line-of-sight technology and as such it's signal is impacted by building structures and other physical impediments that can block the signal; posing risk to aircraft that are being handled by the MSP controllers. This project is to provide mitigation technology in concert with the FAA for present and future planned airport and off-airport building shadows that would impact the ASR capability and aviation safety.

Runway Status Lights (RWSL) $300,000**

In an effort to further improve airfield safety and reduce the potential for runway incursions, the Federal Aviation Administration (FAA) has selected MSP along with several other major airports for the installation of a Runway Status Light (RWSL) system that signals pilots when a runway is safe to enter. MAC has been working cooperatively with the FAA to plan for the installation of the lighting system that primarily consists of in-pavement lights. It is proposed to take advantage of next year's Runway 12L/30R reconstruction project to install a portion of the system, with the remaining lights to be installed and operational by 2011. The FAA is funding the total system and will own, operate and maintain the system.

**Funding by FAA.

## 26 - Terminal Roads/Landside

Tunnel/Bridge Rehabilitation $100,000

A Bridge and Tunnel Safety Inspections Report was prepared in 2007. The report outlines structural maintenance recommendations for the bridges and tunnels at MSP to be implemented. While there were no immediate structural repairs required, an annual project for bridge and tunnel maintenance will continue in 2009.

## 31 – Parking

Lindbergh Terminal – New Parking Entrance/Transit Gate $200,000

During peak parking demand periods (typically Monday and Tuesday mornings), a bottleneck at the Lindbergh General Parking entrance occurs and backs cars up into the inbound roadway. This project would reconfigure the entrance such that an additional entrance lane and revenue control gate will be established. This additional lane would also provide needed capacity and critical redundancy should there be a lane failure. This project will also add an access/revenue control gate to the adjacent entrance to the Lindbergh Terminal Transit Center to regulate and control the vehicle traffic to this area. The Transit Center was designed for commercial bus loading and unloading and the added traffic from personal vehicles is a safety hazard to these operations.

Valet Car Wash Equipment Replacement $250,000

The existing car wash equipment in the valet garage is 14 years old and has reached the end of its useful life. The car wash has been important to customer service and the new equipment will ensure that this service will not be impacted by continued equipment failure.

Valet Garage Flammable Waste Traps/Floor Drains $200,000

The valet garage utilizes a series of floor drains to collect water from melting snow and other sources of drainage. Currently, there is only one floor drain that drains into a flammable trap, a device that collects sand, oil, grease or flammable liquids. These materials either float or settle, thus trapping it, and draining only the water layer to the sanitary sewer. This project will rebuild several of the existing floor drains and connect all floor drains to new flammable waste traps.

39 – Public Areas/Roads

Airport Lane/34th Ave. Access Reconfiguration (see Figure A-1) $1,600,000**

The access from 34th Avenue and Airport Lane does not meet current traffic engineering standards. This project will realign the access to conform to standards for similar types of intersections. Mn/DOT will be providing $500,000 to assist with the reconfiguration of the intersection.

**Mn/DOT to reimburse MAC $500,000 for this project.

Inbound/Outbound Road Electrical Pedestal Retrofit $150,000

There are 138 electrical pedestals located adjacent to the inbound and outbound roadways at the Lindbergh Terminal. These pedestals provide electrical service for repairs and for the ornamental lighting that is installed in the trees in the roadway median. The existing pedestals have corroded to the extent that the electrical service is being compromised. This project will rehabilitate and repair the pedestals.

63 – Police

CCTV Program – Level 3 Upgrade $1,125,000

This is an ongoing program to add new and upgrade existing CCTV systems to ensure the safety and security of MSP. The majority of the areas within the terminals, concourses, and parking areas have adequate coverage. There are, however, areas that need upgraded coverage such as terminal entry and exits, passenger gathering points, queuing areas, and inside passenger tram cars. The expanded coverage will provide for valuable real-time viewing for proper response as well as recorded video for investigation and evidentiary purposes.

Security Gate 104 Power Retrofit $300,000

Gate 104 is currently a “locked” gate. The Fire Department has requested that this gate be modified to an automatic gate to accommodate emergency response activities including police, fire and EMS.

81 - St. Paul

Float Plane Stairway $75,000

This project provides for the replacement of the existing float plane stairway at the St. Paul Downtown airport. This project was identified as necessary in the permitting of the perimeter floodwall protection project.

## 2010 Development Program

### Noise Mitigation Program

Noise Mitigation Settlement $44,400,000

This project is a continuation of the implementation of the noise mitigation program based on the 2007 Noise Exposure Map contained in the Part 150 Update, consistent with the terms and conditions of the court-ordered Consent Decree.

### Taxiway C/D Complex Construction

Taxiway C/D Complex (see Figure A-1) $6,000,000

This project will be the last phase in a multi-phase program to reconstruct and reconfigure Taxiways C and D between Taxiway A and Taxiway P. The ultimate location for Taxiways C and D will provide for Group V aircraft on both taxiways which is a significant improvement over the existing geometrics that limit the aircraft wingspan allowed. This project includes reconstruction and relocation of a segment of Taxiway D from Taxiway C5 to Taxiway P and associated crossover taxiways. In addition, the existing Taxiway D pavement has reached the end of its useful life, presents a Foreign Object Damage (FOD) potential, and needs reconstruction.

### Airfield Rehabilitation Program

Airside Bituminous Rehabilitation $500,000

This is an ongoing program to construct or reconstruct bituminous pavements within the Air Operations Area. Inspection of taxiway pavements and other airfield areas will be made to determine whether or not a bituminous repair project is required.

Pavement Rehabilitation – Aprons $1,900,000

This is an ongoing program to replace sections of concrete pavement in the aircraft operational areas that have deteriorated to a point where maintenance is no longer a viable option. The 2010 project will replace approximately 7,000 square yards of concrete apron located adjacent to Concourse C between Gates D6 and C3.

Pavement Joint Sealing/Repair $500,000

This is an ongoing program to provide for the resealing of joints in existing concrete pavements. The areas scheduled for sealing in 2010 include the southwest apron areas on Concourse F. This project also provides for limited crack and surface repairs.

## Landside Rehabilitation & Repair Program

Landside Pavement Rehabilitation $400,000

This is an ongoing program to reconstruct the airport's roadways and parking lots. A specific project has not been identified at this time. Pavements will be evaluated in the spring of 2010 to determine whether a pavement repair project is needed.

Parking Structure Rehabilitation $3,000,000

This is an ongoing program to maintain the integrity of the airport's multi-level parking structures. Projects typically include concrete repair, joint sealant replacement, expansion joint repairs, concrete sealing and lighting improvements. This project will implement recommendations made in the "Condition Assessment and Management Program Report" completed in 2007 as well as new areas that require repair based on new visual inspections.

Terminal Modifications $2,000,000

Each year, MAC staff compiles a list of "maintenance" projects that are beyond the capability of the MAC's maintenance staff. These projects are then prioritized and completed either as a series of contracts or as purchase orders. A list will be compiled for 2009 and any projects that do not fit within the budget will be carried over into 2010. New projects will be discussed in early 2010.

Summarized below are the categories of the projects which are included in the Terminal Modifications program:

Building Exterior Rehabilitation *

This is a continuation of the program to rehabilitate the exterior of the Lindbergh Terminal and other MAC buildings including roof and curtain wall rehabilitation.

Terminal Electrical Modifications *

This is an ongoing program to address electrical issues in the terminals due to age and deterioration of the existing systems or modifications necessary for improved reliability.

