

Yellowstone Airport Terminal Improvements Environmental Assessment



FINAL

June 2021

**Final Environmental Assessment
for the
Yellowstone Airport
West Yellowstone, Montana**

June, 2021

This Environmental Assessment becomes a Federal document when evaluated and signed by the responsible FAA official.



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U.S. Department of Transportation

Federal Aviation Administration
Northwest Mountain Region

Finding of No Significant Impact/
Record of Decision

For Terminal Improvements at
Yellowstone Airport
West Yellowstone, Montana

June 2021

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I. Introduction

This document serves as the Federal Aviation Administration’s (FAA) Finding of No Significant Impact/Record of Decision (FONSI/ROD) and provides the final agency determinations and approvals for the federal actions necessary to implement the proposed improvements at the Yellowstone Airport (Airport). The Montana Department of Transportation – Aeronautics Division (MDT – Aeronautics) owns and operates the Yellowstone Airport. This FONSI/ROD is based on the information and analysis contained in the Final Environmental Assessment (FEA) dated June 2021, which is hereby incorporated by reference. The FEA has been prepared pursuant to Section 102(2)(c) of the National Environmental Policy Act (NEPA) and the President’s Council on Environmental Quality (CEQ) Regulations Title 40 CFR §§ 1500-1508, and in accordance with FAA Order 1050.1F *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4B *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions*. The FEA documents the evaluation of environmental impacts associated with the proposed improvements described below.

Appendix K of the FEA was updated to include additional agency contact letters and Appendix L of the FEA was updated to provide details of the public comment period for the draft EA and written responses to the comments received during the public comment period.

II. Background

The Yellowstone Airport (FAA Identifier WYS) is located two miles north of the town of West Yellowstone in southernmost Montana, just a few miles west of the Wyoming border and Yellowstone National Park’s western entry. MDT – Aeronautics (the Airport Sponsor) is proposing improvements (Proposed Action) at the airport that would provide an updated and safe terminal building and associated improvements to meet existing and forecasted passenger and terminal user needs.

With the FAA Reauthorization Act of 2018, WYS falls into the new seasonal airport category and is considered a non-hub primary airport. This designation is based on having at least 8,000 passenger boardings of scheduled air carrier service over fewer than 6-month service season.

The Airport is utilized for corporate business activity, aerial surveying, military exercises, search and rescue, emergency medical services, and public charters among other uses. Commercial service is provided through SkyWest Airlines, and is nearly exclusively comprised of visitors to Yellowstone National Park (YNP). Aerial wildland firefighting also has a large presence at the Airport, which is a critical service in wildland fire response. The United States Forest Service (USFS) West Yellowstone Interagency Fire Center (Jump Base) is located off Airport property on adjoining USFS property, with airside access lying within the existing animal control fence that surrounds the Airport.

III. Proposed Action

The Airport Sponsor has proposed the following improvements at the Yellowstone Airport. Chapter 1 and Figures 1-4 and 1-5 of the FEA provide a description and graphic depiction of the project, which includes the following elements:

- New Terminal Building
 - Construct approximate 29,000 SF terminal
 - Demolition of Airport Buildings
 - Airport terminal building
 - Generator building

- Modifications to the Animal Control Fence to accommodate the new footprint of the new structure and features of the terminal area
- Expand Concrete Commercial Parking Pad
- Reconstruct and Extend Airport Access Road
- Construct New Parking Lot Infrastructure
- New Water Infrastructure Improvements (details provided in Appendix C of the FEA)
 - Extend water main infrastructure from town of West Yellowstone, approximately 27,815 linear feet (LF).
 - Construction and occasional maintenance of the new water infrastructure improvements on the Custer Gallatin National Forest will be carried out under a special use authorization from the USFS.
 - The existing well can be abandoned (well casing removed to below the ground level, plugged with bentonite, and capped).
- New Sewer Infrastructure Improvements (details provided in Appendix C of the FEA)
 - Extend sanitary sewer service from the terminal to the town of West Yellowstone sewer lagoons
 - The system is proposed to be routed to facilitate connection to the USFS Jump Base and sized to accept effluent from the USFS Jump Base, to allow for USFS connection in the future.
 - The existing septic tanks can be removed, and force main to the existing drain field and drain field abandoned in place.
- New Fiber Optic Infrastructure Improvements
 - Extend fiber optic infrastructure (buried in conduit) from the town of West Yellowstone.
 - Fiber optic is proposed to be collocated in the same trench as the water line from the town of West Yellowstone.
 - If the connection to town water facilities is determined infeasible and Alternative W1 is employed to improve onsite water, new fiber optic infrastructure improvements will not be pursued.
 - Construction and occasional maintenance of the new fiber optic infrastructure improvements on the Custer Gallatin National Forest would be carried out under a special use authorization from the USFS.
- Timber clearing to facilitate subsurface utilities (i.e. water, sewer, and fiber optic). Details are provided in Appendix C of the FEA.
- Replacement of Existing Airport Beacon with New Beacon and Tower

IV. Purpose and Need

The FAA has the responsibility to maintain and enhance safety and security in air commerce (Title 49 USC § 40101(d)). To meet this responsibility, the FAA has developed standards and recommendations for the design of civil airports to promote safety and security (Advisory Circular 150/5300-13A, Airport Design). These standards and recommendations are updated to incorporate new standards and technical requirements.

The Purpose and Need is presented fully in Chapter 2 of the FEA. The purpose of the proposed improvements is to provide an updated terminal facility that meets current and future passenger, Transportation Security Administration (TSA), and Airport Administrative needs. As a result of implementing new terminal improvements, an ancillary purpose is to improve the water, sewer, and fiber optic infrastructure to better serve the new terminal, as well as the

potential extension to facilitate existing and future airport uses and the neighboring USFS Jump Base if they connect in the future. Such improvements and modifications must be made to comply with FAA design standards and recommended guidance as noted in the 2019 Terminal Area Narrative Report (2019 *TANR*).

The Proposed Action is needed because the 2019 *TANR* identified that the present terminal building and associated infrastructure is not configured or sized to adequately accommodate present day and projected future needs of the traveling public. The Proposed Action would improve safety and efficiently accommodate the needs of existing and future passengers, TSA, Airport Administration, and other Airport users.

V. Agency Actions and Approvals

The FAA actions, determinations, and approvals necessary for this project to proceed include the following:

- Unconditional approval of the Airport Layout Plan (ALP) to depict those portions of the Proposed Action subject to FAA review and approval pursuant to 49 USC 47107(a)(16)(B). A copy of the conditionally approved ALP set can be found in Appendix A of the FEA.
- A determination that the environmental analysis prerequisites associated with any future Airport Improvement Program (AIP) funding applications associated with the Proposed Action have been fulfilled pursuant to 49 U.S.C. § 47101. It shall be noted that the FAA is not able to fund any water/sewer/fiber optic improvements for the USFS Jump Base, only those eligible portions of the infrastructure for the terminal.

VI. Alternatives

The FEA identified and evaluated reasonable alternatives that may accomplish the objectives of the Proposed Action in accordance with NEPA, FAA Orders 1050.1F and 5050.4B, and FAA design standards. In addition, pursuant to CEQ regulations, the No Action alternative was carried forward for analysis for comparison of impacts related to the proposed action. Chapter 3 of the FEA presents the alternatives analysis and provides a full description of each alternative that was considered.

MDT – Aeronautics considered a full range of alternatives to address the deficiencies and needs at WYS. These alternatives include taking no action to resolve the identified deficiencies, and various alternatives to address terminal and Airport needs. As discussed in Section 1.1.5 of the FEA, the 2015 *Master Plan* for WYS and the 2019 *TANR* identified deficiencies in the existing terminal facilities at WYS and evaluated alternatives to address these deficiencies. The alternatives specific to the terminal included:

- Rehabilitating the terminal building in place
- Constructing a new terminal building and repurposing the existing terminal
- Construction of a new terminal building and demolition of the existing terminal

Each alternative to address the terminal building deficiencies also includes associated improvements to the concrete commercial parking pad, airport access road, parking lot infrastructure, water, sewer, and fiber optic infrastructure, and replacement of the airfield beacon and tower. While most of these associated improvements did not have significant

variations that were considered as individual alternatives, improvements to the water and sewer systems and the beacon and tower required further consideration, and the alternatives for these improvements were also included for discussion in Chapter 3 of the FEA.

The following table (Table 3-1 of the FEA) identifies the alternatives eliminated from consideration and the reasons for their exclusion.

ALTERNATIVE	REASONS FOR ELIMINATION
<p>Alternatives that Utilize Existing Terminal at WYS:</p> <p>Alternative 1 – Rehabilitate Terminal Building in Place</p> <p>Alternative 2 – Construct New Terminal Building, Repurpose Existing Building</p>	<ul style="list-style-type: none"> • Difficulty of continued maintenance of the building (i.e. dilapidated roof, single pane windows, utilities, etc.). • Difficulties in coupling old building materials and techniques with modern methods and retrofitting new mechanical and electrical equipment to old HVAC systems. • The entire structure would be required to be upgraded to current building codes in order to pass the permitting process to include meeting building and fire codes, and ADA requirements. • Structural deficiencies have been identified with the existing terminal that would need to be addressed. A September, 2012 Critical Facility Seismic Evaluation & Hazard Reduction Project – Inventory Report (Seismic Inventory Report) completed by the Montana Department of Transportation Architecture & Engineering Division for their existing structures throughout Montana identified the following for the existing terminal at WYS: <ul style="list-style-type: none"> ○ The concrete masonry unit (CMU) walls on the west and east faces are weak in the out-of-plane and in-plane directions, as they only extend to mid-height and then change to 2x4 walls. ○ There is no code compliant sheathing on the 2x framed walls, and minimal connections throughout. ○ There are no internal walls in the east-west direction for the ~162' length, leaving the entire north and south end walls to take the entire load. The lateral force resisting system and associated connections are inadequate. • Costs associated with overcoming the complexities of retrofitting an old facility would result in a reduced budget available for functional improvements.
<p>Issues Unique to Alternative 1 – Rehabilitate Terminal Building in Place</p>	<ul style="list-style-type: none"> • Existing terminal occupies approx. 11,730 SF, and terminal needs have been estimated at 29,107 SF. <ul style="list-style-type: none"> ○ Due to limitations of the existing footprint, adding on to the structure would be necessary in order to provide adequate space to accommodate non-sterile and sterile areas and respective restroom facilities, as well as TSA, airline, rental car, concessionaire, baggage claim, airport staff office(s), mechanical systems, etc. • Remodel or expansion of existing facilities requires installation of temporary facilities to separate construction areas from the general public. • As remodel requires working with and around the existing structure, design compromises inevitably need to be made which can limit the

	terminal's long-term functionality.
Issues Unique to Alternative 2 – Construct New Terminal Building, Repurpose Existing Building	<ul style="list-style-type: none"> • Leaving the existing terminal in place constricts operations for future terminal site elements, expansion potential, and flexibility for future GA development. • Structural modifications would be required for use if the existing terminal was repurposed for storage of aircraft or heavy equipment (due to presence of basement in the existing terminal).
Alternative 3A – Construct New Terminal Building, Demolish Existing Building New Terminal Site Adjacent and North of Existing Terminal	<ul style="list-style-type: none"> • This option would shift commercial aircraft circulation closer to existing general aviation areas to the north. <ul style="list-style-type: none"> ○ This is seen as a disadvantage as it is generally viewed as optimal to separate commercial and general aviation traffic areas as much as possible. • The ability to expand operations and maintenance facilities (ARFF and SRE) would be restricted. • The space remaining for large general aviation development would be at the south end of the apron (on the other side of the new terminal), which would break the continuity of uses and result in a “boxed in” terminal area with general aviation development to the north and south of the new terminal. <ul style="list-style-type: none"> ○ TSA conflicts with general aviation already occur and would be further exacerbated with a split operation. • There is potential for expansion for the terminal itself to the south <ul style="list-style-type: none"> ○ However, the presence of operations, maintenance and general aviation facilities would limit flexibility for expansion to the north.
Alternative 3C – Construct New Terminal Building, Demolish Existing Building New Terminal Site at Far South End of Apron	<ul style="list-style-type: none"> • The existing concrete commercial parking pad would require replacement due to the shifting of parking for commercial aircraft being moved significantly to the south to accommodate placement of the new terminal. • There is potential for expansion of the terminal itself to the north <ul style="list-style-type: none"> ○ However, any expansion to the south would be costly and require additional apron construction and relocation of automated gate facilities • While this alternative offers similar advantages as Alternative 3B (Proposed Action), the overall layout, flow of parking/vehicular/passenger movement, and potential for terminal expansion under Alternative 3B is more advantageous than placing the terminal at the far south end of the apron.

<p>Alternative B1 – Continue Operational Use of the Beacon and Tower</p>	<ul style="list-style-type: none"> • The existing beacon’s flash rate is slower than required for a Part 139 certificated airport. • Replacement parts for the historic-age beacon are increasingly hard to find, as they are no longer manufactured. • The beacon and tower have been noted as a platform for bird perching and nesting, which presents a wildlife hazard for the Airport. • Maintenance of the beacon and clearing the tower of bird nests presents a safety hazard for Airport staff who have to climb the tower for maintenance and clearing activities. • This alternative does not meet the need as described in Section 2.2.9 of the FEA as it: <ul style="list-style-type: none"> ○ Does not provide a beacon with a flash rate that meets the requirements of a Part 139 Airport ○ Leaves a wildlife attractant on the Airport due to the tower providing a nesting platform for birds ○ Remains a safety hazard for Airport staff who have to climb the tower to maintain the beacon or clear the tower of bird nests.
<p>Alternative B2 – Discontinue Operation of the Existing Beacon and Tower, but Leave Intact on the Airport</p>	<ul style="list-style-type: none"> • The beacon and tower have been noted as a platform for bird perching and nesting, which presents a wildlife hazard for the Airport. • The Airport Sponsor would still have to maintain the appearance of the beacon and tower. • Maintenance of the beacon and tower and clearing the tower of bird nests presents a safety hazard for Airport staff who have to climb the tower for maintenance and clearing activities. • This alternative does not meet the need as described in Section 2.2.9 of the FEA as it: <ul style="list-style-type: none"> ○ Leaves a wildlife attractant on the Airport due to the tower providing a nesting platform for birds ○ Remains a safety hazard for Airport staff who have to climb the tower for maintenance or to clear the tower of bird nests.

The following alternatives were carried forward for evaluation in the FEA:

- No Action Alternative
- Proposed Action (Alternative 3B) to include:
 - Construct New Terminal Building, Demolish Existing Building – New Terminal Sited Adjacent and South of Existing Terminal;
 - Extend Water, Sewer, Fiber Optic Infrastructure from Town of West Yellowstone;
 - Replace Existing Airport Beacon with New Tower and Beacon; and
 - Associated improvements as described in Section 1.3 of the FEA
- Alternative W1 – Construct On-Site Water Supply Infrastructure
- Alternative S1 – Construct On-Site Sanitary Sewer Treatment System

VII. Affected Environment

The Yellowstone Airport (FAA Identifier WYS) is located two miles north of the town of West Yellowstone in southernmost Montana, just a few miles west of the Wyoming border and Yellowstone National Park's western entry. The Airport is owned and operated by Montana Department of Transportation – Aeronautics Division (MDT – Aeronautics).

In 1963, a deed transferred property from the United States to the State of Montana for a public airport. Construction of the Yellowstone Airport was started in 1963 as a cooperative effort between the United States Departments of the Interior and Agriculture, the FAA, and the State of Montana. The Airport was dedicated on June 12, 1965.

The Yellowstone Airport is completely surrounded by a vast area of land that is administered by the USFS. Other property ownership within the area includes the National Park Service and entities within the town of West Yellowstone.

Gallatin County is in attainment for all criteria pollutants.

Given the location of the Airport, the following resources are not present in the project area:

- Coastal resources
- Farmlands
- Surface Waters
- Floodplains
- Wetlands
- Wild and scenic rivers

VIII. Environmental Consequences

Environmental impact categories identified in FAA Orders 1050.1E and 5050.4B were evaluated in the FEA. The environmental consequences of Alternative 1 - No Action and the Proposed Action are included in Chapter 4 of the FEA. Below is a summary of the findings.

A. Air Quality

Gallatin County is within attainment for all National Ambient Air Quality Standards (NAAQS).

Neither the Proposed Action or Alternatives W1 and S1 will result in any operational changes at the Airport. Since the project is in attainment, the General Conformity Rule does not apply. Temporary air quality impacts for the six criteria air pollutants (NAAQS) during construction will be short-term and of local impact. Emissions reduction strategies will be employed to minimize these air quality impacts as appropriate. Therefore, no significant, adverse, nor long term impacts to air quality are anticipated that could lead to a violation of the NAAQS.

As a result, the Proposed Action and Alternatives W1 and S1 will have no significant effect on air quality.

B. Biological Resources

The majority of the projects defined in the Proposed Action and Alternatives W1 and S1 are being constructed in areas of previous human use and disturbance.

A request for comment letter was sent to Montana Fish, Wildlife and Parks regarding the impact of proposed project activities on local wildlife species. No written response was received, however, follow up correspondence reflected that Montana Fish, Wildlife, and Parks had no comment on the proposed project. The USFS provided the Regional Forester Sensitive

Species list and a Biological Evaluation (BE) of the potential impacts to the listed species. Determinations of effect of the USFS Region 1 Terrestrial Sensitive Species is provided on Table 4-2-4 of the FEA, and determinations varied between “No Impact” and “May Impact Individuals or Habitat but Will Not Likely Contribute to a Trend Toward Federal Listing or Cause a Loss of Viability to the Population or Species.” Table 4-2-5 provides Determinations of Effect for USFS Management Indicator Species, and no significant impacts were revealed.

Impacts to Threatened, Endangered, Proposed, and Candidate species have been thoroughly analyzed in the Biological Assessment, which can be found in Appendix F of the FEA. The United States Fish and Wildlife Service (USFWS) concurred with the Biological Assessment and the FAA’s determination that the proposed project may affect, not likely to adversely affect the threatened grizzly bear and Canada lynx. They also concurred with the FAA’s determination that the Proposed Action will have no effect on the threatened Ute ladies’ tresses and Canada lynx critical habitat. Lastly, they acknowledged the FAA’s determination that the Proposed Action is not likely to jeopardize the continued existence of the proposed wolverine and candidate whitebark pine (USFWS letter dated July 31, 2020 in Appendix K of the FEA).

Therefore, the Proposed Action and Alternatives W1 and S1 will have no significant effect on biological resources.

C. Climate

The Proposed Action and Alternatives W1 and S1 will not cause or create an increase in aircraft operations at the Airport, although due to construction operations, will result in a temporary increase in GHG emissions during construction activity.

The Proposed Action and Alternatives W1 and S1 will have no significant effect on climate.

D. Department of Transportation Act: Section 4(f)

To identify DOT Section 4(f) resources near the study area, local agencies were contacted, published recreation/refuge plans were reviewed, and a review of sites on or eligible for the National Register of Historic Place (NRHP) was conducted. Figure 4-5-1 of the FEA shows the locations of the DOT Section 4(f) resources.

The Airport is located on the Yellowstone plateau approximately 300 feet from Highway 191 at the northeast property corner, approximately 400 feet from U.S. 20 at the south property line and is completely surrounded by lodgepole pine trees as part of the Custer Gallatin National Forest. The Airport is nearly hidden from ground level unless on Airport property.

The Proposed Action and Alternatives W1 and S1 do not change flight patterns or operations at the airport.

Publicly owned lands

The following publicly owned lands considered to be DOT Section 4(f) resources were identified near the study area:

- Baker’s Hole Campground
- Pioneer Park
- Yellowstone National Park
- Custer Gallatin National Forest

Historic Resources

The identification of DOT Section 4(f) resources that may be historic in nature was conducted in accordance with Section 106 of the National Historic Preservation Act. For the Proposed Action, the Area of Potential Affect (APE) under Section 106 of the National Historic Preservation Act (Section 106) corresponds to the study area under NEPA.

To identify potential historic sites, the *Cultural Resource Inventory of the Yellowstone Airport Terminal Area, Gallatin Co, MT* (CRI) was completed in April 2019 per Section 106 (Appendix B of the FEA). The CRI was conducted during the 2019 TANR for WYS and focused on identifying historic and cultural properties in the terminal area and parking lot. Two historic sites were identified and no cultural properties were identified in the CRI. These historic sites include the Yellowstone Airport Terminal (24GA1958) and the Yellowstone Airport Beacon Tower (24GA1981), both of which were documented and recommended in the CRI as eligible to the National Register of Historic Places (NRHP) and located on Figure 4-5-2 of the FEA.

