

FEDERAL ENVIRONMENTAL ASSESSMENT (EA)
FOR
CROSSWIND RUNWAY RELOCATION

at New Ulm Municipal Airport, New Ulm, Minnesota

Prepared by Mead & Hunt, Inc.
under contract with the City of New Ulm

MARCH 2025

FAA CERTIFICATION:

This becomes a Federal document when evaluated, signed, and dated by the Responsible FAA Official.

Signature: _____ Date: 5/19/2025

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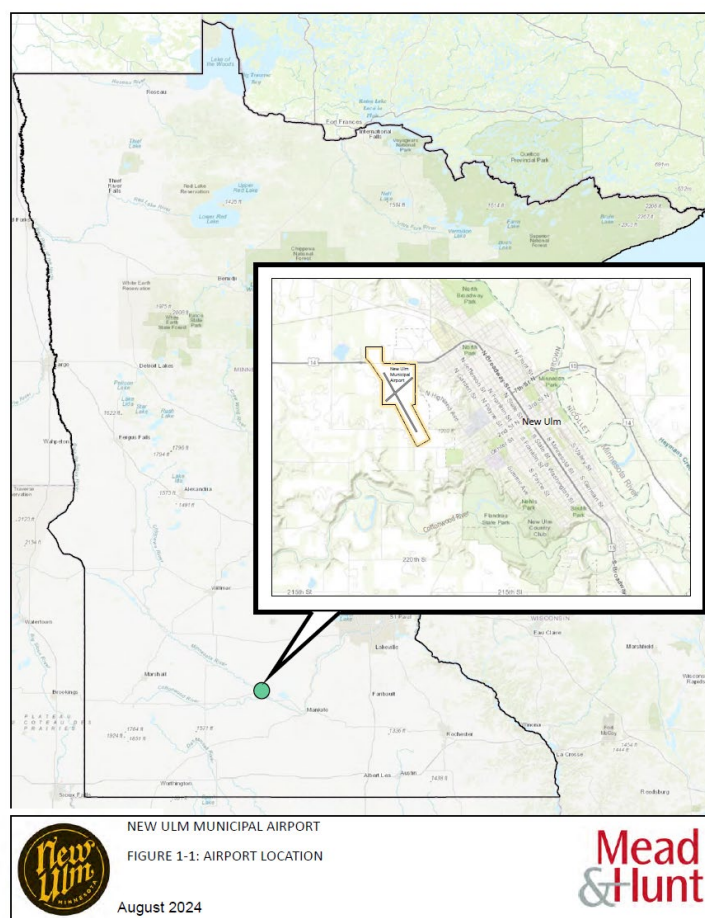
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Chapter 1

Purpose and Need

1.1 Introduction

New Ulm Municipal Airport (ULM or the Airport) is a general aviation (GA) airport located in New Ulm, Minnesota, approximately 75 miles southwest of Minneapolis, see **Figure 1-1: New Ulm Municipal Airport Location**. The Airport has two runways, a primary paved runway in a 15/33 configuration and a turf crosswind runway in a 4/22 configuration. The primary runway is 5,401 feet in length and the crosswind is 2,478 feet in length. The Airport is owned by the City of New Ulm and has hangar, terminal, fixed base operator (FBO) and refueling facilities.



Federal financial participation in projects through the Airport and Airway Improvement Act of 1982 (AIP) requires environmental review under the National Environmental Policy Act (NEPA). An Environmental Assessment (EA) is a document prepared under NEPA that evaluates the effects of a proposed action on the surrounding natural, social, and economic environments. This EA is prepared under the requirements of the Title V of Public Law 97-248 of the Airport and Airway Improvement Act of 1982, NEPA, and Federal Aviation Administration (FAA) Order 5050.4B, National Environmental Policy Act Implementing Instructions for Airport Actions (April 2006). The EA also meets the requirements of FAA Order 1050.1F, Environmental Impacts: Policies and Procedures, dated July 2015.

An EA outlines the purpose and need for a proposed project and evaluates the proposed action and a full range of alternatives. The analysis also identifies and discusses measures

to avoid, minimize, and mitigate possible environmental impacts. The FAA will evaluate the EA under NEPA and, if the project does not have the potential for significant impacts, issue a Finding of No Significant Impact (FONSI), or if it does have significant impacts, prepare an Environmental Impact Statement (EIS). No other agencies are expected to play a cooperating role.

1.2 Project Background

On August 6, 2009, the FAA issued a FONSI for a Federal EA/State Environmental Impact Statement (EIS) for ULM that included the proposed action of:

- Extending Runway 15/33 and parallel taxiway approximately 1,000 feet for a total length of 5,400 feet.
- Decommissioning, relocating, and extending existing turf crosswind Runway 4/22 to a 9/27 orientation from 2,477 feet to an overall length of 3,000 feet.
- Installing Medium Intensity Approach Lighting System with Sequenced Flashing Lights for the primary runway.
- Acquiring 90.7 acres in fee simple and 63.2 acres in aviation easements.

Due to funding constraints and Airport operational requirements, initial construction focused on extending and reconstructing Runway 15/33. Once this phase was substantially complete, the focus transitioned to relocating and reorienting crosswind Runway 4/22 to a 9/27 alignment. Although the Runway 9/27 project was cleared under NEPA and was poised to begin the land acquisition and construction processes, the FAA informed the Airport the project did not compete well for standard AIP funding support at that time. As a result, the project was stalled. However, due to zoning conflicts and related Minnesota Department of Transportation (MnDOT) Office of Aeronautics requirements, the existing condition of crosswind Runway 4/22 did not meet standards or community needs, and the Airport continued to investigate relocation options. The Airport ultimately completed a new Master Plan in 2023 that includes a revised relocation of the turf crosswind runway to a 9/27 alignment, which would remain turf. Following the Master Plan completion, ULM updated its Airport Layout Plan (ALP) and Airport Zoning Ordinance to include the proposed Runway 9/27 alignment and runway end locations. The updated ALP was subsequently approved by FAA and MnDOT in 2023. MnDOT also approved the updated Airport Zoning Ordinance in 2023.

In March 2024, the United States Congress directed funding to the City of New Ulm, specifically to fund the relocation of the turf crosswind runway as proposed by the updated Master Plan, 2023 FAA-approved ALP, and 2023 MnDOT-approved Airport Zoning Ordinance. Therefore, funding support is now in place for the Runway 9/27 project. Revisions to the preferred alternative outlined in the approved Master Plan have been proposed and an EA must be prepared to reexamine the relevant planning and environmental elements of the project.

1.3 Project Purpose

The purpose of the proposed project is to maintain the functionality and usability of the Airport and enhance safety for Airport users and neighbors.

1.4 Project Need

The proposed project arose from the needs of the Airport to accommodate both user demand and development beneath the existing crosswind runway's flight path. The city has seen steady development along US route 14, north of the airport, over the past 40 years. With the establishment of multiple big-box commercial businesses along the corridor and new housing development south of the corridor, between the airport and city center, New Ulm's developed footprint is growing westward, towards the Airport.

User demand is represented by the continued need for the existence of a crosswind runway at the Airport along with demand for apron facility development and reconfiguration. The Airport does not have sufficient wind coverage without a crosswind runway and the 2023 Master Plan preferred alternative for the southeast building area would encroach upon the

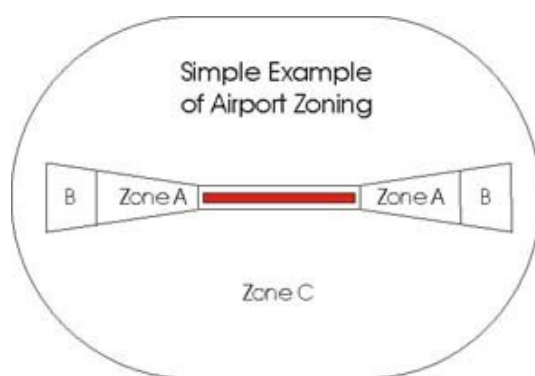


Diagram 1-1: MN State Runway Safety Zones

building restriction line for the existing crosswind runway.

Encroaching residential development is occurring to the Airport's east where residential parcels have been left undeveloped due to the overlying required state runway safety zones¹ and other protected surfaces. These safety zones are depicted in **Diagram 1-1**. Remedying this incompatibility necessitates the reconfiguration of the crosswind runway.

While a reconfigured runway is under consideration, it is also an opportune time to optimize wind coverage needs, which will guide runway orientation and lead to enhanced safety.

Given these considerations, the needs this project will address are:

- Incompatible land use at the northeast end of the existing turf crosswind runway, Runway 4/22.
- Limited primary runway wind coverage at the Airport.

¹ The State of Minnesota DOT rules establish zoning standards for land use around a runway in state statute 8800.2400. The rules prescribe three zones, A, B, and C. The former two are trapezoidal shapes off the runway ends while the latter forms a perimeter around the runway. Zone A extends outward from the end of the primary runway surface a distance equal to two-thirds the existing or planned runway length while Zone B extends outward from Safety Zone A a distance equal to one-third the existing or planned runway length.

- Constraints on available apron development space, including location of fuel area and taxiway and taxilane size restrictions.

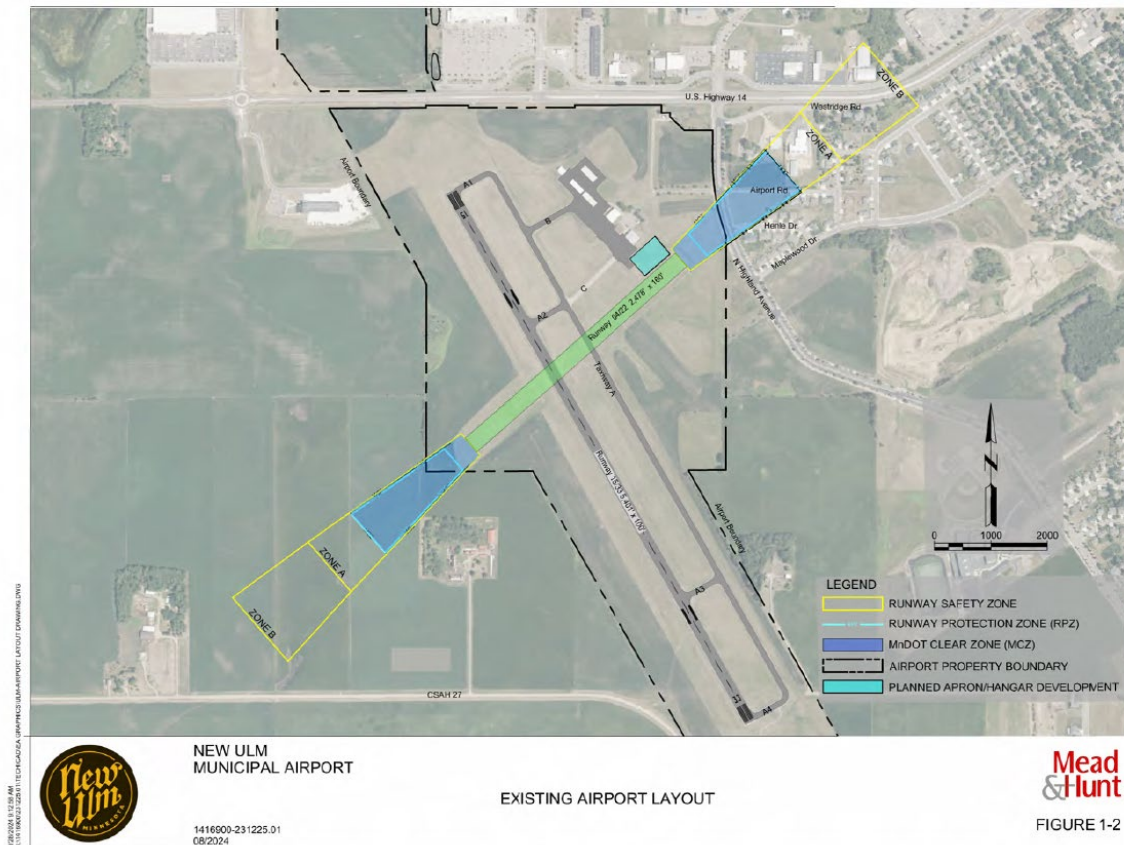
This project will aim to remedy these issues and improve the way the Airport serves its users by meeting the following objectives:

- Resolve Incompatible Land Use
- Improve Crosswind Coverage
- Maintain Existing Runway Length
- Enable Planned Building Area Expansion
- Adhere to FAA Design Standards

Details on the conditions driving the project and how these objectives address them are found in the following subsections.

1.4.1 Resolve Incompatible Land Uses

The existing crosswind runway 04/22 is incompatible with both the FAA Runway Protection Zone (RPZ), depicted in blue in **Figure 1-2**, as well as the Minnesota State Safety Zones A and B, depicted in yellow in the same figure. These zones are “intended to restrict land uses that may be hazardous to the safety of aircraft using the airport, and to protect the safety and property of people on the ground near the airport.” Safety Zone A is very restricted in terms of allowed land uses. According to the model ordinance, it must “contain no buildings,



temporary structures, exposed transmission lines, or other similar above-ground land use structural hazards, and shall be restricted to those uses which will not create, attract, or bring together an assembly of persons thereon.” Safety Zone B has size and density requirements that mandate a minimum of three acres for a designated land use and allows a population of no more than 15 people per acre². Currently Safety Zone A contains buildings and lots slated for residential development. Safety Zone B contains residences with approximately ½-acre lots along the US Highway 14 Frontage Road.

The RPZ, like the safety zones, is a trapezoidal surface that comes out from the runway end. The FAA’s Advisory Circular (AC)-150/5300-13B, *Airport Design*, does not include public roadways within its standard permitted land uses under an RPZ. North Highland Avenue, Henle Drive, and Airport Road all fall within the RPZ for runway 04/22 and are therefore incompatible land uses. The same advisory circular encourages the Airport to acquire, “appropriate property interest...” in land within the RPZ.

MnDOT also requires an airport to have control over the MnDOT Clear zone, a trapezoidal area that begins at the primary surface and extends 1000-feet out from the runway, if the airport is to receive state funding. At ULM, the Clear Zone for the turf runway begins at the end of the runway as that is the end of the primary surface. Like the state safety zones, the Clear Zone is designed to prevent airspace obstructions at the ends of the runways as well as congregations of people near the runway.

1.4.2 Improve Crosswind Coverage

While one way to address the incompatible land use in the Runway 22 safety zones would be to simply close the crosswind runway, that solution would bring the Airport’s crosswind coverage below the FAA recommended level of 95% for the appropriate crosswind speed. Strong crosswinds can endanger aircraft by requiring the pilot to adjust the aircraft position while landing to compensate for the force of the wind. Crosswinds are especially hazardous to small aircraft, like those that use ULM, because these aircraft operate with lower approach speeds resulting in a higher relative crosswind.

Commensurate with the size of aircraft that typically use the Airport, aircraft with Runway Design Codes A-I and B-I, the runways should offer coverage at least 95% of the time in a 10.5-knot crosswind. **Table 1-1**, below, shows the wind coverages offered by the various combinations of runway options, with the existing and proposed options. The primary runway, on its own, only offers 93.71% coverage for 10.5 knot crosswinds. This deficiency indicates the continued need for a crosswind runway. The relocation and reconfiguration of the crosswind runway to a 9/27 orientation, would have a crosswind coverage of 98.10% for a 10.5 knot crosswind.

