



Lake Elmo Airport

AUGUST 2017
ENVIRONMENTAL ASSESSMENT NEWS



Lake Elmo Airport Environmental Assessment Work in Full Swing

Since the public event in May, the Lake Elmo Airport Environmental Assessment project team has been busy developing the project's Purpose and Need Statement, as well as analyzing alternatives for meeting project goals. (For a recap of the proposed improvements, please see the [April 2017 newsletter](#).) The team has developed several alternatives that will be carried through the environmental review process. These alternatives will be the subject of the next public event scheduled for August 17.

To ensure a thorough review and to fully consider community and stakeholder input, the team closely evaluated the types of aircraft and the number of aircraft operations forecasted for Lake Elmo Airport. As a result of input provided by the public and Community Engagement Panel members, we've expanded the range of alternatives being considered for both Runway 14/32 and 30th Street North.

The project team has also been researching and collecting data regarding environmental resources that may be affected by the project. This includes

field surveys of wetlands, plant species, historical structures, and other resources in areas around the airport. This information will be used to compare alternatives to ensure the implementation of the project avoids or minimizes environmental effects to the greatest extent possible. A broader discussion of the environmental data collected will be the subject of the third public event, tentatively scheduled for November. An updated [schedule](#) is available on the [project website](#). ■

PUBLIC EVENT

Thursday,
August 17, 2017
6 to 8 p.m.
(Presentation at 6:30)

Oak-Land Middle School
Auditorium
820 Manning Ave. N.
Lake Elmo, MN 55042

Project Website 

www.metroairports.org/General-Aviation/Lake-Elmo-Environmental-Assessment.aspx

The Purpose and Need Statement is the foundation of an environmental assessment. It should clearly and concisely explain why a project is being proposed and should be understandable to those unfamiliar with aviation. The *purpose* is a general statement of over-arching project goals. The *need* is a more detailed statement describing problems that would be solved by implementing the project.

What is the Project's **PURPOSE** and **NEED** at Lake Elmo Airport?

The **PURPOSE** of the proposed improvements:

- 1 Address and attend to the airport's failing, end-of-life infrastructure;
- 2 Enhance safety for airport users and neighbors; and
- 3 Improve facilities for the types of aircraft using, and expected to use, the airport.

The **NEED** for the proposed improvements:

- 1 Existing runway pavements are deteriorating and, for safety's sake, need to be replaced.
- 2 The primary runway has several incompatible land uses within its runway protection zones (RPZs), including a railroad and two public roads.
- 3 The existing runway lengths do not meet the needs of current aircraft operators and their aircraft.
- 4 The airport lacks the most current navigational technology for landing aircraft. ■

PURPOSE OF THE PROJECT: Ensuring Safety and Utility for one of Minnesota's Busiest Airports

According to the Minnesota Department of Transportation (MnDOT), Lake Elmo Airport is one of 83 intermediate airports in the state. Of those, Lake Elmo is the fourth busiest and ranks second for the number of aircraft that call it home. However, when ranked by primary runway length, Lake Elmo is at the back of the pack.

At 2,849 feet, only four intermediate airports have shorter primary runways than that of Lake Elmo's. The average length of Minnesota primary runways at intermediate airports is 3,654 feet—805 feet longer than Lake Elmo's. As one pilot told us, regarding the proposed runway length, it's the difference between an extremely short runway and just a short runway.

Understandably, some airport neighbors have expressed concern about a longer runway (3,500 feet total) attracting larger jet aircraft, which don't currently operate at the airport. In reality, nearly all jet aircraft need significantly more than 3,500 feet to safely and efficiently take off and land. Lake Elmo's primary runway—at 3,500 feet—has been designed for propeller-driven airplanes that weigh less than 12,500 pounds and have fewer than 10 passenger seats—the same class of aircraft using the airport today.