The FAA contacted Tribes with historical ties to this area in letters dated August 29, 2019, in order to seek input on properties of cultural or religious significance that may be affected by the undertaking and to initiate government-to-government consultation. Eight Tribes were contacted, including the Blackfeet Nation, the Coeur d'Alene Tribe, the Confederated Salish and Kootenai Tribes of the Flathead Reservation, the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Umatilla Indian Reservation, the Kootenai Tribe of Idaho, the Nez Perce Tribe, and the Shoshone Bannock Tribes. As a result, the FAA was informed of the proximity of the Great Bannock Trail and the Nez Perce (Nee-Me-Poo) National Historic Trail (NPNHT) to the project area.

An *Addendum to the CRI* (Addendum) was conducted per Section 106 in order to examine the routes of the potential extension of water, sewer, and fiber optic lines from the town of West Yellowstone, Montana, to WYS (Appendix B of the FEA). It was completed in March 2020. Specific consideration was given to any impact on the Great Bannock Trail and the NPNHT. The Addendum revealed that the exact routes of the trails are very elusive to determine; however, all research reviewed for the Addendum placed both trails to the north of the project area. The field survey conducted for the Addendum uncovered no cultural or historic resources, nor any sign of the Great Bannock Trail or NPNHT.

A brief summary of these DOT Section 4(f) historic resources that were identified under Section 106 is provided in Table 4-5-2 of the FEA and additional detail can be found in the CRI and Addendum, located in Appendix B of the FEA.

Conclusion

Baker's Hole Campground, Pioneer Park, and Yellowstone National Park are not projected to be impacted either directly or indirectly under DOT Section 4(f) due to either the Proposed Action or Alternatives W1 and S1.

The Proposed Action will result in a direct use under DOT Section 4(f) of the Custer Gallatin National Forest due to the extension of water and fiber optic utilities crossing the Custer Gallatin National Forest under the Proposed Action. However, the physical use has been determined to be *de minimus* considering that the installation of the utility infrastructure crossing the Custer Gallatin National Forest will largely remain below the surface and utilize existing travel corridors and will not adversely affect the activities, features, or attributes of

the Custer Gallatin National Forest as it is currently used in this area for recreation. No constructive use effects under DOT Section 4(f) are anticipated to occur under the Proposed Action, as neither the timber removal nor presence of underground utilities for water and fiber optic will impair the property after installation. Alternatives W1 and S1 will have no direct or constructive use under DOT Section 4(f) of the Custer Gallatin National Forest as both alternatives will be installed on Airport property and not cross the Custer Gallatin National Forest.

The Proposed Action will have an adverse effect under Section 106 on the terminal and beacon tower as both structures will be removed, resulting in the loss of historical integrity; and therefore, will result in a direct use under DOT Section 4(f). A Memorandum of Agreement (MOA) (Appendix I of the FEA) under Section 106 has been developed to mitigate the adverse effect. Alternatives W1 and S1 will have no effect under Section 106 on the terminal and beacon; and therefore, no direct or constructive use under DOT Section 4(f), as neither alternative will require the physical removal or modification of the structures.

The Proposed Action and Alternatives W1 and S1 will have no effect under Section 106, and therefore, no direct or constructive use under DOT Section 4(f) on the Great Bannock Trail, as the Trail is located to the north of WYS and field surveys uncovered no sign of the Trail.

Although no direct or indirect impacts have been identified, the Proposed Action has an unknown effect under Section 106 on the archaeological and cultural aspects of the NPNHT and Nez Perce Tribe; and therefore, there is also the potential for a use under DOT Section 4(f). A Programmatic Agreement (PA) (Appendix I of the FEA) under Section 106 has been developed to determine if any adverse effects will be identified through an ethnographic study. Alternatives W1 and S1 will have no effect under Section 106 on the archaeological and cultural aspects of the NPNHT and Nez Perce Tribe as both alternatives will be installed on Airport property and not cross the Custer Gallatin National Forest; and therefore, will have no direct or constructive use under DOT Section 4(f).

If no adverse effects under Section 106 are identified through the ethnographic study conducted under the terms of the PA, then there is no use of the DOT Section 4(f) resource, and no further action is required. If adverse effects are identified through the ethnographic study, the Signatories of the PA will execute a Memorandum of Agreement (MOA) to document the mitigation requirements for the adverse effects consistent with 36 CFR § 800.5-6, will notify the Advisory Council of Historic Preservation of the adverse effect finding, and invite them to participate in consultation consistent with 36 CFR § 800.6(a)(1). Additionally, a DOT Section 4(f) Evaluation under DOT Section 4(f) will be conducted to determine if there is any use of the DOT Section 4(f) resource.

A DOT Section 4(f) Evaluation (Appendix G of the FEA) was prepared to evaluate alternatives and make the required findings under DOT Section 4(f).

E. Hazardous Materials, Pollution Prevention, and Solid Waste

Under the Proposed Action and Alternatives W1 and S1, any waste materials generated will be handled and disposed of in accordance with appropriate Federal, State, and local laws and regulations.

Select asbestos materials identified within the existing terminal and generator buildings are the only known hazardous wastes identified within the Proposed Action area. The improvements do have the potential to cause short-term, temporary impacts regarding hazardous materials, pollution prevention, and solid waste. Proper disposal of demolition debris and requirements for the Contractor Spill Prevention, Control, and Countermeasure (SPCC) plans, measures to address an on-site spill, and a General Permit for Storm Water Discharges Associated with Construction Activity from the Montana Department of Environmental Quality (MDEQ) will reduce the overall potential for impacts.

Therefore, the Proposed Action and Alternatives W1 and S1 are expected to have no significant effect on hazardous materials, solid waste, or pollution prevention activities.

F. Historical, Architectural, Archeological and Cultural Resources

As discussed in Section D, Cultural Resources Inventories per Section 106 (located in Appendix B of the FEA) were completed for the Area of Potential Effect (APE) of the Proposed Action and Alternatives W1 and S1 to identify potential historic sites. The first survey, *Cultural Resource Inventory of the Yellowstone Airport Terminal Area, Gallatin County, MT* (CRI) was completed in April 2019 for the Yellowstone Airport Terminal Area and was conducted during the 2019 TANR. The second survey was an *Addendum to the CRI* (Addendum) and was focused on the routes proposed to extend water, sewer and fiber optic utilities from the town of West Yellowstone and onsite that were not reviewed with the 2019 TANR.

The FAA sent an invitation for government-to-government tribal consultation on the Proposed Action to the following Tribes in letters dated August 29, 2019 (Appendix K of the FEA): the Blackfeet Nation, the Coeur d'Alene Tribe, the Confederated Salish and Kootenai Tribes of the Flathead Reservation, the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Umatilla Indian Reservation, the Kootenai Tribe of Idaho, the Nez Perce Tribe, and the Shoshone Bannock Tribes. A summary of the responses provided are as follows:

- Confederated Salish and Kootenai Tribes of the Flathead Reservation posed no objections to the undertaking.
- Shoshone Bannock Tribes: Emailed the FAA on August 30, 2019 to request a consultation via staff to staff meeting where the Airport improvements could be presented.
 - Staff from FAA, MDT Aeronautics Division and Morrison-Maierle met with the Shoshone Bannock Tribes on October 15, 2019 to present the projects included within the Proposed Action. During this meeting, the Tribes brought up concerns about the Great Bannock Trail. The Tribes requested that the Cultural Resource Inventory(s) (CRI) be provided once completed for further review and comment.
- Nez Perce Tribe: Called attention to the Nez Perce (Nee-Me-Poo) National Historic Trail (NPNHT), which commemorates the US Army's pursuit of Nez Perce during the summer of 1877 during the Nez Perce War of 1877. The communication stated that both the events and the trail are hugely significant to the Nez Perce Tribe.

The NPNHT and the Great Bannock Trail were given specific consideration during the research and fieldwork for the Addendum. No evidence (based on surface observation) was found for either resource within the project area, and information obtained through literature searches placed the location of both Trails to the north of the APE for the Proposed Action and Alternatives W1 and S1.

In letters dated March 20, 2020, the CRI and the Addendum were sent to the Tribes that were previously contacted in August of 2019 to again extend the invitation for government-to-government tribal consultation and seek input on properties of cultural or religious significance that may be affected by the Proposed Action or Alternatives W1 and S1. A summary of the responses provided are as follows:

- Shoshone Bannock Tribes: The Tribes wanted to ensure that their ancestral presence within the area was noted and had a question about LIDAR surveys; both issues were addressed either within the Addendum or through follow up e-mail contact. While the Tribes noted they would provide a response upon acknowledging receipt of the CRI, no response was received and no further concerns were raised.
- Nez Perce Tribe: While the Tribe acknowledged that surface observation did not reveal the presence of archaeological resources, they voiced concern that the analysis did not analyze the trail as ethnographic or a traditional cultural property.
 - Staff from FAA, USFS, MDT Aeronautics Division and Morrison-Maierle (the consultant for the Airport) attended teleconferences (May 4th, 2020 and June 22, 2020) with the Nez Perce Tribal Archaeologist / Tribal Historic Preservation Officer (THPO) to further discuss the Tribe's concerns and work to find an acceptable solution regarding the NPNHT.

Identified Resources

Based on the information within the CRI and the Addendum, the following historic resources were determined to be eligible to the National Register of Historic Places (NRHP):

- Yellowstone Airport Terminal (24GA1958)
- Yellowstone Airport Beacon (24GA1981)

Resources that were identified through government-to-government consultation with the Tribes:

- The Great Bannock Trail
- The Nez Perce (Nee-Me-Poo) National Historic Trail (NPNHT)

Conclusion

The Proposed Action will have an adverse effect under Section 106 on the terminal and beacon as both structures will be removed, resulting in the loss of historical integrity. A Memorandum of Agreement (MOA) under Section 106 amongst the FAA, MDT, and SHPO has been signed to mitigate the adverse effect and is attached in Appendix I of the FEA. Alternatives W1 and S1 will have no effect under Section 106 on the terminal and beacon as neither alternative will require the physical removal or modification of the structures.

No archaeological or cultural resources within the APE were identified by the CRI and the Addendum, and no physical evidence of the Great Bannock Trail was found. Information obtained through literature searches placed the location of the Great Bannock Trail to the north of the APE for the Proposed Action and Alternatives W1 and S1. After being forwarded a copy of the CRI and Addendum with the letter dated March 20, 2020, the Shoshone Bannock Tribes posed no objection to the Proposed Action or Alternatives W1 and S1.

No archaeological or cultural resources within the APE were identified by the CRI and the Addendum, and no physical evidence of the NPNHT was found. Information obtained through literature searches placed the location of the NPNHT to the north of the APE for the Proposed Action and Alternatives W1 and S1. Therefore, the disturbance of ground due to the implementation of the Proposed Action or Alternatives W1 and S1 is unlikely to affect the NPNHT.

However, during government-to-government consultation, the Nez Perce Tribe raised concerns that any potential effect to the NPNHT or Nez Perce Tribe could not be adequately evaluated without an ethnographic study on the NPNHT to gather oral history regarding the Nez Perce experience during the Nez Perce War of 1877 while pursued by the United States Army (US Army).

The Proposed Action and Alternatives W1 and S1 will largely be constructed on Airport property in areas of developed or heavily disturbed land; however, the utility corridor for water and fiber optic improvements will be extended from the town of West Yellowstone to the airport and cross the Custer Gallatin National Forest. The FAA, MDT, and USFS have agreed that approximately 800 members of the Nez Perce Tribe passed through the general area of the designated route of the NPNHT, and likely did not stay within the boundaries of the NPNHT as it is delineated today. These parties have also agreed that the events surrounding the Nez Perce War of 1877 on the NPNHT were a traumatic and significant event upon the Nez Perce of the time, and potentially has lasting impacts upon current members of the Nez Perce Tribe.

The FAA, MDT, and USFS have agreed with the NP THPO that, due to the gravity and significance of the Nez Perce War of 1877 upon the Nez Perce Tribe, the ambiguous nature of the true path they followed, and the proximity of the utility corridor crossing the Custer Gallatin National Forest for water and fiber optic improvements to the designated location for the NPNHT; that an ethnographic study is the appropriate means to examine potential effects on the NPNHT and current Nez Perce Tribe due to the utility corridor crossing the Custer Gallatin National Forest.

A Programmatic Agreement (PA) under Section 106 has been circulated amongst the FAA, USFS, MDT, Nez Perce Tribe, and SHPO and has been executed by all parties. The signed PA can be found in Appendix I. The PA has been developed in order to conduct an ethnographic study to determine if any adverse effects under Section 106 will be further identified due to the Proposed Action on the archaeological and cultural aspects of the NPNHT and Nez Perce Tribe.

If no adverse effects under Section 106 are identified through the ethnographic study conducted under the terms of the PA, then there is no use of the DOT Section 4(f) resource, and no further action is required. If adverse effects are identified through the ethnographic

study, the Signatories of the PA will execute a Memorandum of Agreement (MOA) to document the mitigation requirements for the adverse effects consistent with 36 CFR § 800.5-6, will notify the Advisory Council of Historic Preservation of the adverse effect finding, and invite them to participate in consultation consistent with 36 CFR § 800.6(a)(1). Additionally, a DOT Section 4(f) Evaluation under DOT Section 4(f) will be conducted to determine if there is any use of the DOT Section 4(f) resource.

G. Land Use

Under the Proposed Action, Airport improvement projects will take place on property types (USFS and Airport) that will remain as presently used following temporary construction. New water and fiber utility infrastructure will be constructed within an easement covered under a special use permit provided by the USFS. Therefore, the Proposed Action will have no significant effect on land use within the vicinity of the Proposed Action.

Alternative W1 would include at least one new well, holding tank, domestic water storage tank, an arsenic removal system, and the distribution infrastructure to tie to existing facilities serving other terminal area structures (ARFF, SRE, FBO buildings). Such a facility could be sited to the south of the apron area in the approximate 20 acres of timbered area within the animal control fence. All infrastructure would be proposed to remain on Airport property; and therefore, have no effect on land use.

Alternative S1 would provide additional gravity sewer infrastructure and possible lift station to a higher level treatment Level 2 septic system. The system would be proposed to the north of the existing access road and existing hangar area that is well travelled. All infrastructure would be proposed to remain on Airport property; and therefore, have no effect on land use.

H. Natural Resources and Energy Supplies

The Proposed Action and Alternatives W1 and S1 are not likely to cause or create an increase in aircraft operations. Construction materials and fuel sources to construct and operate the Proposed Action and Alternatives W1 and S1 are readily available in the region. BMPs will be implemented and High Performance Building Standard Goals adhered too in order to reduce energy consumption. Tapping into the municipal systems for water supply and sewer treatment is a natural resource benefit due to economy of scale. While the effluent flows produced from the airport vary by season, tying to the municipal system does allow for metered flow of effluent to combine with the larger flows from Town to provide for more effective treatment. While Alternatives W1 and S1 are not as favorable with respect to the natural resource benefit, design options do make them viable alternatives.

Therefore, the Proposed Action and Alternatives W1 and S1 will have no significant effect on natural resources and energy supplies.

I. Noise and Noise-Compatible Land Use

The Proposed Action and Alternatives W1 and S1 are not likely to cause or create an increase in aircraft operations or flight patterns and the 65-decibel DNL noise contour (Figure 4-9-2 of the FEA) will not be altered by the Proposed Action or Alternatives W1 and S1. While the Proposed Action will have result in a temporary increase in noise during construction, it will be short-term. Therefore, the Proposed Action will have no significant effect on noise levels or noise-compatible land use.

Alternatives W1 and S1 will also have no significant effect on noise levels or noise compatible land use, as they would be entirely constructed on Airport property and within the animal control fence, and therefore experience less temporary impact during construction on noise levels to surrounding property.

J. Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks

The Proposed Action and Alternatives W1 and S1 will have no effect on economic activity, employment, income, housing, public services, social conditions or low income or minority populations in the vicinity of the Airport. Additionally, the Proposed Action and Alternatives W1 and S1 will have no effect on the individual or cumulative environmental health of low income and minority populations, or children's environmental health and safety.

K. Visual Effects

Lighting improvements under the Proposed Action would primarily be replacements for existing lighting systems or new lighting features compatible with surrounding uses. The Airport has existed at the same location since the 1960's and comparable airport lighting features have been present in this area for many decades. The new or modified lighting installations associated with the Proposed Action will have no significant effect on light emissions.

As no light emissions are associated with Alternatives W1 and S1, they will have no effect on light emissions.

Under the Proposed Action, the existing terminal, generator building, beacon tower and beacon, and ancillary improvements will be demolished and replaced with new. The Proposed Action includes the removal of trees to facilitate utility corridors. Removal of the existing terminal and beacon will change the visual character of the existing facilities; however, the new terminal complex will be of a style and design to be complimentary to the local environment and established architecture of the region. Alternatives W1 and S1 will be located on Airport property, but still require some tree removal. Improvements will largely be subsurface and not visible, aside from any storage tank, well and arsenic removal equipment storage structure. It is proposed to have the storage tank located a short distance south of the apron in order to be shielded by existing lodgepole forest.

L. Water Resources

Groundwater

Records of wells maintained by the Groundwater Information Center (GWIC) at the Montana Bureau of Mines and Geology show approximately 15 wells on and in the general vicinity of the Airport. Water utilities for the terminal area structures (terminal, ARFF, SRE, FBO) are provided from a single well. Arsenic levels are noted to be above acceptable levels for sustained human consumption, and are therefore reduced via existing arsenic removal systems in each of the buildings. The single hangar on the airport is served by an individual well. The terminal and hangar well logs indicate a static groundwater depth of 25 to 63 feet. According to the EPA Map of Sole Source Aquifer Locations, no sole source aquifer exists beneath the project area. The nearest area identified as a sole source aquifer is in neighboring Idaho, approximately 5.5 miles to the southwest.

The terminal area structures noted above are served by septic tanks (3 total) to separate solids before draining to a gravity sewer main system and central lift station. The lift station pumps effluent to a drain field on the airport. The majority of sewer infrastructure was installed in 2009. The one existing hangar has its own septic tank and drain field. The USFS Jump Base has several septic systems serving its facility.

The Proposed Action does involve permanent construction (i.e. structures, impervious surfaces) and excavation activities that would have a potential to affect groundwater. However, as no improvements are anticipated to encounter groundwater beyond well development, there are no surface waters in the immediate vicinity of the improvements, and construction is anticipated to be of short duration, it is anticipated that any potential to affect groundwater would be negligible. With the implementation of BMPs during construction to prevent and minimize spills that could reach groundwater through infiltration, the Proposed Action will have no significant effect on groundwater resources.

Alternative W1 does involve permanent well installation and construction (i.e. water main, tank and well house/arsenic removal structures). The system would be designed, operated and permitted to meet all drinking water standards, aside from any fire suppression water supply. Temporary impacts are not expected because BMPs would be implemented during construction to prevent and minimize spills that could reach groundwater through infiltration. As a result, Alternative W1 will have no significant effect on groundwater resources.

Alternative S1 does involve permanent construction of an on-site wastewater treatment system, which would be permitted and regulated by the Montana Department of Environmental Quality (DEQ). The system would be permitted and would have a drain field and mixing zone where pollutants are allowed to exceed water quality standards. The system would be designed and operated to meet all groundwater quality standards at the mixing zone limit. Temporary impacts are not expected because BMPs would be implemented during construction to prevent and minimize spills that could reach groundwater through infiltration. As a result, Alternative S1 will have no significant effect on groundwater resources.

M. Cumulative Impacts

The analysis included in Section 4.15 of the FEA identifies past, present, and reasonably foreseeable actions that could contribute to cumulative impacts in specific environmental resource categories evaluated and highlights project-related effects that could contribute to cumulative impacts in these resource categories.

Significant adverse cumulative impacts are not anticipated when the Proposed Action is considered with reasonably foreseeable past, present, and reasonably foreseeable projects.

IX. Mitigation/Minimization

Although there are no significant or adverse impacts, individually or cumulatively, from the development of the Proposed Action, due to the sensitive nature of the area, the Airport Sponsor has committed to the following mitigation measures as part of the Proposed Action.

The following measures were included in the analysis within the FEA:

Included within the Biological Assessment and are recommended to avoid or minimize effects on biological species:

Vegetation:

All temporarily disturbed areas will be seeded with a site-approved weed-free seed mix. Reseeding will provide protection against noxious weed infestations and provide soil stability.

Migratory Birds:

The following measures are recommended to avoid or minimize effects on the special status and migratory birds.

- Prior to nesting season (April 15 to September 15), remove all suitable nesting habitat from the project area/construction footprint. Management activity should include vegetation removal to minimize nesting habitat including mowing, grubbing, tree, and shrub removal. Habitat removal should be conducted during non-breeding season (October 1 through April 1) if practicable.
- If construction must occur during nesting season, minimize vegetation removal to the maximum extent possible. Conduct nesting season preconstruction nest surveys 7 days before disturbance of vegetation removal to identify and protect any nesting birds that may be affected by project activities.