² Minnesota model ordinance: <https://dot.state.mn.us/aero/planning/zoning.html>

Table 1-1: Crosswind Coverages

Runway Configuration	All Weather Coverage	IFR Coverage	VFR Coverage
Primary Runway 15/33	93.71%	92.16%	93.84%
Crosswind Runway 4/22	79.79%	78.38%	79.97%
Preferred Crosswind Runway 9/27	84.67%	84.10%	84.86%
Existing Runways 15/33 and 4/22 Combined	97.51%	97.06%	97.54%
Proposed Runways 15/33 and 9/27 Combined	98.10%	97.73%	98.15%

Source: 726567 NEW ULM MUNICIPAL AIRPORT ANNUAL PERIOD RECORD 2014 -2023

1.4.3 Maintain Existing Runway Length

The existing crosswind runway, Runway 4/22, is 2,478 feet long. However, based on guidance found in AC 150/5325-4B, *Runway Length Requirements for Airport Design*, the Airport should have a longer runway. The existing crosswind runway, Runway 4/22, is 2,478 feet long and features a turf surface. The 2017 Crosswind Runway Planning Study and the 2023 Master Plan include detailed analysis of this runway's needed length. Length calculations in the study were based on guidance in FAA DRAFT AC 150/5325-4C, *Runway Length Requirements for Airport Design*, which has since been cancelled in favor of Advisory Circular (AC) 150/5325-4B. Using performance charts contained in the draft AC, the study recommended a crosswind runway length of 3,300 feet to accommodate the 95 percent of fleet grouping of small airplanes with fewer than 10 passengers.

However, the above lengths are those required for paved runways. FAA AC 150/5300-13B, Section 314, states that, due to the nature of turf runways, landing, takeoff, and accelerate-stop distances are longer than they would be for paved runways. For landing, the longer distance requirement is due to less friction available for braking. For takeoff, the uneven ground surface and higher rolling resistance increases takeoff distances compared with paved surfaces. The AC recommends increasing landing, takeoff, and accelerate-stop distances by a factor of 1.2 on turf runways. This gives a paved length of 3,300 feet and a turf length of 3,960 feet. While the length in the FAA guidance is longer than the turf crosswind at ULM, AC 150/5325-4B (202) states that, "Airport designers can, instead of applying the small airplane design concept, determine the recommended runway length from airplane flight manuals for the airplanes to be accommodated by the airport in lieu of the runway length curves depicted in figures 2-1 or 2-2 [of the AC]." This allowance applies to many of the aircraft in use on Runway 4/22, which require a shorter runway length based on the flight manual information. Additionally, master plan survey responses and feedback gathered at airport planning meetings indicated that pilots at ULM find the current turf runway length sufficient for use as a crosswind for small aircraft and as a preferred landing surface for tail-wheel aircraft.

Given the outcome of the master planning process, the current dimensions are suitable for existing and forecasted use of the turf crosswind runway. A length consistent with guidelines in AC 150/5325-4B would result in a far longer runway than is currently in place and would be overbuilding for the intended use at ULM for small and tail-wheel aircraft that currently use the existing length of 2,478 feet. A longer runway would incur additional costs to build and acquire property and lead to potential land use conflicts. Furthermore, larger aircraft that require a longer runway already have sufficient wind coverage on Primary Runway.

1.4.4 Enable Planned Building Area Expansion

The current location of the crosswind runway is adjacent to the Airport's building area and aprons. The 2023 Master Plans identifies the area to the southeast of the existing apron as the preferred location for future hangar growth and necessary improvements to aircraft circulation and refueling at the Airport. This area is shown above in light blue in **Figure 1-2**, between the crosswind runway and the existing apron. The apron and building area expansion includes the addition of seven hangars between the existing crosswind runway and the public airport road as well as the aircraft fueling area. Both of those elements, the hangars and fueling areas, require vehicular road access which increases the footprint of the overall development. The existing crosswind runway constrains this future development. Furthermore, while not expected in the near term, the 2023 Master Plan also identifies future growth alternatives that show additional hangars being developed further south of the preferred alternative development area. This area being clear would enable future development should the need arise. This area is not shown on the Airport's current approved ALP.

1.5 Conclusions

This chapter outlines the purpose of the proposed project and the needs driving it, along with objectives the project should achieve to best meet the purpose and need. In the following chapter, project alternatives will be screened using these objectives.

Chapter 2

Alternatives

2.1 Introduction

According to FAA Order 5050.4B, National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions, the Alternatives section of an EA is based on the Purpose and Need statement, compares the no action, the proposed action, and reasonable alternatives.

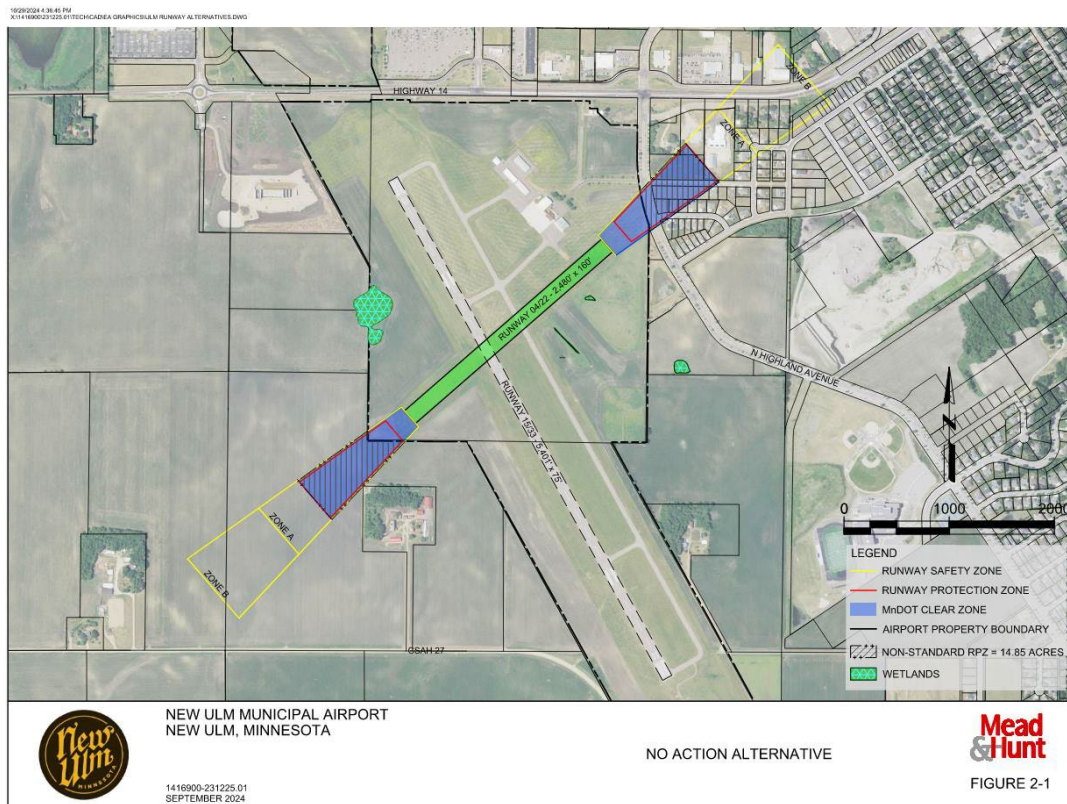
This chapter evaluates and compares alternatives originally developed for the 2023 Master Plan based on their ability to meet the Purpose and Need, including the resolution of incompatible land uses, improvements to the Airport's crosswind coverage, maintaining the existing runway length, and enabling planned future building area expansion, all while adhering to FAA standards. The alternatives analysis also considers operational, implementation, and known environmental feasibility factors.

This chapter compares a no-action alternative, where the existing conditions are maintained as-is, and two build alternatives, Airport Master Plan (AMP) Alternatives 2 and 3, that propose a new location and alignment for the turf crosswind runway. The result of this evaluation is the selection of a proposed project and alternatives to be carried forward for further evaluation of environmental impacts, identified in Section 2.3.

2.2 No Action Alternative

This No-Action Alternative represents what would occur if the Airport sponsor were to maintain and make no changes to the existing airfield configuration. Runway 04/22 would remain in its existing location and orientation. This alternative would not meet the Purpose and Need as it does not resolve the incompatible land uses associated with its FAA Runway Protection Zones and Minnesota State Safety Zones and it does not enable the planned expansion of the building area. However, as NEPA requires, the No-Action Alternative will be carried forward in the EA as a baseline for comparison with the other alternatives. This

alternative is shown in **Figure 2-1**.



2.2.1 Resolve Incompatible Land Use

Incompatible land uses found within the RPZ, Clear Zones, and Safety Zones on the northeast end of Runway 04/22 would remain, which would not meet the purpose or needs of the project. The runway, namely its RPZ and State Safety Zones, are not properly zoned within the City of New Ulm, possibly permitting future incompatible development. While there is no direct action related to this no-action alternative, its continued status as having incompatible land uses could result in a future decommissioning of the runway as state or other funding for out of standard conditions may be limited or not possible.

2.2.2 Improve Crosswind Coverage

This alternative maintains the current crosswind coverage at the airport that does meet FAA recommended level but does not meet the project objective to improve the crosswind coverage. If the present crosswind runway location could cause a future decommissioning of the runway due to not meeting zoning standards, this would bring the crosswind coverage at the Airport below the FAA recommended level of 95% coverage.

2.2.3 Maintain Existing Runway Length

This alternative does not change the length of the runway and therefore meets this objective.

2.2.4 Enable Planned Building Area Expansion

This alternative does not allow for the construction of the planned building area expansion as the expansion would encroach on the existing Runway 04/22 RPZ and Object Free Zone (OFZ).

2.2.5 Adhere to FAA Design Standards

While this alternative does not meet FAA Design Standards with respect to land uses within its RPZ, its continued existence is permitted as there are no changes to the runway.

2.2.6 Practical and Environmental Factors

No land acquisition nor associated costs would occur as part of the no action alternative. Were no change to occur, to comply with the MnDOT Clear Zone³ requirements which call for Airport ownership over lands within the Clear Zone, the Airport would need to acquire control of several parcels of land that is otherwise zoned for residential development.

Current flight paths and corresponding noise related to existing crosswind runway activity would remain directly over nearby residential areas. No project related disturbance would occur that could potentially affect wetlands or other natural resources.

2.3 Build Alternatives

This section presents and evaluates the two alternatives from the 2023 Master Plan (AMP Alternative 2 and AMP Alternative 3) that relocate and reorient the crosswind runway. These alternatives were developed based on adherence to FAA Design Standards, the objectives of the relocation, and practical factors such as property and zoning constraints facing the airport, known environmental features, and costs. Each build alternative would require the acquisition of adjacent agricultural lands both to the east and west of the airport and would create a new turf crosswind runway that intersects the primary runway.

2.3.1 AMP Alternative 2: 2,478-foot turf Runway 6/24

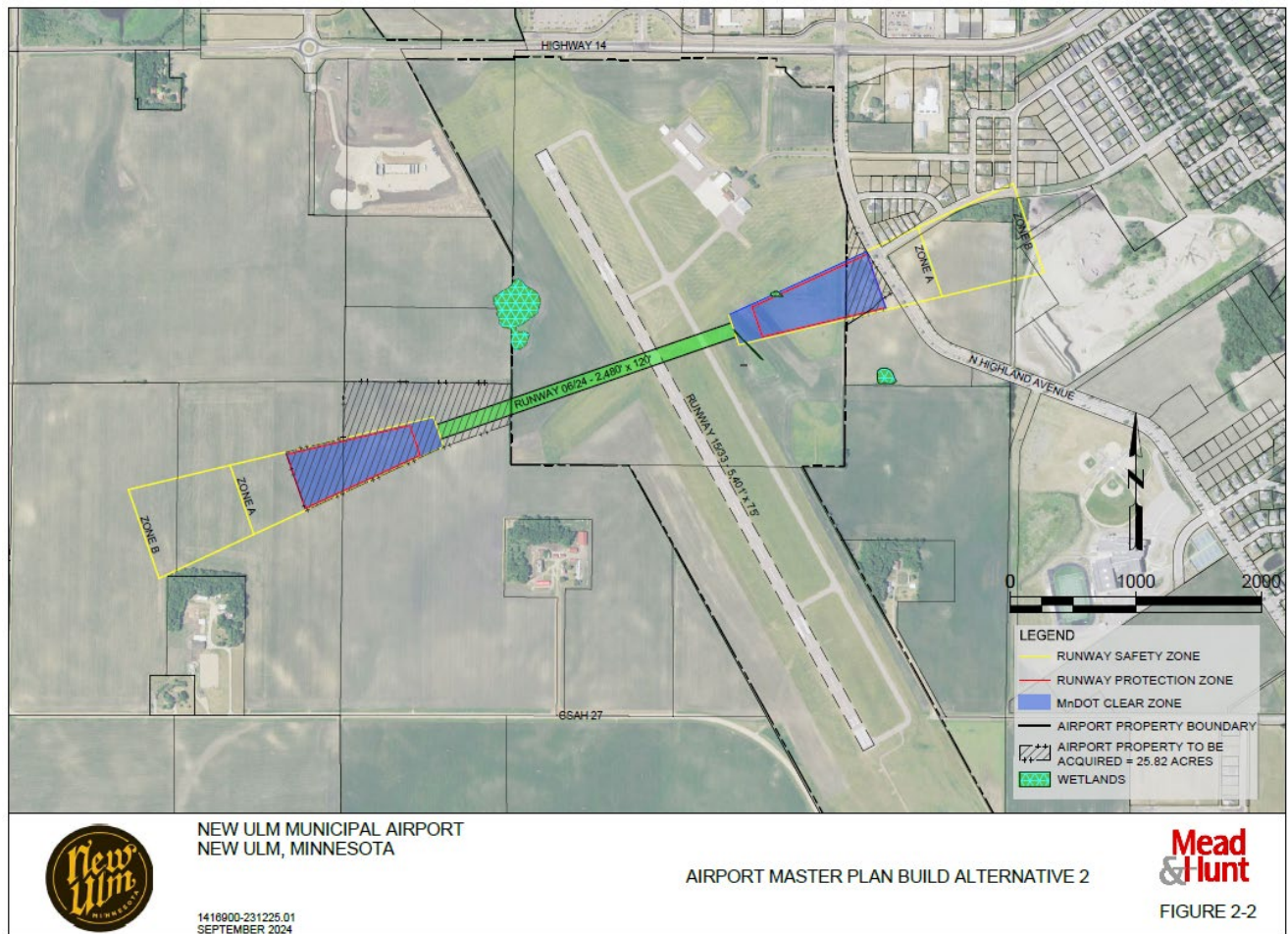
Alternative 2 presents a 06/24 alignment and shifts the runway to the southwest, shown in **Figure 2-2**. This places the Runway 24 RPZ up to the west side of North Highland Avenue, away from areas platted for residential development, and shifts the MnDOT Safety Zones A and B south of the current development area. The alternative calls for the purchase of agricultural land within the RPZ at both ends of the runway as shown in the lattice portion of each RPZ.

2.3.1.1 Resolve Incompatible Land Use

This alternative resolves the incompatible land use issues associated with existing crosswind runway 04/22 with its new alignment. The RPZ would be located wholly on

³ The MnDOT Clear Zone is a 1000-foot long trapezoidal area beginning at the end of the primary runway surface. In order to receive state funding, an Airport must be in control of the land within the clear zone.

Airport owned land, not over subdivision land or city-owned property such as North Highland Ave.