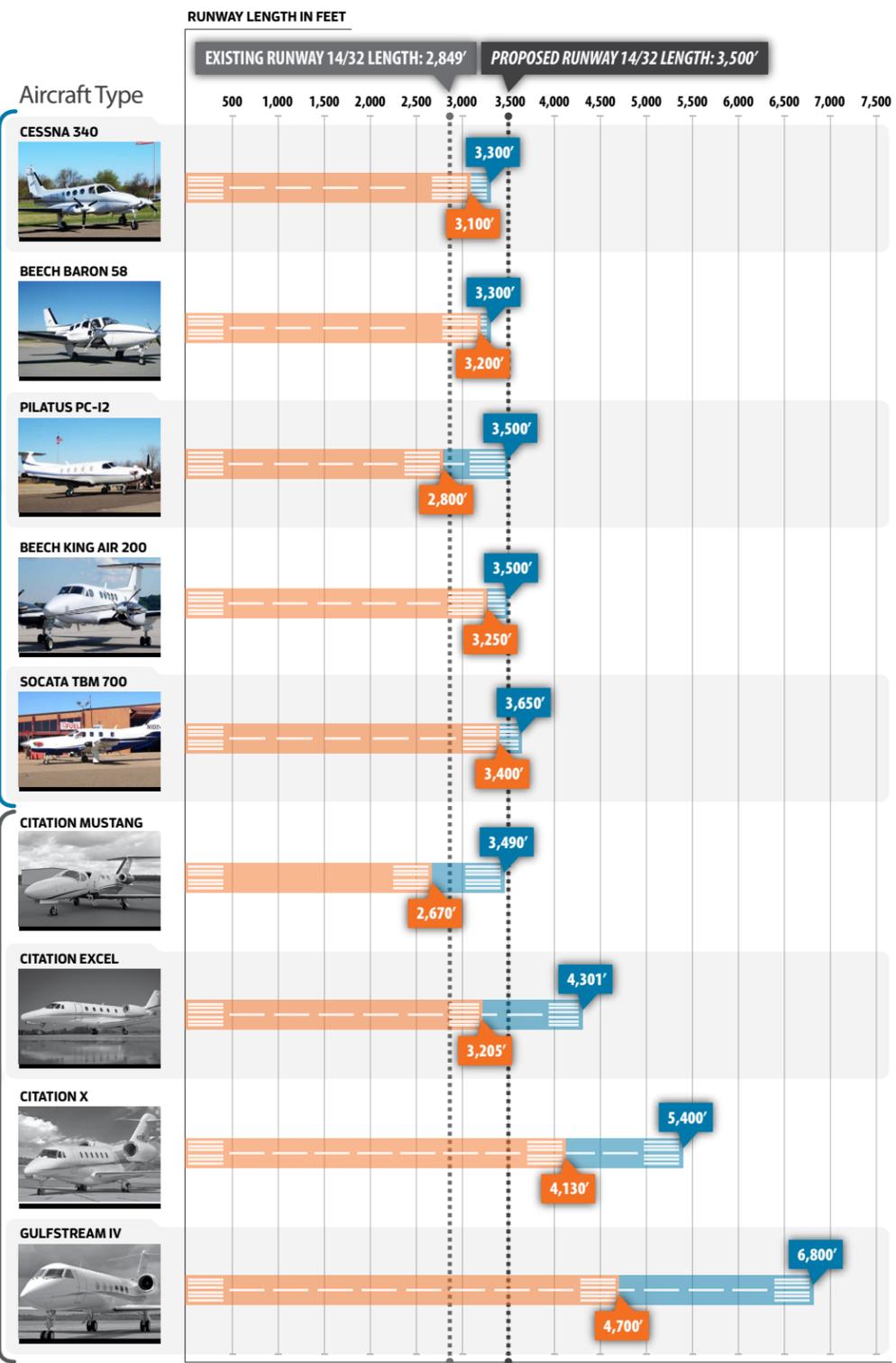
The graphic on the next page shows the required runway lengths at 60 percent and 90 percent useful load. Useful load is one way to measure how safely and effectively an aircraft can operate on a specific runway length in various weather conditions. The allowable useful load represents the number of passengers and weight of cargo a plane can carry while still operating safely. Fuel on board is also part of the useful load equation, which directly affects how far an aircraft can travel. Useful loads below 60 percent severely limit an aircraft's ability to fulfill its purpose.