Terminal Mechanical Modifications *

This is an ongoing program to address mechanical issues in the terminals due to age and deterioration of the existing systems or modifications necessary for improved reliability.

Terminal Miscellaneous Modifications *

This is an ongoing program to update and remodel areas within the terminals to keep abreast with changing requirements. This may be accomplished through a series of small individual projects to meet the requirements of the various tenants or may be consolidated into a single project.

Humphrey Terminal & MSP Campus Modifications *

This is an ongoing program to modify or remodel areas within the West Terminal Complex, the Humphrey Terminal and other facilities around the MSP Campus to meet the needs of the various tenants/general public/MAC departments utilizing the facilities

*Historically, projects have been defined for each of these five categories. With reduced dollars available to fund non-revenue generating projects, a total dollar allocation of $2,000,000 has been allocated to fund the highest priority projects within any of these project categories.

## Reliever Airport Program

AIRLAKE

South Building Area Development $2,500,000 **

This project will provide for alleyway construction, including aggregate base and bituminous pavements, along with the installation of sanitary sewer and water main including a stand alone restroom facility and fire protection hydrant line. The project also includes paving a section of 225th Street that will then connect to Cedar Avenue.

** Funding for this project to be provided by others.

Pavement Rehabilitation $200,000

As part of the ongoing pavement rehabilitation program and use of non-primary entitlement funds, it is expected a pavement rehabilitation project will be needed for the runway and taxiways.

ANOKA COUNTY – BLAINE

Pavement Rehabilitation $1,000,000

This is an ongoing program to rehabilitate aircraft operational areas (runways, taxiways, aprons) through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. This project includes the reconstruction of Taxiway Alpha south of Runway 36, with sub grade rehabilitation, if necessary. The pavement is reaching the end of its useful life and needs reconstruction.

CRYSTAL

Pavement Rehabilitation $600,000

This is an ongoing program to rehabilitate aircraft operational areas (runways, taxiways, aprons) through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. This project will include rehabilitation of portions of Taxiway Charlie and all of Taxiway Bravo that are near failure. Costs include subgrade rehabilitation, if necessary, in addition to replacement of the pavement. Other segments of these two taxiways will be crack sealed as necessary.

Runway 14R/32L Modifications $1,000,000

As defined in the Long-Term Comprehensive Plan update, this project will include closure of Runway 14R/32L and reconstruction of the pavement into a parallel taxiway. Portions of the Taxiway Echo connectors will also be reconstructed. The pavement is only 2-inches thick, is fully cracked and crumbling, and presents a FOD hazard. An environmental study for the runway closure will be completed prior to commencement of the project.

FLYING CLOUD

Pavement Rehabilitation $700,000

This is an ongoing program to rehabilitate aircraft operational areas (runways, taxiways, aprons) through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. This project will include the reconstruction of taxiway pavement not impacted as part of the runway extension program, along with any necessary airfield crack repairs. The cost for the taxiway reconstruction includes replacement of the pavement with little to no sub grade work.

Runway 18/36 Reconstruction Seg. 3 $1,000,000

Segment 3 of Runway 18/36 includes Runway end 36 to the Runway 10R/28L safety area boundary and lighting cable replacement for the Runway 18/36 parallel taxiway. This project will also include any necessary runway safety area enhancement work.

South Building Area Development $6,400,000 **

This project will include the grading necessary for the new building area and installation of the sanitary sewer and water.

** Funding for this project to be provided by others.

LAKE ELMO

East Building Area Development $2,300,000 **

This project will include the grading and paving for alleyways, access road, and connecting taxiway for a new 40-hangar building area, taxiway pavement marking and reflectors, and potentially street lighting along a portion of the county road. It also includes storm water management and minor wetland mitigation. Note that the cost does not include sewer and water installation since at this time, it is not available adjacent to the airport.

** Funding for this project to be provided by others.

ST. PAUL

Joint and Crack Repairs $100,000

Given the extremely poor sub grade materials at this airport, the need for crack repair and joint sealing is critical to maintain pavement strength and pavement life. An inspection of the pavement will be completed to determine the areas most in need of repair.

MAC Building Maintenance $200,000

This is an ongoing program to provide for facility modifications to ensure continued efficient operation of buildings or modifications necessary to meet the requirements of the tenants.

Pavement Rehabilitation $1,200,000

This is an ongoing program to rehabilitate aircraft operational areas (runways, taxiways, aprons) through bituminous overlays, seal coats, or in some instances, reconstruction, to restore the surfaces to a smooth, even condition and improve overall operating conditions. This project will include the

reconstruction of portions of Taxiway Alpha, Alpha 1 and Alpha 2 connectors, along with necessary sub grade rehabilitation. This pavement is exhibiting deterioration and major transverse cracks have developed.

### Miscellaneous Field and Runway Program

Miscellaneous Airfield Construction $400,000

This is an ongoing program to consolidate various incidental items beyond the capabilities of the maintenance personnel, projects too small to be accomplished independently or to handle airside problems requiring repair which come up unexpectedly.

## Post 2010 Program Projects

### 10 – Lindbergh Terminal

SAFETY/SECURITY PROJECTS

Lindbergh Terminal Sprinkler System - Concourses C&D $8,600,000

Changes in the State Building Code require that the terminal and concourse be fully sprinkled. This project will be the fourth phase in a multi-phase program to provide the required fire sprinkler and alarm system. This year's project will be located primarily on Concourses C and D.

Jet Bridge Card Reader Installation $2,500,000**

To enhance security between the gate positions and the airside, this project will add card readers to the terminal-side and to the airside of all doors on the jet bridges.

****** 100% reimbursement by the airlines.

FACILITY REHABILITATION

Terminal Backlit Sign Replacements $1,650,000

Many of the illuminated way finding signs in both the Lindbergh and Humphrey Terminals have neon lamps that are burned out. These lamps are difficult and costly to replace and have limited longevity. A Signage Management and Maintenance Work Group (SMMWG) reviewed options ranging from replacing the existing lamps to replacing the illumination units. The SMMWG is recommending that each neon unit be replaced with a single row of LED units. The LEDs are easy to maintain, have an extended life (7 years), and are comparable in cost to a new fluorescent sign that has a two year bulb life. A phased four year program to retrofit the illuminated signs in both the Lindbergh and Humphrey Terminals commenced in 2008.

Tug Drive Floor Repair $1,050,000

The membrane waterproofing system on the tug drive floor is deteriorating and coming apart in various areas or has been damaged allowing water to leak into work areas, electrical vault rooms, the valet garage and other operational areas. The membrane system is nearing the end of its designated life of 5 years and will be replaced in a phased program.

Electrical Infrastructure Rehab Program $1,800,000

There are fifty-three electrical substations that serve the Lindbergh Terminal complex. It is imperative that these substations be inspected, cleaned and upgraded in order to ensure their continued performance. This is the third phase in a three phase program that began in 2008.

Emergency Power Upgrades $2,700,000

Studies and surveys of the Lindbergh Terminal's transfer switches and emergency lighting were completed and priority projects implemented in 2008. The 2010 project will continue the design and implementation of emergency power and lighting corrective work.

Concourse E and F Floor Rehabilitation $1,800,000

The concrete slab and expansion joints on Concourses E and F are being damaged and failing due to the age of the floor and the cart and delivery traffic. The repair and replacement would be similar in scope to work completed by MAC on Concourse C and by Northwest Airlines on Concourse G and would include the main walkway areas, not the gate-hold rooms. This project is being phased over a three year period.