The associated MnDOT safety zones, while currently in compliance in terms of land use, do not have safeguards against future development, and some of the land within the safety zone has potential for future development. This is reflected in the Future Land Use section of the City's Master Plan, where the space within the Runway 06/24 safety zones is slated to be converted to high density residential land uses. Even today, the parcels within the safety zones are zoned for agricultural and low-density residential use, which does allow some residential development. However, with a MnDOT safety zone overlay, the parcel size and density regulations associated with the MnDOT safety zone requirements would make building residences within the safety zones unfeasible, reducing their potential value. The land north of these proposed safety zones has been developed and would abut the safety zones.

2.3.1.2 Improve Crosswind Coverage

This alternative improves the all-wind wind coverage for a 10.5 knot crosswind at the Airport from 97.79-percent to 97.99-percent, with coverage above the FAA desired recommended level of 95%+ coverage.

2.3.1.3 Maintain Existing Runway Length

This alternative maintains the existing runway length of 2,478 feet.

2.3.1.4 Enable Planned Building Area Expansion

This alternative frees up the space around the existing crosswind runway 04/22 and features sufficient space between the new crosswind runway location and the proposed building expansion area.

2.3.1.5 Adhere to FAA Design Standards

This alternative conforms to FAA design standards with an RPZ free of incompatible land uses and taxiway/runway intersection angles that are within the allowable margin of the standard.

2.3.1.6 Practical and Environmental Factors

The amount of land acquisition associated with this alternative is estimated to be 26 acres. This alternative creates an angled property acquisition that primarily impacts one landowner west of the Airport, though there is also land acquisition east of the Airport. This is depicted in grey hatching in **Figure 2-2**.

Some land on the west end of the runway, likely within the Runway Object Free Area (ROFA), would be converted from farmland to runway space. Remaining farmable parcels that are difficult to access or with sharp angles difficult for large equipment to maneuver could create uneconomic remnants that would require mitigation as part of the project. The mitigation could include further property acquisition or compensation.

This alternative would impact a 0.05-acre wetland delineated at the airport, shown in the green and white area in **Figure 2-2** with the end of Runway 24.

Flight paths and corresponding noise related to crosswind runway traffic would be situated less directly over existing residential areas.

2.3.2 AMP Alternative 3: 2,478-foot turf Runway 9/27

Alternative 3 presents a 09/27 alignment and shifts the runway to the southwest, as shown in **Figure 2-3**. This places the northeast corner of the Runway 27 RPZ up to the west side of North Highland Avenue, away from areas platted for residential development, and shifts the MnDOT Safety Zones A and B, and the requisite New Ulm zoning within those areas, partially south of North Highland Avenue and away from existing development areas. This alternative calls for the acquisition of agricultural land that would fall within the RPZ at both end of the runway, as shown in the lattice portion of each RPZ in **Figure 2-3**. This

alternative also features new geometry for Taxiway A, which sees the addition of an eastward jog.

2.3.2.1 Resolve Incompatible Land Use

This alternative resolves the incompatible land use issues associated with existing crosswind runway 04/22 with its new alignment. The RPZ would be located wholly on Airport owned land, not over platted land or city property such as North Highland Ave and would also have MnDOT Safety Zones A and B clear of incompatible land uses. Safety Zones A and B would both cross over North Highland Ave, a compatible land use. In 2021, a Joint Airport Zoning Board (JAZB) enacted zoning consistent with MnDOT Safety Zone A and B standards for potential Runway 27, eliminating the possibility of future incompatible development within the safety zones.

2.3.2.2 Improve Crosswind Coverage

This alternative improves the all-wind wind coverage for a 10.5 knot crosswind at the Airport from 97.51-percent to 98.10-percent, with coverage above the FAA desired recommended level of 95%+ coverage.

2.3.2.3 Maintain Existing Runway Length

This alternative maintains the existing runway length of 2,478 feet.

2.3.2.4 Enable Planned Building Area Expansion

This alternative frees up the space around the existing crosswind runway 04/22 and provides sufficient space between the new crosswind runway location and the proposed building expansion area.

2.3.2.5 Adhere to FAA Design Standard

This alternative conforms to FAA design standards with an RPZ free of incompatible land uses. The new geometry for Taxiway A ensures a perpendicular ($90^{\circ} \pm 15^{\circ}$) intersection between Taxiway A and Runway 09/27 which conforms to standards.

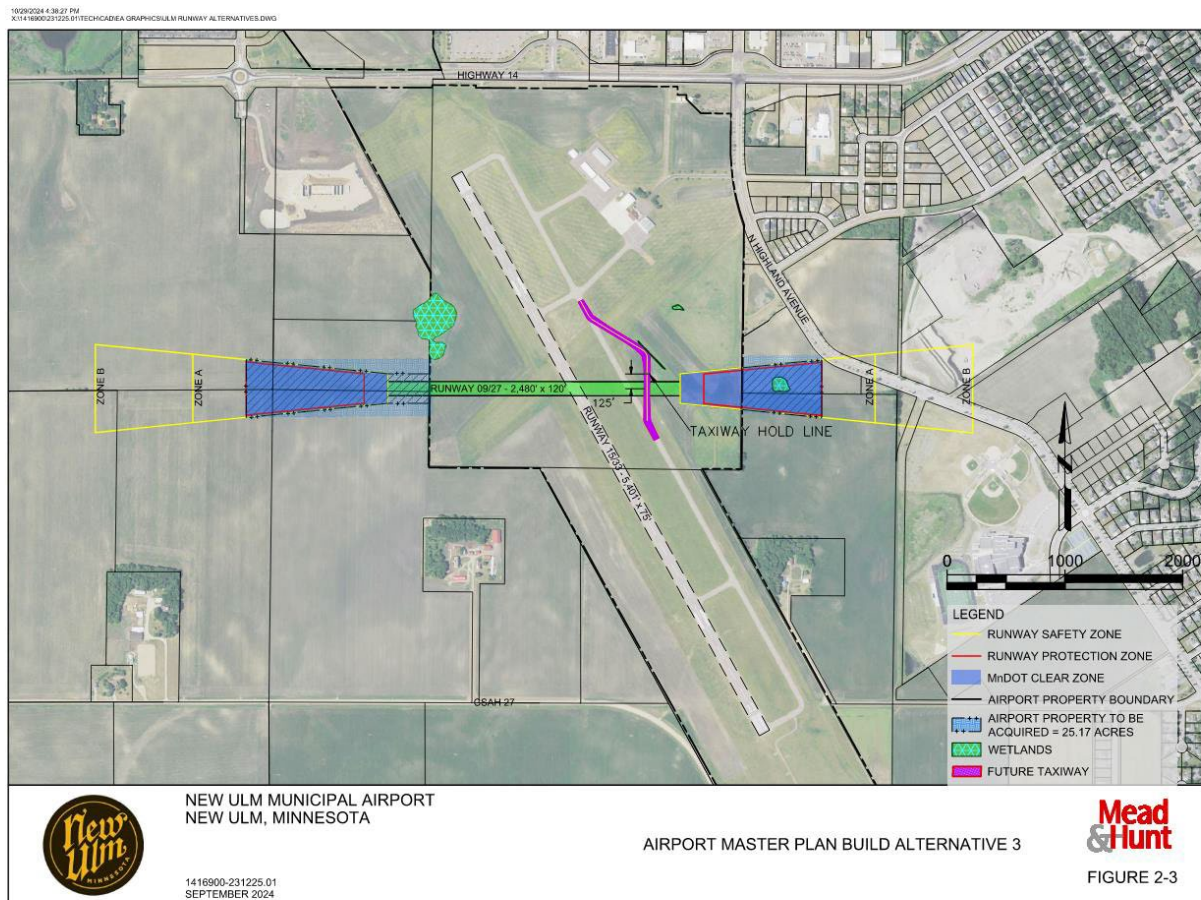
2.3.2.6 Practical and Environmental Factors

This alternative calls for a land acquisition of approximately 25.2 acres, as shown in cross hatching in **Figure 2-3**. The property acquisition would straddle the property boundary of multiple landowners, not impacting one substantially more than another.

Some land, likely that within the ROFA, would be converted from farmland to runway space.

This alternative would directly impact a wetland delineated at the airport, shown in the green and white pattern in **Figure 2-3**. The adjusted taxiway and would be built over approximately 0.03 acres of the 0.05-acre wetland, making the remaining wetland negligible.

Flight paths and corresponding noise related to crosswind runway traffic would be situated less directly over existing residential areas.



2.4 Analysis and Preferred Section

2.4.1 Crosswind Coverage

ALT 2 and ALT 3 both improve the crosswind coverage at the Airport. The individual runway wind coverages along with the three alternative wind coverages are shown in **Table 2-1** below. This shows wind coverages above the FAA desired recommended level of 95-percent for the existing runways as well as the runways in ALT 2 and ALT 3. This is the case for All-Weather (AW), Instrument Flight Rules (IFR), and Visual Flight Rules (VFR) approaches. ALT 3 has the largest increase in wind coverage amongst the three alternatives.

Table 2-1 Crosswind Coverage Comparison				
Runway Configuration	Actual Heading	Approach		
		All Weather Coverage	IFR Coverage	VFR Coverage
Primary RW 15/33	150/330	93.71%	92.16%	93.84%
Crosswind Runway 04/22	49/229	79.79%	78.38%	79.97%
Existing Airport Coverage (15/33 and 04/22 combined)	N/A	97.51%	97.06%	97.54%
Alternative 2: Runway 06/24	60/240	80.05%	79.22%	80.20%
Alternative 3: Runway 09/27	90/270	84.67%	84.10%	84.86%
Alternative 2 Airport Coverage (15/33 and 06/24)	N/A	97.99%	97.72%	98.02%
Alternative 3 Airport Coverage (15/33 and 09/27)	N/A	98.10%	97.73%	98.15%
	Observations	263873	21944	236355

Source: 726567 NEW ULM MUNICIPAL AIRPORT ANNUAL PERIOD RECORD 2014 -2023

2.4.2 Alternatives Comparison

This section analyzes the effectiveness of the three alternatives in meeting the purpose, needs, and objectives of the project, and compares a number of feasibility and known environmental factors. The results of the analysis are displayed below in **Table 2-2**.

Table 2-2: Alternatives Comparison			
	No Action Alternative (ALT 1)	AMP Alternative 2 (ALT 2)	AMP Alternative 3 (ALT 3)
Project Purpose:			
Maintain the functionality and usability of the Airport	Yes	Yes	Yes
Enhance safety for Airport users and neighbors	No	Yes	Yes
Project Objectives:			
Resolve FAA Incompatible Land Use	No	Yes	Yes
Resolve MnDOT Incompatible Land Use	No	No	Yes
Improve Crosswind Coverage	N/A	Yes	Yes
Maintain Existing Runway Length	Yes	Yes	Yes
Enable Planned Building Area Expansion	No	Yes	Yes
Adhere to FAA Design Standards	Yes	Yes	Yes
Feasibility Factors:			

Land acquisition	No ⁴	≈26 acres	≈25.2 acres
Known Environmental Factors:			
Wetlands	No	0.05 acres	0.05 acres
Farmland Conversion	No	Yes	Yes

Both ALT 2 and ALT 3 resolve the incompatible land use with respect to moving the RPZ away from incompatible land uses such as a public roadway. ALT 1 leaves the existing, incompatible condition in place. However, for resolving MnDOT incompatible land uses, only ALT 3 is zoned by the city to exclude incompatible land uses within the safety zones. While ALT 2 does not currently have incompatible land uses within its MnDOT safety zones, the land within the Runway 24 safety zones would necessitate a rezoning (and therein a potential taking) by the city. As discussed above, ALT 1 features incompatible land uses within its safety zones.

ALT 2 and ALT 3 enable the planned building area expansion south of the existing apron and fuel area while the location of the existing crosswind runway, as featured in ALT 1, does not allow for the expansion. While ALT 3 allows for more development space than ALT 2, the current master plan does not include an expansion that would encroach on either ALT 2 or ALT 3.

All three alternatives maintain the turf crosswind runway length of 2,478 feet and adhere to FAA Design standards. In the case of Alternative 3, this requires a reconfiguration of the intersection of Taxiway A and the runway to allow for a perpendicular crossing.

2.4.2.1 Wetlands

ALT 1 does not introduce any new impact to wetlands at the airport. ALT 2 and ALT 3 both involve impacts to an estimated 0.05 acres of wetland as delineated for this EA and shown in green and white in both **Figures 2-2** and **2-3**. These impacts are not substantial.

2.4.2.2 Farmland Conversion

Both ALT 2 and ALT 3 involve the purchase of land that is currently zoned for and used as agricultural farmland. This land will serve as both land for the crosswind runway as well as its corresponding RPZ, MnDOT Clear Zone and MnDOT Safety Zones. These acquisitions are depicted in **Figures 2-2** and **2-3** with cross-hatching. While the ownership of the land will change, as the FAA standard is that the Airport own the land which falls within the RPZ, the land use under the RPZ does not have to change and can continue to be used via a leaseback or other mechanism, so long as the use does not interfere with airspace clearances. The land that will be used for the runway and ROFA will represent a permanent conversion away from farmland.

⁴ This condition would necessitate future land acquisition to comply with the FAA RPZ and the MnDOT Clear Zone.

2.4.2.3 Noise Exposure to Sensitive Land Uses

None of these alternatives adds to the net noise levels around the airport. ALT 2 and ALT 3 move the existing crosswind runway associated noise away from already developed areas on the eastern side of the Airport.

2.4.3 Alternatives Carried Forward for Environmental Analysis

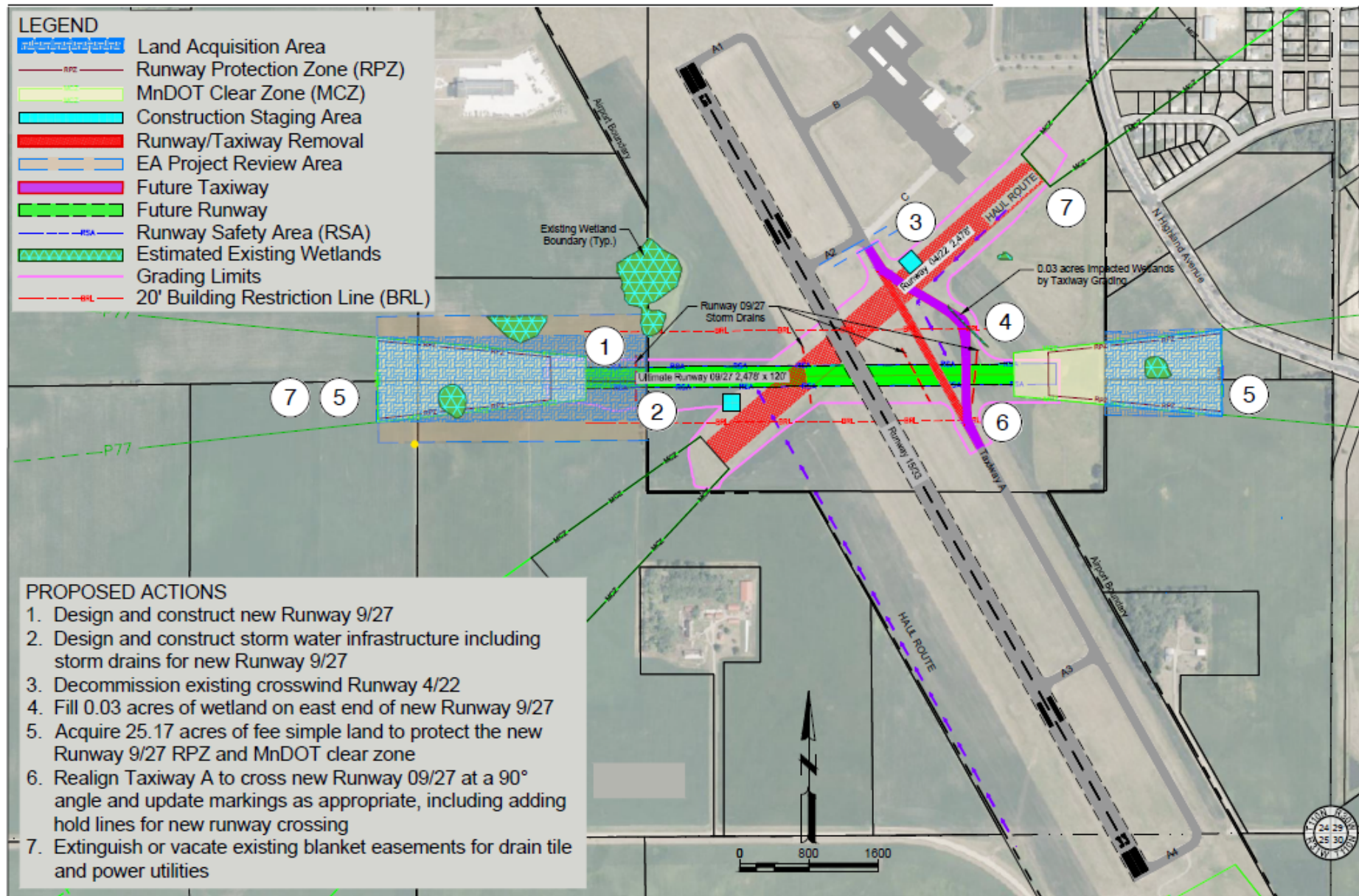
Both the 2023 Master Plan and this analysis show Alternative 3 as better meeting the aims of the project. While all three alternatives maintain the existing runway length and have above the minimum crosswind coverage, ALT 3 sees the greatest increase in coverage. This alternative has the support of the city and would be compatible with the current and future land uses found under its RPZs, namely the eastern end of Runway 9/27. Lastly, while both ALT 2 and ALT 3 enable the planned building area expansion by vacating the space currently occupied by Runway 04/22, ALT 3 allows for further development should the need arise, further south of the planned building area. However, it is primarily because ALT 2 does not meet the objective to resolve the incompatible land use in MnDOT Safety Zones A and B, and is incompatible with the city's planned future development, that ALT 2 is removed from further consideration and will not be carried forward for further analysis.