Grizzly Bears, Canada Lynx, and Wolverine:

The CGNF Food Storage Order (01-14-11-00-02) will be followed for all activities on the Custer Gallatin National Forest. The following measures will be implemented to meet the intent of the food storage order:

- Keep all areas in a neat condition; promptly clean up any project related spills, litter, garbage, etc.
- Keep all food and food-related items inside of a closed, hard-sided vehicle or special bear resistant container except when preparing or eating food.
- Store petroleum products, antifreeze, and personal items such as deodorants, toothpaste, soap and lotions in the same manner as food, as these products may attract bears.
- Deposit garbage and waste items in grizzly bear-resistant containers. Remove the accumulated garbage and waste from the project site daily and dispose of in accordance with all Tribal, Federal, State and local laws, regulations, and ordinances.

Additional conservation measures will include:

- No overnight camping is allowed within the project vicinity, except in designated campgrounds, by any crew member or other personnel associated with this project.

- Perform construction activities during daylight hours only, typically between 6:00 am and 9:00 pm.
- Personal firearms are prohibited on the project site. The use of bear spray as necessary to deter bears is allowed.
- Notify the Project Manager of any animal carcasses found in the project area.
- Notify the Project Manager of any grizzly bears observed in the vicinity of the project.
- Notify the appropriate agency (FWP or USFS) for guidance related to carcasses or bears observed in the project area.

Conservation measures associated with reclamation and facility operation post-construction include:

- All disturbed ground will be re-seeded with an airport/USFS approved local weed-free seed-mix.
- All soil and seed will be from a certified weed-free source.
- All garbage storage on the Airport property will be maintained in bear-resistant trash containers.

Any new clearings created by the installation of utility lines:

- Will be properly signed and/or barricaded to prevent the public from using them as motorized recreation or transportation routes. Barricades are proposed to be a series of boulders and/or USFS and town of West Yellowstone approved gates. Barricades will prevent access to the public but will allow for periodic maintenance activities for the utility lines. The location of the proposed barricades are depicted on Figure 3 of the Biological Assessment (Appendix F of the FEA).

For impacts and consideration in regards to DOT Section 4(f) and Section 106 resources:

Memorandum of Agreement (MOA):

- A finalized MOA has been signed and is attached in Appendix I of the FEA. The MOA includes required mitigation elements:
 - Conduct a Historic American Engineering Record (HAER) level II documentation of Yellowstone Airport Terminal and the Yellowstone Airport Beacon Tower at the Yellowstone Airport.
 - During construction of the improvements:
 - Preserve the upper portion of the beacon tower to include the top platform and beacon apparatus and enough of the tower to convey the design and function of the beacon in order to display either within the new airport terminal; or outside the new terminal building and within the terminal area, at WYS.
 - Design, manufacture, and install an interpretive sign for the beacon tower display to explain the importance of Montana's Historic Airway Beacon System.
 - SHPO will provided the opportunity to review and comment upon the design and location of the beacon

- tower display and the text and design of the interpretive sign. SHPO will be provided a copy of the final designs.
- Preserve rock materials from the façade of the original terminal to be repurposed into the new terminal, outside landscaping, and/or platform for the beacon tower described above.
 - Design, manufacture, and install an interpretive display in the new terminal to provide pictures of the original terminal building and explain efforts to repurpose materials or features of the original terminal into terminal area improvements.
 - SHPO will be provided the opportunity to review and provide comment on the details of repurposing the rock materials before plans are finalized, and review and comment on the interpretive sign. While no minimum amount of rock materials to be repurposed is specified in the MOA, SHPO will provide review and comment to ensure that the intent of this stipulation is met.

Programmatic Agreement (PA):

- Based on the DOT Section 4(f) Evaluation and coordination with FAA, USFS, MDT, the Nez Perce Tribe, and SHPO, a PA has been executed by all parties:
- The signed PA can be found in Appendix I of the FEA. The PA includes required mitigation elements which include conducting an ethnographic study with the Nez Perce Tribe regarding the NPNHT in the Hebgen Basin of Montana pursuant to 36 CFR § 800.14(b)(ii) and 36 CFR § 800.14(b)(v) when effects on historic properties cannot be fully determined prior to approval of an undertaking and other circumstances warrant a departure from the normal Section 106 process.
- If adverse effects are identified through the ethnographic study, the Signatories of the PA will execute a Memorandum of Agreement (MOA) to document the mitigation requirements for the adverse effects consistent with 36 CFR § 800.5-6, will notify the Advisory Council of Historic Preservation of the adverse effect finding, and invite them to participate in consultation consistent with 36 CFR § 800.6(a)(1).

To reduce Visual Impacts:

- Mitigation in the form of shielding and lower lumen fixtures will be considered to mitigate effects on night vision of pilots, as well as reduce impacts to the nightscape environment in the surrounding Custer Gallatin National Forest and adjacent Yellowstone National Park (i.e. residual 'glow' from areas of heavy lighting concentrations).
- Design of the new terminal building will be complimentary to the local environment and established architecture of the region, with consideration of the Airport's role as a destination hub to Yellowstone National Park. Impacts and mitigation related to the visual nature of removing the existing

terminal and the beacon and tower, both of which are eligible to the National Register of Historic Places (NRHP), are addressed in the signed MOA.

- Areas disturbed during construction would be seeded in accordance with specifications and as coordinated with the USFS for subject property with a species compatible with Airport operations and USFS requirements to help minimize erosion. Weed control would be completed as compatible with Airport operations and USFS requirements.

To reduce impacts during construction:

- Impacts can be reduced during construction activities by implementing Best Management Practices (BMPs) and by incorporating the provisions of FAA AC 150/5370-10 (most current edition) *Standards for Specifying Construction of Airports*.

X. Public Involvement

Public involvement is a vital component of the NEPA process. The Montana Department of Transportation (MDT) – Aeronautics Division has actively sought involvement from federal, state, and local agencies, as well as the general public in the preparation of the EA in accordance with the Montana Environmental Protection Act (MEPA) and NEPA processes.

In advance of the preparation of the EA, a public meeting was held to review the EA process and provide a brief overview of the proposed project and receive public input. This information public meeting was held Monday, September 16, 2019 at 6:00 p.m. at the Airport Rescue Fire Fighting (ARFF) building at the Yellowstone Airport, 629 Yellowstone Airport Road, West Yellowstone, MT 59758. A transcription of the meeting, the PowerPoint presentation shown during the public meeting, public meeting sign-in sheet, and written comments provided during the informational comment period are included in Appendix L of the FEA.

The Draft EA and 4(f) Evaluation were made available for public review for a period of 37 days starting on April 25th, 2021. A Notice of availability of the Draft EA was advertised in the legal section of the Bozeman Daily Chronicle on April 25th, April 28th, and May 1, 2021. Copies of the Draft EA, 4(f) Evaluation, and virtual open house presentation were available to the public electronically on the Montana Department of Transportation website at <https://mdt.mt.gov/pubinvolve/yellowstoneairport/>. Hard copies were made available during regular business hours (between April 25th, 2021 and May 31st, 2021); however, no requests were made for hard copies. Two comments were received during the public comment period. Responses to the comments are provided in Appendix L of the FEA.

XI. Agency Findings

The FAA makes the following determinations for this project based upon a careful review of the attached FEA, comments on the Draft EA, and appropriate supporting information.

The following determinations are prescribed by the statutory provisions set forth in the Airport and Airway Improvement Act of 1982, as codified in 49 USC §47106 and 47107.

i. The project is reasonably consistent with existing plans of public agencies responsible for development of the area surrounding the airport (49 USC §47106(a)(1)).

The determination prescribed by this statutory provision is a precondition to agency approval of project grant funding applications.

Remodel of the existing terminal or construction of a new terminal was recommended in the 2015 *Master Plan and Airport Layout Plan Update (2015 Master Plan)* for WYS, which was initiated in August 2011 and concluded in August 2015. The following 2019 *Terminal Area Narrative Report (2019 TANR)* was initiated in September 2016 and concluded in April 2019. The 2019 *TANR* further evaluated options for the terminal at WYS and proposed that the alternative evaluated as the Proposed Action in the FEA was the best alternative for WYS. Discussions with the town of West Yellowstone and the USFS have continued throughout the process of preparing the 2019 *TANR* and EA.

Land use immediately surrounding the Airport is composed entirely of the Custer Gallatin National Forest, which is administered by the USFS. The USFS was a cooperating agency in the development of the EA for the Proposed Action. Neighboring land uses that are buffered by the Custer Gallatin National Forest include the National Park Service (Yellowstone National Park), as well as the town of West Yellowstone near the southern portion of Airport property.

Discussions amongst the FAA, USFS, MDT Aeronautics, and the town of West Yellowstone have continued since the completion of the 2019 *TANR* to examine the details of extending utility services from West Yellowstone to the Airport, and all parties have agreed that this alternative is a viable possibility and provides multiple benefits as discussed in Sections 2.2.5 and 2.2.6 of the FEA.

ii. The interests of the community in or near which the project may be located have been given fair consideration (49 USC §47106(b)(2)).

The determination prescribed by this statutory provision is a precondition to agency approval of airport development project grant funding applications.

The Proposed Action is based upon planning and analysis that was conducted by MDT – Aeronautics in the form of a 2015 *Master Plan* and 2019 *TANR*.

In advance of the preparation of the EA, a public meeting was held to review the EA process and provide a brief overview of the proposed project and receive public input. This information public meeting was held Monday, September 16, 2019 at 6:00 p.m. at the Airport Rescue Fire Fighting (ARFF) building at the Yellowstone Airport, 629 Yellowstone Airport Road, West Yellowstone, MT 59758. A transcription of the meeting, the PowerPoint presentation shown during the public meeting, public meeting sign-in sheet, and written comments provided during the informational comment period are included in Appendix L of the FEA.

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requests were made for hard copies. Two comments were received during the public comment period. Responses to the comments are provided in Appendix L of the FEA.

Evidence of public and agency coordination can be found in Appendices K, L, and N of the FEA.

iii. The airport sponsor has taken, or will take, actions to restrict land use in the airport vicinity, including adoption of zoning laws, to ensure the uses are compatible with airport operations (49 USC §47107(a)(10)).

The determination prescribed by this statutory provision is a precondition to agency approval of airport development project grant funding applications.

The Airport was constructed at its current location in 1963 as a cooperative effort between the United States Departments of Interior and Agriculture, the FAA, and State of Montana. A deed transferred the Airport property from the United States to the State of Montana. The deed in 1963 included a number of restrictions involving how the airport was to be operated (the same restrictions were included in a Corrected Deed in 1968). On December 6, 2018, the FAA released the Airport from select deed restrictions after providing a Notice of Opportunity for Public Comment in the Federal Register for specific areas of the airport (Federal Register 82:243, Wednesday, December 20, 2017, page 60467).

While the release of these deed restrictions would now allow non-aeronautical development at the Airport, no such development has been proposed at the time of the writing of the EA, and any future uses of this property would be coordinated with the FAA to ensure land use compatibility.

The Airport and surrounding area fall under multiple land use and zoning jurisdictions. Responsible entities include West Yellowstone, Gallatin County, Custer Gallatin National Forest, the State of Montana, and the National Park Service.

Land use immediately surrounding the Airport is completely Custer Gallatin National Forest. While many airports have an Airport Affected Area (AAA) or Airport Influence Area (AIA) established to protect (zone) airspace surrounding Airport property, such zoning efforts over the Custer Gallatin National Forest are not practical.

The town of West Yellowstone has established zoning districts within the Town limits for residential, business, light manufacturing, entertainment, public lands and institutions, and transitional areas.

While Gallatin County has not established zoning in the area, they do have legislation that guides subdivision review and health department review of wells and sanitary sewer treatment.

The State of Montana has not established zoning in the area, either under the Montana Department of Transportation – Highways Division for operations and maintenance of highway facilities, nor under the Department of Transportation – Aeronautics Division as the Sponsor of the Airport. MDT Highways does control access to their highway network through the approach permitting process. MDT Aeronautics, under the 2015 *Master Plan*, does have recommended development standards for potential non-aeronautical areas that follow West Yellowstone zoning district requirements.

Yellowstone National Park and the Custer Gallatin National Forest operate under the guidance of the federal government. While no formal zoning is in place, there are mechanisms to regulate land through manual and handbook direction, and special use permits which are

evaluated based on compatibility with NPS and USFS guidelines. Specifically, this area of the Custer Gallatin National Forest is managed and guided by the 1987 Gallatin National Forest Plan, which provides direction on management of the resources found in the Custer Gallatin National Forest.

XII. Decision and Order

After careful and thorough consideration of the facts contained herein, the undersigned finds that the proposed Federal action, namely the Proposed Action, is consistent with existing national environmental policies and objectives as set forth in Section 101 (a) of NEPA and other applicable environmental requirements and is not a major federal action significantly affecting the quality of the human environment or otherwise, including any condition requiring consultation pursuant to Section 102(2)(c) of NEPA. As a result, FAA will not prepare an Environmental Impact Statement.

This decision does not constitute a commitment of funds under the Airport Improvement Program (AIP); however, it does fulfill the environmental prerequisites to approve applications for grants of AIP funds for the proposed project in the future. (49 U.S.C § 47101)

Accordingly, under the authority delegated to me by the Administrator of the FAA, I approve and direct that agency action be taken to carry out implementation of the Proposed Action.



Digitally signed by WILLIAM C
GARRISON
Date: 2021.06.25 06:17:23 -06'00'

William C. Garrison
Acting Director
Airports Division, ANM-600

Date

Right of Appeal

This FONSI/ROD constitutes a final order of the FAA Administrator and is subject to the exclusive judicial review under 49 USC § 46110 by the US Circuit Court of Appeals for the District of Columbia or the US Circuit Court of Appeals for the circuit in which the person contesting the decision resides or has its principal place of business. Any party having substantial interest in this order may apply for review of the decision by filing a petition for review in the appropriate US Court of Appeals no later than 60 days after the order is issued in accordance with the provisions of 49 USC § 46110. Any party seeking to stay implementation of the ROD must file an application with the FAA prior to seeking judicial relief as provided in Rule 18(a) of the Federal Rules of Appellate Procedure.



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ACRONYMS AND ABBREVIATIONS

A&E	State of Montana Architecture & Engineering
AAA	Airport Affected Area
AAC	Aircraft Approach Category
AC	Advisory Circular
ACEIT	Airport Construction Emissions Inventory Tool
ACHP	Advisory Council on Historic Preservation
ADA	American Disabilities Act
ADG	Airport Design Group
ADS-B	Automatic Dependent Surveillance Broadcast System
AEDT	Airport Environmental Design Tool
AIA	Airport Influence Area
AIP	Airport Improvement Program



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ALP	Airport Layout Plan
ALS	Approach Lighting System
APE	Area of Potential Effect
ARFF	Aircraft Rescue Fire Fighting
AST	Above-Ground Storage Tank
AWOS	Automated Weather Observation System
BA	Biological Assessment
BMP	Best Management Practice
CAA	Clean Air Act
CAPS	Crucial Areas Planning System
CARES	Coronavirus Aid, Relief, and Economic Security Act
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CGNF	Custer Gallatin National Forest
CMU	Concrete Masonry Unit
CRI	Cultural Resource Inventory
CRJ	Canada Regional Jet
dB	Decibels
DEQ	Montana Department of Environmental Quality
DNL	Day/Night Average Noise Level
DOT	Department of Transportation
EA	Environmental Assessment
EAS	Essential Air Service
EIC	Environmental Impact Categories
EO	Executive Order
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FAA	Federal Aviation Administration
FBO	Fixed Base Operator
FEMA	Federal Emergency Management Agency
FPPA	Farmland Protection Policy Act
FSH	Forest Service Handbook
FSM	Forest Service Manual
GA	General Aviation
GCCHD	Gallatin City – County Health Department
GHG	Greenhouse Gas
GPM	Gallons Per Minute
GSE	Ground Support Equipment
GWIC	Groundwater Information Center
HFC	Hydrofluorocarbon
HIRL	High Intensity Runway Lights
HWY	Highway
ILS	Instrument Landing System
LEED	Leadership in Energy and Environmental Design
LF	Linear Feet



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LL	Low Lead
MAAQS	Montana Ambient Air Quality Standards
MAC	Montana Aeronautics Commission
MALSR	Medium Intensity Approach Lighting System with Runway Alignment
MBTA	Migratory Bird Treaty Act
MDEQ	Montana Department of Environmental Quality
MDT	Montana Department of Transportation
MEPA	Montana Environmental Policy Act
MFWP	Montana Fish, Wildlife and Parks
MITL	Medium Intensity Taxiway Lighting
MNHP	Montana National Heritage Program
MOA	Memorandum of Agreement
MOVES	Motor Vehicle Emission Simulator
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPNHT	Nez Perce National Historic Trail
NPS	National Park Service
NP THPO	Nez Perce Tribal Historic Preservation Officer
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places
NWI	National Wetland Inventory
PA	Programmatic Agreement
PAPI	Precision Approach Path Indicator
PFC	Perfluorocarbon
RCRA	Resource Conservation and Recovery Act
RDC	Runway Design Code
REIL	Runway End Identifier Light
RVR	Runway Visual Range
SAFETEA-LU	Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy of Users
SAIPE	Small Area Income and Poverty Estimates
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
SPCC	Spill Prevention, Control, and Countermeasure
SRE	Snow Removal Equipment
SWPPP	Stormwater Pollution Prevention Plan
TANR	Terminal Area Narrative Report
THPO	Tribal Historic Preservation Office
TSA	Transportation Security Administration
US	United States
US Army	United States Army
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFS	United States Forest Service
USFWS	United States Fish and Wildlife Service
UST	Underground Storage Tank



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VASI	Visual Approach Slope Indicator
WHA	Wildlife Hazard Assessment
WYS	Yellowstone Airport
YNP	Yellowstone National Park

Chapter 1 – BACKGROUND AND PROPOSED ACTION

1.1 Background

The Montana Department of Transportation – Aeronautics Division (MDT – Aeronautics) (Airport Sponsor) owns and operates the Yellowstone Airport (WYS) (Airport) near West Yellowstone, Montana. The Airport Sponsor is proposing improvements (Proposed Action) at the airport that would provide an updated and safe terminal building and associated improvements to meet existing and forecasted passenger and terminal user needs. This Environmental Assessment (EA) identifies the potential environmental impacts associated with the Proposed Action, as well as how any identified impacts could be avoided, minimized, or mitigated.

Federal Aviation Administration (FAA)

This EA has been prepared pursuant to Section 102(2)(c) of the National Environmental Policy Act (NEPA), the President’s Council on Environmental Quality (CEQ) Regulations Title 40 CFR §§ 1500-1508, the implementing regulations for NEPA, and in accordance with FAA Order 1050.1F *Environmental Impacts: Policies and Procedures* and FAA Order 5050.4B *National Environmental Policy Act (NEPA) Implementing Instructions for Airport Actions* and other FAA guidance.

United States Forest Service (USFS)

As the Proposed Action would include improvements on the Custer Gallatin National Forest and require a special use authorization from the USFS, the USFS is a cooperating agency in the preparation of this EA. The USFS also intends to financially contribute to the utility improvements included in the Proposed Action for water, fiber optic, and sewer infrastructure to provide for layout and sizing to allow for eventual connection to the USFS West Yellowstone Interagency Fire Center (USFS Jump Base). Therefore, this document also complies with USFS Forest Service Manual (FSM) 1950 *Environmental Policy and Procedures*, the Forest Service Handbook (FSH) 1909.15 *National Environmental Policy Act Handbook*, and other legal requirements.

Preliminary analysis indicates the effects of the special use authorization for a water and fiber optic line on the Custer Gallatin National Forest may fall within a category of actions listed in the Code of Federal Regulations (CFR) that is excluded from documentation in an Environmental Assessment (EA) or Environmental Impact Statement (EIS) and no extraordinary circumstances exist that would preclude the use of the following category: 36 CFR 220.6(e)(3) “Approval, modification, or continuation of special uses...” .

Montana Department of Transportation – Aeronautics Division (MDT Aeronautics)

Since the State of Montana owns and operates the Yellowstone Airport, the Proposed Action is also subject to the Montana Environmental Policy Act (MEPA). Therefore, this document also satisfies Administrative Rules of the State of Montana (ARM) 18.2.235 through 18.2.261 *Rules Implementing the Montana Environmental Policy Act*, as well as the *Guide to the Montana Environmental Policy Act*.

1.1.1 Airport Location

WYS is located two miles north of the town of West Yellowstone in southernmost Montana, just a few miles west of the Wyoming border and Yellowstone National Park’s western entry. US Highway 191 provides access to the Airport, and connects West Yellowstone to Interstate 90 in Bozeman, Montana, 115 miles to the north. Idaho Falls, Idaho, and Interstate 15 lie 110 miles to

the south via US Highway 20. Salt Lake City, Utah is 320 road miles to the south of West Yellowstone.