Lower Level Roadway/GTC Water Infiltration Mitigation $2,300,000

Water infiltration through the structural concrete slab above the Ground Transportation Center and lower level of the Lindbergh Terminal has required the use of buckets and other containers to collect the water. Long-term water infiltration of structural members will result in deterioration of the structural concrete and will shorten the life of the structure. This project will determine the causes of the infiltration and develop a construction solution.

PASSENGER AMENITIES

Concessions Revenue Development/Upgrades $200,000

This project will fund miscellaneous upgrades (finishes, furniture, condiment stations, etc.), signage and/or modified connections to utilities for the concession programs at the Lindbergh and Humphrey Terminals.

OPERATIONAL IMPROVEMENTS

Open Architecture Building Automation (OABA) $1,650,000

This project will upgrade all MAC building automation systems to the LonMark open protocol so that the airport can bid maintenance and construction contracts more competitively. This project will replace Siemens controllers and legacy Honeywell controllers with LonMark controllers from Honeywell, Circon, Distech, or TAC systems that are all LonMark certified product lines. This project is the last project in a three year phased program.

## 13 – Energy Management Center

Energy Savings Projects $2,000,000

A program was initiated in 2002 to provide for the implementation of projects that would save the Commission energy costs in its operating budget. Discussions with both Xcel and Reliant have

identified additional projects that are eligible for energy saving rebates and will save the Commission additional energy costs.

21 - Field and Runway

Perimeter Fence/Gate Barrier System $3,000,000

This project is part of a phased program to strengthen the perimeter security fence and airfield access gates. Proposed work includes the hardening of security gates.

SIDA Incursion Upgrades $700,000

Airfield security continues to be a primary focus at MSP. In order to enhance airfield security, this project will construct three security checkpoints on the airfield service roads complete with card readers to verify access to the airfield.

26 - Terminal Roads/Landside

Tunnel/Bridge Rehabilitation $100,000

A Bridge and Tunnel Safety Inspections Report was prepared in 2007. The report outlines structural maintenance recommendations to be implemented. While there were no immediate structural repairs required, an annual project for bridge and tunnel maintenance will continue in 2010.

31 – Parking

Valet Parking Waiting Area Improvements $400,000

To improve customer service to users of the valet parking at the Lindbergh Terminal, the valet waiting area will be improved with additional elevator access to this level that would open to the valet side, the addition of new signage at other levels to access valet parking, and segregation of MAC Trades vehicles and ABM from the passenger waiting area. The valet waiting area will be improved with the addition of a weather monitor, new seating, finish upgrades, improved lighting, and other amenities.

36 – Humphrey Terminal

Humphrey Terminal Expansion – Skyway $1,000,000

This project will provide for the construction of the permanent skyway link between the Orange Parking Ramp and the Humphrey Terminal but only expand the terminal to the extent as to provide a connection to the new skyway. No new gates will be provided.

Humphrey Jet Bridge Replacement – Gates 6 & 7 $1,600,000

At the time the new Humphrey Terminal was constructed, MAC relocated two existing MAC–owned jet bridges from the old Humphrey facility to Gates 6 and 7. These bridges have now deteriorated to the point that maintenance is no longer a viable option and the bridges need to be replaced.

## 2011 – 2015 Capital Improvement Program

(Description of projects expected to be implemented in 2011 through 2015 are preliminary, and only those that have potential substantive environmental effects are included in this section.)

### 2010 Program Projects

#### MSP Runway 4/22 Development Program

North Side Storm Sewer $4,500,000

This project provides for the modifications to storm water detention ponds 3 and 4. The pond 4 outlet control structure will be replaced and a 60-inch storm sewer pipe installed to increase the outflow capacity of the pond. The pond 3 berm will be raised and the spillway reconstructed to reduce pond overtopping and spillway washout. The outlet control structure will also be replaced and a parallel 60-inch storm sewer installed to increase the outflow capacity.

#### MSP Noise Mitigation Program

Noise Mitigation Settlement $5,990,400

The project implements the noise mitigation program based on the 2007 Noise Exposure Map contained in the Part 150 Update, consistent with the terms and conditions of the court-ordered Consent Decree.

#### Reliever Airport Programs

ANOKA-COUNTY BLAINE

Building Area Development – East Annex $2,400,000 **

This project includes installation of sanitary sewer and water main, grading and paving of alleyways for up to 80 storage hangars and includes facilities to accommodate storm water run off.

**Funding for this project to be provided by others.

Building Area Development – Xylite St. Relocation $1,000,000

This project provides for the relocation of Xylite Street including the installation of curb and gutter and construction of a berm and landscaping.

Building Area Development – West Annex $850,000 **

This project provides for the construction of two alleyways for eight storage hangars and three corporate hangars, sanitary sewer and water main and accommodation of storm water drainage.

**Funding for this project to be provided by others.

FLYING CLOUD

South Building Area Development $3,000,000

This project is the second phase in the program to provide a new building area on the south side of the airport and includes the installation of aggregate base course and bituminous pavement.

**Funding for this project to be provided by others.

LAKE ELMO

Runway 4/22 Extension $1,500,000

This project includes extending Runway 4/22 from 2,500 feet to 3,200 feet, runway lighting and precision approach path indicator (PAPI) installation, and the clearing and grading of the runway safety area.

East Side Parallel Taxiway $900,000

This project includes the construction of a full parallel taxiway to Runway 4/22 in conjunction with the extension of Runway 4/22 and a new east side hangar area.

### Reliever Airport Utility Extension Program

LAKE ELMO

Sanitary Sewer and Watermain Extensions $500,000

The City of Lake Elmo continues to consider the development of a large parcel of property to the east of the airport. If the proposed development occurs, sanitary sewer and water main may become available for MAC to connect to. This project would cover the cost of constructing restroom facilities for each building area.

## Post 2010 Program

### 31 – Parking

Humphrey Orange Ramp Outrigger Addition /Levels 9&10 $58,700,000

This project provides for the construction of seven additional levels (levels 4 - 10) of parking on the east side of the Orange Ramp, two additional levels (levels 9 and 10) on the Orange Ramp, and seven additional levels (levels 4 – 10) of parking over the LRT station.

Humphrey Purple Ramp Outrigger Addition $32,100,000

This project will add seven additional levels (levels 2 – 8) of parking on the east side of the Purple Ramp which would add approximately 1,288 parking spaces.

## 36 – Humphrey Terminal

Humphrey Terminal Expansion – North Expansion $55,500,000

This project will provide for the extension of the Humphrey Terminal to the north that will add three new gates and a new four lane security checkpoint. This project would also include shell space for a north end food court and concession areas.

Humphrey Fuel Facility Relocation $5,900,000

Prior to any expansion of the Humphrey Terminal to the south, the existing fuel farm will be relocated.

Auto Rental Facilities $3,500,000

This project will provide for the design of a new auto rental facility that is to be located on 34th Avenue and will include a new LRT station to provide a connection to both the Humphrey and Lindbergh Terminals.

Appendix B

# Supplemental Information: Runway 12L/30R Segment 2 Reconstruction Project

# Runway 12L/30R Reconstruction Project

As detailed in Appendix C, on September 23, 2008 the Federal Aviation Administration (FAA) issued a Categorical Exclusion (Cat-Ex) for the Runway 12L/30R Reconstruction Project. Based upon the nature of the project, the Minnesota Environmental Policy Act (MEPA), the rules implementing MEPA, the FAA's Cat-Ex determination, and the documentation provided in this Appendix, MAC concludes that no further environmental review of this project is required.