ALT 3 meets all project objectives as well as the purpose and need. ALT 3, summarized below, will be carried forward, along with the No Action Alternative for a detailed environmental analysis in Chapter 3: Affected Environment and Environmental Consequences.

2.4.4 Airport Sponsor's Proposed Action/Project

Based on the preferred alternative selected above, the Airport Sponsor's proposed project, shown in **Figure 2-4**, include the following:

- Design and construct new Runway 9/27
- Design and construct storm water infrastructure including storm drains for new Runway 9/27
- Decommission existing crosswind Runway 4/22
- Impact an estimated 0.05 acre of previously delineated wetland on east end of new Runway 9/27
- Acquire approximately 25.2 acres of fee simple land to protect the new Runway 9/27 RPZ and MnDOT clear zone
- Realign Taxiway A to cross new Runway 09/27 at a 90° angle and update markings as appropriate, including adding hold lines for new runway crossing.
- Extinguish or vacate existing blanket easements for drain tile and power utilities.



NEW ULM
MUNICIPAL AIRPORT
ULTIMATE CROSS WIND
RUNWAY 09/27

1416900-231225.01
12/2024

PROPOSED ACTION

**Mead
& Hunt**

Figure 2-4

Chapter 3

Affected Environment and Environmental Consequences

3.1 Introduction

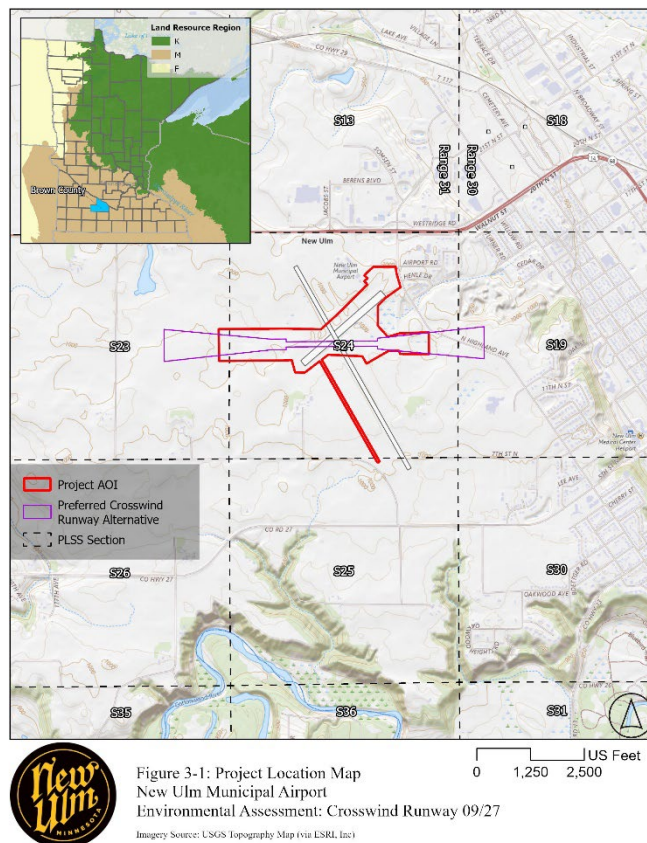
This chapter provides background information regarding the surrounding community and environment at New Ulm Municipal Airport (“Airport”) and compares the environmental

consequences of the preferred alternative to the no-action alternative. The chapter includes appropriate analysis of all environmental impact categories required by FAA Order 1050.1F, Environmental Impacts: Policies and Procedures implementing NEPA. A detailed analysis of each resource category includes a discussion of the regulatory setting, affected environment, environmental consequences, mitigation, and significance determination.

The following sections describe the information included under each resource category analyzed in detail.

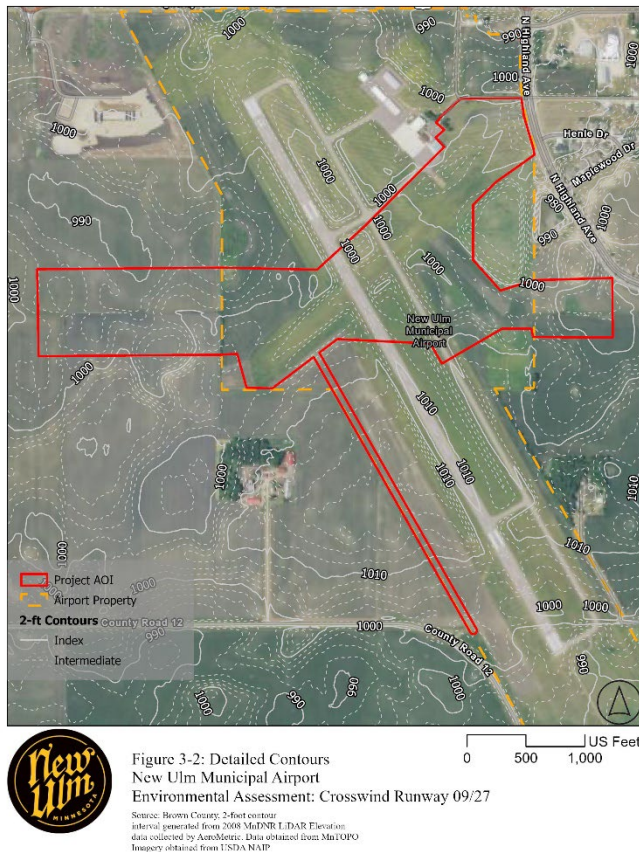
3.1.1 Regulatory Setting

The regulatory setting section under each resource category discusses the requirements for assessing the resource and applicable federal, state, and local laws and regulations.



3.1.2 Affected Environment

The affected environment section establishes the baseline conditions for each resource category against which to evaluate potential impacts of the preferred alternative. To provide background about the proposed project’s affected environment, see **Figure 3-1** for the project study area, and **Figure 3-2** for the project area topography.



3.1.3 Environmental Consequences

The environmental consequences section under each resource category assesses the potential impacts of the no-action and preferred alternative. Environmental consequences include all direct, indirect, and cumulative impacts, as the NEPA defines those terms, as well as mitigation measures if applicable. This section also includes a significance determination.

3.1.3.1 Mitigation

The mitigation section provides guidance on types of mitigation that may be used to reduce the potential impact of the proposed project.

3.1.3.2 Significance Determination

The significance determination considers the specific thresholds at which the FAA considers an environmental impact to be significant. This section summarizes factors to consider when evaluating the significance of potential environmental consequences.

3.2 Environmental Resource Categories Not Analyzed in Detail

During initial analysis, the following resources were found to be not present, or the proposed action was found to have either minimal or no impacts on these resource categories.

3.2.1 Air Quality

Under the Clean Air Act, the Environmental Protection Agency (EPA) regulates levels of certain pollutants that in high enough concentrations affect air quality and can harm human health, affect crops and vegetation, and cause property damage. These pollutants, called criteria pollutants, include ground-level ozone, particulate matter, carbon monoxide, lead, sulfur dioxide, and nitrogen dioxide. The EPA sets National Ambient Air Quality Standards (NAAQS) for the criteria pollutants.

The Air Quality section was not analyzed in detail because the proposed action is located in Brown County, which is in attainment for all criteria pollutants NAAQS. Further, construction emissions would be minimal and would not change the current attainment status, and no increase in operational emissions are expected as part of the proposed project.

3.2.2 Climate

The Climate section was not analyzed in further detail because, similar to air quality, the proposed action would not increase operations and therefore would not result in an ongoing greenhouse gas (GHG) emissions beyond negligible emissions during the construction period.

3.2.3 Coastal Resources

The Coastal Resources section is not analyzed in detail because the resource is not present on or near the Airport.

3.2.4 DOT Section 4(f) Lands

The DOT Section 4(f) Lands section is not analyzed in detail because there are no Section 4(f) properties located on or near the Airport, including publicly owned park and recreation areas, wildlife and waterfowl refuges, or historic sites. Flandreau State Park is approximately 1.5 miles southeast of the proposed project; the project is not anticipated to have any impact on park operations.

3.2.5 Noise and Compatible Land Use

Noise and noise-compatible land use does not include a detailed analysis in this chapter. According to the FAA Order 1050.1F Desk Reference, no noise analysis is needed for projects involving Design I and II airplanes in Approach Categories A through D operating at airports whose forecast operations in the period covered by the NEPA document do not exceed 90,000 annual propeller operations or 700 annual jet operations. Because the Airport is not expected to cross either of these activity thresholds, no noise analysis was conducted.

3.2.6 Water Resources: Floodplains

The Floodplains section was not analyzed in detail because the proposed action is not located in a FEMA National Flood Insurance Program identified or mapped floodplain. FEMA Floodplains are shown in **Figure 3-3**.

3.2.7 Water Resources: Groundwater

The Groundwater section was not analyzed in detail because the proposed action would not result in contaminants infiltrating the groundwater and will not result in withdrawing of more than 10,000 gallons of water per day not already authorized by another permit.

According to the University of Minnesota's Minnesota Natural Resource Atlas, the depth to water level around the proposed project ranges from approximately 0 to 10 feet⁵. The City of New Ulm's water source is drawn from groundwater wells that draw from the Mt. Simon, Cretaceous, Undifferentiated and Quaternary Buried Artesian aquifers. Water is supplied by the New Ulm Public Utilities, and treatment activities include ammonia removal, disinfection, fluoridation, iron removal, lead/copper corrosion control, manganese removal, radionuclides removal, and "other." The City of New Ulm routinely monitors for contaminants in drinking water in compliance with Federal and State laws⁶.

3.2.8 Water Resources: Wild and Scenic Rivers

The Wild and Scenic Rivers section was not analyzed in detail because the Airport is not located on or near a Wild and Scenic River⁷.



⁵ USGS National Water Information System: https://mnatlas.org/gis-tool/?id=k_0279

⁶ 2020 New Ulm Drinking Water Report: <https://www.newulmmn.gov/DocumentCenter/View/1093/2020-Drinking-Water-Report?bidId=>

⁷ National Wild and Scenic River System: <https://www.rivers.gov/carp/map>

3.3 Environmental Analysis

3.3.1 Biological Resources

3.3.1.1 Regulatory Setting

The primary federal regulation for biological resources is the Endangered Species Act (ESA), 16 USC §§ 1531-1544, administered by the U.S. Fish and Wildlife Service (USFWS). The ESA requires all federal agencies to conserve threatened and endangered species and, in consultation with the USFWS, to ensure federal actions do not jeopardize the existence or destroy critical habitat of threatened and endangered species. Overall coordination on species and habitats of concern is administered under Section 7 of the ESA, which requires federal agencies to consult the USFWS and appropriate state fish and wildlife agencies when a federal project may adversely affect fish or wildlife resources.

Additional federal regulations of wildlife include the Migratory Bird Treaty Act, 16 USC §§ 703-712, administered by the USFWS, which prohibits taking, selling, or other activities that harm migratory birds, bird eggs, or nests unless authorized by a special USFWS permit. In addition, the Bald and Golden Eagle Protection Act, 16 USC §§ 668-668d, provides protection to eagles and nests from unauthorized capture, purchase, or transportation.

On the State level, Minnesota's Endangered Species Act, Minn. Stat. § 84.0895 and the associated Rules, Minn. R. 6212.1800-6212.2300, impose a variety of restrictions, a permit program, and several exemptions pertaining to species designated as endangered or threatened. A person may not take, import, transport, or sell any portion of an endangered or threatened species.

3.3.1.2 Affected Environment

The Minnesota Department of Natural Resources (MDNR) Natural Heritage Information System (NHIS) is a collection of databases containing information about rare and natural resources in Minnesota and is maintained by the MDNR Division of Ecological and Water Resources. A review of the Natural Heritage Information System (NHIS) through the Minnesota Conservation Explorer did not show any state-listed features in the vicinity. A NHIS review letter dated July 30, 2024 from the Minnesota Department of Natural Resources stated that the project would not affect any known occurrences of rare features (Appendix A).

The USFWS Information for Planning and Consultation (IPaC) tool was reviewed to determine the potential presence of endangered species in the project area vicinity. The review identified five species, the northern long-eared bat (*myotis septentrionalis*), tricolored bat (*perimyotis subflavus*), and salamander mussel (*simpsonaias ambigua*), monarch butterfly (*danaus plexippus*), and western regal fritillary (*argynnis idalia occidentalis*), that could occur within the project area vicinity.

3.3.1.3 Environmental Consequences

According to the FAA 1050.1F Desk Reference, the FAA considers impacts on listed species to be significant if the “U.S. Fish and Wildlife Service or the National Marine Fisheries Service determines that the action would be likely to jeopardize the continued existence of a federally listed, threatened, or endangered species, or would result in the destruction or adverse modification of federally designated critical habitat.”

Limited tree removal of less than 1 acre is associated with the project. This may affect the northern long-eared bat, as their typical roosting habitat consists of trees and caves. No known hibernacula are located near the project area. The USFWS issued a “may affect, not likely to adversely affect” determination through IPaC for the Northern Long-eared Bat and Tricolored Bat Range-wide Determination Key on December 19, 2024, which is included in **Appendix A**. The Minnesota-Wisconsin Federal Endangered Species Determination Key covered all other federally listed, threatened, or endangered species identified by IPaC; the USFWS issued a “no effect” determination for this determination key on December 19, 2024, which is also included in **Appendix A**.

