

**Department of Transportation
Federal Aviation Administration
Dakota-Minnesota Airports District Office
FINDING OF NO SIGNIFICANT IMPACT
For Hangar Site Work and Wildlife Hazard Mitigation
at Fosston Municipal Airport
Fosston, Polk County, Minnesota**

The Federal Aviation Administration (FAA) prepared this Finding of No Significant Impact (FONSI) for a project analyzing Hangar Site Work and Wildlife Hazard Mitigation at Fosston Municipal Airport (FSE).

In accordance with FAA Order 1050.1F, *Environmental Impacts: Policies and Procedures*, FAA Order 5050.4B, *NEPA Implementing Instructions for Airport Actions*, and based on the evaluation in the Final Environmental Assessment (FEA), there are no significant impacts associated with the proposed project. Therefore, a Federal Environmental Impact Statement (EIS) will not be prepared and a FONSI is being issued. This FONSI provides a review of the Proposed Action, mitigation requirements, and the basis for the FAA's finding. Specific details are defined further in the FEA.

I. Purpose and Need

The project purpose is to address the deficient hangar storage capacity, aircraft circulation, and mitigate existing wildlife hazards in order to maintain a safe operating environment.

FSE currently has a T-hangar with 6 individual spaces, a large box hangar, and 3 individual hangars for a total of 5 existing hangars with capacity for 10 aircraft. The number of based aircraft is forecasted to increase from 11 to 15 by the year 2022.

FSE based aircraft have remained steady for ten years, but research indicates this is a result of limited hangar capacity rather than lack of demand. No new hangars have been constructed in the last 20 years and FSE routinely receives inquiries for hangar space. The number of based aircraft already matches available hangar space. Interest in hangar space also demonstrates a need for additional hangars within the next five years. Growth at FSE is currently constrained by available hangar space and is projected to be initially driven by the construction of new hangars until hangar space catches up with demand. An assessment of hangar demand used existing data to determine the amount of hangar space required for each type of aircraft. Projections from the 2018 Triggering Event Narrative Report (TENR) identifies the square footage of forecasted hangar space needed, and the resulting projected based aircraft that space could support. The projected deficit of hangar space exceeds 10,000 square feet by 2021. The current deficit is 1,900 square feet, which is only projected to increase over time.

With pavement requiring future maintenance and operations increasing, nonconforming movement areas on the apron need to be brought up to current FAA design standards at the time of significant pavement rehabilitation projects. Aircraft parking and a run-up pad are located within the departure surface area of runway 34. The run-up pad can be removed without replacement, but additional aircraft parking would need to be provided before removing the existing aircraft parking in the departure surface.

FSE also currently has a non-conforming access to the taxiway and runway. There is only a single access to the taxiway, which creates a “bottleneck” in circulation between the apron and taxiway. The access also extends directly to the runway, which is in conflict with current design standards that require a pilot to turn before accessing the runway.

A 2017 Wildlife Hazard Site Visit (WHSV) identified wetlands 2 and 3, located adjacent to Runway 34 as an acute concern. Both of these wetlands were identified as Type 1: Seasonally Flooded Wetlands. Wetland 2 is 1.07 acres and Wetland 3 is 1.52 acres. Any wildlife startled in the wetlands may travel toward the larger habitat surrounding Ouff Lake and cross Runway 34. Because of the close proximity of each of these wetlands to the Runway, pilots would have little time to react if wildlife were to cross the Runway. The removal of these wetlands would certainly not eliminate the risk of waterfowl strikes by aircraft at FSE due to several other wildlife attractants in the area, such as agricultural fields, wastewater treatment ponds, and other temporary and permanent water attractants. However, due to the attractiveness of the two wetlands to waterfowl and other wildlife, combined with the close proximity of these wetlands to the airfield, the removal of the wetlands would be an important incremental benefit to reduce wildlife (especially waterfowl) hazards. The WHSV recommended increased safety parameters due to mammal/ungulate presence as well.

II. Alternatives Considered

In accordance with FAA Order 1050.1F, the EA identified and evaluated all reasonable alternatives. The Final EA provides analysis of all the alternatives analyzed.

Airport Layout and Hangar Alternatives Considered

The No Action Alternative would not achieve the purpose and need. There would be a deficit in available hangar space. Growing hangar demand would not be met and development would not align with the short-term goals. FAA design standards would not be met, and wetlands located adjacent to Runway 17/34 would still encourage wildlife hazards to travel across the runway.