## Project Background

The project entails the complete reconstruction of the center section of Runway 12L/30R at Minneapolis St. Paul International Airport (MSP). The center section of Runway 12L/30R, known as Segment 2, is approximately 3,800 feet long and extends from just east of Runway 4/22 to Taxiway P3. Existing Segment 2 pavement is a mixture of concrete and bituminous materials. The base of Runway 12L/30R was constructed in 1967 and has since been overlaid and repaired several times. Every two to three years a mill and overlay is required to maintain portions of the bituminous section.

During the reconstruction project, the Metropolitan Airports Commission (MAC) will remove all existing pavement and any unsuitable sub-grade material below the pavement. The MAC will then reconstruct the runway with suitable granular material, twelve inches of crushed aggregate, and twenty inches of Portland cement concrete. The MAC will also replace the runway's bituminous pavement shoulders.

The MAC estimates that the entire construction project will take five months. Reconstruction of the center section of Runway 12L/30R will require the runway to be closed from August 17, 2009 to approximately October 30, 2009, depending upon weather and other construction factors. Fifty-five working days have been planned for completion of the project, with construction activities to take place six days per week and twenty hours per day.

To encourage on-time completion of the project in the shortest time possible, the MAC construction contracts for the project will provide that the Runway 12L/30R reconstruction contractor may incur liquidated damages of $50,000 per day, subject to limited exceptions only, if the contractor does not begin work on the project by August 17, 2009. In addition, the MAC construction contracts for the project will provide that the contractor may incur liquidated damages of $100,000 per day, subject to limited exceptions only, if the contractor has not completed the project within fifty-five calendar days from August 17, 2009.

The FAA is modifying MSP air traffic control procedures to accommodate MSP's existing aircraft activity with the least amount of operational disruption during the Runway 12L/30R reconstruction project. The MAC worked with the FAA to develop SIMMOD (airport simulation) modeling scenarios to assist the FAA in identifying air traffic control changes that will be necessary to accommodate aircraft operations on the remaining runways. Runway use during the Runway 12L/30R reconstruction project will be very similar to the runway use that the FAA employed during the Runway 12R/30L reconstruction project in 2007. The modified air traffic control procedures that the FAA will employ during the Runway 12L/30R runway reconstruction project are designed to minimize the impacts of the changed operating conditions. When the reconstruction project is complete and Runway 12L/30R is reopened, the FAA will return MSP to its pre-reconstruction operational patterns. The MAC has no governmental approval authority over the FAA's decision to modify MSP air traffic control procedures.

## Potential Environmental Effects

### Air Quality

There will be no long-term air quality impacts as a result of the project. The project will be complete in approximately five months, will occur wholly within the airport boundary, and will not change the capacity of the airport. As a result, the only potential for air quality impacts will be short-term and will occur during construction.

Project construction activities such as stockpiling, material transfers, traffic, and excavation may create dust. Any dust from construction activities is unlikely to be blown beyond the airport property. To prevent off-airport dust impacts, MAC's construction contracts for the project will require contractors to employ appropriate dust control measures, such as spraying the construction site with dust suppressants. In addition, the MAC requires a recirculating air sweeper with dust control and auxiliary pick-up type sweepers to be present and available as necessary to suppress dust generated at the construction project site and on haul routes to and from the construction project site.

The level of construction-related truck traffic is not expected to adversely impact traffic on surrounding roads. Truck traffic for the project will include delivery and removal of materials, along with construction employee vehicle traffic. The level of traffic is not expected to exceed the capacity of existing roadways in the area. The MAC will work with its construction contractor to stage vehicle trips to avoid any negative impacts on traffic flow in the area. With respect to exhaust from truck traffic, the area is surrounded by highways and roadways already frequented by diesel-fueled vehicles. The level of truck traffic is not expected to result in any measurable impact on air quality in the area.

The proposed Runway 12L/30R reconstruction project does not require an air quality permit from the Minnesota Pollution Control Agency (MPCA). In addition, the runway reconstruction project: (1) will not result in any increase in the capacity of MSP, or change the number or type of aircraft operations at MSP; (2) does not involve construction of new or expanded structures for handling passengers, cargo, vehicles, or aircraft; and (3) does not involve the construction of a new runway or taxiway, or the extension of an existing runway or taxiway.

The FAA will modify MSP air traffic control procedures to accommodate MSP's aircraft activity with the least amount of operational disruption during the two and one-half months that Runway 12L/30R will be closed. The FAA implemented similar modified air traffic control procedures when MAC reconstructed Runway 12R/30L in 2007. The FAA's modified air traffic control procedures are designed to replicate, as closely as possible, MSP's normal operating conditions. When the reconstruction project is complete and Runway 12L/30R is reopened, the FAA will return MSP to its pre-reconstruction operational patterns. The MAC has no governmental approval authority over the FAA's decision to modify MSP air traffic control procedures during the project, and federal law preempts all state laws affecting aircraft operations. Given the nature of the FAA's air traffic control changes and the short duration of the runway closure, it is unlikely that the FAA's short-term relocation of certain aircraft operations will have a measurable effect on air quality.

### Storm Water and Water Quality

The project will not change the storm water drainage flow for the construction area. During a portion of the project, storm water flows will be temporarily reduced as a result of the reduction of impervious surfaces. MSP storm water ponds 2, 3 and 4 receive storm water from the project area, and will remove sediment and total suspended solids to protect the Minnesota River.

Erosion control measures for the project will minimize erosion of soils and prevent sediment from entering the storm sewer system or washing to other low areas. Measures to control erosion during the

project will include the installation of silt fencing and storm drain inlet protection. The MAC will maintain these erosion control measures until the project is complete. The MAC's construction contractor will also obtain a storm water permit for the project from the MPCA. In addition, the MAC's construction contracts for the project will require the contractor to comply with all applicable permit requirements, including applicable storm water requirements in the MAC's permits for MSP.

The project will not produce water quality impacts or other modifications to groundwater, surface bodies, or public water supply systems. In addition, the project will not violate any federal, state, or tribal water quality standards.

### Wetlands

There are no wetlands located in the vicinity of the project. The project will not involve dredging or disposal of dredged material, or excavation, bank stabilization, filling or other changes to wetlands. There are no wetland impacts resulting from this project.

### Existing Runway Bituminous Pavement and Asbestos-Containing Material (ACM)

The MAC recently conducted a sampling of the bituminous pavement section of Runway 12L/30R. That sampling did not identify any asbestos-containing material (ACM). Therefore, no asbestos disposal requirements are necessary for the project.

### Contamination of Existing Runway Pavement and Soils

The MAC has no reason to believe that runway pavements or soils in the project area are contaminated. Nevertheless, the MAC's construction contract for the project will require trained environmental personnel to verify the condition of soils and runway pavements in the project area. If any unknown soil or runway pavement contamination is discovered during the course of the reconstruction project, the MAC will manage the contaminated soil or pavement according to the MPCA-approved soil management plan for MSP. The MPCA reviews the plan annually, and the MAC's 2008 MSP Annual Soil Management Report to MPCA will discuss the reconstruction project.

### Leak Sites

The MAC has compared the project area with the comprehensive list of leak and spill sites at MSP. This review revealed that there are no open or closed leak sites within the project area. In addition, there are no spill sites within or immediately adjacent to the project area.

### Fuel Lines and Leaks

MSP terminal gate areas are served by a hydrant fuel system. In 2003, two separate hydrant leaks occurred at MSP—one at Gate D5 and one at Gate A7.