The proposed project would have no impacts to species protected under the Migratory Bird Treaty Act, including bald eagles (*halieaeetus leucocephalus*) due existing vegetation management practices and the general lack of suitable habitat within the project boundary.

3.3.1.3.1 *Minimization and Mitigation*

Tree removal will align with the inactive season, between October 1st and April 15th.

3.3.1.3.2 *Significance Determination*

According to the FAA 1050.1F Desk Reference, the FAA considers impacts on listed species to be significant if the “U.S. Fish and Wildlife Service or the National Marine Fisheries Service determines that the action would be likely to jeopardize the continued existence of a federally listed, threatened, or endangered species, or would result in the destruction or adverse modification of federally designated critical habitat.” Based on the above information, there will be no significant impacts associated with either the no action alternative or the proposed project.

3.3.2 Farmland

3.3.2.1 Regulatory Setting

According to the 1050.1F Desk Reference, the FAA defines farmland as agricultural areas considered important and protected by federal, state, and local regulations. Important farmlands include all pasturelands, croplands, and forests (even if zoned for development) considered to be prime, unique, or of statewide or local importance.

Projects involving impacts to farmland require coordination with the US Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), including submittal

of USDA Farmland Conversion Impact Rating Form AD-1006. These actions are necessary to follow the guidelines set forth in the Farmland Protection Policy Act (FPPA) of 1984. The FPPA aims to limit the conversion of prime or unique farmland to nonagricultural uses by Federal programs.

3.3.2.2 Affected Environment

The NRCS identifies farmland classifications based on soil characteristics. According to the NRCS Web Soil Survey, the areas adjacent to the Airport boundary includes prime farmland and prime farmland if drained (see **Figure 3-4**).

Prominent prime farmlands in the project area include Nicollet clay loam, and Clarion loam.

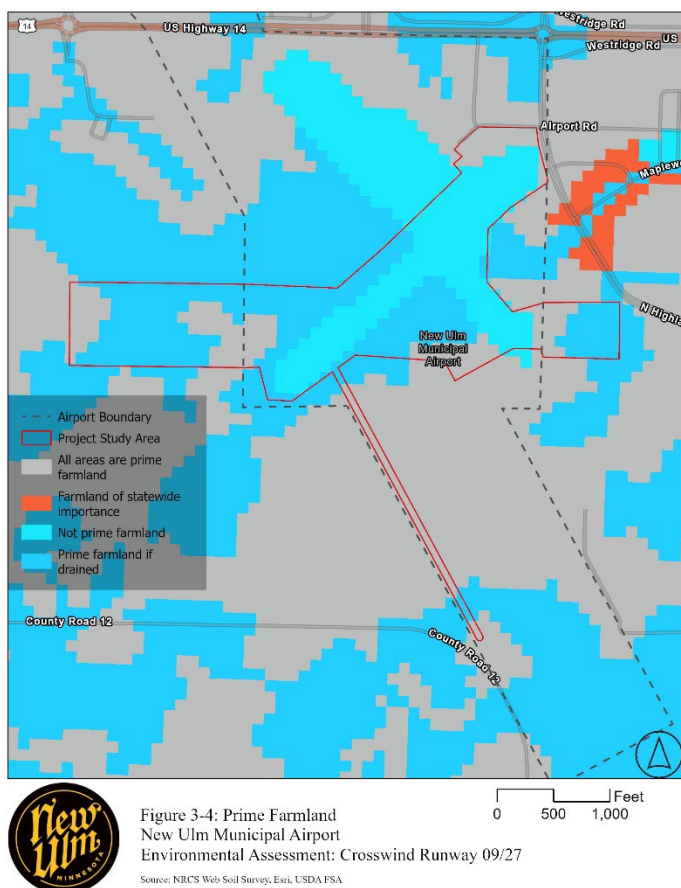
Much of the land in the proposed

project area is made up of Okoboji silty clay loam, which are very deep, very poorly drained soils formed in alluvium or lacustrine sediments. Farmland within the project area situated west of the airport boundary with these soils, which must be drained to be classified as prime, have tiling in place to remove excess water from the fields.

3.3.2.3 Environmental Consequences

The total expected farmland conversion that would occur because of the proposed project includes a portion of the land acquired that could be leased back to agricultural production up to the runway object free area (ROFA), as detailed below. In comparison, the no action alternative would not remove any farmland from production.

In October 2024, information regarding farmland that could be converted as part of the proposed project was provided to the NRCS office in Marshall, Minnesota. To gain understanding of the impacts of the scenario with the broadest footprint, if the airport were to disallow farming anywhere within its boundary, the NRCS was provided with conversion within the full boundary of the project, as potential lease-back scenarios or other ways to



keep on-airport land in agricultural production will occur after land negotiations are complete. Using the full project boundary, the NRCS determined that approximately 55 acres of farmland will be directly converted by the proposed project, 51 of which are prime farmland. A copy of the completed Form AD-1006, estimated area, farmland report, and associated correspondence are included in **Appendix B**.

The NRCS determines a score using the AD-1006 form, composed of up to 100 points for relative value and up to 160 points for a site assessment, with a combined possible score of 260. Impact severity increases as the total score approaches 260.

Based on the value scores calculated by the USDA NRCS, and the site assessment scoring developed for this EA, the total conversion score is 135. The USDA recommends:

- Sites with the highest combined scores be regarded as most suitable for protection under these criteria and sites with the lowest scores, as least suitable.
- Sites receiving a total score of less than 160 need not be given further consideration for protection and no additional sites need to be evaluated.

With a score of 135, the proposed project would need no further consideration.

3.3.2.3.1 *Minimization and Mitigation*

Farmland scores do not indicate the need for any mitigation measures or consideration of alternate project sites.

The Airport will consider leasing land back up to the ROFA, where feasible, to minimize farmland conversion.

3.3.2.3.2 *Significance Determination*

Farmland impacts are considered significant if directly impacted farmlands receive a total combined farmland conversion impact rating of between 200 and 260. Neither the proposed project nor the no action alternative has significant farmland impacts.

3.3.3 Hazardous Materials, Solid Waste, and Pollution Prevention

Hazardous materials are substances or materials that can pose unreasonable risks to health, safety, and property when transported in commerce. Hazardous materials include both hazardous wastes and hazardous substances, as well as petroleum and natural gas substances and materials.

Hazardous materials, solid waste, and pollution prevention includes an evaluation of waste streams generated by the proposed project, potential hazardous materials that could be used during construction and operation, the potential to encounter existing hazardous materials during construction and operation, and the potential to interfere with ongoing remediation of existing contaminated sites at or in the vicinity of the project boundary.

3.3.3.1 Regulatory Setting

Various federal regulations apply to this resource category, including the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or “Superfund”), the Emergency Planning and Community Right to Know Act (EPCRA), the Hazardous Materials Transportation Act, Pollution Prevention Act, Resource Conservation and Recovery Act (RCRA), and more as described in the FAA 1050.1F Desk Reference.

In Minnesota, the Minnesota Pollution Control Agency (MPCA) regulates hazardous waste as outlined in Minnesota Administrative Rules Chapter 7045.

3.3.3.2 Affected Environment

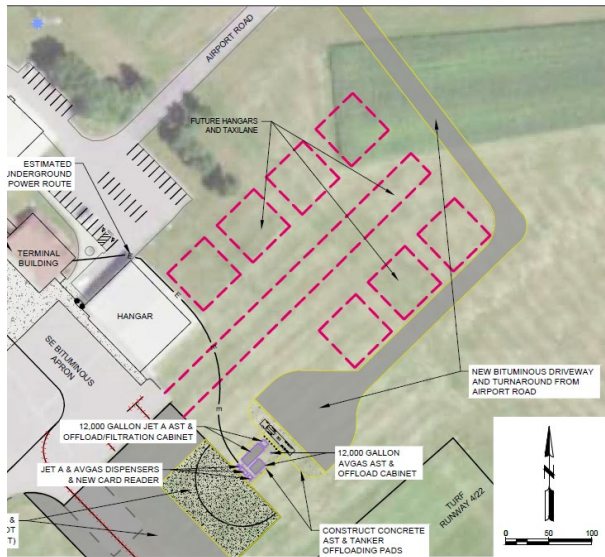
The study area for hazardous materials is the project boundary and the area for potential ground disturbance. Mead & Hunt completed a Phase I Environmental Site Assessment (ESA) in November 2024.

The Phase I ESA, which is found in **Appendix C**, found no recognized environmental conditions, controlled recognized environmental conditions, or significant data gaps in connection with the subject property. The Phase I ESA and a search of the MPCA database, “What’s in my Neighborhood” show that the existing fuel system at the airport includes two active underground storage tanks. No generators of hazardous waste, superfund sites, or other hazardous materials were shown in the project area on a search of the EPA’s EnviroAtlas. During the site visit, two small debris piles, one with metal agricultural wire and one with a discarded chair and other household-type refuse were found. These were considered Business Environmental Risks (BER), but not substantial ones.

3.3.3.3 Environmental Consequences

The Phase I ESA showed no hazardous materials in the project vicinity; therefore, the proposed project is not expected to disturb any hazardous sites. No hazardous materials would be involved in the construction process. A planned fuel facility would be located just north of the existing crosswind runway adjacent to the existing apron, but the proposed project area would not impact the planned fuel area.

Figure 3-5: Planned Fuel Facility



The no action alternative would likewise not involve the disturbance or use of hazardous materials or substances, nor any additional solid waste beyond that already generated at the Airport through operations and other construction and maintenance projects. The new fueling area would be close to existing Runway 4/22, as shown in **Figure 3-5**.

The proposed project would produce construction debris such as dirt, concrete, and asphalt. Construction materials and other waste resulting from the proposed actions will be disposed of at a local facility in

accordance with Minnesota laws.

3.3.3.3.1 Minimization and Mitigation

Because no substantial project-related impacts to hazardous materials or solid waste are expected, no mitigation is required as part of the proposed project. The two BERs will be removed and properly disposed of prior to construction.

3.3.3.3.2 Significance Determination

The FAA has not established a significance threshold for hazardous waste, solid waste, or pollution prevention. However, there are factors to consider when evaluating potential environmental impacts for hazardous materials, solid waste, or pollution prevention. **Table 3-1** below lists these factors and discusses how they are applicable to the proposed project.

Table 3-1: Hazardous Materials, Solid Waste, and Pollution Prevention Factors for Consideration	
Factors with the potential to:	Applicability to Proposed Project
Violate applicable federal, state, tribal, or local laws or regulations	No laws or regulations regarding hazardous waste would be violated
Involve a contaminated site	No contaminated sites are located within the proposed project boundary
Produce an appreciably different quantity or type or hazardous waste	There would be no hazardous waste generated by the proposed project

Factors with the potential to:	Applicability to Proposed Project
Generate an appreciably different quantity or type of solid waste or use a different method of collection or disposal and/or would exceed local capacity	It is anticipated that the local disposal facility would have enough capacity to handle solid wastes that are generated by the proposed project
Adversely affect human health and the environment	Based on the Phase I ESA results and the above information, the proposed project is not anticipated to adversely affect human health and the environment

Based on the above analysis, there are no significant hazardous materials, solid waste, or pollution prevention impacts anticipated with the no action alternative, nor with the proposed project.

3.3.4 Historical, Architectural, Archaeological, and Cultural Resources

3.3.4.1 Regulatory Setting

As required by FAA regulation, the Airport must comply with Section 106 of the National Historic Preservation Act of 1966 (NHPA), which requires federal agencies to consider effects to historic properties. Historic properties are considered those included on the National Register of Historic Places (NRHP) or those that meet one or more criteria for inclusion on the NRHP. If it is determined that no type of activity or disturbance will impact the historic property, the federal agency has no further Section 106 obligations.

3.3.4.2 Affected Environment

The Area of Potential Effect (APE) is the area within which an undertaking may affect a historic property, either directly or indirectly.

The APE for architecture/history was defined to include areas of proposed work within the ULM property limits, and properties adjacent to proposed project activities (**Figure 3-6**). Mead & Hunt conducted a Phase I architecture/history investigation on December 9, 2024, that consisted of a review of previously inventoried properties located within the APE, as well as a field survey to identify and document properties that are 45 years of age or older located within the APE. The investigation identified five previously surveyed historic-age properties in the APE, which are defined as constructed prior to 1979. Minnesota Architecture/History Inventory Forms for these properties are included in the appendices of the enclosed ULM Phase I (Reconnaissance Survey) Report (**Appendix D**).



Figure 3-6: Architecture Historians Area of Potential Effect

The APE for archaeology was defined as the project disturbance limits and the area within the Environmental Assessment Study Area, as shown in **Figure 3-7**. In October 2024, the Mississippi Valley Archaeology Center (MVAC) at the University of Wisconsin-La Crosse conducted an archaeological reconnaissance survey. No new or previously recorded cultural resources were recorded in the inventoried area.

Figure 3-7



3.3.4.3 Environmental Consequences

In the no action scenario, no changes to the vicinity would be made, and no impacts to cultural resources would be expected.

For the proposed project, the FAA initiated consultation with the Minnesota State Historic Preservation Office (SHPO) on January 06, 2025, to request concurrence with a Section 106 NHPA No Historic Properties Affected determination for the project. SHPO concurred with this FAA determination on March 5, 2025. SHPO Correspondence is included in Appendix D. Additionally, the FAA initiated tribal coordination for the project on January 06, 2025, to request review of the proposal and identify any concerns that Tribes may have about its potential to impact historic properties, including those of traditional religious and cultural importance. Project information was sent to the Upper Sioux Community Tribal Historic Preservation Office (THPO), Lower Sioux Indian Community THPO, the Shakopee Mdewakanton Sioux Community THPO, and the Prairie Island Indian Community THPO. THPO responses received so far indicate no Tribal concerns about the project and are included in **Appendix D**.

3.3.4.3.1 *Minimization and Mitigation*

Because no impacts to cultural resources are expected, no mitigation is required as part of the proposed project.

3.3.4.3.2 *Significance Determination*

The FAA does not have a significance threshold for Cultural Resources but does consider whether or not a finding of adverse effect is made under Section 106 of the NHPA.

No historic or archaeological resources are present within the area of disturbance, nor would be impacted indirectly by the proposed project. Neither the no action alternative nor proposed project would have a significant impact on cultural resources.

3.3.5 Land Use

3.3.5.1 Regulatory Setting

The FAA requires agreement to written grant assurances from airport sponsors prior to providing federal funding for airport improvements. With this in mind, the EA should include discussion of possible conflicts between the proposed action and federal, state, regional, and local land use plans, policies, and controls. Where an inconsistency exists, the NEPA document should describe the extent to which the agency would reconcile its actions with the plan.

3.3.5.1.1 *Local Zoning Ordinances*

The Airport property is zoned by the City of New Ulm as A-OS: Agricultural-Open Space District. The area to the west of the airport is zoned by Brown County as A1 – Agriculture. The area to the south of the airport is zoned by Brown County as Other Land – County and State Parks.

Figure 3-8: New Ulm zoning districts.

City of New Ulm Zoning Map

March 1, 2022



3.3.5.1.2 FAA Land Use Guidance

Land use regulations near airports typically focus on safety for airport users and the surrounding community, along with minimizing negative impacts such as noise disturbance, and zoning regulations generally discourage or prohibit land use that is incompatible with airports. The authority to enact zoning codes lies at the local level. However, the FAA offers guidance documents and grants that fund airport planning and land use studies.