West Yellowstone has a very small resident population with approximately 4,000 people residing within a 45-minute drive. Area resident population increases significantly in the summer with the annual influx of second home owners and seasonal employees. West Yellowstone provides lodging, tours and shopping for visitors to Yellowstone National Park and offers a base for a variety of recreational activities in the region. SkyWest, under an Essential Air Service (EAS) contract, provides scheduled seasonal (May to October) passenger service to the area, with non-stop service to Salt Lake City, Utah. The Airport lies in Sections 15, 16, 21, 22, 28, and 29 of Township 13 South, Range 5 East. The location of the Airport in its local and regional setting is depicted in **Figure 1-1**. Land uses in the area, including specific ownership boundaries, are further depicted on the Land Use Drawing (Sheet 12) of the approved Airport Layout Plan (ALP) in **Appendix A**. The Yellowstone Airport is completely surrounded by a vast area of land that is administered by the United States Forest Service. Other property ownership within the area includes the National Park Service and entities within the town of West Yellowstone.

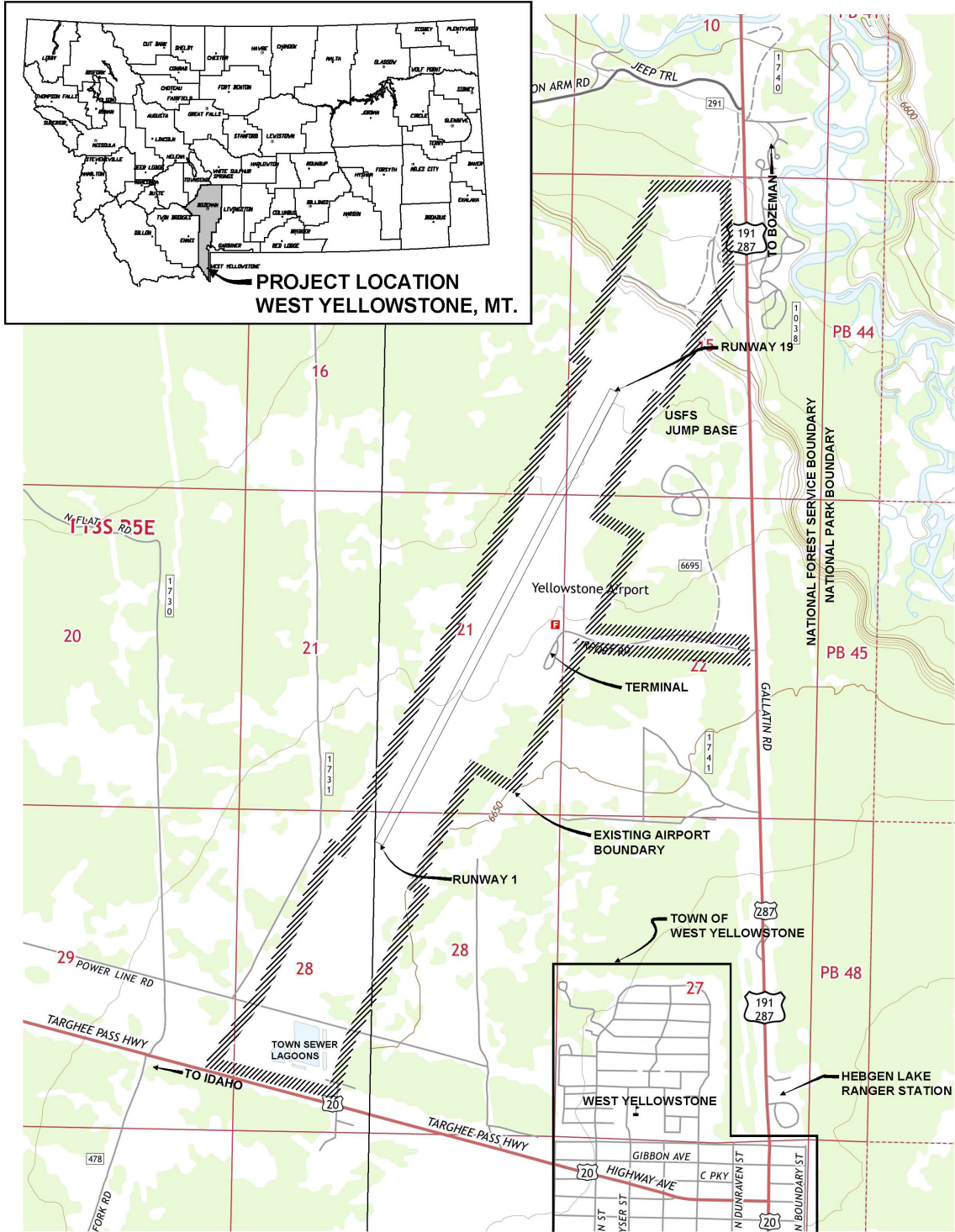


Figure 1-1: Location Map

1.1.2 Airport History

WYS was constructed in the 1960s to replace the original airport that was located immediately adjacent to the west side of the town of West Yellowstone. In 1963, a deed transferred property

from the United States to the State of Montana for a public airport. Construction of the Yellowstone Airport was started in 1963 as a cooperative effort between the United States Departments of the Interior and Agriculture, the FAA, and the State of Montana. The Airport was dedicated on June 12, 1965.

Initial construction of the facilities at WYS included an 8,399-foot x 150-foot paved runway, a 75-foot wide full parallel paved taxiway and an airport terminal building. The smokejumper base (now known as the USFS West Yellowstone Interagency Fire Center) from the original airport site was moved to the new airport location. In the same time period, a paved aircraft parking apron and a paved access road (from Highway 191) were constructed. **Figure 1-2** reflects the extent of area disturbance as of June 1, 1968 as a result of the construction of the airport, as well as timber removal in the area surrounding the Airport. Since the initial construction cycle ended, a number of airport improvements have been completed over the years that represent the current facility.

The small size of the Airport terminal was noted even at the time of its construction in the 1960s. Officials of the Montana Aeronautics Commission were teased about the small size of the building, asking if they "planned on storing hay in it" (*Cultural Resource Inventory of the Yellowstone Airport Terminal Area - Appendix B*).

1.1.3 Existing Facilities at WYS

Current Airport airside facilities include grooved asphalt Runway 01/19, which is 150' wide and 8,399' long. Additional facilities include a full length, 75' wide parallel taxiway and four connecting taxiways connecting the parallel taxiway to Runway 01/19. A main apron area of approximately 250' x 2,100' is shared by commercial and general aviation (GA) traffic. Runway 01/19 has high intensity runway lights (HIRL) with a 4-Box Precision Approach Path Indicator (PAPI), a 1,400' foot Medium Intensity Approach Lighting System (ALS) with Runway Alignment indicator lights (MALSR), and Instrument Landing System (ILS) for Runway 01 and a 4-box PAPI and Runway End Identifier Lights (REILs) for Runway 19. There is also a localizer, Automated Weather Observation System (AWOS III), and Automatic Dependent Surveillance Broadcast (ADS-B) system.

Landside facilities fronting the apron include (from south to north): Part 135 helicopter tour charter business, the terminal (passenger processing, baggage claim, concessions and support functions), Aircraft Rescue Fire Fighting (ARFF) building, Snow Removal Equipment (SRE) building, Fixed Base Operator (FBO – General Aviation (GA) support and aircraft fueling), and a taxilane with a single hangar that houses Air Methods life flight helicopter operation. Additional facilities include rental car storage and processing, automobile parking and vehicular access infrastructure. Airside facilities in the terminal area complex include the terminal apron and airline gate position (**Figure 1-3**).

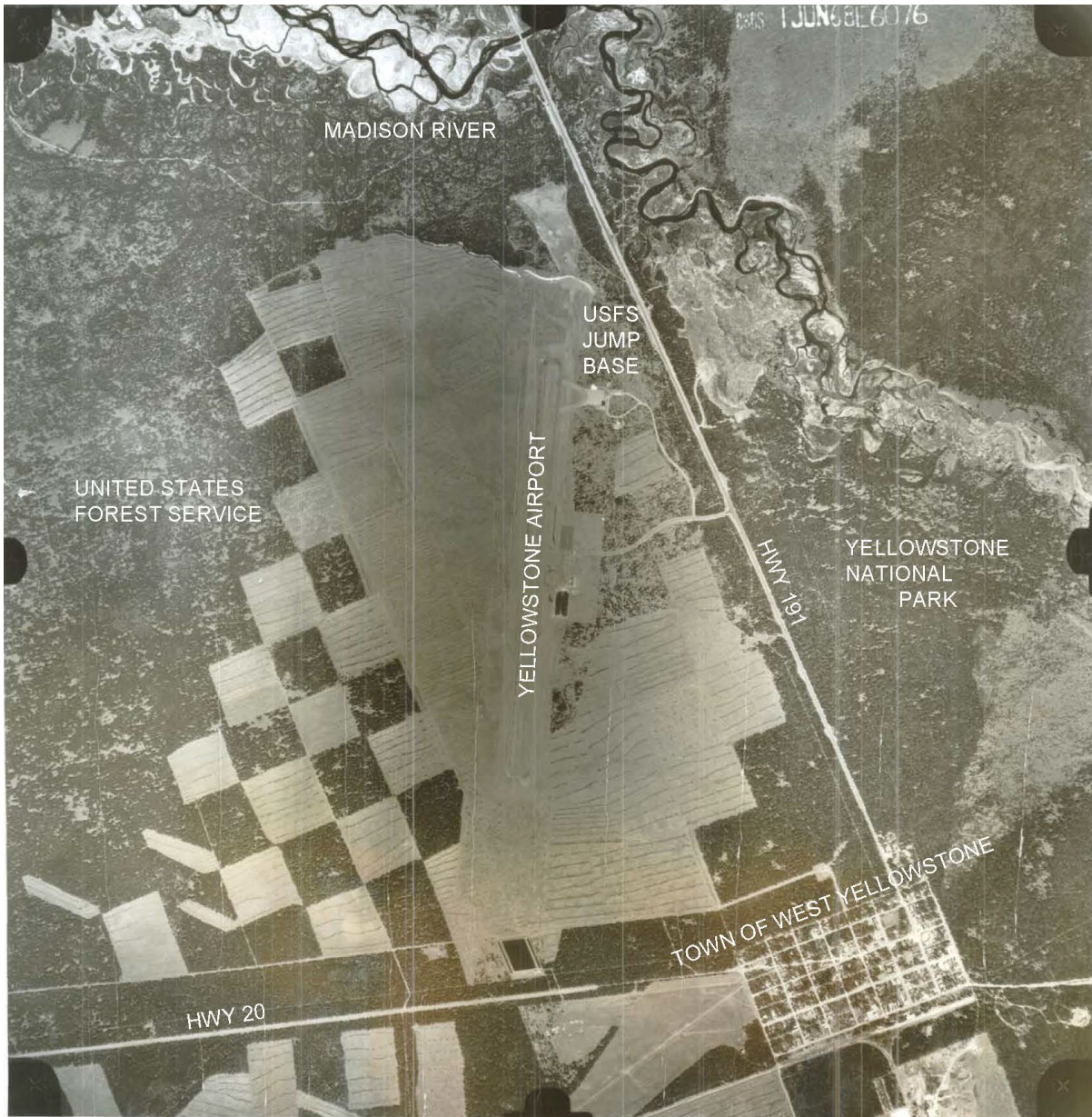


Figure 1-2: June 1, 1968 Aerial of West Yellowstone and Airport

The USFS West Yellowstone Interagency Fire Center (Jump Base) is located off Airport property on adjoining USFS property, with airside access lying within the existing animal control fence that surrounds the Airport. The Jump Base has direct access to the north end of the airfield from the parallel taxiway system to the Jump Base apron.

The Yellowstone Airport Terminal consists of three floors (basement, main floor, and second floor) that total approximately 11,730 SF. Modifications and small remodels have occurred in the structure over its lifetime, such as security modifications for a security checkpoint and sterile hold room. Although necessary, the security modifications are inefficient from an operational and maintenance perspective due to the limited space available to retrofit the terminal for these facilities. The terminal also lacks American Disabilities Act (ADA) facilities,

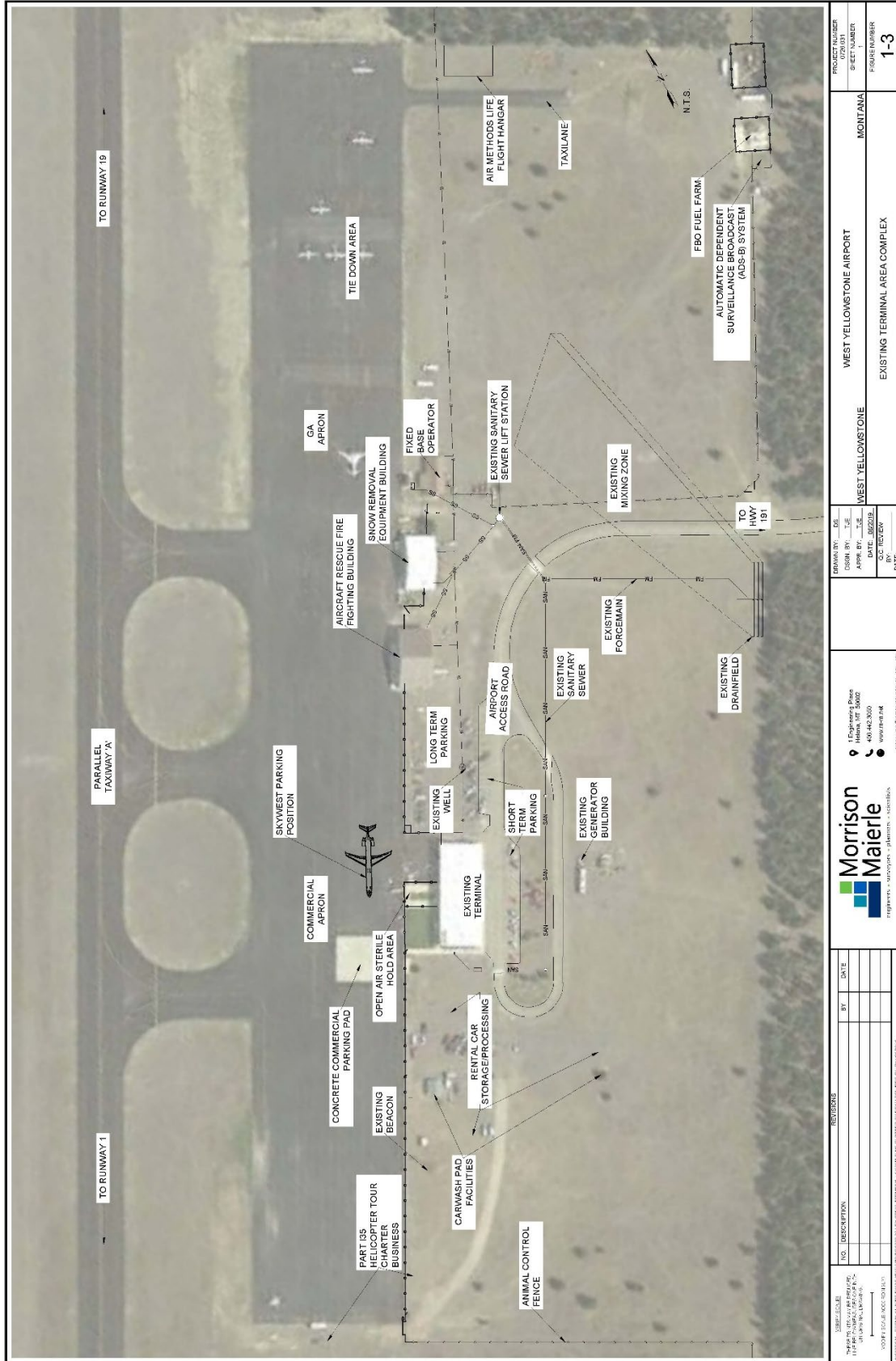


Figure 1-3: Existing Terminal Area Complex

SCALE: 1" = 100'-0" NORTH ARROW: AS SHOWN DATE: 08/20/2018		NO. DESCRIPTION BY DATE		REVISIONS	
PROJECT NUMBER: 08-21-18-001 SHEET NUMBER: 1 FIGURE NUMBER: 1-3		DRAWN BY: J.E. CHECKED BY: J.E. DATE: 08/20/18		WEST YELLOWSTONE WEST YELLOWSTONE AIRPORT MONTANA EXISTING TERMINAL AREA COMPLEX	
PROJECT NUMBER: 08-21-18-001 SHEET NUMBER: 1 FIGURE NUMBER: 1-3		DRAWN BY: J.E. CHECKED BY: J.E. DATE: 08/20/18		WEST YELLOWSTONE WEST YELLOWSTONE AIRPORT MONTANA EXISTING TERMINAL AREA COMPLEX	

efficient Transportation Security Administration (TSA) facilities, baggage handling/screening areas, and concession and restroom accessibility to secure and non-secure passenger areas.

The terminal and other landside structures (ARFF, SRE building, FBO) are served by septic tanks (three total) to separate solids before draining to a gravity sewer main system and central lift station. The lift station pumps effluent to a drain field on the airport. The majority of sewer infrastructure was installed in 2009. The one existing hangar at WYS has its own septic tank and drain field.

Water utilities for the terminal, ARFF, SRE building, and FBO are provided from a single well. Arsenic occurs naturally in the area, and levels are noted to be above acceptable levels for sustained human consumption, and are therefore reduced via existing arsenic removal systems in each of the buildings. The hangar on the airport is served by an individual well.

The Jump Base is served by six individual septic tanks and an onsite well.

1.1.4 Airport Classification and Use

With the FAA Reauthorization Act of 2018, WYS falls into the new seasonal airport category and is considered a non-hub primary airport. This designation is based on having at least 8,000 passenger boardings of scheduled air carrier service over fewer than 6-month service season.

The Airport is utilized for corporate business activity, aerial surveying, military exercises, search and rescue, emergency medical services, and public charters among other uses. Commercial service is provided through SkyWest Airlines, and is nearly exclusively comprised of visitors to Yellowstone National Park (YNP). Aerial wildland firefighting also has a large presence at the Airport, which is a critical service in wildland fire response.

Airports are typically designed in accordance with the Runway Design Code (RDC) designations from the FAA's Advisory Circular (AC) 150/5300-13A, *Airport Design*. The RDC provides information needed to determine applicable design standards. The RDC is made up of three components: 1) designated by a letter (A – E), is the Aircraft Approach Category (AAC) and relates to aircraft approach speed, 2) designated by Roman numerals (I – VI), is the Aircraft Design Group (ADG) and relates to aircraft wingspan and tail height, 3) visibility minimums (distance in feet) expressed by Runway Visual Range (RVR).

While the airport meets design standards to accommodate C-III aircraft as a result of accommodating larger commercial aircraft in the 1960's – 1970's as well as aerial firefighting aircraft for the USFS, WYS currently is reflected with an RDC designation of C-II-2400 as a result of the most demanding aircraft that has in excess of 500 operations (takeoff or landing) per year. That aircraft is the current commercial aircraft operated by SkyWest, the 50-seat Canadair Regional Jet (CRJ) CRJ-200.

1.1.5 Previous Airport Planning

FAA guidance recommends that a Master Plan be completed or updated approximately every ten years, or when an airport experiences unexpected, rapid growth in activity. The most recent planning effort(s) for the Airport were undertaken in response to ensuring upgrades and maintenance priorities were aligned with existing and forecast needs, as well as notable changes in the commercial service aircraft serving the Airport.

1.1.5.1 2015 Master Plan & Airport Layout Plan Update

The 2015 *Master Plan and Airport Layout Plan Update* (2015 *Master Plan*) was initiated in August 2011 and concluded in August 2015.

While the Airport had a long history of planning, no formal Master Plan had been completed until 2015. The 2015 *Master Plan* included a detailed examination of past and current aviation activity to identify trends, annual operations, type of aircraft using the airport, and other applicable information. During the final stages of the 2015 *Master Plan*, SkyWest Airlines, as the EAS commercial airline serving the airport, transitioned from the use of 30-seat Brasilia turboprop aircraft to 50-seat CRJ-200 jet aircraft. An EA for the change in aircraft was completed in November 2014 with a Finding of No Significant Impact (FONSI) issued by the FAA. The 2015 *Master Plan* included forecasts that an increase in passengers would result in increased demands on terminal facilities. As a result of projected increased demands, the 2015 *Master Plan* recommended a remodel of the existing terminal or construction of a new terminal.