In March 2005, the MPCA entered into a Stipulation Agreement with the MAC that addressed the 2003 hydrant fuel system leak. The airlines that operate at MSP and the contractor that operated and maintained the hydrant fuel system are also parties to the Stipulation Agreement. The Stipulation Agreement identified corrective actions that improved the management and handling of fuel and fuel products at MSP. All requirements of the Stipulation Agreement were successfully completed by the parties and the Stipulation Agreement was terminated by the MPCA in November 2007.

The status of the leaks, investigation activities, corrective actions, mitigation measures and the contents of the Stipulation Agreement negotiated between the MAC and the MPCA were discussed at numerous public MAC meetings. These discussions included MAC staff presentations to the Finance,

Development and Environment Committee or to the full Commission, or both, in March 2003, July 2003, October 2003, January 2005, June 2005, and October 2005.

There are no hydrant fuel lines located within or immediately adjacent to the project area, so the project will not expose or alter jet fuel lines in any way. In addition, there is no evidence that the project will cause jet fuel line leaks.

The project will not remove any gates from service, so there will be no fueling system stress as a result of changes in gate assignments. Any changes in ground traffic flow will not affect the fueling system because ground movement activities are unrelated to the fueling system.

### Aircraft Emissions and Noise Resulting from the FAA Air Traffic Control Changes

As discussed above, the FAA is temporarily modifying MSP air traffic control procedures to accommodate MSP's existing aircraft activity with the least amount of operational disruption during the Runway 12L/30R reconstruction project. The MAC understands that under the FAA's modified air traffic control procedures, the only areas where operational patterns will be noticeably different from those during existing runway operations at MSP are areas north of MSP in Minneapolis, which are in the approach path to Runway 17, and areas in St. Paul to the northeast of MSP. Residents living north of Runway 17 in Minneapolis will observe a change while Runway 12L/30R is closed for reconstruction, primarily as a result of arrival operations on Runway 17. Aircraft arrival operations are typically quieter than departure operations. Residents living in St. Paul will also observe a change from existing conditions during Runway 12L/30R reconstruction, primarily as a result of arrival operations on Runway 22. During certain weather and operating conditions, residents in St. Paul may observe a change in departure operations as well.

The MAC anticipates that runway use during the Runway 12L/30R reconstruction project in 2009 will be very similar to the runway use that the FAA employed during the Runway 12R/30L reconstruction project in 2007. The nature and location of the over flights during the 2009 reconstruction of Runway 12L/30R are virtually identical to the nature and location of over flights during the 2007 reconstruction of Runway 12R/30L. As with the 2007 reconstruction project, most of the areas near MSP that will experience an increase in operations under the FAA's modified air traffic control procedures during the 2009 reconstruction project already experience regular aircraft over flights. Runway 12L/30R will be closed for two and one-half months during the 2009 reconstruction project. Runway 12R/30L was closed for two months during the 2007 reconstruction project.

The MAC has determined that any increase in aircraft noise related to the 2009 Runway 12L/30R reconstruction project will be below the FAA's thresholds of significance for sensitive land uses. The FAA's threshold of significance for aircraft noise is a 1.5 dB DNL increase for sensitive land uses within the 65 DNL noise contour and a 3.0 dB DNL increase for sensitive land uses within the 60 DNL noise contour. FAA Order 1050.1E; 14 C.F.R. § 150.21(a)(2)(d). To quantify the noise impacts of the 2009 Runway 12L/30R reconstruction project, the MAC assessed the noise impacts of the analogous 2007 Runway 12R/30L reconstruction project. The MAC's assessment began with the 2007 actual noise contour for MSP that it prepared and submitted in February 2008 as required under the Consent Decree in *City of Minneapolis v. MAC*. *See* Annual Noise Contour Report for MSP, February 2008. The 2007 actual noise contour, which is depicted in Figure B-1, includes the temporary noise impacts from the 2007 Runway 12R/30L reconstruction project. The MAC then developed a "2007 Normalized Contour" by assuming that Runway 12R/30L was not closed in 2007, and that Runway 4/22, Runway 35 departure, and Runway 17 arrival operations were distributed as they would have been if the 2007 reconstruction project had not occurred. Table B-1 provides 2007 actual (that is, reflecting reconstruction) and "normalized" (that is, assuming no reconstruction) runway use percentages that the MAC used to develop the 2007 Actual Contour and the 2007 Normalized Contour. On Figure B-1, the 2007 Normalized Contour is depicted and compared with the 2007 Actual Contour. As the comparison

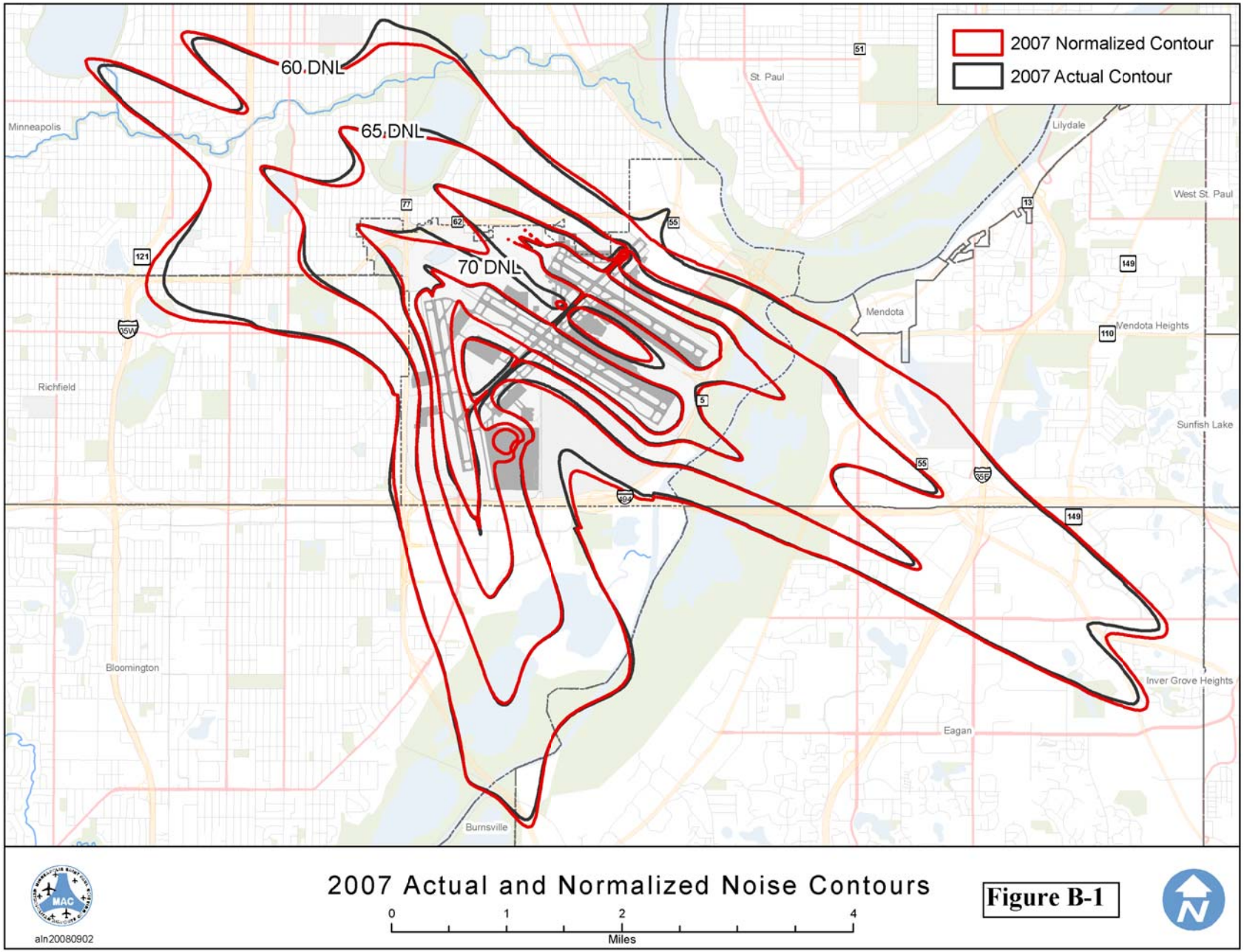

2007 Normalized Contour
2007 Actual Contour
60 DNL
65 DNL
70 DNL
Minneapolis
St. Paul
Lilydale
West St. Paul
Mendota
Mendota Heights
Richfield
Sunfish Lake
Bloomington
Inver Grove Heights
Eagan
Burnsville
2007 Actual and Normalized Noise Contours
0 1 2 4
Miles
aln20080902
Figure B-1