Specific guidance offered by the FAA concerns land uses within the Runway Protection Zone (RPZ). An RPZ is a trapezoidal shaped area beyond a runway end with the purpose of protecting pilots as well as individuals and property on the ground. The size of this zone is determined by the design of the runway, the types of aircraft most frequently using the runway, and the visibility minimums for runway instrument approach procedures.

FAA Advisory Circular (AC) 150/5300-13B, Change 1, *Airport Design*, states that, “It is desirable to clear the entire RPZ of all above-ground objects to minimize risk to the public.” AC 150/5190-4B, *Airport Land Use Compatibility Planning*, states that, “For projects

proposed by the sponsor, such as runway extensions or new runways, that would result in moving the RPZ into an area that has incompatible land uses, the FAA expects the sponsor to have or secure sufficient control of the RPZ, ideally through fee simple ownership, including any off-airport property within the RPZ.” It also states, “The FAA has higher expectations for the airport sponsor to mitigate potential incompatible land uses within the RPZ when the introduction of the incompatible land use is the result of an airport sponsor-initiated project (regardless of funding source).”

AC 150/5190-4B further clarifies incompatible land uses and indicates that public roads are considered incompatible land uses within an RPZ. Consultation with the FAA is required when there are new or changed uses planned within an RPZ, or a planned change to an RPZ size or location. However, farming that meets airport design clearance standards in FAA AC 150/5300-13 is considered a permissible land use that requires no further FAA evaluation.

3.3.5.1.3 State of Minnesota Land Use Guidance and Joint Airport Zoning Board

The State of Minnesota, in Minnesota Rules 8800.2400, requires a minimum standard for airport zoning regarding “airspace, land use safety, and noise sensitivity.” Minnesota Administrative Rule 8800.2400 establishes minimum airport zoning standards to be adhered to in airport around the state. The Administrative Rule establishes the following safety zones for each runway:

- **Safety Zone A:** in the approach zones of a runway, safety zone A extends outward from the end of the primary surface a distance equal to two-thirds the runway length or planned runway length.
- **Safety Zone B:** in the approach zones of a runway, safety zone B extends outward from safety zone A a distance equal to one-third the runway length or the planned runway length.
- **Safety Zone C:** all that land which is enclosed within the perimeter of the horizontal zone defined in subpart 3, item B and which is not included in zone A or zone B.

Communities in the airport influence area formed a JAZB to enact airport zoning regulations in 2021 and the JAZB adopted the current airport zoning regulations in 2022; the New Ulm Airport Safety Zones are visible in Figure 3-5.

3.3.5.2 Affected Environment

A one-mile radius of the project boundary and the Airport property were analyzed for this resource category. Land use in the project boundary is made up of paved airport facilities, mowed short grasses on Airport property, agricultural uses, and local roadways. Lands adjacent to the project boundary are primarily in agricultural production. Business uses are found north of the Airport, such as grocery and hardware stores, restaurants, and auto

shops. The City of New Ulm limits surround the Airport to the west and south, with most of the residential areas located east of the proposed project boundary.

3.3.5.2.1 *Planned Land Use*

The City of New Ulm Comprehensive Plan⁸ published in June 2024 provides valuable information about priority growth areas and preferred development types. The Comprehensive Plan includes Future Land Use, which is meant to be a guide for future zoning decisions. The Future Land Use section identifies the area directly east of the Airport as one of four potential growth and development areas in the City. The New Ulm City Council⁹ highlighted several growth targets for the “East Airport” development area:

- Create a variety of housing options to meet different needs.
- Build new trails that connect to the existing network and facilitate access to the high school and nearby neighborhoods.
- Given its proximity to the airport, potential for corporate travelers, and nearby industry, consider as a potential area for new hotels and lodging.
- Provide conveniently located amenities and places to gather, including neighborhood-scale shopping.

The Comprehensive Plan includes the proposed project and describes it as the preferred alignment for a relocated crosswind runway, stating “A Runway 9/27 alignment would not only provide better wind coverage than the existing crosswind runway but would also reduce the impact of required land acquisition by aligning with existing property lines and extending over agricultural land which is not planned for future development.”

3.3.5.2.2 *Wildlife Attractants*

FAA guidance, including AC 150/5200-33C, suggests separation from land uses that are considered wildlife attractants, such as wetlands, landfills, and water management facilities. Land cover within the project boundary contains no substantial wildlife habitat and consists of short, regularly mowed grasses surrounding the airfield, and croplands surrounding Airport property. Because the agricultural land on and surrounding Airport property is not the sole source of agriculture nearby, it does not serve as a greater wildlife attractant than adjacent agricultural properties.

Other land uses on the Airport include impervious surfaces, such as the runways, taxiways, and roadways, that are used for regular airport operations. These land uses are not wildlife attractants. The Airport maintains grass height, as applicable, to avoid wildlife attractants.

⁸ City of New Ulm Comprehensive Plan: <https://www.newulmmn.gov/DocumentCenter/View/2766/New-Ulm-Comprehensive-Plan?bidId=>

⁹ City of New Ulm City Council Adoption of Four Small Area Plans: <https://cityofnewulm.civicweb.net/document/291075/Four%20Small%20Area%20Plans%20-%20Addendum%20to%20Comprehensi.pdf?handle=60DE34971D0645A29CF1F6BFD94B6885>

The FAA Wildlife Strike Database¹⁰ showed only two strikes reported between 1990 and 2023; providing evidence that there are limited wildlife hazards at the Airport.

3.3.5.2.3 *RPZ*

Figure 3-9: Incompatible Land Use in RPZ



Airport property currently contains the RPZs for Runway 15/33. Current Runway 4/22 RPZs fall largely outside of airport property, over agricultural fields on the west side of the airport, and over North Highland Avenue and the subdivision to the east, as shown in **Figure 3-9**. This is counter to FAA guidance for the airport to control RPZ property, and include land zoned and used for incompatible purposes, such as residential and public roadways.

3.3.5.2.4 *Transportation*

New Ulm Municipal Airport is located south of US Highway 14, and borders N Highland Ave, County Road 12, and County Road 27. The main access road for all Airport facilities is off of Airport Road, which connects to N Highland Ave. This road provides access to the terminal and hangar area on the east side of the Airport. An unofficial access points exist off of County Road 27, which is mainly used for agricultural equipment to operate within their leased land areas on Airport property.

3.3.5.2.5 *Utilities*

A blanket easement for the Brown County Rural Electrical Association for power transmission is in effect on parcels 12, 13, 14, and 16 (parcels shown in **Figure 3-10**) as of October 2024. Power line structures are located elsewhere on these parcels, not within the proposed project area.

Drain tiles are present in the farm fields to the west of current airport property. The proposed project intends to extinguish or vacate the existing blanket easements for drain tiles in the farm field.

¹⁰FAA Wildlife Strike Database <https://wildlife.faa.gov/search>

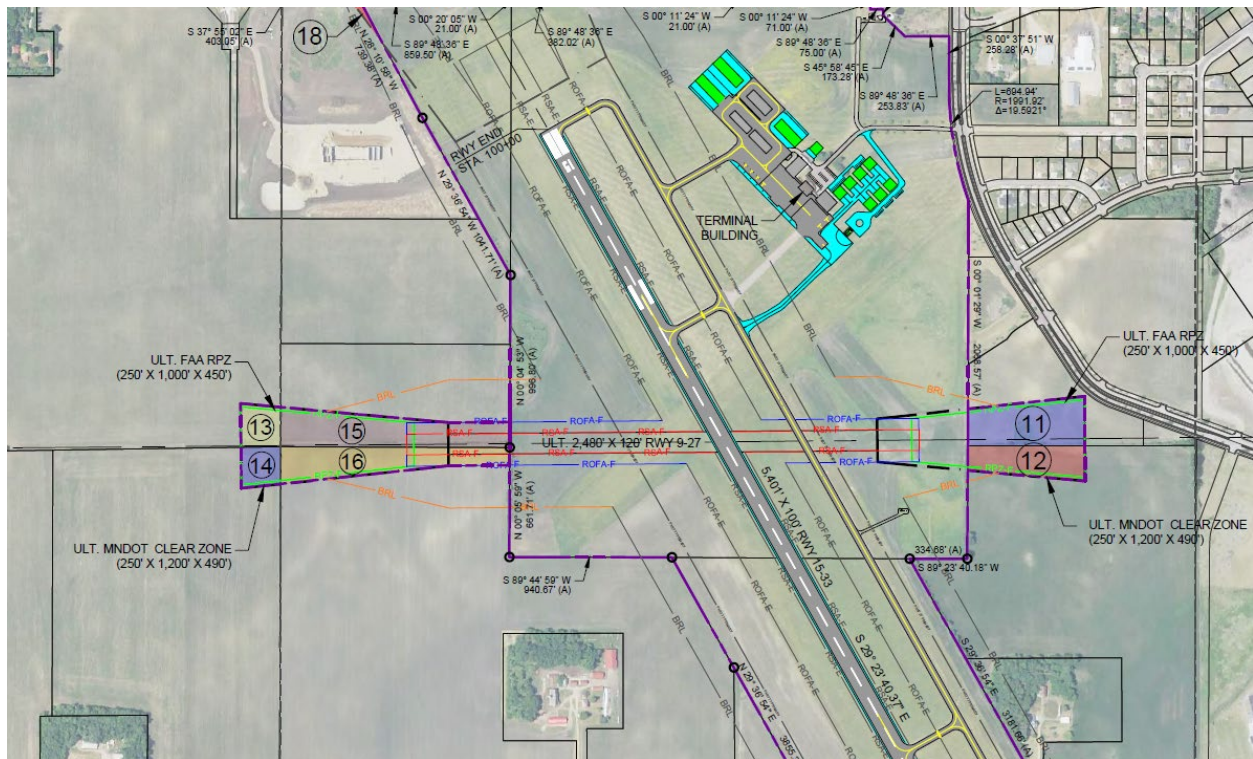


Figure 3-10: Airport Layout Plan Property Map

Note: parcels to be acquired have changed in size, see Figure 2-4

3.3.5.3 Environmental Consequences

3.3.5.3.1 Zoning

No new zoning would be enacted as part of the proposed project because the communities within the Airport area of influence previously convened a JAZB to enact zoning for the proposed Runway 09/27.

Under the No Action Alternative, the crosswind runway approach and departure paths will remain unprotected by land use zoning and would not be compliant with state standards. Continuing non-compliance may require the acquisition of approximately 15 acres of additional airport property or cause the existing crosswind runway 4/22 to close in the future.

3.3.5.3.2 Wildlife Attractants

Vegetation management post-construction would continue with regular mowing, unless the area would be cropland, which serves to minimize wildlife hazards while also minimizing the introduction and establishment of invasive species. Introduction and spread of invasive species at the Airport would also be minimized prior to, during, and after construction of the proposed project through a variety of best management practices. Areas disturbed during construction would follow the FAA specifications for seeding (T-901) and will use an MN State seed mix that would not attract wildlife.

The proposed project is not anticipated to result in an increase in wildlife attractants.

3.3.5.3.3 RPZ

Figure 3-5 shows the future RPZ for the proposed Runway 9/27 relocation. The proposed project would require acquisition of approximately 25.2 acres of land to provide RPZs fully located within Airport property. The land that would be acquired for the proposed project is currently used for agricultural purposes, and RPZ areas would likely continue to be farmed under a lease.

3.3.5.3.4 Transportation

No changes to area or on-airport roadways are included in the proposed project. No permanent additional trip generation or parking is anticipated. No additional congestion is expected, and no new traffic would be generated. The flow of traffic for US Highway 14, N Highland Ave, County Road 12, County Road 27, and Airport Road would not change due to the proposed project.

No public road signs indicating construction traffic are anticipated with the proposed project. If design requires additional hauling, signs will be required, and the contractor will be required to follow Manual on Uniform Traffic Control Devices (MUTCD) requirements for signage.

3.3.5.3.5 Utilities

Electric – The City of New Ulm has obtained a Partial Easement Release document from Brown County Rural Electric Association for proposed parcel 12, 13, 14 and 16. This release removes an existing blanket easement encumbrance from the properties to be acquired and restricts the easement to that area where the electrical line is physically constructed. As of January 2025, this document is in the process of being recording by the County.

3.3.5.3.6 Drain tile

An easement associated with proposed parcels 13-16 (the Somsen Slough Agreement) pertains to financial responsibility to maintain a lift station and pump north of the airport. The existing drain tile on proposed parcels 13-16 will not be impacted by the proposed project. The existing drainage will be maintained and the drain tiles that remain will continue to support the airport's planned continued use of row crop production beyond the limits of the new runway.

3.3.5.4 Minimization and Mitigation

Because no substantial project-related impacts to land use are expected, no mitigation is required as part of the proposed project.

3.3.5.5 Significance Determination

The FAA has not established a significance threshold for land use, or factors to consider when determining significance of a project's effect on land use.

The preferred alternative eliminates incompatible uses within the existing Runway 4/22 RPZs and aligns the proposed Runway 9/27 with already-enacted JAZB safety zones to conform with state guidance. These steps improve the land use condition as compared to the no-action alternative.

Land use impacts associated with the proposed action will not be significant based upon the factors described above.

3.3.6 Natural Resources and Energy Supply

3.3.6.1 Regulatory Setting

Airport construction projects often change an airport's demand on local energy and natural resource supplies, and the EA should include consideration of a proposed project's energy requirements and natural resource requirements. The following impact categories should be included in an EA, as needed:

- Impacts of the proposed project on local electric, gas, and water utilities.
- Construction material required for the proposed project, and its availability from local suppliers.
- Impact of the proposed project on aircraft and ground vehicle fuel use.

3.3.6.2 Affected Environment

The project boundary was reviewed for the natural resources and energy supply resource category. The existing crosswind runway is unlit and requires no electrical power. Energy is expended to mow the turf surface during the summer, but it is not plowed in the winter. The existing intersecting taxiway has medium intensity taxiway edge lights.

3.3.6.3 Environmental Consequences

The preferred alternative will not cause the New Ulm airport to consume additional natural gas or water. No additional lighting is proposed for the new crosswind runway, and taxiway edge lighting would only minimally increase to accommodate the new curved alignment.

The energy demands of the preferred alternative, once operational, would not substantially increase. Operation and maintenance of the proposed runway would remain the same. Taxiway length would slightly increase, as would the distance to the new crosswind from stored maintenance equipment; however, any associated increases in fuel use would be minimal and within local supply levels.

Consumption of energy and natural resources during the construction phase of the proposed project would consist mainly of construction machinery fuel and construction materials. Because the proposed crosswind runway is turf, limited amount of paving materials for the realigned taxiway segment would be required. This consumption is not anticipated to exceed locally available supplies.

3.3.6.3.1 *Minimization and Mitigation*

Because no substantial impacts to natural resources and energy supply are expected as a result of the proposed project, no mitigation is required.

3.3.6.3.2 *Significance Determination*

The FAA has not established a significance threshold for natural resources and energy supply; however, situations where the proposed project would potentially cause demand to exceed available or future supplies of energy or natural resources should be considered. The proposed project would not cause demand to exceed available or future supplies of these resources.

Based on the above analysis, there are no significant natural resources and energy supply impacts anticipated with the proposed project or the no-action alternative.

3.3.7 Socioeconomics & Children's Environmental Health and Safety

3.3.7.1 Regulatory Setting

Statutes related to socioeconomic impacts include the Uniform Relocation Assistance and Real Property Acquisitions Policy Act of 1970. Title VI of the Civil Rights Act of 1964, Executive Orders, and other federal guidance have been issued to address children's environmental health and safety risks.