Alternative A1 would prioritize existing facilities while addressing FAA design requirements and hangar capacity issues. All current hangars would remain in their existing configurations to minimize interference with current tenants and operations, while new hangars would be constructed on the greenfield site to the north of the terminal area. The existing apron would be reconfigured by removing the east portion and expanding to the north. As a result, aircraft parking would be provided along the eastern edge of the expanded apron, which would be outside the departure surface, so parked aircraft would not penetrate the surface. Additionally, there would be room for aircraft, vehicles, and SRE equipment to maneuver on the western side of the ramp while leaving the self-service fuel area unobstructed. This alternative would leave most existing facilities in place, which would simplify construction and phasing. However, it would not address the inefficient building layout. To maximize building layout efficiency, buildings should be parallel to the taxiway and be spaced according to appropriate setbacks. This allows the maximum number of hangar spaces in a given area. Existing buildings are located near Highway 2 in a desirable location. Any additional hangars would need to be constructed north of the existing area in less desirable areas. Buildings are nearing the end of expected life and will

need replacement in the near future. A new layout should be considered and implemented once the buildings are fully depreciated. Therefore, this alternative was dismissed.

Alternative A2 considered developing a new terminal area east of the runway. The alternative considered aircraft parking and box hangars with an angled taxiway attached to Runway 34. Although this alternative would have few facility constraints, it would introduce several circulation difficulties and result in potentially unsafe conditions. Traffic using the parallel taxiway would be required to cross the runway causing potential conflicts with planes during takeoff and landing. Additionally, aircraft based on the east side of the runway would need to cross the runway in order to reach the self-service fuel. This alternative would only include a single access to the runway at the south end, rather than on both ends. The single access would lead to traffic congestion. The operational issues and comparative cost of construction outweigh advantages to this alternative. Therefore, this alternative was dismissed.

Alternative A3 considered aligning facilities along a common axis to make more efficient use of existing space. The parallel taxiway would be extended in order to eliminate the direct access from the apron to the runway. Similar to Alternative #1, the run-up pad would also be removed. This alternative also considered constructing a T-hangar north of the existing hangars with the intention of allowing individual hangars to relocate prior to removal of existing hangars. This layout would improve the building layout over time and also eliminate hazards associated with the direct access from apron to runway. However, this layout could lead to congestion during busy periods since it would have only limited areas for aircraft to reverse direction or stop temporarily. The alternative would also result in aircraft passing under the departure surface when circulating through the area. For these reasons, this alternative was dismissed.

Wildlife Hazard Alternatives considered

Fencing around the wetlands was considered as an alternative, but would only be effective with mammals and ground species. A fence would not prevent birds from using the wetlands. In addition, the fence would need to be located well within the building restriction line (BRL). For these reasons, this alternative was dismissed.

Another alternative considered non-lethal hazing of the wildlife in the wetlands. This method would be effective with all species, including ground mammals and birds, but only in the short term. Hazing methods lose effectiveness as wildlife become familiar with them. The airport is also located near the City of Fosston and the loud noises associated with the propane exploders and distress calls would be a nuisance for residents living near the airport. For these reasons, the hazing alternative was dismissed.

Lethal control was also considered as an alternative. While it would not be used as a stand-alone solution, it would be used to supplement the hazing alternative. Permits can be obtained to lethally remove mammals, although FSE is not staffed full time, and lethal control would require a full time position. For these reasons, lethal control was dismissed.

Wildlife netting was also considered for hazard mitigation. It would provide an immediate barrier with little or no impacts to the wetlands. Installing a net over the entire wetland was considered, but with two wetlands totaling 2.59 acres, it would be difficult and expensive to find nets large enough to cover the area. Furthermore, the net would likely require frequent

maintenance. It could also pose a risk to wildlife that become trapped in the net. The additional risk, costs and difficulties outweigh the benefits, thus dismissing the alternative.

III. Proposed Action

Alternate A4 includes the construction of eight new hangars. FSE will phase into this design, by only developing a single hangar within the next five years. FSE has also chosen both a wildlife perimeter fence and wetland fill as the preferred wildlife hazard alternatives.

The Proposed Action will focus on addressing the hangar demand at the airport. A shortage of 10,100 square feet of hangar space is projected in the next 5 years with the current conditions. Development of a hangar and apron will alleviate the shortage.