**Table B-1**

# 2007 Actual and Normalized Runway Use Comparison

| Op Type | Runway | Day | | Night | | Total | |
|---|---|---|---|---|---|---|---|
| | | 2007 (Actual) | 2007 (Normalized) | 2007 (Actual) | 2007 (Normalized) | 2007 (Actual) | 2007 (Normalized) |
| Arrival | 4 | 0.2% | 0.0% | 0.3% | 0.0% | 0.2% | 0.0% |
| | 22 | 2.7% | 0.0% | 0.2% | 0.0% | 2.5% | 0.0% |
| | 12L | 20.6% | 23.8% | 20.0% | 21.4% | 20.6% | 23.5% |
| | 30R | 23.9% | 25.6% | 22.8% | 24.1% | 23.8% | 25.4% |
| | 12R | 17.8% | 19.4% | 20.9% | 20.4% | 18.1% | 19.5% |
| | 30L | 15.1% | 14.8% | 27.8% | 26.6% | 16.4% | 16.0% |
| | 17 | 3.6% | 0.0% | 0.7% | 0.0% | 3.3% | 0.0% |
| | 35 | 16.0% | 16.4% | 7.4% | 7.4% | 15.1% | 15.5% |
| | **Total** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |
| Departure | 4 | 0.7% | 0.0% | 0.8% | 0.0% | 0.7% | 0.0% |
| | 22 | 0.5% | 0.1% | 0.3% | 0.2% | 0.5% | 0.1% |
| | 12L | 17.4% | 18.8% | 19.5% | 20.4% | 17.6% | 19.0% |
| | 30R | 23.8% | 28.3% | 23.8% | 26.4% | 23.8% | 28.1% |
| | 12R | 6.0% | 5.9% | 11.1% | 11.0% | 6.5% | 6.4% |
| | 30L | 19.6% | 21.4% | 17.9% | 19.6% | 19.5% | 21.2% |
| | 17 | 26.3% | 25.4% | 22.9% | 22.5% | 25.9% | 25.1% |
| | 35 | 5.8% | 0.0% | 3.7% | 0.0% | 5.5% | 0.0% |
| | **Total** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |
| Overall | 4 | 0.4% | 0.0% | 0.5% | 0.0% | 0.4% | 0.0% |
| | 22 | 1.6% | 0.0% | 0.2% | 0.1% | 1.5% | 0.0% |
| | 12L | 19.0% | 21.3% | 19.7% | 20.9% | 19.1% | 21.3% |
| | 30R | 23.9% | 26.9% | 23.3% | 25.3% | 23.8% | 26.8% |
| | 12R | 11.9% | 12.6% | 15.8% | 15.5% | 12.3% | 12.9% |
| | 30L | 17.4% | 18.1% | 22.7% | 23.0% | 17.9% | 18.6% |
| | 17 | 14.9% | 12.7% | 12.2% | 11.6% | 14.6% | 12.6% |
| | 35 | 10.9% | 8.2% | 5.5% | 3.6% | 10.3% | 7.8% |
| | **Total** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** | **100.0%** |

Source: MAC ANOMS data was used to calculate runway use for 2007 Actual.

of the 2007 Normalized Contour with 2007 Actual Contour on Figure B-1 establishes, the 2007 reconstruction project did not result in aircraft noise level changes above FAA's thresholds of significance in the communities located around MSP. Runway use and associated aircraft noise resulting from the 2009 reconstruction project will be substantially similar to the 2007 reconstruction project. As a result, the MAC concludes that the 2009 Runway 12L/30R reconstruction project will not exceed the FAA significance thresholds of a 1.5 dB DNL increase for sensitive land uses within the 65 DNL noise contour and a 3.0 dB DNL increase for sensitive land uses within the 60 DNL noise contour.

In addition, the MAC has determined that comparing the 2007 Normalized Contour with the 2007 Actual Contour may actually overstate the increased aircraft noise associated with the 2009 Runway 12L/30R reconstruction project. The MAC notes that airlines serving MSP are using fewer older and noisier hushkitted aircraft, such as the DC9, in 2008 than in 2007, and are continuing to remove such aircraft from the fleet mix at MSP at an accelerated rate. For example, although aircraft operations at MSP have remained relatively flat, operations involving hushkitted aircraft at MSP declined by twenty-five percent from January to July 2008 as compared with the same period in 2007. The older aircraft

are being replaced by newer and quieter aircraft such as the CRJ and A319/320. The noise energy from one DC9 operation is equivalent to forty-three CRJ operations or fifteen A319 operations.

The MAC also notes that it is continuing to implement an aggressive residential noise mitigation program in the vicinity of MSP. The MAC is providing noise mitigation to residences within the 2005 and 2007 60 and greater DNL noise contours.[1] For example, as detailed in Figure B-2, all of the single-family residences located within the 2007 actual 65 DNL noise contour have already received noise mitigation designed to reduce interior-to-exterior noise levels by an average of five decibels under the MAC's Part 150 program. The MAC anticipates that all single-family residences that will be located within the 2009 actual 65 DNL noise contour (which will include the noise impacts associated with Runway 12L/30R reconstruction) have also received such noise mitigation. It is reasonable to assume that single-family residences within the 60 and greater DNL contours that might notice a temporary change in air traffic as a result of the 2009 Runway 12L/30R reconstruction have received or will receive noise mitigation from the MAC.

In summary, FAA's changes in air traffic control procedures are a result of the temporary closing of Runway 12L/30R, which will last less than six months, to accommodate the reconstruction of the runway. Moreover, the changes in air traffic control procedures do not exceed the FAA's threshold of significance for aircraft noise. On September 23, 2008 the FAA determined that the project is categorically exempt from environmental review under the National Environmental Policy Act (NEPA), as detailed in Appendix C.

The MAC will make efforts to explain the FAA's modified air traffic control procedures during the project to communities surrounding MSP. In consultation with the Noise Oversight Committee (NOC), the MAC will develop a comprehensive plan to explain the project and the temporary changes that the FAA will implement while Runway 12L/30R is closed. The four components of the plan are anticipated to be: (1) descriptions of the FAA temporary operational modifications in the *MSP Noise News* newsletter; (2) descriptions of the modifications on the MAC's web site; (3) postcard mailings describing the modifications; and (4) community open houses addressing the modifications. This program is patterned after the communication program the MAC executed for the 2007 Runway 12R/30L reconstruction project.

The MAC has determined that there are no significant noise impacts that result from the temporary runway use changes. In addition, the MAC has determined that the FAA's short-term relocation of certain aircraft operations will not have a measurable affect on air quality.