3.3.7.2 Affected Environment

Areas directly adjacent to the project boundary and affected jurisdictions were analyzed for this resource category. The Airport is located in Brown County, approximately one mile southwest of downtown New Ulm, 11 miles east of Sleepy Eye, and 27 miles west of Mankato. Population growth in these jurisdictions, as compared to the State of Minnesota, is shown in **Table 3-2**.

The area near the Airport, the county, and neighboring cities all show varying levels of population growth. New Ulm is growing slower than the state average, but faster than the county average over the last 10 years.

Table 3-2: Total Population				
	2010	2015	2020	Compound Annual Growth Since 2010
Minnesota	5,303,925	5,489,594	5,706,494	0.73%
Brown County	25,893	25,391	25,912	0.01%
New Ulm	13,522	13,287	14,120	0.43%
Sleepy Eye	3,599	3,498	3,452	-0.42%
Mankato	39,309	40,557	44,488	1.25%
<i>Source: U.S. Census Bureau 2015, 2015 American Community Survey 1-year Estimates, 2010 Decennial Census, and 2020 Decennial Census</i>				

Income is also a useful indicator for understanding the potential sensitivity of a community to socioeconomic impacts. **Table 3-3** summarizes per capita and median household income for the cities, county, and state in 2020. New Ulm has lower per capita incomes and median household incomes than the state and all other jurisdictions analyzed.

Table 3-3: Income and Household Size		
Area	Per Capita Income	Median Household Income
Minnesota	\$109,737	\$82,338
Brown County	\$82,692	\$67,038
New Ulm	\$78,266	\$59,985
Sleepy Eye	\$80,822	\$86,163
Mankato	\$78,779	\$61,726
<i>Note: ACS Per Capita Income does not measure interest, dividends, rent, insurance, or transfer payments.</i>		
<i>Source: U.S. Census Bureau, 2022 American Community Survey 1-Year Estimates, and 2020 Decennial Census.</i>		

3.3.7.3 Environmental Consequences

3.3.7.3.1 Socioeconomics

Factors to consider when analyzing the context and magnitude of potential impacts include whether the proposed project has the potential to:

- Induce substantial economic growth in an area.
- Disrupt or divide the physical arrangement of an established community.
- Cause extensive relocation.
- Disrupt traffic patterns and reduce the level of service of roads serving a surrounding community.
- Substantially change a community's tax base.

The preferred alternative is not expected to significantly influence economic activity in the area, nor will it disrupt or cause any relocation of the established community.

3.3.7.3.2 Land Acquisition

The Airport would purchase approximately 25 acres of land adjacent to the existing property for the RPZ required for the runway relocation. Land purchased for the proposed project would comply with the Uniform Relocation Assistance and Real Property Acquisition Policy Act. This land acquisition may slightly decrease the tax base; however, these impacts are not significant within the context of the activity occurring in the larger area.

3.3.7.3.3 Children's Environmental Health and Safety

Areas affected by Airport noise do not include elementary or middle schools, playgrounds, or other facilities that would otherwise be primarily accessed by children. Under the preferred alternative, there are no significant impacts to air quality or water resources that may influence the health of the surrounding population, including children. No

disproportionate safety risks are associated with the proposed project. No disproportionate health or safety risks to children are expected.

3.3.7.3.4 *Minimization and Mitigation*

Because there are no disproportionately high or adverse impacts to socioeconomics or children's health and safety, mitigation efforts are not needed for the proposed project.

3.3.7.4 Significance Determination

The FAA has not established a significance threshold for socioeconomics, and the proposed project is not anticipated to impact the factors to consider listed above.

3.3.7.4.1 *Children's Environmental Health and Safety*

In most cases, the significance of impacts to children's environmental health and safety is dependent on the significance of impacts in other environmental categories. The FAA has not established a significance threshold for this category but requires consideration of whether the proposed project will lead to disproportionate health or safety risks to children. Impacts in other resource categories are not considered significant.

3.3.7.4.2 *Conclusion*

No disproportionately high or adverse effects are anticipated on socioeconomics or children's environmental health and safety for the preferred alternative and no-action alternative.

3.3.8 Water Resources

3.3.8.1 Surface Waters and Stormwater

3.3.8.1.1 *Regulatory Setting*

Surface waters include streams, rivers, lakes, ponds, estuaries, and oceans. The Clean Water Act (CWA) was established to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." The CWA allows states to adopt water quality standards. Minnesota has done so under Minnesota Rules chapters 7050 (Waters of the State), and 7052 (Lake Superior Basin Water Standards), which is administered by the Minnesota Pollution Control Agency (MPCA). Minnesota Rules chapters 7050 established a "classification system of beneficial uses applicable to waters of the state, narrative and numeric water quality standards that protect specific beneficial uses, antidegradation provisions, and other provisions to protect the physical, chemical, and biological integrity of waters of the state." Chapter 7052 "establishes aquatic life, human health, and wildlife water quality standards and criteria for Great Lakes Initiative (GLI) pollutants; antidegradation standards for surface waters of the state in the Lake Superior basin including, on a limited basis as described in item B, class 7 waters; and implementation procedures for deriving effluent limitations from these standards and criteria." Minnesota waters and their assigned designated uses are to be protected whether for drinking water, recreation, fish consumption, or aquatic life. Not only do water quality standards establish

designated uses, but they also establish criteria that must be met within the bodies of water, so water quality is maintained to support their designated uses.

So-called “impaired waters” are any bodies of water that do not meet water quality standards or fully support the water body’s beneficial use. Section 303(d) of the CWA requires states to assess and list impaired waters and establish priority ranking by considering the water’s uses and pollutant levels. The MPCA submits an Impaired Waters list to EPA every two years that includes Section 303(d) list of impaired waters and Section 305(b) water quality assessment report.

For stormwater and other activities, the MPCA administers the National Pollutant Discharge Elimination System (NPDES) permitting program. The NPDES was created by the CWA, and addresses water pollution by regulating the discharge of pollutants to surface waters within the state. Regulated activities include municipal/industrial wastewater, stormwater, pretreatment, septic pumper, and concentrated animal feeding operations.

A stormwater permit for construction activity is required for activities disturbing 1 or more acres of soil. Permittees are required to control runoff from construction sites and develop a construction SWPPP that includes erosion prevention and sediment control BMPs.

3.3.8.1.2 *Affected Environment*

The Minnesota River is located approximately two miles northeast of the Airport and is a tributary of Mississippi River. The Airport is located within the Minnesota River Basin. The northern portion of the Airport property is within the Minnesota River – Mankato watershed, while the south portion of the Airport property is within the Cottonwood River Watershed. The majority of the Project Area of Interest (AOI) is within the Minnesota River Mankato watershed; the proposed haul route extends south into the Cottonwood River Watershed. Drainage generally flows to the south towards the Cottonwood River.

Per the MnDNR’s Impaired Waters: Final 2024 interactive map viewer, an impaired stream, the Cottonwood River, is located approximately one mile south of the Project AOI¹¹. The MnDNR lists aquatic life, aquatic recreation, and aquatic consumption as the impaired affected designated uses of the river. Per the EPA¹², a Total Maximum Daily Load (TMDL) is the maximum amount of a given pollutant that can enter a waterbody while the waterbody continues to meet water quality standards for the given pollutant. The Cottonwood River has not been assigned a TMDL Commitment Group; the Cottonwood River is described as an EPA Category 4A, meaning a TMDL study has been approved by the EPA.

The City of New Ulm has been classified as a Municipal Separate Storm Sewer System (MS4) community. The City must develop, implement, and enforce a Storm Water Pollution Prevention Plan (SWPPP) that minimizes the discharge of pollutants from its storm sewer

¹¹MnDNR’s Impaired Waters: Final 2024 interactive map viewer: [Impaired Waters: final 2024 \(arcgis.com\)](https://arcgis.com)

¹² EPA Overview of TMDLs: <https://www.epa.gov/tmdl/overview-total-maximum-daily-loads-tmdls>

system and protect receiving waters from discharged pollutants in accordance with the CWA. The City published their SWPPP in 2007, and outlines BMPs including education, maintenance, pollution control techniques, system designs, and engineering methods.

The area to be acquired west of the airport benefits from a drainage easement that allows conveyance of water through drain tiles north of the airport into the Somsen Slough northwest of the airport.

3.3.8.1.3 *Environmental Consequences*

No direct impacts to surface water are expected as a result of the proposed project.

The proposed project includes minor drainage pattern changes, such as storm pipe installation beneath the proposed runway and on-site excavation to meet FAA grading standards. No substantial impervious surface will be added as part of the proposed project, which primarily consists of the addition of a permeable turf runway. A small increase in impervious surface will result from the taxiway realignment, but this is not a substantial addition in the overall airport environment. The airport will remain a party to the existing drainage easement; no drain tiles will be impacted as part of project construction.

3.3.8.1.4 *Minimization and Mitigation*

During design, an Erosion Control plan will be developed to assist the contractor in submitting and completing their required SWPPP. Erosion control measures such as the use of straw wattles, staked silt fence, inlet protection, seeding and mulching will be utilized as needed. Best management practices for dust control will be utilized, which may include the use of water trucks or other approved methods. The contractor will be responsible for obtaining and maintaining an approved SWPPP. The project specific SWPPP, completed by the selected contractor prior to beginning construction, will identify all potential pollution sources that could come into contact with stormwater that is leaving the site, describe Best Management Practices and control measures for preventing pollution, and procedures for conducting inspections and monitoring to ensure the SWPPP measures are successful.

3.3.8.1.5 *Significance Determination*

Per FAA Order 1050.1F, a significant impact to surface waters exists if a proposed project would cause surface water to exceed water quality standards established by a regulatory agency, or if a proposed project would contaminate public drinking water supply such that public health may be adversely affected.

Other factors to consider include if an action would:

- Adversely affect natural and beneficial water resource values to a degree that substantially diminishes or destroys such values;
- Adversely affect surface waters such that the beneficial uses and values of such waters are appreciably diminished or can no longer be maintained and such impairment cannot be avoided or satisfactorily mitigated; or

- Present difficulties based on water quality impacts when obtaining a permit or authorization.

Because there are no direct impacts to surface water as part of the proposed project, nor substantial stormwater increases or potential for increased contamination in runoff, neither the proposed project nor the no action alternative would have significant surface water impacts.

3.3.8.2 Wetlands

3.3.8.2.1 *Regulatory Setting*

Wetlands are a valuable resource to human, animal, and plant communities. They are responsible for providing a home to a variety of insects, mammals, vegetation, fish, birds, and microbes. Wetlands perform physical, chemical, and ecological functions while varying in shapes, sizes, and types. The U.S. Army Corps of Engineers (USACE, or “Corps”) defines wetlands as “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” Wetlands are not limited to swamps, marsh, and similar areas, as a temporarily flooded pothole may also be a wetland if certain soils and vegetation are present.

Impacts to wetlands are regulated at the federal level by the CWA, with the USACE as the permitting agency. The CWA establishes the basic structure for regulating the discharge of fill materials and pollutants into Waters of the United States, which include wetlands and waterways. The two primary sections of the CWA relating to wetland impacts and permitting are Section 404 and Section 401. Section 404 of the CWA requires that those proposing to deposit dredged or fill material into the Waters of the United States, including wetlands, must receive a permit before doing so. Section 401 requires any applicant for a federal license or permit to conduct an activity that may result in a discharge of a pollutant into Waters of the United States to obtain a certification from the State that the discharge complies with the applicable water quality standards. The Corps issues Section 404 permits that are then certified by Section 401 approvals at the state level.

Wetlands are also regulated by the Wetland Conservation Act (WCA), a wetland protection law passed by the Minnesota state legislature in 1991. The purpose of the WCA is to maintain and protect Minnesota wetlands and the benefits they provide. It does so by requiring those proposing to drain, excavate, dredge, or fill a wetland to 1) first try to avoid disturbing the wetland, then 2) try to minimize the impact on the wetland, and finally 3) replace any lost wetland acres, functions, and values. The Minnesota Board of Water and Soil Resources (BWSR) administers WCA, with the assistance of local governmental units (LGUs). Brown County serves as the LGU for wetlands on Airport property. The MDNR also regulates projects that affect public water wetlands throughout the State of Minnesota.

3.3.8.2.2 *Affected Environment*

A wetland delineation was conducted by Mead & Hunt within an AOI during a site visit on September 9 and 10, 2024. A total of four (4) wetlands were delineated within the AOI; two additional wetlands (Wetlands 5 and 6) were identified during the regulatory review.

Delineated wetlands are shown in **Figure 3-11**. All six wetlands were Emergent (PEM) wetlands; Wetland 4 was an Emergent (PEM) and Scrub Shrub (PSS) wetland complex. Wetlands are summarized in **Table 3-4**.

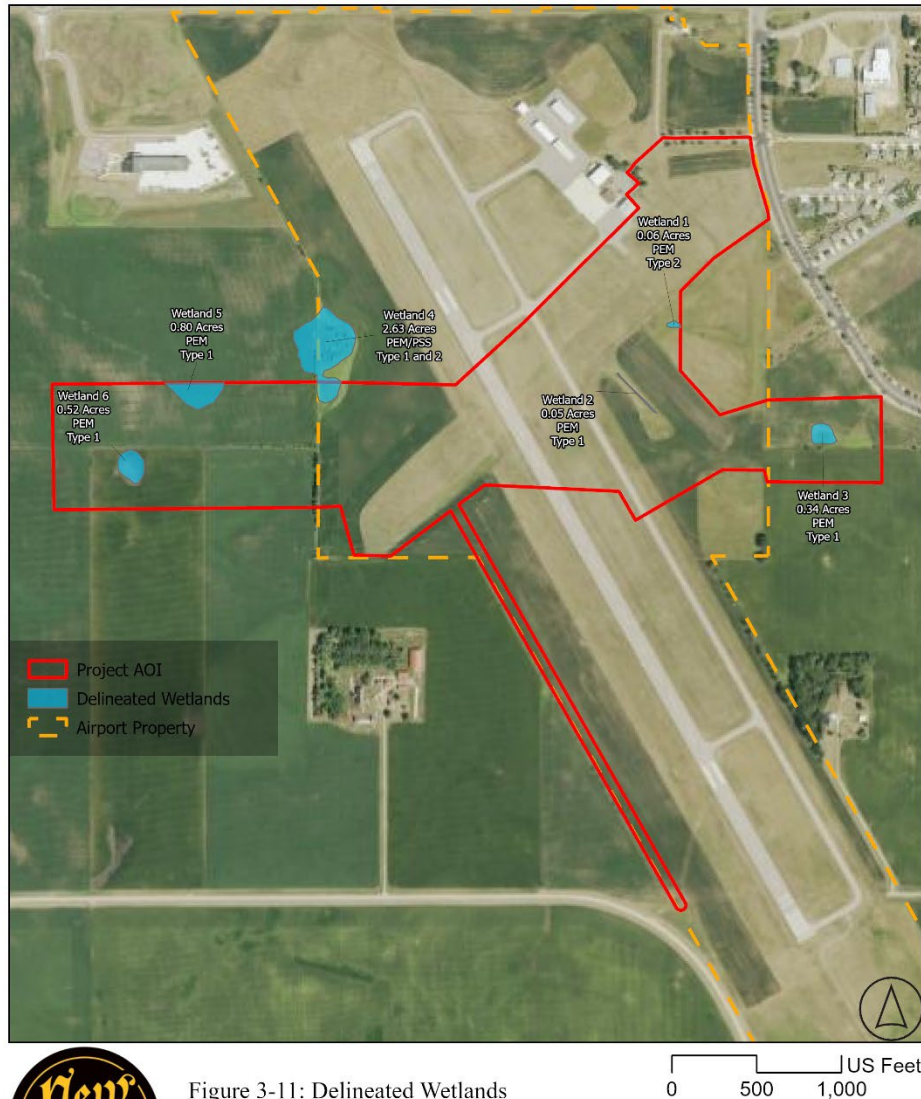


Figure 3-11: Delineated Wetlands
New Ulm Municipal Airport
Environmental Assessment: Crosswind Runway 09/27

