Lake Elmo Airport
Environmental Assessment (EA)/Environmental Assessment (EAW) Worksheet

August 17, 2017 – Public Event #2
Alternatives Evaluation Process & Identification of Preferred Alternatives
Presentation Topics

• Project Timeline
• Purpose and Need Overview
• Range of Alternatives Considered
• Alternatives Evaluation
• Next Steps
• Question & Answer Session
EA Project Timeline

Project Elements
- Project Kick-Off
- Purpose & Need
- Alternatives Analysis
- Affected Environment
- Environmental Effects
- Avoidance, Minimization, and Mitigation Plans
- Preliminary Federal EA/State EAW Review - FAA & MAC
- Draft Federal EA/State EAW Public & Agency Review
- Respond to Comments & Prepare Final Federal EA / State EAW

Meetings & Workshops
- Public Event
- Community Engagement Panel (CEP) Meeting

Notice to Proceed
- 2017: FEB, MAR, APR, MAY, JUN, JUL, AUG, SEP, OCT, NOV, DEC
- 2018: JAN, FEB, MAR, APR, MAY

Scoping and Pre-Planning

MILESTONE: 1
- Public Event (P)
- Community Engagement Panel (CEP) Meeting (C)

MILESTONE: 2
- Public Event (P)
- Community Engagement Panel (CEP) Meeting (C)

MILESTONE: 3
- Public Event (P)
- Community Engagement Panel (CEP) Meeting (C)

MILESTONE: 4
- Public Hearing (PH)

Note: Schedule updated August 8, 2017. Subject to change.

Time Frame
- KO: Kickoff Meeting
- P: Public Event
- C: Community Engagement Panel (CEP) Meeting
- PH: Public Hearing

FAA Federal Environmental Finding & MAC State Environmental Finding

Minneapolis SAINT PAUL Metropolitan Airports Commission

MAC
Purpose and Need Overview

The **Purpose** of the project at Lake Elmo Airport is to pursue the following broader goals:

1) Address failing end-of-life infrastructure  
2) Enhance safety for airport users and the general public  
3) Improve facilities for the aircraft currently operating at the airport

The **Need** for the project at Lake Elmo Airport is based on the following specific objectives:

1) Improve the runway pavement conditions  
2) Minimize incompatible land uses in the runway protection zones (RPZs)  
3) Meet runway length needs for existing users  
4) Upgrade the instrument approach procedures
Range of Alternatives Considered

- Five categories of alternative concepts will be considered by the EA/EAW:
  - No-Action Alternative
  - Primary Runway 14/32 Alternatives
  - 30th Street North Realignment Alternatives
  - Crosswind Runway 04/22 Alternatives
  - Instrument Approach Alternatives
Primary Runway 14/32 Alternatives Evaluation Process

A. Criteria for Identifying Range of Alternatives
   - Avoid or minimize changes to airport use and aircraft flight patterns
   - Maintain runway orientations
   - Avoid or minimize land acquisition

B. Criteria for Screening Range of Alternatives
   - Compatible with a viable 30th Street N. realignment alternative
   - Meet the Purpose and Need
   - Conform to FAA policies

C. Criteria for Identifying Preferred Alternative
   - Practicability factors
   - Environmental factors

D. Preferred Alternative

No Action Alternative

For Evaluation Purposes Only
Primary Runway 14/32 Alternatives

- The LTCP considered five concepts.
- The EA/EAW identifies three additional concepts.
## Primary Runway 14/32

“Tier B” Alternatives Screening

<table>
<thead>
<tr>
<th>Alternative</th>
<th>Purpose &amp; Need Objective 1</th>
<th>Purpose &amp; Need Objective 2</th>
<th>Purpose &amp; Need Objective 3</th>
<th>Purpose &amp; Need Objective 4</th>
<th>Conform to FAA Policies</th>
<th>Viable 30th Street Realignment Alternative</th>
</tr>
</thead>
<tbody>
<tr>
<td>No-Action Alternative</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Alternative A</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Alternative B</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Alternative B1</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Alternative B2</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Alternative C</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Alternative D</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>Alternative E</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
Alternative B1
## Primary Runway 14/32

“Tier C” Comparison of Finalist Alternatives

<table>
<thead>
<tr>
<th>Criterion</th>
<th>No-Action Alternative</th>
<th>Alternative B Relocate 700’ &amp; Extend to 3,600’</th>
<th>Alternative B1 Relocate 616’ &amp; Extend to 3,500’</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction Cost</td>
<td>$5.4 million</td>
<td>$8.6 million</td>
<td>$8.3 million</td>
</tr>
<tr>
<td>Logistical Factors</td>
<td>Future Manning Avenue widening will trigger FAA RPZ review</td>
<td>30th Street N realignment options are limited</td>
<td>None</td>
</tr>
<tr>
<td>Wetland Fill Area (approx.)</td>
<td>NA</td>
<td>2.32 acres</td>
<td>1.85 acres</td>
</tr>
<tr>
<td>Wildlife Considerations: RW 32 Threshold to Nearest Wetland (approx.)</td>
<td>400 feet</td>
<td>700 feet</td>
<td>700 feet</td>
</tr>
<tr>
<td>Tree Clearing Area (approx.)</td>
<td>NA</td>
<td>22 acres</td>
<td>20 acres</td>
</tr>
<tr>
<td>Residential Parcels with Structures in Model Safety Zone A</td>
<td>0</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>Residential Parcels with Structures in Model Safety Zone B</td>
<td>2</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>Private Properties within 65 DNL in 2025</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>
30th Street North Design Alternatives

• The LTCP considered three concepts.
• The EA/EAW identifies two additional concepts.
  • Will not be considered further based on project cost and CEP input.
• Alternatives were evaluated to address three primary concerns expressed by the CEP and community:
  • Estimated construction cost
  • Compared design characteristics
  • Quantified travel time differences
• Alternative 3 will be carried forward as the preferred alternative.
Crosswind Runway 04/22 & Instrument Approach Alternatives

• LTCP Preferred Crosswind Runway Alternative: Extend Runway 04/22 by 254 feet northeast
  • There are no other alternatives that meet the same criteria used for identifying the range of primary runway alternatives

• LTCP Preferred Instrument Approach Alternative: Upgrade Instrument Approaches
  • There are no other alternatives that meet the Purpose & Need
Preferred Alternatives

- Based on the preceding, the following alternatives will be carried forward as the preferred alternatives for full environmental review:
  - No-Action Alternative
  - Primary Runway 14/32 = Alternative B1
  - 30th Street North = Alternative 3
  - Crosswind Runway 04/22 = Extend Runway 04/22 by 254 feet northeast
  - Instrument Approaches = Upgrade Instrument Approaches
Next Steps

• Evaluate environmental effects for the preferred alternatives
• CEP Meeting #4 – October 19, 2017
• Public Event #3 – November 2017