1.1.5.2 2019 Terminal Area Narrative Report

Once several seasons of enplanement data were provided after the transition from use of the 30-seat Brasilia turboprop to the 50-seat CRJ-200 jet aircraft at WYS, an additional planning endeavor in the form of a terminal area narrative report was undertaken to refine terminal area needs. The 2019 *Terminal Area Narrative Report* (2019 *TANR*) was initiated in September 2016 and concluded in April 2019.

Following the completion of the 2015 *Master Plan*, the air carrier had completed the transition from the 30-seat turboprop aircraft to 50-seat regional jets. In addition, a Part 135 helicopter tour business was started in late 2017, adding additional enplanements for passenger service at WYS. Subsequently, passenger activity at the airport has outpaced forecasted levels. The purpose of the 2019 *TANR* was to revisit the previous planning effort at a higher level of detail, update current demand / capacity data, and reassess recommendations based on updates of the operational requirements.

The planning effort reviewed the alternatives to 1) remodel the existing terminal, 2) construct a new terminal and repurpose the existing building, or 3) construct a new terminal and demolish the existing building. As a result of the 2019 *TANR* planning effort undertaken by MDT Aeronautics, the alternative to construct a new terminal encompassing approximately 29,000 square feet (SF), adjacent and south of the existing terminal, and demolish the existing terminal facility was identified as the one alternative that addressed all of the evaluation factors. A discussion of the alternatives and their evaluation is included in **Chapter 3**.

1.2 Current and Forecasted Commercial Aviation Activity at WYS

Per the 2019 *TANR*, based on the enplanements in the FAA approved forecast, the Yellowstone Airport was projected to serve over 17,000 enplaned passengers annually with peak month average day enplanements of 145 passengers by 2039. **Table 1-1** below (Table 2-8 from the 2019 *TANR*), provides the anticipated peak hour, peak month and total enplanements for the airport through the twenty-year planning study. Since forecasts were based on predicted air

service scheduling, peaking characteristics were developed using the hypothetical design day activity method. Ultimately, the 2019 *TANR* recommended that the airport should be planned to be capable of accommodating a design hour demand produced by one 90-seat CRJ-900 aircraft, as was the basis for the FAA approved forecast.

Final 2019 enplanement data for WYS reflect 10,665 enplanements for the five-month and one-week overall season, and an overall 25.6% increase over 2018. This can be partially attributed to the extended commercial season being moved up from May 24th, 2018 to May 8th, 2019, as well as extended at the end of the season moved from September 30, 2018 to October 13, 2019. However, it can be noted that general enplanements increased from 3.6% to 101.0% over 2018 monthly enplanement statistics for every month of the service season. 2019 enplanements were made up of 8,970 scheduled air carrier enplanements (8,173 in 2018) and 1,725 Part 135 charter (helicopter tour) enplanements (339 in 2018). SkyWest Airlines operated during 2020 with one flight per day until July 1st due to COVID-19 constraints. Their regular schedule was followed the remainder of the season thru October 15th of 2020. The EAS contract is out for renewal at the time of this writing and will determine the 2021 season once executed. Yellowstone Helicopters returned in 2020 to continue providing helicopter tours and intend to return in 2021.

Table 1-1 Forecasts from 2019 Terminal Area Narrative Report - Peaking Characteristics

	Forecasts				
	2019	2024	2029	2034	2039
Airline Enplanements					
Annual	9,119	12,822	14,848	15,889	17,023
Peak Month (July)	2,413	3,361	3,861	4,102	4,344
Average Day	80	112	129	137	145
Design Hour	50	70	70	90	90
Airline Operations					
Annual	520	564	607	651	700
Peak Month	124	133	142	151	159

Per the 2019 *TANR*, the mid-range growth scenario assumed a full transition to 70-seat CRJ-700 aircraft over the course of 10 years. The mid-range scenario also assumed the addition of one weekly flight to the schedule every five years over the 20-year planning period. The assumptions made in the 2019 *TANR* for the low, medium, and high growth scenarios are not directly following the predicted course of action as SkyWest has extended their season and modified their weekly flight schedules. As a result, the Peak Month of July in 2019 was approximately 19% above the forecast, and Average Day Enplanements reflected 93 vs. 80 forecast.

1.3 Proposed Action

The Proposed Action evaluated within this EA includes a number of improvements at WYS as described below and as depicted on **Figures 1-4** and **1-5** that satisfy the Purpose and Need described in **Chapter 2**.

- New Terminal Building
 - Construct approximate 29,000 SF terminal
 - Will include entry, lobby, seating, screening, passenger hold room, concessions, non-secure and secure area restrooms, airlines and ticketing, baggage drop/screening and handling/lobby, airport administration, Traffic Security Administration (TSA), rental cars, educational kiosks/display areas, mechanical systems and storage area(s), among other airport terminal related uses.
 - The facility will be required to adhere to the State of Montana Architecture & Engineering (A&E) Minimum Design Standards, as well as the High Performance Building Standards.
 - **Figure 1-6** is a bubble diagram of the proposed terminal layout and use areas, per the 2019 *TANR*. (Note that the bubble diagram is conceptual only, and may not accurately reflect the ultimate layout, which will undergo design only after the requirements of NEPA and the MEPA have been met.)
 - Demolition of Airport Buildings
 - Airport terminal building
 - Generator building
 - Modifications to the Animal Control Fence to accommodate the new footprint of the new structure and features of the terminal area
- Expand Concrete Commercial Parking Pad
- Reconstruct and Extend Airport Access Road
 - Reconstruct the existing access road from HWY 191 to the area fronting the existing terminal building
 - Extend the airport access road to the front of the new terminal building to facilitate access to proposed airport parking and the terminal
- Construct New Parking Lot Infrastructure
 - Construct parking lot for passengers, rental cars, and administrative staff (airport/airline/TSA/concessions/etc.)
 - Relocate existing car wash pad facilities for two resident rental car providers
- New Water Infrastructure Improvements (details provided in **Appendix C**)
 - Extend water main infrastructure from town of West Yellowstone, approximately 27,815 linear feet (LF) to serve the new terminal, terminal area structures, and USFS Jump Base adjoining the Airport, to allow for future connection by the USFS in the future. There will be a clearing width for the utility corridor of approximately 30 feet, where necessary.
 - The water main is proposed to be routed to facilitate connection in the immediate vicinity of the USFS Jump Base and sized to accommodate projected needs should the USFS or other airport or non-aeronautical development desire to connect in the future.
 - Construction and occasional maintenance of the new water infrastructure improvements on the Custer Gallatin National Forest will be carried out under a special use authorization from the USFS that will be issued to the State or Town (depending on final ownership of infrastructure) for the

improvements and include maintenance of the corridor, weed management, and maintenance of barriers that will prevent public motorized use of the utility corridor in areas not currently authorized for motorized use by the public.

- The existing well can be abandoned (well casing removed to below the ground level, plugged with bentonite, and capped). Any abandonment would be completed by a licensed well driller in accordance with State regulations.
- New Sewer Infrastructure Improvements (details provided in **Appendix C**)
 - Extend sanitary sewer service from the terminal to the town of West Yellowstone sewer lagoons
 - The system is proposed to be routed to facilitate connection to the USFS Jump Base and sized to accept effluent from the USFS Jump Base, to allow for USFS connection in the future.
 - The existing septic tanks can be removed, and force main to the existing drain field and drain field abandoned in place.
- New Fiber Optic Infrastructure Improvements
 - Extend fiber optic infrastructure (buried in conduit) from the town of West Yellowstone to the new terminal, existing terminal area structures (ARFF and SRE buildings and FBO), and USFS Jump Base adjoining the airport, to allow for USFS connection in the future.
 - Fiber optic is proposed to be collocated in the same trench as the water line from the town of West Yellowstone.
 - In event that the designers determine it is best to offset the utilities, fiber optic can be trenched or plowed in adjacent to the water line alignment. There is no perceived need to disturb any areas outside of those already proposed to facilitate water main installation.
 - If the connection to town water facilities is determined infeasible and Alternative W1 is employed to improve onsite water, new fiber optic infrastructure improvements will not be pursued.
 - Construction and occasional maintenance of the new fiber optic infrastructure improvements on the Custer Gallatin National Forest would be carried out under a special use authorization from the USFS that will be issued to the utility company for the improvements and their operation and maintenance.
- Timber clearing to facilitate subsurface utilities (i.e. water, sewer, and fiber optic). Details are provided in **Appendix C**.
- Replacement of Existing Airport Beacon with New Beacon and Tower
 - The proposed location of a new rotating beacon is shown on **Figure 1-4**. The upper portion of the existing beacon tower to include the top platform and beacon apparatus and enough of the tower to convey the design and function of the beacon will be preserved as a display either within the new airport terminal; or outside the new terminal building and within the terminal area at WYS.

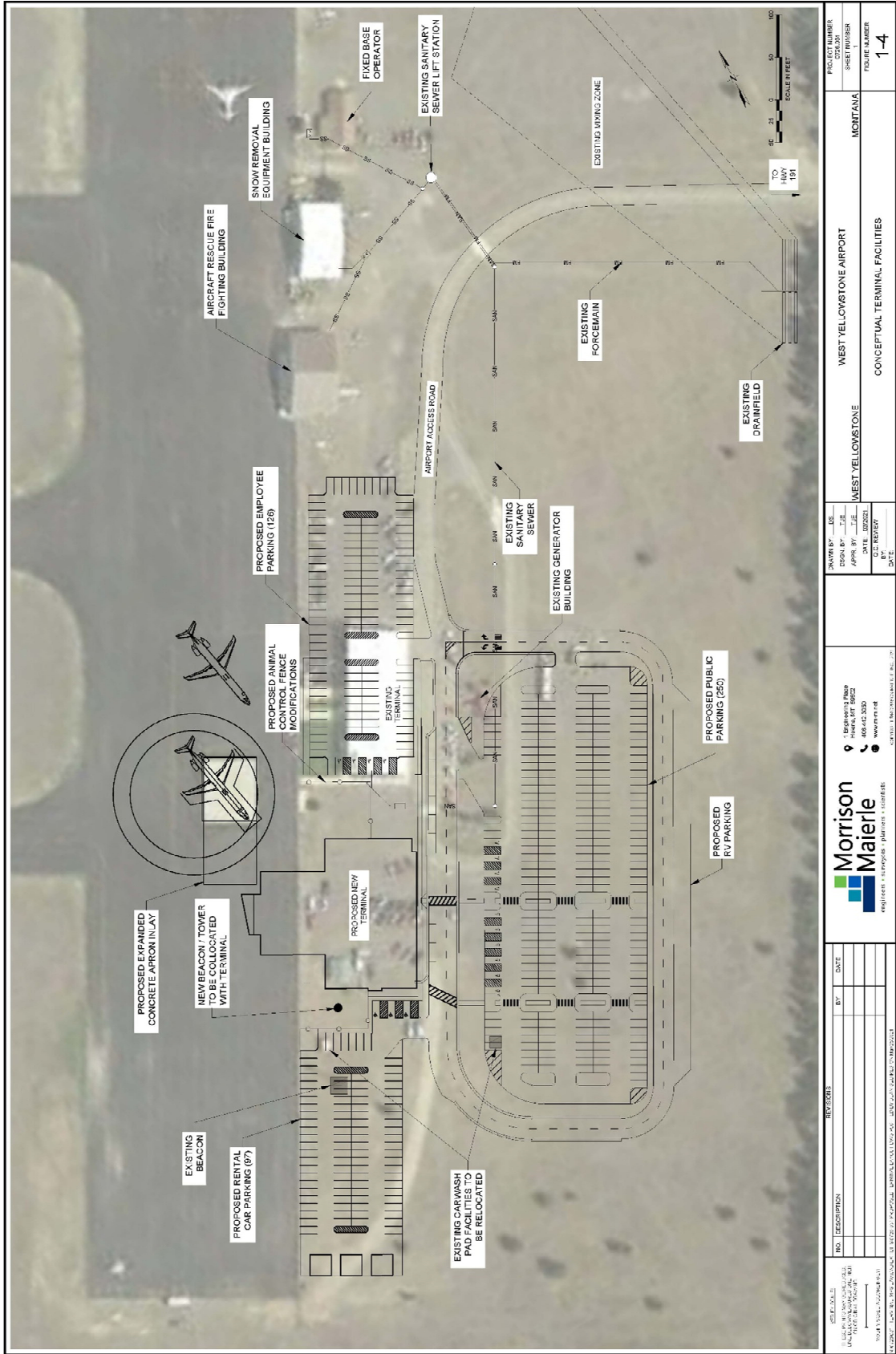


Figure 1-4: Conceptual Terminal Facilities

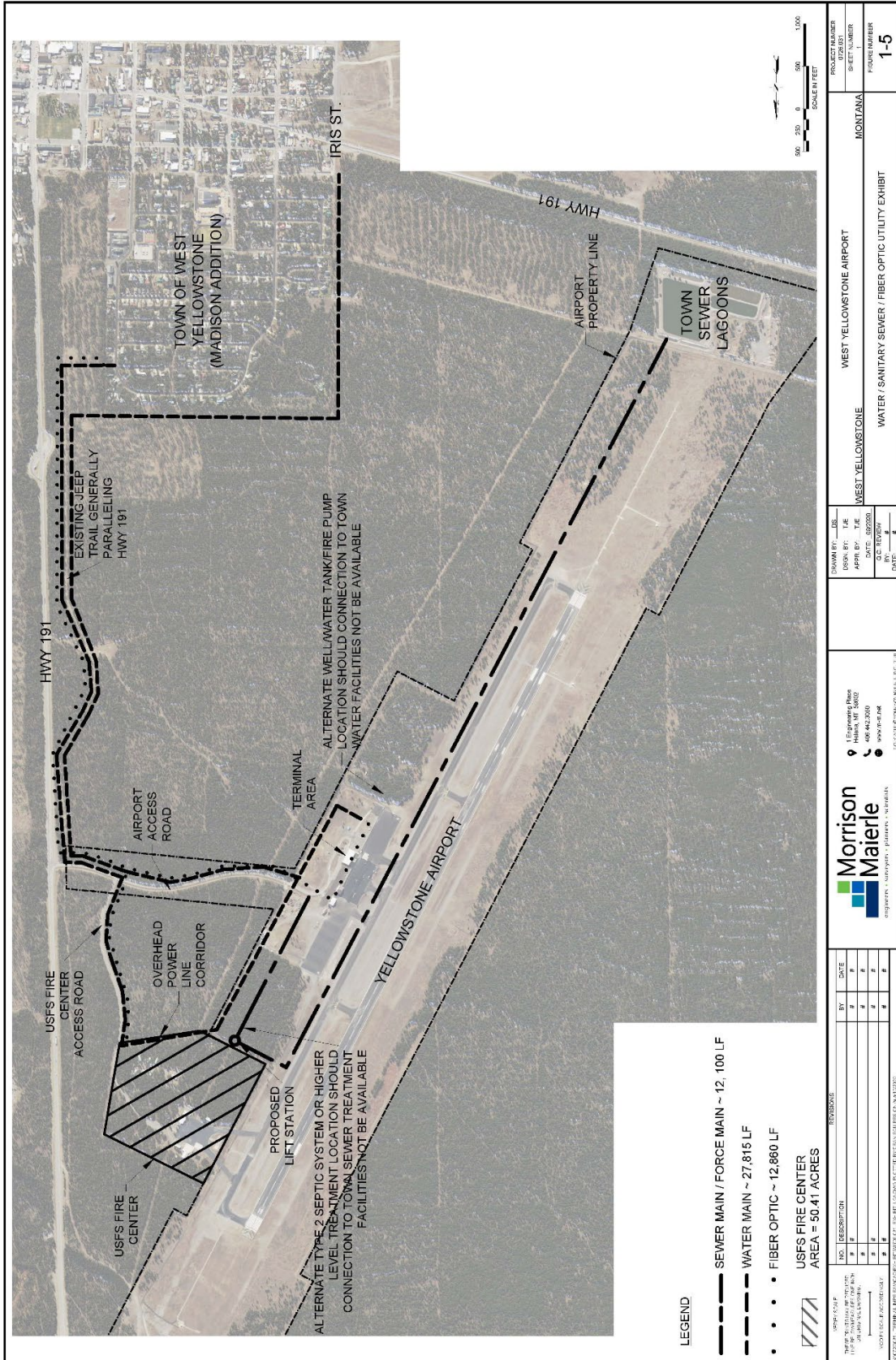


Figure 1-5: Water / Sanitary Sewer / Fiber Optic Utility Exhibit

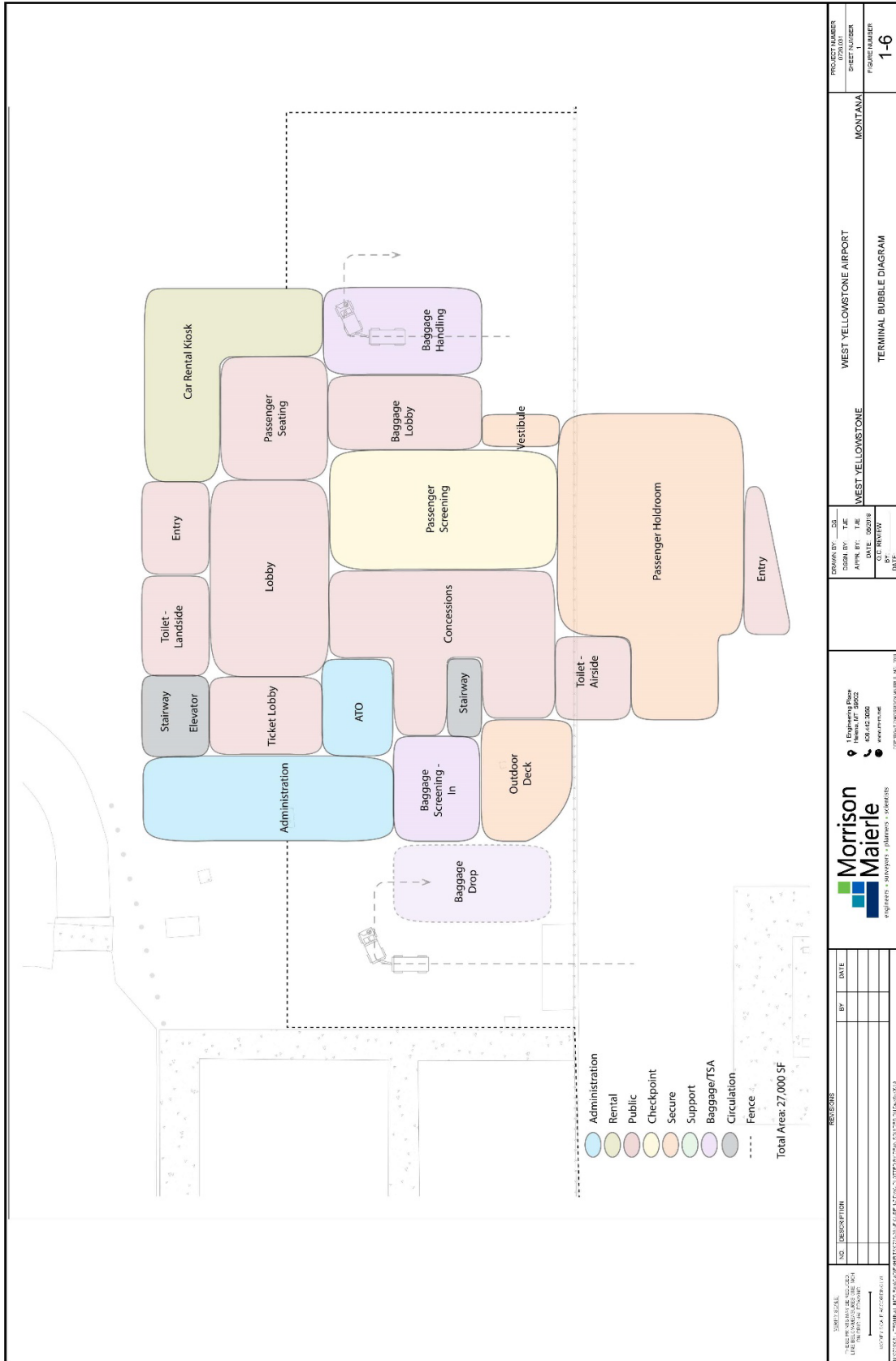


Figure 1-6: Terminal Bubble Diagram

1.4 Implementation of the Proposed Action

The planning level cost estimate of the Proposed Action is estimated to be \$19.98 million. The FAA's Airport Improvement Program (AIP) currently provides grants for eligible improvement costs for the Yellowstone Airport as a non-hub primary airport. WYS is eligible to receive FAA grants up to 91.88% of eligible and justified projects under AIP. Recent legislation also provides for Coronavirus Aid, Relief, and Economic Security Act (CARES Act) funding for various improvements. Any local funds required to receive federal grants are the responsibility of the Airport Sponsor as well as any ineligible areas of terminal construction or utility improvements. Funding for any associated improvements relating to town wildland fire suppression and USFS water/sewer/access road costs would be considered through Memorandum of Agreement(s).