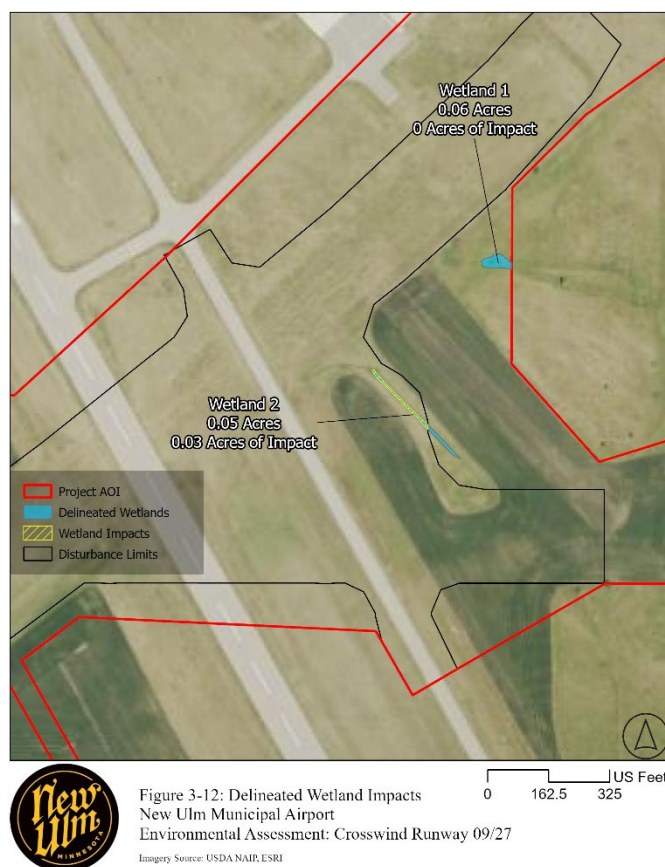
Imagery Source: USDA NAIP, ESRI

Table 3-4. Summary of Delineated Wetlands Within the AOI

Wetland ID	Cowardin Type	Dominant Vegetation	Total Area within AOI (sq. ft.)	Total Area within AOI (acres)
1	PEM	<i>Carex stricta</i> (OBL), <i>Phalaris arundinacea</i> (FACW), <i>Salix discolor</i> (FACW), <i>Toxicodendron radicans</i> (FAC)	2,461.65	0.05
2	PEM	<i>Phalaris arundinacea</i> (FACW)	2,039.26	0.05
3	PEM	<i>Phalaris arundinacea</i> (FACW)	14,682.93	0.34
4	PEM/PSS	<i>Phalaris arundinacea</i> (FACW) <i>Ambrosia trifida</i> (FAC)	114,362.64	2.63
5	PEM	<i>Amaranthus retroflexus</i> (FACU)	0.80	0.80
6	PEM	<i>Panicum dichotomiflorum</i> (FACW), <i>Hibiscus trionum</i> (UPL)	0.52	0.52
Total Delineated			133,546.48	3.07

3.3.8.2.3 Environmental Consequences

A Joint Application Form was submitted for the proposed project requesting wetland type confirmations, delineation concurrences, and approved jurisdictional determinations for wetlands identified on site during the September 2024 wetland delineation. A Technical Evaluation Panel (TEP) meeting occurred on November 1, 2024 to review the delineated wetlands types and boundaries. The TEP resulted in the inclusion of two additional wetlands (Wetlands 5 and 6). The TEP concurred with all other wetland types and boundaries. The TEP also determined that Wetland 2 is a constructed, incidental wetland under the WCA.



The proposed project is anticipated to have approximately 0.03 acre of fill to Wetland 2, as shown in **Figure 3-12**. The remaining 0.02-acre portion of the wetland would likely be affected indirectly by the adjacent activities, for a total impact of 0.05 acre.

3.3.8.2.4 *Minimization and Mitigation*

The proposed project was, in part, designed to minimize disruption of known wetlands; therefore, only minimal direct disturbance is associated with a wetland thought to be incidental (Wetland 2) due to the placement of the proposed runway and supporting infrastructure.

Per Minnesota Statute 03G.2241 Subp. 5, because the impacted wetland is incidental, no mitigation is required. Wetland 2 will likely not be regulated by the USACE under the CWA; the proposed project will request an approved jurisdictional determination from the USACE to confirm that the wetland is not regulated and therefore does not require mitigation or replacement under the CWA. Under WCA, because the impacted wetland is considered incidental, the proposed project will request a no-loss determination.

3.3.8.2.5 *Significance Determination*

The FAA Order 1050.1F desk reference notes that a significant impact would occur when the action would:

1. Adversely affect a wetland's function to protect the quality or quantity of municipal water supplies, including surface waters and sole source and other aquifers;
2. Substantially alter the hydrology needed to sustain the affected wetland system's values and functions or those of a wetland to which it is connected;
3. Substantially reduce the affected wetland's ability to retain floodwaters or storm runoff, thereby threatening public health, safety or welfare (the term welfare includes cultural, recreational, and scientific resources or property important to the public);
4. Adversely affect the maintenance of natural systems supporting wildlife and fish habitat or economically important timber, food, or fiber resources of the affected or surrounding wetlands;
5. Promote development of secondary activities or services that would cause the circumstances listed above to occur; or
6. Be inconsistent with applicable state wetland strategies.

The minimal impacts to an incidental wetland that would occur as part of the proposed project would not result in any of these criteria. Therefore, neither the proposed action nor the no action alternative would result in a significant impact to wetlands.

3.3.9 Cumulative Impacts, and Cumulative Potential Effects

3.3.9.1 Regulatory Setting

NEPA requires the analysis of “cumulative impacts.” Cumulative impacts are impacts on the environment that result from the incremental impact of the action when added to past, present, and reasonably foreseeable development in the area that is not directly associated with the preferred alternative, regardless of what agency or person undertakes such actions. According to FAA Order 5050.4B, reasonably foreseeable actions include those “on or off-airport that a proponent would likely complete and that has been developed with enough specificity to provide meaningful information to decision makers and the interested public.”

3.3.9.2 Past, Present, and Reasonably Foreseeable Projects

On-Airport Projects

No major airport projects have occurred in the last five years. The most recent major airport project was an expansion of Runway 15/33 and the installation of a new approach lighting system which occurred in 2014. Pavement maintenance has occurred periodically.

The airport intends to move their fuel system and add a taxilane in 2025 to an area adjacent to the existing Runway 4/22.

Off-Airport Projects

The City of New Ulm lists the following as planned construction projects in 2024 and 2025:

- 2024 MSAS Project – 20th South Street from Broadway to Minnesota River Bridge No. 08520
- German Street from Center Street to 3rd North Street Utility, Street, and Alley Improvements
- 12th South Street from Minnesota Street to Valley Street Utility, Street, and Alley Improvements
- North Broadway from 19th North Street to 20th North Street Valley Street from Center Street to 3rd North Street Utility, Street, and Alley Improvements
- Alley Blocks 77, 94 & 103 North of Center Street Utility, Street, and Alley Improvements
- 2024 Recreational Trail Project from 20th South Street to 7th South Street
- 2025 Utility, street, and alley improvements including Bridge Street from Cottonwood Street to Tower Road and the Lakeside Village addition
- 2025 18th South Street storm sewer lift station

None of these are within the Environmental Assessment Study Area. Long term projects included in the city’s comprehensive plan are either not within or adjacent to the project area or are not reasonably foreseeable (such as the long-term projected development just east of the airport).

3.3.9.3 Cumulative Environmental Consequences

The recent and planned actions described above, when combined with the proposed project at the Airport, do not have significant cumulative effects on environmental impact categories within the project boundary.

Impacts of the proposed project when considered with past or future actions do not constitute a significant impact that cannot be mitigated. All future actions will be subject to avoidance and minimization studies and will undergo agency review and permitting as required. Every effort will be made to avoid or minimize impacts where feasible. No significant cumulative impacts or cumulative potential effects are associated with the preferred alternative.

3.4 Summary

A summary of the impacts presented in this section is presented in **Table 3-5**. The table includes the impacts from the no-action and preferred alternatives, as well as any required mitigation, permits, or associated actions.

Table 3-5: Summary of Environmental Consequences				
Environmental Impact Category		No-Action Alternative Impact	Preferred Alternative Impact	Permitting/Mitigation & Associated Actions
Farmlands		No impact	Not significant Up to 55 acres converted.	Potential to lease on-airport farmland after acquisition.
Hazardous Materials, Solid Waste, and Pollution Prevention		No impact	No impact	Dispose of two small debris piles (BERs) prior to construction Dispose of construction materials and solid waste in accordance with state and local laws.
Historical, Architectural, Archaeological, and Cultural Resources		No impact	No impact	-
Land Use	Zoning	No impact State Airport Zoning guidelines non-conforming. Continuing of non-compliance may	No impact Runway ends will align with existing safety zoning.	-

		require the acquisition of approximately 15 acres of additional airport property, or cause the existing crosswind runway 4/22 to close in the future.		
	Ground Transportation	No impact	No impact	-
	RPZ	RPZs nonconforming.	RPZs conforming.	Land acquisition to establish governing control of RPZ.
	Utilities	No impact	No impact	Blanket easements to be vacated or extinguished.
	Wildlife Attractants	No impact	No impact	To minimize wildlife attractants, vegetation management post-construction would continue with regular mowing, unless the area would be cropland.
Natural Resources and Energy Supply		No impact	No impact	-
Socioeconomics and Children's Health and Safety		No impact	No impact Acquire 25.2 acres of agricultural land	Land acquisition in compliance with Uniform Relocation Assistance and Real Property Acquisitions.
Water Resources	Surface Waters and Stormwater	No impact	No impact	A project-specific SWPPP would be developed. Airport remains party to existing drainage easement.

	Wetlands	No impact	Not significant	0.03-acre incidental wetland fill, 0.02 acres indirectly impacted.
Cumulative Impacts		No substantial impacts.	No substantial impacts.	-

Chapter 4

Agency and Public Involvement

4.1 Scoping Letters

Scoping Letters were distributed to relevant federal, state, and local governments and agencies identified in consultation with FAA. On September 6, 2024, Mead & Hunt solicited initial comments from the identified governments and agencies via electronic mail.

Agencies were asked to submit comments for consideration during the environmental review process. Agencies receiving this correspondence included the following:

- Minnesota (MN) Department of Agriculture
- MN Commerce Department
- MN Department of Health
- MN Department of Natural Resources
- MN Pollution Control Agency
- MN Board of Water and Soil Resources
- MN Department of Transportation
- MN Department of Transportation, Aeronautics
- U.S. Fish and Wildlife Service
- U.S. Army Corps of Engineers
- U.S. Environmental Protection Agency
- Brown County Planning and Zoning
- City of New Ulm Community Development
- Brown County Soil and Water Conservation District
- Region Nine Development Commission

The agency mail list and Scoping Letter template, as well as the agency responses to the SOV letters, can be found in **Appendix F**.

4.2 Public Comment Period and Opportunity for Hearing

The Draft EA was made available for public review and comment from January 25 through February 24, 2025. Along with the notice of publication, an opportunity to request a hearing was published in the New Ulm Journal and mailed to impacted landowners. The notice can be found in Appendix E. The document was available for viewing online at the City's website, and in person at City Hall.

No requests for a public hearing were received. Two written comments were received from agencies during the comment period. All comments received and how they have been addressed in the Final EA can be found in **Appendix E**.

The public involvement process is inclusive of all residents and population groups in the study area and did not exclude any persons based on income, race, color, religion, national origin, age, or handicap.

Chapter 5

Preparers

5.1 Introduction

The responsibility for the EA under NEPA rests with the FAA Dakota-Minnesota Airports District Office. This EA was prepared by Mead & Hunt, Inc. under contract with the City of New Ulm.

5.2 Preparers and Qualifications

The following Mead & Hunt staff members and subconsultants were directly responsible for preparing the contents of this document.

Evan Barrett, AICP, CM – Midwest Aviation Planning Manager

Mr. Barrett has more than 15 years of experience with NEPA documentation, airfield planning studies, and airport master plans.

Sarah Emmel Tvedten, AICP – Project Manager and Environmental Planner

Ms. Emmel is an airport planner with experience in environmental planning and NEPA, airport sustainability, land use planning, and stakeholder engagement.

Michelle Baird, PE – Airport Engineer

Ms. Baird has 25 years of experience with planning, environmental, design, and construction on airport projects.

Taylor Peterson, PE – Airport Engineer

Mr. Peterson has more than ten years of experience in airport engineering and planning at both commercial service and general aviation airports. Mr. Peterson serves as the design team lead, resident engineer, and project manager for a variety of airport improvement projects.

Arya Alizadeh – Airport Planner

Mr. Alizadeh is an airport planner with experience in terminal design, adaptive reuse, landside transportation access, and urban airports.

Cole Kiernan – Environmental Planner

Mr. Kiernan is an environmental planner with experience in wetland regulation, NEPA review, and state environmental review documentation.

Denise Peterson – CAD Technician

Ms. Peterson has 10 years of CAD experience and has been involved in the layouts and designs of roadways, runways, taxiways, plan set coordination and creation, and exhibit drawings for presentations.

Colleen Bosold – Airport Planner

Ms. Bosold has 17 years of experience in the aviation consulting industry, focusing on planning, environmental documentation, community engagement, and communications. Colleen also has experience assisting project teams with management and coordination activities. Her attention to detail, organizational and communication skills help to keep project tasks moving forward efficiently and effectively.

Mark Sauer, AICP – Transportation Planner

Mr. Sauer has contributed to planning projects for over 14 years, and has prepared numerous environmental documents including Categorical Exclusions, Environmental Reports, Environmental Assessments, and Indirect and Cumulative Effects Analyses. He has completed Phase I Environmental Site Assessments for projects throughout the Midwest.

Guen Adams – Environmental Planner

Ms. Adams is an environmental specialist with experience in state- and federal-level environmental compliance. She has extensive experience in grant management for programs under FEMA, including the Building Resilient Infrastructure and Communities (BRIC), Pre-Disaster Mitigation (PDM), Flood Mitigation Assistance (FMA), and the Hazard Mitigation Grant Program (HMGP).

Bridget Jensen – Cultural Resource Specialist

Ms. Jensen is a historian with experience in conducting research and field surveys, preparing historic contexts and inventory forms, and preparing reports. She meets the Secretary of the Interior's Standards in history.

Brooke Reinke – Cultural Resources Specialist

Ms. Reinke is a historian with experience in conducting research and field surveys, preparing historic contexts and inventory forms, and preparing reports. She meets the Secretary of the Interior's Standards in history.

Brauna Hartzell – GIS Analyst and Environmental Scientist

Ms. Hartzell has more than 10 years of experience in wetland delineation, wetland permitting, and restoration projects. She performs wetland and field delineations conforming to current USACE and State standards, designs custom field data collection applications, collects field data using hand-held Global Positioning Systems (GPS) data collectors and tablets, and prepares NEPA documentation.

Erik Anderson – Archaeologist, Minnesota Valley Archaeology Center

Mr. Anderson is a research archaeologist with a M.Sc. in Bioarchaeology and Forensic Anthropology from University College London, 2015. He is skilled in bioarchaeology, GIS, cultural resource management and midwestern archaeology.