## Connected Actions, Cumulative Actions, and Cumulative Impacts

The Runway 12L/30R reconstruction project is not a connected or cumulative action, and there are no cumulative potential effects associated with the project. The Runway 12L/30R reconstruction is a discrete repair project of short duration designed to restore the surface of a portion of an existing runway.

[1] The 2005 and 2007 60 and greater DNL contours were drawn assuming as much as 582,366 annual operations at MSP. The total number of operations at MSP in 2007 was 452,972. The MAC estimates that there will be approximately 450,000 total operations at MSP in 2008, and that total operations may drop to approximately 425,000 in 2009.

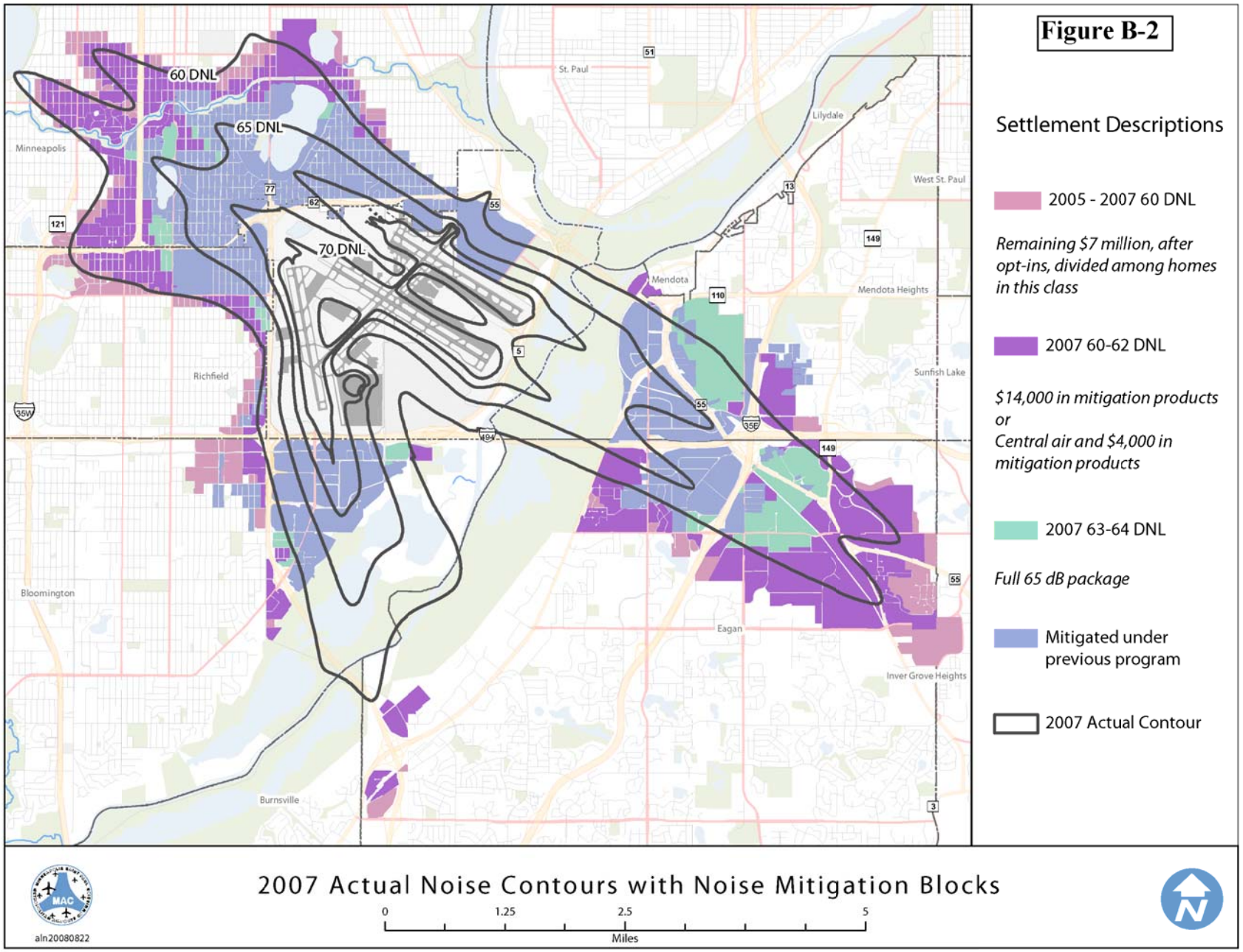


Figure B-2
60 DNL
65 DNL
70 DNL
Minneapolis
St. Paul
Lilydale
West St. Paul
Mendota
Mendota Heights
Richfield
Sunfish Lake
Bloomington
Eagan
Inver Grove Heights
Burnsville
Settlement Descriptions
2005 - 2007 60 DNL
Remaining $7 million, after opt-ins, divided among homes in this class
2007 60-62 DNL
$14,000 in mitigation products or
Central air and $4,000 in mitigation products
2007 63-64 DNL
Full 65 dB package
Mitigated under previous program
2007 Actual Contour
2007 Actual Noise Contours with Noise Mitigation Blocks
0
1.25
2.5
5
Miles
aln20080822

## Analysis of the Need for Additional Environmental Review

### MAC's Enabling Statute and Environmental Review

MAC's enabling statute requires preparation of an EAW for projects that meet *all* of the following criteria: (1) the project is scheduled in the "succeeding calendar period" in MAC's seven-year capital improvement program; (2) the project is scheduled in the capital improvement program for the expenditure of $5 million if the project is at MSP; and (3) the project involves the construction of a new or expanded structure for handling passengers, cargo, vehicles, or aircraft, or the project involves construction of a new or the extension of an existing runway or taxiway. Minn. Stat. § 473.614, subd. 2(1)-(3).

Although the project is scheduled in the "succeeding calendar period" in MAC's sever-year capital improvement program and will exceed $5 million, it does not involve the construction of a new runway or taxiway, or the extension of an existing runway or taxiway. Similarly, the project does not involve the construction of a new or expanded structure for handling passengers, cargo, vehicles, or aircraft. The project involves the reconstruction of a portion of an existing runway, will not extend Runway 12L/30R or any existing taxiway, will not expand any existing structure at MSP, and will not increase MSP's capacity in any way.

### The Exemption from MEPA Environmental Review for Airport Projects

The Minnesota Environmental Quality Board (MEQB) rules implementing MEPA exempt from environmental review certain airport projects, including runway reconstruction, where the projects will not "create environmental impacts off airport property." Minn. R. 4410.4600, subp. 13.

FAA regulations implementing NEPA contain provisions, known as "Categorical Exclusions," that exclude certain types of actions from environmental review. In particular, the FAA categorically excludes from environmental review under NEPA any "construction or repair of a runway that is existing or taxiway, apron, or loading ramp, including extension, strengthening, reconstruction, resurfacing, marking, grooving, fillets and jet blast facilities, provided the action will not create environmental impacts outside of an airport or launch facility property." FAA Order 1050.1, § 310e (June 8, 2004).

As stated previously, on September 23, 2008 the FAA determined that the Runway 12L/30R reconstruction project meets the requirements for a Categorical Exclusion and is exempt from environmental review under NEPA. *See* Appendix C. The FAA determined that the project will create no environmental impacts outside airport property.