Construction of the improvements would likely span several years, with funding being phased with separate AIP projects / grants. The majority of improvements are anticipated to occur in 2022 and 2023. Design is anticipated in 2021, and the construction of the terminal and expansion of the concrete parking apron on the airside would likely follow in 2022. Installation of utilities, final parking lot paving, access road rehabilitation, and completion of the terminal and beacon would likely occur in the later half of construction in 2023. Transitioning from the old terminal to the new may occur following the 2023 season (October), allowing the new terminal to be in full operation with the start of the 2024 season (May). The old terminal and generator buildings would be demolished, and the areas reclaimed following occupancy of the new terminal. Actual connection and initiation of water and sanitary sewer services from the town would occur once permitted by DEQ and coordinated with the town.

Chapter 2 – PURPOSE AND NEED

This chapter describes the purpose and need for the proposed improvements at, and adjacent to, the Yellowstone Airport. It presents the problem(s) to be solved (need) and describes what the Montana Department of Transportation (MDT) – Aeronautics Division as the Sponsor and the FAA are trying to achieve by implementing the Proposed Action (purpose).

2.1 Purpose of the Proposed Action

The purpose of the proposed improvements is to provide an updated terminal facility that meets current and future passenger, Transportation Security Administration (TSA), and Airport Administrative needs. As a result of implementing new terminal improvements, an ancillary purpose is to improve the water, sewer, and fiber optic infrastructure to better serve the new terminal, as well as the potential extension to facilitate existing and future airport uses and the neighboring United States Forest Service (USFS) West Yellowstone Interagency Fire Center (Jump Base) if they connect in the future. Such improvements and modifications must be made to comply with FAA design standards and recommended guidance as noted in the 2019 *Terminal Area Narrative Report (2019 TANR)*.

2.2 Need for the Proposed Action

The Proposed Action is needed because the 2019 *TANR* identified that the present terminal building and associated infrastructure is not configured or sized to adequately accommodate present day and projected future needs of the traveling public. The Proposed Action would improve safety and efficiently accommodate the needs of existing and future passengers, TSA, Airport Administration, and other Airport users.

The needs for facility improvements at WYS are discussed in further detail below.

2.2.1 Need for New Terminal Building

The existing terminal occupies approximately 11,730 SF between three floors (basement at 1,380 SF, main floor at 8,000 SF, and second floor spaces split between two areas of the terminal at 2,350 SF total). Per the 2019 *TANR*, reflecting the guidance of FAA Advisory Circular (AC) 150/5360-13A, *Airport Terminal Planning*, the terminal space requirements were estimated at 29,107 SF to accommodate existing and planned growth to the end of the planning period - 2039. The terminal space requirements in the 2019 *TANR* were compared to the Bert Mooney Airport in Butte, Montana (35,745 SF in 2018) and Yellowstone Regional Airport in Cody, Wyoming (27,175 SF in 2010) as two airports in the region with recently constructed terminal facilities that are comparable to the Yellowstone Airport in terms of functions, peak hour passenger levels, and passenger demographics.

FAA Order 5100.38D *Airport Improvement Handbook*, Table 3-8 *Minimum Useful Life* indicates that the minimum useful life of an airport building is considered to be 40 years. Built in 1963, the 55-year-old terminal building at WYS has exceeded this threshold. While there is a long list of airport buildings across the nation that are older than 40 years old that are still functional, the configuration and construction of the existing terminal building does not easily facilitate the needs of the current and future travelling public. As noted in **Section 1.1.3** of this document, the terminal

consists of three floors (basement, main floor, and second floor), and has had numerous small remodels throughout its 55-year history that have further segmented the structure.

While remodel of the existing terminal for continuing use as a terminal or repurposing the existing terminal were considerations in the 2019 *TANR*, both of these come with a diverse set of challenges as discussed in **Sections 3.1.1** and **3.2** of **Chapter 3** of this document.

Once a new terminal is constructed and commissioned, the existing terminal, associated infrastructure, and generator building would no longer be utilized and would be demolished.

Modifications to the animal control fence will be needed to tie any new building footprint into the existing fencing and to separate the airside and landside environments.

2.2.2 Need for Expanded Concrete Commercial Parking Pad

A 62.5-foot by 75-foot concrete parking pad for commercial aircraft exists off the southwest corner of the terminal, and within the limits of the larger asphalt apron (**Figure 1-3**). While the limits of the larger asphalt apron are not proposed to be changed, the area of the existing concrete parking pad is proposed to be expanded to accommodate commercial aircraft needs. Per the 2019 *TANR*, at a minimum, two parking positions are necessary for commercial aircraft, one position for regularly scheduled flights and the other for the possibility of a delayed or off schedule flight (**Figure 1-4**).

Due to the present terminal/apron configuration and to accommodate efficient passenger handling, SkyWest has not utilized the concrete parking pad, but rather parks on asphalt to the north of the concrete. After the 2017 rehabilitation of the Airport apron, airport personnel noted rutting of the asphalt pavement occurring in the area of the commercial aircraft parking position. Extensive testing of the asphalt materials, review of borings of subbase and subgrade materials, and review of the specifications, indicate that the asphalt is in compliance with the specifications, but that it may be more prone to rutting from heavier aircraft. The FAA has recommended that expansion of the concrete parking pad be considered with the new terminal.

2.2.3 Need to Reconstruct and Extend Airport Access Road

The existing access road was constructed with the initial improvements to the airport in the 1963 era. Those improvements have been in place with little maintenance since its initial construction. Crack sealing and patching of pot holes is becoming a continuous maintenance endeavor to hold the existing pavement together for as long as possible. There is no record of the pavements having had any maintenance beyond crack sealing and patching for over 20 years. With the construction of the terminal, and the access road being the only entrance to the airport, it is anticipated that heavy construction traffic (concrete trucks, etc.) would exacerbate the poor road conditions. The Proposed Action would reconstruct the access road (mill and overlay, pulverization and repaving, or complete pavement removal and repaving) following the majority of terminal construction to provide a fresh asphalt driving surface.

With the new terminal proposed to be located adjacent and south of the existing terminal, the access road would need to be extended to front the new structure. In addition, the access road would need to accommodate any expanded parking area(s) constructed to support the new

terminal, while keeping phased expansion of parking facilities in mind (as discussed in **Section 2.2.4**).

2.2.4 Need to Construct New Parking Lot Infrastructure

The existing paved parking lot infrastructure at WYS consists of 33 paved parking positions between two separate lots. Extended stay parking is facilitated via an asphalt millings parking lot to the north of the terminal, with rental car staging and maintenance in an asphalt millings parking lot to the south of the terminal. Neither of the asphalt millings lots are delineated for vehicles. In the event that rental cars have overflow during peak periods, they utilize adjacent native soil areas to the south of the terminal.

With the proposed terminal being located adjacent and south of the existing terminal, parking lot improvements would need to be in close proximity to the new structure. **Figure 1-4** in **Chapter 1** of this document reflects a conceptual layout and the anticipated parking lot needs for full build out to meet demand in 2039. The extent of parking spaces required was identified per the 2019 *TANR*, and as provided for reference below.

**Table 2-1 Public Parking Requirements
Yellowstone Airport (from 2019 Terminal Area Narrative Report)**

	Requirements at Annual Passenger Thresholds				
	2019	2024	2029	2034	2039
Enplanements	8,604	12,391	14,314	16,142	17,154
Public Parking	37	53	62	69	74
Employee Parking	40	58	67	75	80
Rental Car Ready/Return	70	101	116	131	140
RV Parking / Staging	5	7	8	9	10
Total	152	219	253	285	303

Parking improvements would be further refined through design but are proposed to be phased to accommodate initial Airport needs, as well as provide for reasonable growth.

Proposed parking lot improvements would occupy the existing locations of two car wash pad facilities that would need to be relocated for two resident rental car providers.

2.2.5 Need for New Water Infrastructure Improvements

Water at WYS is currently provided by well service. The existing well that serves the Airport was originally installed in 1964 with the terminal construction. The capacity of the well is noted as 32 gallons per minute (gpm). The well is 190 feet deep with static water level observed at 63 feet, as identified from the well log.

The low water pressure at 32 gpm is not adequate for fire protection for structures and provides limited resupply of Aircraft Rescue Fire Fighting (ARFF) vehicles that may respond to aircraft crashes and fires. Additionally, the existing well produces water with higher than acceptable levels of arsenic based on long term consumption guidelines.

If water services are extended from the town of West Yellowstone, the existing well may be capped and abandoned in place. Leaving the existing well in service to provide water to the terminal is not practical given the arsenic present in the water and the anticipated discontinued use of the well due to improved water supply volume, pressure, and quality supplied from the system extended to town facilities. Retaining the well in place may be determined to be valued added during the design of the improvements, but is thought at this time to be of little value and in the way of potential parking lot improvements (within the footprint of the ultimate parking lot layout identified to the north of the terminal on **Figure 1-4**).

Improvements for the water system infrastructure for Airport facilities would not normally be eligible for FAA Airport Improvement Program (AIP) funding, except in combination with terminal improvements.

2.2.6 Need for New Sewer Infrastructure Improvements

Terminal area sewer service at WYS has historically been provided by septic tanks (one servicing the terminal, one for the Aircraft Rescue Fire Fighting/Snow Removal Equipment (ARFF/SRE) building, and one for the FBO) that flow to one lift station that pumps to a single drain field. A separate septic tank and drain field serves the Air Methods life flight hangar at the far north end of the apron. The majority of the terminal system that serves the Airport was installed in 2009 under Gallatin City – County Health Department (GCCHD) permit #2009002. The capacity of that system was approved for additional flows for the system under EQ #10-2066 for 1,050 gpd in 2010. As a result of recent septic system permitting reviews with Gallatin County and Montana Department of Environmental Quality (MDEQ), there have been noted capacity issues with the existing septic drain field and mixing zone exceeding capacity during peak hour periods of operation at WYS.

Similar to improvements to the water system infrastructure, improvements to the sewer system infrastructure for Airport facilities would not normally be eligible for FAA Airport Improvement Program (AIP) funding, except in combination with terminal improvements. With the provision of new sanitary sewer infrastructure, the existing septic tanks can be removed, and force main to the existing drain field and drain field abandoned in place.

2.2.7 Need for Fiber Optic Infrastructure Improvements

Internet services at WYS has historically been provided by Digital Subscriber Line (DSL) technologies that transmit digital data over telephone lines. This service has been noted to provide marginal coverage at slow speeds by users. In addition, the existing network provider that serves the airport is limited in capacity, requiring new users to have to wait until an existing patron cancels their service in order to receive service. This has limited airport user options and required some to entertain wireless internet options with similar marginal coverage issues.

While the existing network is providing internet service, it is providing marginal coverage and not able to meet the needs of all users. Installation of fiber optic utilities would increase internet speed, reliability, and allow for expanded user base to facilitate passenger, airport management, airline, rental car, concessions, and emergency service response needs.

Similar to improvements to the water and sewer system infrastructure, improvements to the communications infrastructure for Airport facilities would not normally be eligible for FAA Airport Improvement Program (AIP) funding, except in combination with terminal improvements.

2.2.8 Need for Timber Clearing to Facilitate Subsurface Utilities

In support of the previous three items – water, sewer, and fiber optic infrastructure improvements, some limited clearing of timber will be required on the Custer Gallatin National Forest and Airport property in order to facilitate infrastructure construction and future periodic maintenance access. Existing lodgepole pine forest abuts private residential properties and established travel corridors between the town of West Yellowstone and the Airport. Timber clearing along the Madison Addition is anticipated to require the removal of up to a 30' width of timber at the USFS / private property interface (on the Custer Gallatin National Forest) along the west and north sides of the Madison Addition, as well as the from the existing motorized route that is open to the public to the intersection of Bechler Avenue. In areas where infrastructure can be installed and reasonably allow timber to remain within the 30' clearing limits, then such timber will be allowed to remain. Such determinations will be dependent on water main and fiber location in regards to timber location, timber density, and timber presence along the edges of the 30' clearing. Along all other areas, it is anticipated that up to an additional 10' perpendicular from existing corridors (open motorized route on the Custer Gallatin National Forest, airport access road, overhead power line, and Jump Base access road) will require timber removal.

2.2.9 Need for Replacement of Existing Airport Beacon with New Beacon and Tower

The existing beacon and tower are owned and operated by the Airport Sponsor, having been relocated from the original airport location with the new airport construction in the mid-1960's. While modifications to the existing beacon have occurred over time to change the bulb type, it is an older type of beacon of an origin that is similar to older beacons that are being replaced around the State of Montana due to the lack of availability of parts. The WYS beacon was repaired in the spring of 2019 with replacement parts from a similar beacon salvaged from Columbus in 2018, as manufacturers are no longer making replacement parts. Additionally, during the Airport's 2019 FAA Part 139 Certification Inspection, it was also noted that the beacon was found to have a flash rate (i.e. minimum rotations per minute) slower than is required by FAA AC 150/5340-26C, *Maintenance of Airport Visual Aid Facilities*.

While the existing beacon is operating as designed, it does not meet current standards and replacement parts for the beacon are prohibitively expensive and difficult to find. A new rotating beacon that meets FAA standards is proposed to replace the aged equipment.

The existing tower on which the beacon sits is a 50-foot steel structure with ladder that requires staff to climb to the top to address maintenance or keep birds from nesting. It was noted as a platform for bird perching in the 2015 *Wildlife Hazard Assessment (WHA)* and has a history of being used by ravens for perching and nesting. The combined safety concerns with staff accessing the tower and the bird attractant within the Airport environment are proposed to be

remedied with the installation of a static or tilt type tower that will facilitate tilting the beacon to ground level and that has no platform for nesting birds.

Preservation of the upper portion of the beacon tower to include the top platform and beacon apparatus and enough of the tower to convey the design and function of the beacon is part of the Proposed Action. The beacon tower display would be either within the new airport terminal or outside the new terminal building and within the terminal area. The display would also include an interpretive panel to accompany the tower to explain the importance of Montana's Historic Airway Beacon System.

2.3 Requested Federal Actions

MDT – Aeronautics Division is requesting the following federal actions from the FAA:

1. Unconditional approval of the Airport Layout Plan (ALP) to depict those portions of the Proposed Action subject to FAA review and approval pursuant to 49 USC 47107(a)(16)(B). A copy of the conditionally approved ALP set can be found in **Appendix A**.
2. Determination that environmental analysis prerequisites associated with any future Airport Improvement Program (AIP) funding applications associated with the Proposed Action have been fulfilled pursuant to 49 U.S.C. § 47101. It shall be noted that the FAA is not able to fund any water/sewer/fiber optic improvements for the USFS Jump Base, only those eligible portions of the infrastructure for the terminal.

MDT – Aeronautics Division is requesting the following federal actions from the USFS:

1. Approval of the Proposed Action as it relates to improvements constructed on or impacting the Custer Gallatin National Forest (i.e. construction and maintenance of water and fiber optic infrastructure improvements extended from town facilities, including related timber removal).
2. Determination that environmental analysis prerequisites associated with any future funding or cost sharing associated with the Proposed Action as related to water/sewer/fiber optic improvements have been fulfilled pursuant to 36 CFR Part 220.

Chapter 3 – ALTERNATIVES

This chapter discusses the alternatives considered for the proposed improvements at WYS.

The Montana Department of Transportation – Aeronautics Division (MDT – Aeronautics) (Airport Sponsor) considered a full range of alternatives to address the deficiencies and needs at WYS described in **Chapter 2**. These alternatives include taking no action to resolve the identified deficiencies, and various alternatives to address terminal and Airport needs. This chapter identifies the alternatives that were considered, discusses alternatives eliminated from consideration, and identifies alternatives carried forward for analysis in the EA.

3.1 Alternatives Considered

As noted in **Section 1.1.5**, the 2015 *Master Plan* and the 2019 *TANR* identified deficiencies in the existing terminal facilities at WYS and evaluated alternatives to address these deficiencies. The alternatives specific to the terminal included:

- rehabilitating the terminal building in place
- constructing a new terminal building and repurposing the existing terminal
- construction of a new terminal building and demolition of the existing terminal

Each alternative to address the terminal building deficiencies also includes associated improvements to the concrete commercial parking pad, airport access road, parking lot infrastructure, water, sewer, and fiber optic infrastructure, and replacement of the airfield beacon and tower. While most of these associated improvements did not have significant variations that were considered as individual alternatives, improvements to the water and sewer systems and the beacon and tower required further consideration, and the alternatives for these improvements are also included for discussion in this chapter.

3.1.1 Alternatives Considered for Terminal

3.1.1.1 Alternative 1 – Rehabilitate Terminal Building In Place

This alternative would involve the rehabilitation of the existing structure through extensive remodeling.

Given the limitations of the existing footprint, adding on to the structure would be necessary in order to provide adequate space to accommodate non-sterile and sterile areas and respective restroom facilities, as well as TSA, airline, rental car, concessionaire, baggage claim, airport staff office(s), mechanical systems, etc. Remodeling the existing structure would require retrofitting new mechanical and electrical equipment to existing systems. Additionally, the facility would need to be brought up to current building codes to include providing American Disabilities Act (ADA) facilities and meeting current building, fire, and seismic codes.

Rehabilitation of the existing terminal would also require temporary facilities during construction to keep the terminal operational and to separate construction areas from the general public.

For this alternative, portions of the generator building would be rehabilitated (i.e. replacement of the degraded concrete fuel tank for the generator fuel supply).

3.1.1.2 Alternative 2 – Construct New Terminal Building, Repurpose Existing Building

This alternative reviewed the construction of a new terminal and repurposing of the existing structure.

Many of the same challenges in rehabilitating the existing terminal in Alternative 1 are also applicable in repurposing the structure for another use (storage/FBO/rental car/concessionaire/etc.). While temporary facilities may not be necessary to construct to complete improvements, the age of the existing structure and layout require numerous updates to address code issues, as well as structural and layout issues to make it reasonably useable for other endeavors.

For this alternative, the generator building would likely be demolished and new generator equipment supplied with the new terminal building that would support that upsized facility and other necessary structures on the airport (i.e. ARFF building). It is unknown at this time if rehabilitation of the existing equipment and building would be a possibility to meet the power needs of the new terminal building and other structure(s) that are served from that generator (i.e. ARFF building).

3.1.1.3 Alternative 3 - Construct New Terminal Building, Demolish Existing Building

This alternative reviewed the construction of a new terminal adjacent to the existing terminal. In lieu of making any improvements to the existing terminal building, both the terminal and generator buildings would be proposed to be demolished in entirety and the areas rehabilitated for parking infrastructure or otherwise in support of the new terminal. The existing terminal could be utilized until the new one was constructed, thereby eliminating the need for temporary facilities.

Within the 2019 *TANR*, there were three siting options identified for consideration of the alternative to construct a new terminal building. Each siting option was evaluated using the following criteria: aircraft parking and circulation, relationship to other airport facilities, and expansion potential.

The following options for siting the new terminal were examined and are explained below:

- Alternative 3A – New Terminal Sited Adjacent and North of Existing Terminal
- Alternative 3B – New Terminal Sited Adjacent and South of Existing Terminal (Proposed Action)
- Alternative 3C – New Terminal Sited at Far South End of Apron

3.1.1.3.1 Alternative 3A – Site Adjacent and North of Existing Terminal

Alternative 3A proposes a new terminal building adjacent to and north of the existing terminal building (**Figure 3-1**). The loop road is shifted to the north to provide parking directly fronting the terminal building with employee parking to the north and rental car parking to the south. Future general aviation (GA) development, which might include large, executive hangars, would be focused at the south end of the apron.