As the graphic shows, larger jet aircraft could not safely operate on the proposed extended runway in nearly all scenarios. The ultimate goal of the runway extension is to increase the margin of safety for the aircraft currently operating at the airport. ■

Typical Runway Length Requirements For Different Types of Aircraft

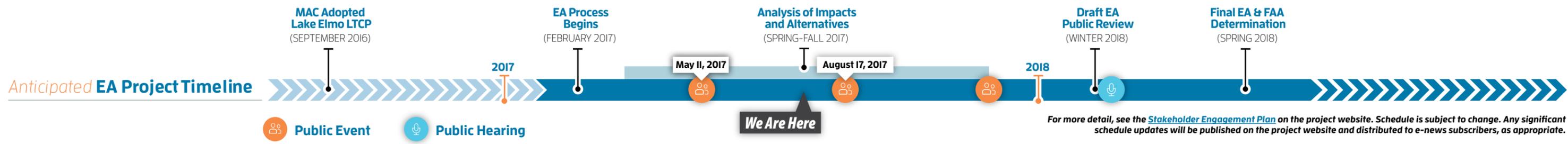
DESIGN AIRCRAFT

JET AIRCRAFT



60% USEFUL LOAD
90% USEFUL LOAD

NOTE: Propeller-driven aircraft runway lengths are based on accelerate-stop distances and jet-driven aircraft runway lengths are based on balanced field length takeoff distances, as identified in the respective aircraft performance manuals. Accelerate-stop distance is the length required to accelerate from a full stop to near lift off speed and then decelerate to a full stop. Balanced field length considers the accelerate-stop distance along with other safety factors as required for federal certification of these larger aircraft types. Lengths are calculated for a temperature of 82.3° Fahrenheit, a field elevation of 933 feet above mean sea level, and typical takeoff flap settings.



For more detail, see the Stakeholder Engagement Plan on the project website. Schedule is subject to change. Any significant schedule updates will be published on the project website and distributed to e-news subscribers, as appropriate.

How a Preferred Alternative is Selected

Environmental reviews typically evaluate more than one scenario—or alternative. In this case, eight alternatives are currently being considered for the primary runway and five alternatives for 30th Street North. After an initial evaluation, a preferred alternative for each will be selected to carry forward. The other alternatives will then be dismissed. Public input is important when determining a preferred alternative. The project's conformance to FAA design standards and its effect on safety and airport operations are also critical. ■

“Public input is one of the factors when determining a preferred alternative.”

30th Street North

A significant concern we heard throughout the long-term comprehensive planning process and this environmental review process **is the effect the realignment of 30th Street North will have on travel time and safety. Taking these concerns into consideration, the project team has developed several roadway design options that minimize travel time and maximize safety, while meeting project goals.** The road realignment alternatives will be presented at the August 17 public event. ■

Public Invited to Attend Event – August 17

The next opportunity for the public to learn about and provide input to the Lake Elmo Airport Environmental Assessment will occur on Thursday, August 17 at the Oak-Land Middle School Auditorium. The event begins at 6 p.m. with a presentation at 6:30 p.m. Community members will have an opportunity to ask questions both before the presentation (one on one) or during the question and answer period following the presentation. We would be pleased to have you join us.

Based on feedback received at the May event and from the Community Engagement Panel, we are making some changes for the second public event. The focus of the evening will be to explain the Purpose and Need for the proposed improvements and introduce the alternative scenarios being considered, including alternatives for primary Runway 14/32 and 30th Street North.

Thursday, August 17, 2017
6 to 8 p.m. (Presentation at 6:30)
Oak-Land Middle School Auditorium
820 Manning Ave. N.
Lake Elmo, MN 55042

Parking is available in the front lot on the east side of the school. The auditorium is just inside the main entrance. ■

FAQs Updated on Project Website

A number of frequently asked questions and their answers have been added to the project website. These represent many of the questions asked at the May event and those we've received online. Examples include:

- **How will aircraft noise be evaluated in the Environmental Assessment?**
- **Can the airport restrict certain types of aircraft or operations to certain times?**
- **What type of aircraft operate at the airport today? Is this expected to change?**
- **Why not simply rehabilitate the runway without extending it?**
- **Will the planned improvements have an impact on the value of my property?**
- **What are the social and economic benefits of the Lake Elmo Airport?**

Visit the [Frequently Asked Questions](#) page of the website to browse all questions and answers. Have a question that's not listed? Submit your question or comment by emailing ContactLakeElmoAirportEA@mspmac.org. ■