Specifically related to the temporary change in runway use at MPS due to the reconstruction, Federal law preempts all state laws affecting aircraft operations, such as air traffic control procedures. *Minnesota Pub. Lobby v. Metro. Airports Comm'n*, 520 N.W.2d 388, 391-92 (Minn. 1994). MAC has no governmental approval authority over the FAA's decision to modify MSP air traffic control procedures during the project, and therefore MEPA does not require MAC to undertake environmental review of the FAA's decision.

The MEQB designed the MEPA environmental review exemption for airport projects in Minn. R. 4410.4600, subp. 13 "to coincide with the Federal Aviation Administration's categorical exclusions from formal environmental assessment." 1982 SONAR 148. FAA's Categorical Exclusions apply to the environmental impacts during the Runway 12L/30R reconstruction project, thereby exempting the project from environmental review under NEPA. FAA Order 1050.1, § 310e. (June 8, 2004).

The Runway 12L/30R reconstruction project is exempt from environmental review under MEPA because: (1) there are no environmental impacts from construction off airport property; (2) the MEPA

exemption for airport runway reconstruction projects in MEQB's rules is designed to coincide with the FAA's Categorical Exclusions under NEPA; (3) the FAA has determined that the Runway 12L/30R reconstruction project meets the requirements for a Categorical Exclusion and is exempt from environmental review under NEPA. As a result, the project meets the requirements of the MEPA exemption for airport runway reconstruction projects. Minn. R. 4410.4600, supb. 13(A).

### MEPA Environmental Review Criteria Applied to the Project

Even if the project were not exempt from environmental review under MEPA, the MAC does not need to prepare an EAW for the project.

MEPA requires an EAW if a project "may have the potential for significant environmental effects." Minn. Stat. § 116D0.04, subd. 2a(c); Minn. R. 4410.1000, subp. 3. The MEQB rules implementing MEPA establish four criteria that a responsible governmental unit must use to evaluate a project's potential for significant environmental effects. Those criteria are:

A. type, extent, and reversibility of environmental effects;

B. cumulative potential effects of related or anticipated future projects;

C. the extent to which the environmental effects are subject to mitigation by ongoing public regulatory authority; and

D. the extent to which environmental effects can be anticipated and controlled as a result of other available environmental studies undertaken by public agencies or the project proposer, including other EISs.

Minn. R. 4410.1700, subp. 7. Although the four criteria apply explicitly to the need for an EIS and not to an EAW, the criteria are relevant in considering whether a proposed project may have the potential for significant environmental effects because the MEQB rules addressing both EAWs and EISs use the language of "significant environmental effects." *Watab Township Citizen Alliance v. Benton County Bd. of Comm'rs*, 728 N.W.2d 82, 90-91 (Minn. Ct. App. 2007), citing Minn. R. 4410.1100, supb. 6 and Minn. R. 4410.1700, subp. 6.

Application of the four MEQB criteria to the project reveals that the project does not have the potential for significant environmental effects. The type, extent, and reversibility of the project's environmental effects demonstrate that an EAW is unnecessary, because the project's environmental effects are minor and temporary. In addition, there are no cumulative potential effects from future projects related to the Runway 12L/30R project, because the project is a discrete repair designed to restore the surface of a portion of an existing runway. Finally, the environmental effects of the project are subject to mitigation by ongoing public regulatory authority, including storm water permits, an MPCA-approved soil management plan for MSP, and Best Management Practices (BMPs), resulting from an MPCA Stipulation Agreement, outlining fuel management and handling practices.

As discussed above, MAC's construction contracts require the project contractor to comply with all applicable permit requirements, including applicable storm water requirements in MAC's permits for MSP. MAC's construction contractor will also obtain a storm water permit for the project from MPCA. If any runway pavement or soil contamination is discovered in the project area, MAC will manage the contaminated pavement or soil according to the MPCA-approved soil management plan for MSP. There are no hydrant fuel lines located within or immediately adjacent to the project area and the project will not expose or alter jet fuel lines in any way. Nevertheless, to the extent there are any concerns with respect to the hydrant fueling system, MAC is continuing to implement the fuel management and handling practices resulting from the March 2005 Stipulation Agreement with MPCA.

Additionally, as discussed above, MAC will make efforts to explain the FAA's modified air traffic control procedures during the project to communities surrounding MSP.

### Conclusion

The MAC has the authority to determine whether the project is exempt from environmental review under MEPA. In addition, the MAC has the authority to determine whether the project meets or exceeds the thresholds for a mandatory EAW under Minn. R. 4410.4300 or Minn. Stat. § 473.614, subd. 2(1)-(3), or the thresholds for a mandatory EIS under Minn. R. 4410.4400. The MAC also has the authority to determine whether the project "may have the potential for significant environmental effects" or "has the potential for significant environmental effects" and requires preparation of a discretionary EAW or EIS under MEPA. Minn. R. 4410.1000, supb. 3; Minn. R. 4410.2000, supb. 3(A).

The Runway 12L/30R Reconstruction Project does not require preparation of an EAW under the MAC's enabling statute because the project does not involve: (1) the construction of a new runway or taxiway, or the extension of an existing runway or taxiway; or (2) the construction of a new or expanded structure for handling passengers, cargo, vehicles, or aircraft. Minn. Stat. § 473.614, subd. 2(1)-(3). The project is exempt from environmental review under MEPA because the project involves the reconstruction of a runway and will not create environmental impacts off airport property. Minn. R. 4410.4600, subp. 13. Even if it were not exempt from environmental review under MEPA, the project does not meet or exceed the thresholds for a mandatory EAW under Minn. R. 4410.4300, or the thresholds for a mandatory EIS under Minn. R. 4410.4400. In addition, the project does not have the "potential for significant environmental effects" under MEPA. Minn. R. 4410.1000, supb. 3; Minn. R. 4410.2000, supb. 3(A). MAC concludes that the project does not require additional environmental review beyond the discussion in this AOEE.

# Appendix C

## Federal Aviation Administration Categorical Exclusion: Runway 12L/30R Segment 2 Reconstruction Project

U.S. Department
of Transportation
**Federal Aviation
Administration**

Great Lakes Region
Minneapolis Airports District Office
6020 28th Ave S, Room 102
Minneapolis, MN 55450

September 23, 2008

Mr. Chad Leqve, Manager
Aviation Noise and Satellite Programs
Metropolitan Airports Commission
6040 - 28th Avenue South
Minneapolis, Minnesota 55450

Subject: Categorical Exclusion for
Minneapolis-St. Paul International Airport
Minneapolis, MN

Dear Mr. Leqve:

This letter is to notify you that the project for Runway 12L/30R Segment 2 Reconstruction has been reviewed in accordance with the National Environmental Policy Act (NEPA). This environmental decision is generally valid for three (3) years before a reevaluation could be required, unless current conditions change materially or new information becomes available sooner.

Under NEPA, the Federal Aviation Administration is required to take into account environmental considerations when authorizing or approving Federal actions. Based on the review of the action described above, the undersigned has determined that the proposed action is specifically categorically excluded. It falls within the items identified in FAA Order 1050. 1E, Chapter 3, paragraph 310e, and is normally categorically excluded from the requirement for formal environmental assessment when extraordinary circumstances are not present.

Please note that this transmittal serves as notification that this project has been cleared environmentally only. This is not a notice of final project approval, funding eligibility or availability. As the sponsor, you are still responsible for compliance with all applicable environmental laws, regulations and procedures, including any applicable Federal and state permits.

If you have further questions, please contact me at 612-713-4354.

Sincerely,

Glen Orcutt
Program Manager
Minneapolis Airports District Office

Cc: Annette Davis, ATO Central Service Area W/Attachment
G. Warren, MAC WO/Attachment