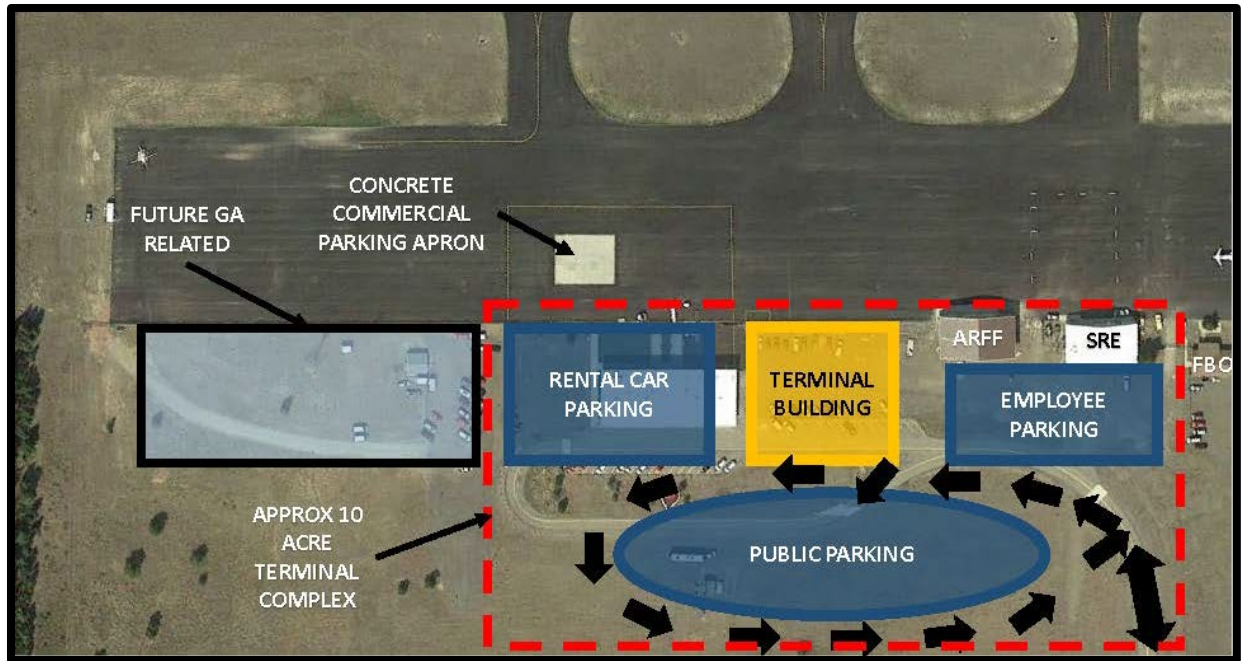


Figure 3-1: Alternative 3A – Site Adjacent and North of Existing Terminal

Parking for commercial aircraft under this alternative would shift to the north of the existing concrete parking apron requiring replacement of the concrete commercial parking pad.

Aircraft circulation would remain similar to current operations with commercial aircraft likely entering the apron on one of the northern two apron access taxiways and exiting on the southern apron access taxiway. This option would shift commercial aircraft circulation closer to existing general aviation areas to the north.

This layout would place the new terminal in close proximity to operations and maintenance facilities (ARFF and SRE) which offers some level of convenience; however, it also restricts the ability to expand those facilities. The space remaining for large general aviation development would be at the south end of the apron.

Expansion potential for the terminal itself would be to the south, but the presence of operations, maintenance and general aviation facilities would limit flexibility for expansion to the north.

3.1.1.3.2 Alternative 3B – Site Adjacent and South of Existing Terminal (Proposed Action)

Alternative 3B (Proposed Action) places the new terminal building adjacent to and south of the existing terminal building (**Figure 3-2**). The loop road is extended to the south and public parking is provided directly fronting the terminal building with employee parking to the north and rental car parking to the south. Space for future general aviation development would be maintained north of the employee parking lot adjacent to the ARFF facility of the apron. This area could also alternatively be available for ARFF expansion if needed. This alternative is consistent with the preferred terminal area alternative from the 2015 *Master Plan*, and the 2019 *TANR*.

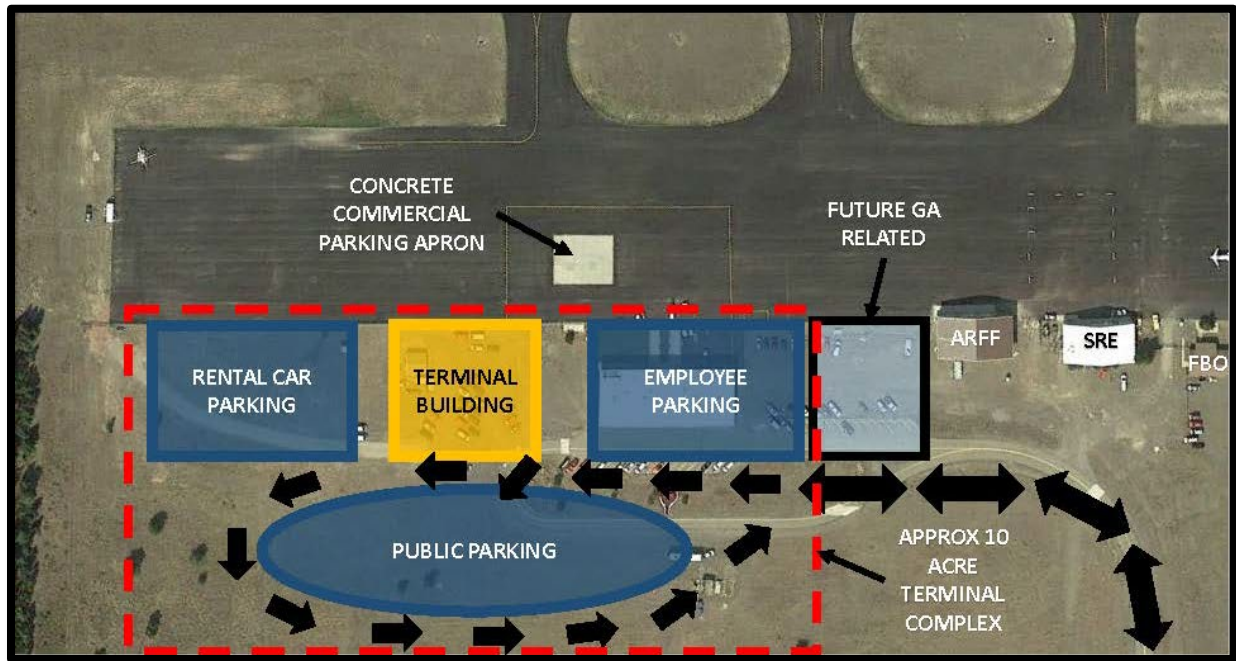


Figure 3-2: Alternative 3B – Site Adjacent and South of Existing Terminal (Proposed Action)

Under this alternative, parking for commercial aircraft would continue in the same general area as utilized currently. Depending on the ultimate terminal layout, aircraft could potentially better utilize the existing concrete commercial parking pad, and/or the expanded concrete apron extension to the south.

Aircraft circulation would remain similar to current operation with commercial aircraft likely entering the apron on one of the northern two apron access taxiways and exiting on the southern apron access taxiway. The separation between commercial aircraft circulation and general aviation areas to the north would be increased.

The shift of terminal facilities to the south opens space for the operation and future expansion of operations and maintenance facilities (ARFF and SRE). Potential future general aviation space to the north is more contiguous with other general aviation development.

This position affords the terminal building with flexibility for expansion to both the north and south.

3.1.1.3.3 Alternative 3C – Site at Far South End of Apron

Alternative 3C places the new terminal building at the far south end of the apron (**Figure 3-3**). The loop road is extended to the south and public parking is provided directly fronting the terminal building. Employee parking is to the north. Rental car parking would be incorporated into the public parking lot. Space for future general aviation development would be maintained north of the employee parking lot and south of the ARFF facility. This area could also be available for ARFF expansion if needed.

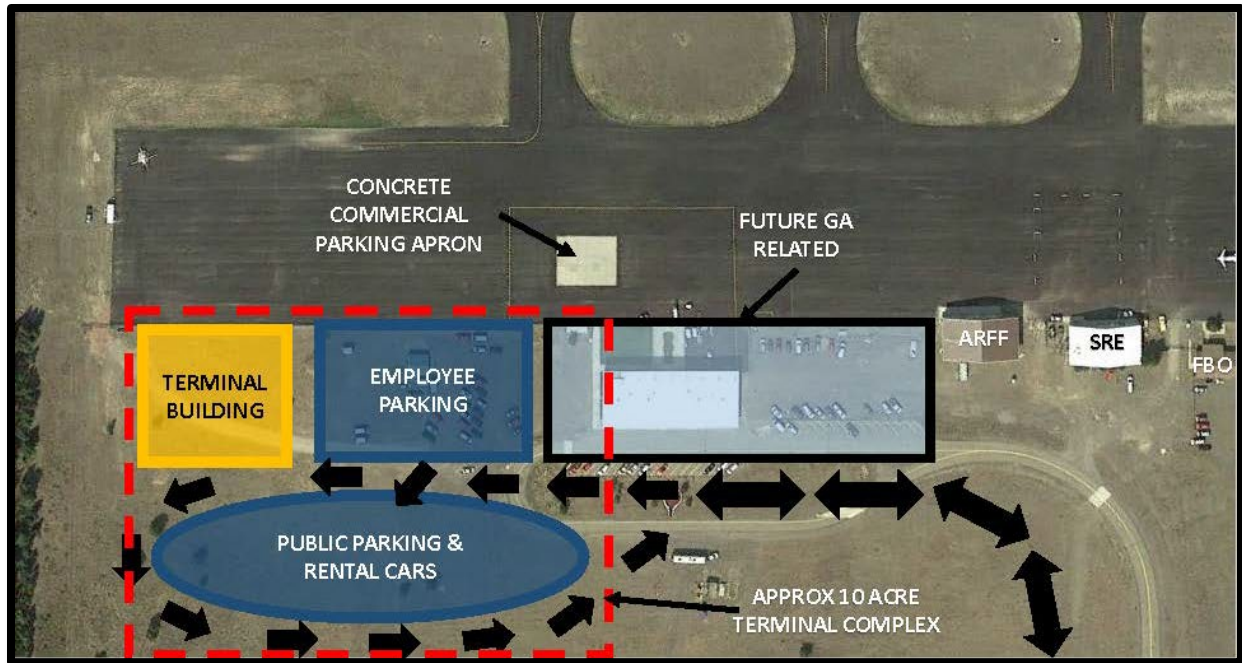


Figure 3-3: Alternative 3C – Site Far South End of Apron

Parking for commercial aircraft under this alternative would shift to the far south end of the apron, requiring the replacement of the existing concrete commercial parking pad.

Commercial aircraft circulation would shift south. Arriving aircraft would enter from the north and backtrack to the north for departure. The separation between commercial aircraft circulation and general aviation areas to the north would be increased.

The shift of terminal facilities to the far south opens the most space of all the alternatives for the operation and future expansion of operations and maintenance facilities (ARFF and SRE). Potential future general aviation space to the north remains contiguous with other general aviation development.

Expansion potential for the terminal itself would be to the north, but, at the southern edge of the apron, any expansion consideration to the south would be costly and require additional apron construction and relocation of automated gate facilities.

3.1.2 Alternatives Considered for Infrastructure Improvements

Alternatives to improve various elements of infrastructure at WYS were discussed in the 2019 *TANR*, to include the potential to extend municipal water and sanitary sewer services from the town of West Yellowstone to the Airport, which is included as part of the Proposed Action. Locations of the proposed improvements have also been located to facilitate connection in the immediate vicinity of the USFS Jump Base and would be located and sized to accommodate projected needs should the USFS or other airport or non-aeronautical development desire to connect in the future. Discussions amongst the FAA, USFS, MDT Aeronautics, and the town of West Yellowstone have continued since the completion of the 2019 *TANR* to examine the details of extending these services, and all parties have agreed that this alternative is a viable possibility and provides multiple benefits as discussed in **Sections 2.2.5 and 2.2.6**.

However, it is also understood that there are many complexities in order for town water and sewer services to be extended to the Airport and USFS Jump Base. Such complexities that could threaten the completion of the project include: 1) technical difficulties could arise during the detailed design process that would follow the completion of the environmental analysis, 2) funding amongst two federal agencies, the State of Montana, and the town of West Yellowstone could become an issue, or 3) support for the project could diminish for any number of reasons.

As such, while extending water/sewer services from the town of West Yellowstone is presented as part of the Proposed Action, onsite alternatives have also been developed and will be carried forward for analysis in the EA as viable alternatives in the case it is later found that town services cannot be extended to the Airport. It is also possible to facilitate extension of water utilities from the town, but have on-site sewer treatment in the event that town infrastructure is not able to take on additional effluent treatment. The option of having an on-site water supply, but have sewer infrastructure extended to the town treatment facilities is also a possibility, resulting in review of each individual alternative. These alternatives are further discussed below.

While not specifically identified in the 2019 *TANR*, improving communications infrastructure will provide improved coverage and capacity at the Airport for both Airport management and the traveling public. This would require that conduit and fiber optic lines be installed subsurface from an existing fiber optic network on the north side of the town of West Yellowstone (Madison Addition) to the Airport. Such infrastructure would be proposed to be located along the alignment of a portion of the water infrastructure (open motorized route on the Custer Gallatin National Forest, Airport Road, and USFS Jump Base access road). The utilities would not be required to be looped as with the water infrastructure and could be plowed or trenched within existing open (absent of timber) clearings, thereby resulting in limited, if any, timber removal. However, if the connection to town water facilities is determined infeasible and Alternative W1 is employed to improve onsite water, new fiber optic infrastructure improvements will not be pursued.

With regards to specific details of the improvements for water, sanitary sewer, and fiber optic connections that will cross the Custer Gallatin National Forest as included in the Proposed Action, further details are provided in **Appendix C**.

3.1.2.1 Alternative W1 – Construct On-Site Water Supply Infrastructure

If town infrastructure cannot be extended to WYS, an alternative would be to construct an on-site water storage and supply system to provide appropriate potable and fire suppression water supply. It is anticipated that this alternative would include at least one new well, a sizeable holding tank with fire pump to meet fire suppression needs, a separate domestic water storage tank, an arsenic removal system to reduce well water to acceptable levels for public consumption, and the distribution infrastructure to tie to existing facilities serving other terminal area structures (ARFF, SRE, FBO buildings). Such a facility could be sited to the south of the apron area in the approximate 20 acres of timbered area within the animal control fence as per **Figure 3-4**. All infrastructure would be proposed to remain on Airport property.

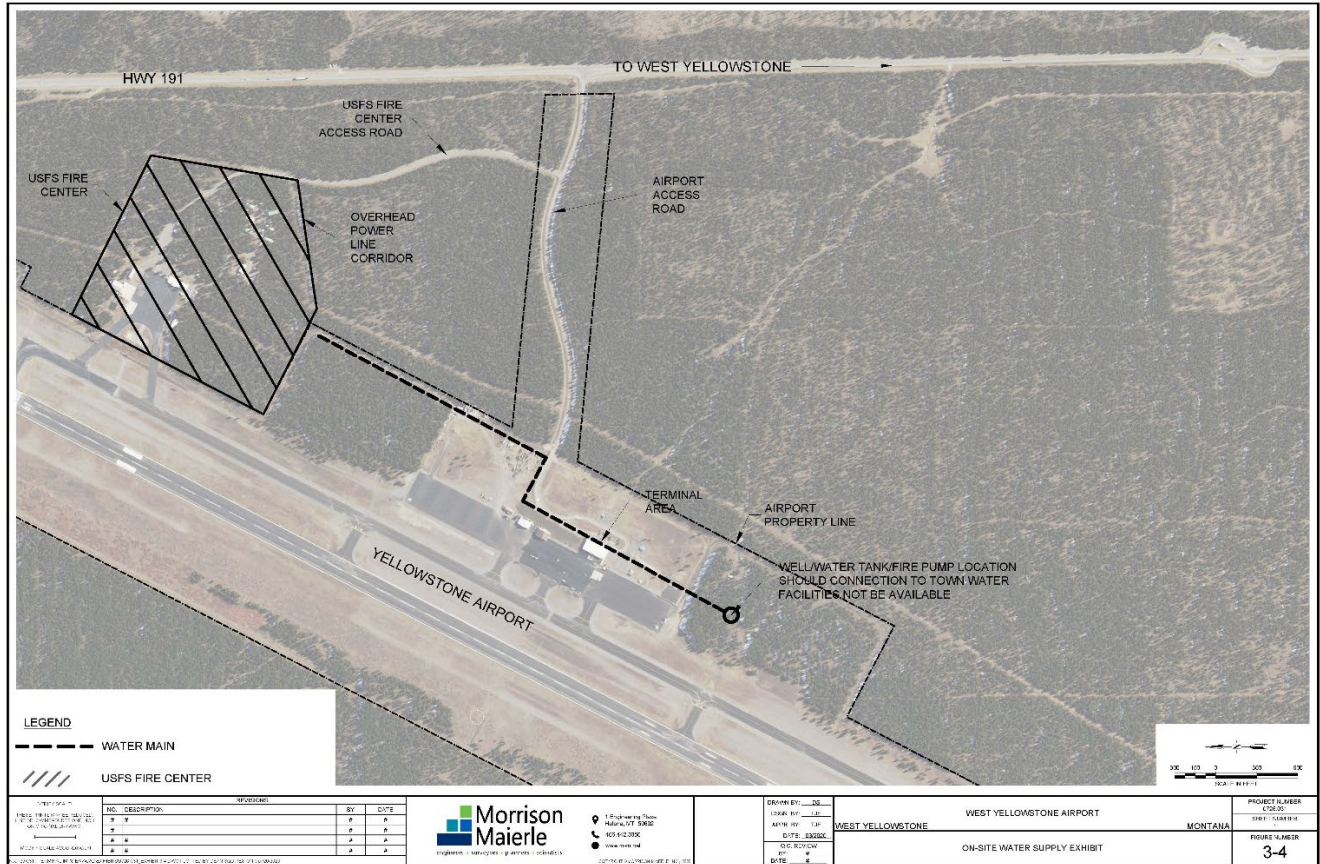


Figure 3-4: On-Site Water Supply Exhibit

Extension of transmission infrastructure to the USFS Jump Base toward the north end of the airport along the east property boundary could occur if USFS requested to be joined to the onsite system.

Since fiber optic is proposed to be collocated in the same trench as the water line from the town of West Yellowstone, if the connection to town water facilities is determined infeasible and Alternative W1 is employed to improve onsite water, new fiber optic infrastructure improvements will not be pursued.

This alternative is carried forward for further analysis in this EA and is discussed as Alternative W1 in **Section 3.3.3**.

3.1.2.2 Alternative S1 – Construct On-Site Sanitary Sewer Treatment System

This alternative would replace the existing drain field treatment and provide additional gravity sewer infrastructure and possible lift station to an advanced treatment Level 2 septic system. The infrastructure for the existing force main and drain field would be abandoned in place as allowable per Montana Department of Environmental Quality (DEQ) and Gallatin County Health Department (GCCHD). The new proposed system would include an upsized septic tank, dose tank with pump, gravelless chambers, distribution valves/piping and electrical system(s). The proposed location for such a system would be near the proposed lift station and USFS Jump Base as reflected in **Figure 3-5**. The system would be proposed to the north of the existing access road and

hangar area. As a Level 2 drain field footprint is much larger than a typical septic system, siting such a system may limit future hangar area and apron development options. Such a system would take advantage of the existing gravity flow system to the greatest extent possible. With the siting location to the north of the existing terminal developed area, it puts the system in close proximity to the USFS Jump Base, from which the USFS can extend their own force main system to the Level 2 drain field if they chose to connect.