Work will include construction of a new hangar, apron, and taxilane access. Work will be located north of the existing hangars. The hangar building and surrounding apron will be designed and constructed privately, according to the proposed layout. Prior to development of the hangar, a 25' wide taxilane will be constructed north of the proposed hangar. The taxilane access will be constructed of bituminous and provide an additional connection to the taxiway, which will improve circulation. The hangar owner will then be responsible for connecting any portions of taxilane to the apron and building. Construction of the taxilane will result in minor impacts to Wetland 1. However, the impacts will be less than one tenth of an acre as the impacted wetland is a constructed ditch.

The proposed action also includes redevelopment of the apron circulation area, including the design, bidding and construction phases. The portion of the apron located in the departure surface does not meet FAA design standards. Since these portions of apron are nearing the end of their useful life, they will be removed. Lost apron space will be accounted for by infilling and expanding the existing apron to the north. Aircraft parking will be relocated to the expanded apron in order to remove it from the departure surface area. The result will be a large apron with easy access to the hangar areas and space to relocate aircraft parking. This relocated parking area will be designed with six tie downs for smaller single engine aircraft, which will accommodate the 5-year forecasted need.

The expansion of the apron will result in minor impacts to Wetland 1. Similar to impacts anticipated from the hangar apron, wetland impacts will be minor. Apron Expansion and Hangar Site work would result in 0.11 acre of wetland impact.

Because of unconflicting taxilanes, a fueling aircraft can delay traffic from accessing the airfield or other locations within the building area. The reconfigured apron will improve circulation in this area by allowing easy access to aircraft fueling and tenant hangars. The additional pavement will also provide efficient circulation around the relocated aircraft parking.

Wildlife hazards have surfaced as the highest priority for FSE and will therefore be addressed before further development. As recommended in the WHSV, Wetlands 2 and 3 would be removed. There will be a total of 2.59 acres of impacts and both wetlands are jurisdictional requiring mitigation.

Wetlands are estimated for removal in 2020 to eliminate concerns related to birds and the tall wetland vegetation encroaching the runway. A 10-12 foot wildlife perimeter fence with 3 strand barbed wire would be installed around the airport to eliminate mammals and create a safer airport environment. A 4 foot skirt would be buried along the fence except in wetlands.

Posts for the fence will be pounded into the ground using mechanical equipment to an estimated depth of 4' below the surface. Posts located in wetland areas will be installed using the same methods, but will be pounded to whatever depth necessary to achieve stability. To avoid rutting or other impacts to wetlands caused by the equipment, timber mats will be used, or work will be completed while conditions are frozen. Because posts do not alter hydrology or vegetation, they are not considered an impact to wetlands.

IV. Environmental Consequences and Mitigation

After careful analysis and consultation with various state and federal resource agencies, the Airport selected the proposed action as the preferred alternative. This alternative satisfies the purpose and need for the project while causing minimal environmental impacts. The FEA discusses the environmental consequences of the Proposed Action. The Airport shall implement the following mitigation measures as a condition of environmental approval of the proposed development listed in this FONSI to support existing and proposed aeronautical activities at the Airport:

- The Airport will obtain any necessary permits prior to beginning construction.
- Due to 2.70 acres of total wetland impact, wetland mitigation will be required as a condition of a Permit under Section 404 of the Federal Clean Water Act as well as the Minnesota Wetland Conservation Act (WCA). The wetlands are located in the Red River of the North-Sand Hill River Watershed, Bank Service Area (BSA) #3. Impacts to jurisdictional wetlands will require mitigation at a replacement ratio of 2:1. Compensation of wetland impacts will be achieved by using BSA #3 wetland credits.
- The Airport will protect wetlands and waters of the U.S. not directly impacted by the Proposed Action during construction.
- Use of BMPs to avoid additional unnecessary and/or unauthorized impacts to surface waters and aquatic resources.
- In the event that human remains or cultural resources are discovered during construction, all work will cease until FSE notifies appropriate authorities, the State Historic Preservation Office (SHPO), State Archeologist, and the FAA Dakota Minnesota Airports District Office (ADO). FSE shall protect the area with carefully placed tarps or construction back fill until cultural resource concerns have been appropriately addressed, and FSE will take action to comply with the National Historic Preservation Act, the Native American Graves Protection and Repatriation Act, and the Archeological Resources Protection Act, as appropriate.