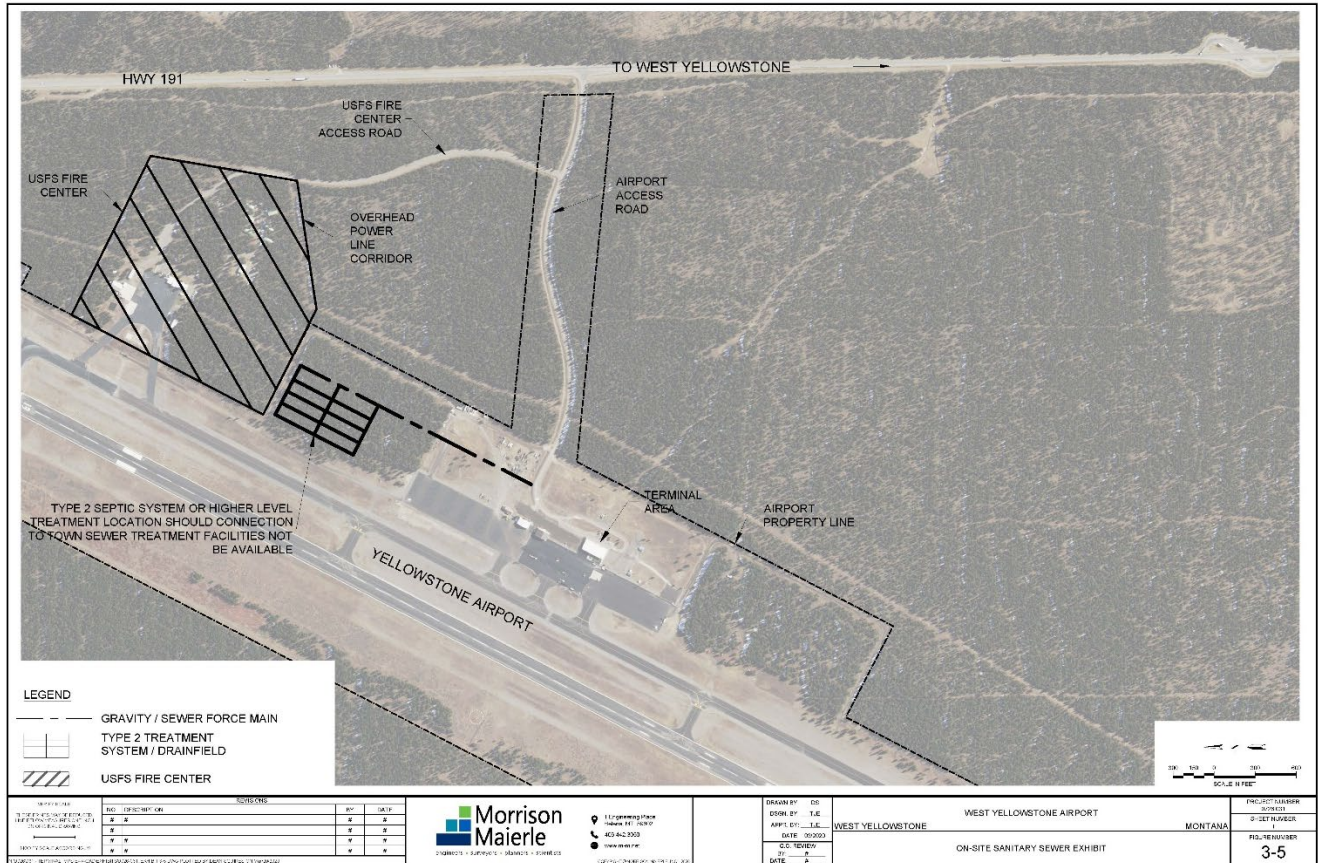


Figure 3-5: On-Site Sanitary Sewer Exhibit

A challenge with this type of system is providing a continual effluent supply to the drain field to maintain a microbial presence for treatment. With the terminal and USFS facilities being seasonal, connection of the Life Flight hangar (presently on a drain field) that maintains staff year-round would be critical to maintaining a functional Level 2 treatment system. Any Level 2 treatment system would be conditional on GCCHD and DEQ approval. Should a more advanced level of treatment be required, a lagoon or mechanical type system of treatment are potential solutions. Challenges that come with these options are that they cost more and would require additional environmental analysis before implementation.

This alternative is carried forward for further analysis in this EA and is discussed as Alternative S1 in **Section 3.3.4**.

3.1.3 Alternatives Considered for Yellowstone Airport Beacon and Tower

As will be discussed in **Chapter 4, Sections 4.5 and 4.8**, regarding Department of Transportation Act: Section 4(f) and Historical, Architectural, Archaeological, and Cultural Resources, the Yellowstone Airport Beacon and tower were found to be eligible for listing on the National Register of Historic Places (NRHP). Careful consideration was given to alternatives regarding the beacon and tower due to their potential as historic resources. While replacement of the existing Airport beacon with a new beacon and tower is included in the Proposed Action, the following alternatives were also considered for the existing beacon and tower.

3.1.3.1 *Alternative B1 – Continue Operational Use of the Beacon and Tower*

Under this alternative, the beacon and tower would remain in use at their current location or be located elsewhere if needed in order to accommodate siting of the new terminal and parking lots.

Section 2.2.9 discusses the need for replacement of the existing airport beacon with a new beacon and tower. The existing beacon was documented during the Airport's 2019 FAA Part 139 Certification Inspection to have a flash rate (minimum rotations per minute) that is slower than required by FAA standards. The existing beacon is operating as designed, but no longer meets standards for an FAA Part 139 Airport such as WYS.

The beacon and tower were also noted as a platform for bird perching in the 2015 *Wildlife Hazard Assessment* and has a history of being used by ravens for perching and nesting. This presents a wildlife hazard for the Airport, as bird attractants on the Airport could present opportunities for bird/aircraft collisions. The design of the current beacon and tower is such that airport staff have to climb the tower to clear the tower and keep birds from nesting, as well as perform any maintenance, which presents a safety issue for staff.

Maintenance of the historic-age beacon has also become very difficult. The WYS beacon was repaired in the spring of 2019 with replacement parts from a similar beacon salvaged from Columbus in 2018, as manufacturers are no longer making replacement parts.

3.1.3.2 *Alternative B2 – Discontinue Operation of the Existing Beacon and Tower, but Leave Intact on the Airport*

Under this alternative, a new beacon and tower would be provided, and the existing historic-age beacon and tower would no longer be utilized as an operational Airport beacon. The existing beacon and tower would either remain in place, or be relocated on the Airport, so that much of the historic integrity of the resource would be retained.

Although this alternative would solve the issue of the beacon flash rate and difficulty of finding replacement parts, the other issues of the beacon and tower constituting a wildlife hazard and safety hazard for staff to maintain would remain. Airport staff would still have to clear the tower to keep birds from nesting, and maintain at least the appearance of the tower and beacon.

3.2 Alternatives Eliminated from Consideration

The alternatives identified in the previous section were evaluated with respect to the purpose and need discussed in **Chapter 2** to provide an updated terminal facility as well as their ability to support overall needs of the Airport in the future. Alternatives that do not meet the purpose and need, were not feasible to implement, or would constrict the Airport’s ability to meet future demands, were eliminated from further evaluation and will not be carried forward for analysis in this EA.

Table 3-1 identifies the alternatives eliminated from consideration and the reasons for their exclusion.

Table 3-1: Alternatives Eliminated from Consideration

ALTERNATIVE	REASONS FOR ELIMINATION
<p>Alternatives that Utilize Existing Terminal at WYS:</p> <p>Alternative 1 – Rehabilitate Terminal Building in Place</p> <p>Alternative 2 – Construct New Terminal Building, Repurpose Existing Building</p>	<ul style="list-style-type: none"> • Difficulty of continued maintenance of the building (i.e. dilapidated roof, single pane windows, utilities, etc.). • Difficulties in coupling old building materials and techniques with modern methods and retrofitting new mechanical and electrical equipment to old HVAC systems. • The entire structure would be required to be upgraded to current building codes in order to pass the permitting process to include meeting building and fire codes, and ADA requirements. • Structural deficiencies have been identified with the existing terminal that would need to be addressed. A September, 2012 Critical Facility Seismic Evaluation & Hazard Reduction Project – Inventory Report (Seismic Inventory Report) completed by the Montana Department of Transportation Architecture & Engineering Division for their existing structures throughout Montana identified the following for the existing terminal at WYS: <ul style="list-style-type: none"> ○ The concrete masonry unit (CMU) walls on the west and east faces are weak in the out-of-plane and in-plane directions, as they only extend to mid-height and then change to 2x4 walls. ○ There is no code compliant sheathing on the 2x framed walls, and minimal connections throughout. ○ There are no internal walls in the east-west direction for the ~162’ length, leaving the entire north and south end walls to take the entire load. The lateral force resisting system and associated connections are inadequate. • Costs associated with overcoming the complexities of retrofitting an old facility would result in a reduced budget available for functional improvements.
<p>Issues Unique to Alternative 1 – Rehabilitate Terminal Building in Place</p>	<ul style="list-style-type: none"> • Existing terminal occupies approx. 11,730 SF, and terminal needs have been estimated at 29,107 SF. <ul style="list-style-type: none"> ○ Due to limitations of the existing footprint, adding on to the structure would be necessary in order to provide

	<p>adequate space to accommodate non-sterile and sterile areas and respective restroom facilities, as well as TSA, airline, rental car, concessionaire, baggage claim, airport staff office(s), mechanical systems, etc.</p> <ul style="list-style-type: none"> • Remodel or expansion of existing facilities requires installation of temporary facilities to separate construction areas from the general public. • As remodel requires working with and around the existing structure, design compromises inevitably need to be made which can limit the terminal's long-term functionality.
<p>Issues Unique to Alternative 2 – Construct New Terminal Building, Repurpose Existing Building</p>	<ul style="list-style-type: none"> • Leaving the existing terminal in place constricts operations for future terminal site elements, expansion potential, and flexibility for future GA development. • Structural modifications would be required for use if the existing terminal was repurposed for storage of aircraft or heavy equipment (due to presence of basement in the existing terminal).
<p>Alternative 3A – Construct New Terminal Building, Demolish Existing Building</p> <p>New Terminal Site Adjacent and North of Existing Terminal</p>	<ul style="list-style-type: none"> • This option would shift commercial aircraft circulation closer to existing general aviation areas to the north. <ul style="list-style-type: none"> ○ This is seen as a disadvantage as it is generally viewed as optimal to separate commercial and general aviation traffic areas as much as possible. • The ability to expand operations and maintenance facilities (ARFF and SRE) would be restricted. • The space remaining for large general aviation development would be at the south end of the apron (on the other side of the new terminal), which would break the continuity of uses and result in a “boxed in” terminal area with general aviation development to the north and south of the new terminal. <ul style="list-style-type: none"> ○ TSA conflicts with general aviation already occur and would be further exacerbated with a split operation. • There is potential for expansion for the terminal itself to the south <ul style="list-style-type: none"> ○ However, the presence of operations, maintenance and general aviation facilities would limit flexibility for expansion to the north.
<p>Alternative 3C – Construct New Terminal Building, Demolish Existing Building</p> <p>New Terminal Site at Far South End of Apron</p>	<ul style="list-style-type: none"> • The existing concrete commercial parking pad would require replacement due to the shifting of parking for commercial aircraft being moved significantly to the south to accommodate placement of the new terminal. • There is potential for expansion of the terminal itself to the north <ul style="list-style-type: none"> ○ However, any expansion to the south would be costly and require additional apron construction and relocation of automated gate facilities • While this alternative offers similar advantages as Alternative 3B (Proposed Action), the overall layout, flow of parking/vehicular/passenger movement, and potential for terminal expansion under Alternative 3B is more advantageous than placing the terminal at the far south end of the apron.

<p>Alternative B1 – Continue Operational Use of the Beacon and Tower</p>	<ul style="list-style-type: none"> • The existing beacon’s flash rate is slower than required for a Part 139 certificated airport. • Replacement parts for the historic-age beacon are increasingly hard to find, as they are no longer manufactured. • The beacon and tower have been noted as a platform for bird perching and nesting, which presents a wildlife hazard for the Airport. • Maintenance of the beacon and clearing the tower of bird nests presents a safety hazard for Airport staff who have to climb the tower for maintenance and clearing activities. • This alternative does not meet the need as described in Section 2.2.9 as it: <ul style="list-style-type: none"> ○ Does not provide a beacon with a flash rate that meets the requirements of a Part 139 Airport ○ Leaves a wildlife attractant on the Airport due to the tower providing a nesting platform for birds ○ Remains a safety hazard for Airport staff who have to climb the tower to maintain the beacon or clear the tower of bird nests.
<p>Alternative B2 – Discontinue Operation of the Existing Beacon and Tower, but Leave Intact on the Airport</p>	<ul style="list-style-type: none"> • The beacon and tower have been noted as a platform for bird perching and nesting, which presents a wildlife hazard for the Airport. • The Airport Sponsor would still have to maintain the appearance of the beacon and tower. • Maintenance of the beacon and tower and clearing the tower of bird nests presents a safety hazard for Airport staff who have to climb the tower for maintenance and clearing activities. • This alternative does not meet the need as described in Section 2.2.9 as it: <ul style="list-style-type: none"> ○ Leaves a wildlife attractant on the Airport due to the tower providing a nesting platform for birds ○ Remains a safety hazard for Airport staff who have to climb the tower for maintenance or to clear the tower of bird nests.

3.3 Alternatives Carried Forward for Analysis

The alternatives evaluated in detail as part of this EA are:

- **No Action Alternative**
- **Alternative 3B (Proposed Action) to include:**
 - **Construct New Terminal Building, Demolish Existing Building – New Terminal Sited Adjacent and South of Existing Terminal;**
 - **Extend Water, Sewer, Fiber Optic Infrastructure from Town of West Yellowstone;**
 - **Replace Existing Airport Beacon with New Tower and Beacon; and**
 - **Associated improvements as described in Section 1.3**

- **Alternative W1 – Construct On-Site Water Supply Infrastructure**
- **Alternative S1 – Construct On-Site Sanitary Sewer Treatment System**

As required by CEQ regulations, the No Action Alternative (as described below) has been carried forward for analysis as it provides a baseline for comparing the potential effects of other reasonable alternatives.

Alternative 3B is the Sponsor’s Proposed Action as it meets the stated purpose and need for airport improvements, has been deemed practicable to implement at WYS, provides the most efficient layout for aviation facilities and provides potential for flexibility and expansion, and was ranked the highest of the alternatives reviewed in the 2019 *TANR*. Alternative 3B, Proposed Action, as described below, includes: a new terminal building located adjacent and south of the existing terminal, an expanded concrete parking apron, access road improvements, new parking lot infrastructure, the extension of water, sanitary sewer, and fiber optic services from the town of West Yellowstone, timber clearing to facilitate subsurface utilities, and the replacement of the existing Airport beacon and tower with new beacon and tower.

Alternatives W1 and S1 from **Section 3.1.2** are also carried forward as alternatives for providing onsite water and sewer systems in the event that it is found that connecting to town services is not practicable. Issues with expanding services from the town could be due to technical, financial, or political reasons that could arise after the environmental effort is concluded and the project moves forward into detailed design and implementation.

3.3.1 No Action Alternative

This alternative involves the continued use of the existing facilities and infrastructure at WYS. No improvements would be made to the terminal or water/sewer/communications systems, and the airport beacon would not be replaced. The configuration and layout of WYS would remain unchanged from present conditions under this alternative, and no improvements or facilities would be added; only maintenance of existing facilities would be conducted to ensure continued operation of the Airport.

As configured, the terminal building does not conform to all current FAA design recommendations to support the current and anticipated volumes of the traveling public as discussed in **Section 2.2.1**. Integrating the current space to facilitate post-911 TSA security requirements has been challenging, and limits passenger amenities for what is available between the nonsterile and sterile sides of security (i.e. restrooms). Beyond the basic configuration and lack of flexibility to expand, the general construction of the building does not meet current codes (structural, electrical, etc.) or State of Montana High Performance Building Standards.

In addition to the terminal structure itself, the existing concrete commercial parking pad is offset from the existing terminal access for passengers, thereby complicating getting passengers deplaning commercial aircraft between the aircraft and terminal. Airline procedures in deplaning passengers (walking around wingtips and behind the aircraft) have resulted in the airline parking their aircraft on asphalt to the north of the existing pad.

Failure to provide improvements to water and sewer services would result in the continued issues as described in **Sections 2.2.5** and **2.2.6** (ie: low water pressure and capacity issues for septic drain fields).

Failure to provide improvements to communications systems (fiber optic) would result in continued issues as described in **Section 2.2.7** (ie: marginal coverage, low internet speeds, limited capacity for users).

Additionally, failure to replace the Airport beacon will result in continued issues as described in **Section 2.2.9**. These issues include bird safety concerns, access safety issues for staff, and the continued deficiency identified during the Airport's 2019 FAA Part 139 Certification Inspection, when it was noted that the beacon was found to have a flash rate (i.e. minimum rotations per minute) slower than is required by FAA AC 150/5340-26C, *Maintenance of Airport Visual Aid Facilities*.

While the No Action Alternative does not meet the purpose and need, CEQ regulations require the FAA to consider a 'no action' alternative (40 CFR § 1502.14(d)). The No Action Alternative serves to describe the current and future state of the affected environment without considering the potential impacts of the Proposed Action or project. **Figure 1-3** of this document shows the existing airport layout that represents the No Action Alternative.

3.3.2 Alternative 3B (Proposed Action) – Construct New Terminal Building, Demolish Existing Building - New Terminal Sited Adjacent and South of Existing Terminal, Extend Water, Sewer, Fiber Optic Infrastructure from Town of West Yellowstone, Replace Existing Airport Beacon with New Tower and Beacon, and Associated Improvements

The Alternative 3B (Proposed Action) is described in **Section 1.3** and shown on **Figures 1-4** and **1-5**. The Proposed Action meets the stated purpose and need for airport improvements, has been deemed practicable to implement at WYS, and was ranked the highest of the alternatives reviewed in the 2019 *TANR*.

3.3.3 Alternative W1 - Construct On-Site Water Supply

Alternative W1 is described in **Section 3.1.2.1** and shown on **Figure 3-4**. This alternative supports the stated purpose and need for airport improvements, has been deemed practicable to implement at WYS, and is proposed in the event that the Proposed Action option for connection to town water infrastructure is not deemed feasible at a future date.

3.3.4 Alternative S1 - Construct On-Site Sanitary Sewer Treatment System

Alternative S1 is described in **Section 3.1.2.2** and shown on **Figure 3-5**. This alternative supports the stated purpose and need for airport improvements, has been deemed practicable to implement at WYS, and is proposed in the event that the Proposed Action option for connection to town sanitary sewer infrastructure is not deemed feasible at a future date.

Chapter 4 – AFFECTED ENVIRONMENT, ENVIRONMENTAL CONSEQUENCES, AND MITIGATION

This chapter evaluates potential impacts related to the alternatives discussed in **Section 3.3** on each of the Environmental Impact Categories (EIC) defined by FAA Order 1050.1F *Environmental Impacts: Policies and Procedures*. The evaluation of each EIC includes: (1) the Affected Environment, which describes the existing natural, ecological, cultural, social, and economic conditions that could be impacted by the Proposed Action; (2) the Environmental Consequences, which evaluates the human and environmental consequences of the No Action Alternative, Proposed Action, and Alternatives W1 and S1 for each environmental resource; and (3) Mitigation Measures related to anticipated impacts.

Baseline data used to determine the affected environment was collected by reviewing existing documentation and databases, consulting with various individuals and agencies, and conducting field investigations.

For environmental consequences, the No Action Alternative is evaluated alongside of the Proposed Action and Alternatives W1 and S1. When compared with development alternatives, the No Action Alternative serves as a reference point or baseline.

Thresholds of significance are established within Exhibit 4-1 *Significance Determination for FAA Actions* of FAA Order 1050.1F for a number of the categories to aid in the analysis. The analysis of the impacts linked to alternatives associated with development (Proposed Action and Alternatives W1 and S1) is a comparison of the impacts one would encounter with the No Action Alternative.

4.1 Air Quality

The Clean Air Act (CAA) requires the US Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) (40 CFR Part 50) for pollutants considered harmful to public health and the environment.

The CAA allows state agencies to adopt and enforce more protective air pollution regulations than the EPA; however, states are not allowed to have weaker air pollution regulations than those established by the EPA. Montana has adopted air quality standards, known as the Montana Ambient Air Quality Standards (MAAQS), similar to the NAAQS for the criteria pollutants. The MAAQS establish statewide targets for acceptable amounts of ambient air pollutants to protect human health.

The General Conformity Rule of the federal CAA prohibits federal agencies (including the FAA) from permitting or funding projects that do not conform to an applicable State Implementation Plan (SIP). If the emissions exceed the thresholds, a formal Conformity Determination is required to demonstrate that the action conforms to the applicable SIP. Under the General Conformity Rule, project-related emissions of the applicable nonattainment / maintenance pollutants are compared to de minimis (too minor to merit consideration) level thresholds.

The FAA 1050.1F Environmental Desk Reference, Chapter 1.3.5, notes "...the General Conformity Rule is only considered when a federal action is proposed to occur in an EPA-

designated nonattainment or maintenance area;” thus, in ‘attainment’ areas that meet air quality standards, the General Conformity Rule does not apply.

4.1.1 Affected Environment

Neither West Yellowstone nor Gallatin County contains an EPA-regulated non-attainment area or a maintenance plan for criteria air pollutants per the EPA Green Book reports. Thus, Gallatin County is in attainment for NAAQS. The closest classified area is Silver Bow County (Butte), Montana, approximately 110 miles to the northwest, with a PM-10 particulates area identified as moderate. Other classified areas include: 1) Lewis and Clark County (East Helena), Montana approximately 135 miles to the north for SO₂ and Pb nonattainment, and 2) Fort Hall nonattainment area and the Portneuf Valley maintenance area for PM-10 near Pocatello, Idaho, approximately 130 miles to the southwest.

Montana Department of Environmental Quality (MDEQ) conducts air measurements at 22 locations within the state. No air quality monitoring occurs in Gallatin County. Like many areas in the western United States, air quality and visibility can be affected by smoke from wood burning in winter months and regional wildfire activities (PM-2.5 emissions).

4.1.2 Environmental Consequences

FAA Order 1050.1F and the FAA’s Aviation Emissions and Air Quality Handbook – Version 3 Update 1 (Air Quality Handbook) issued in January 2015 provide guidance for determining when aviation-related projects or actions require an air quality assessment and what level of analysis may be necessary. The guidance and procedures in the Air Quality Handbook also help ensure that air quality assessments meet the requirements of NEPA, the CAA, and other relevant laws and regulations.

Given that Gallatin County (and the entire project area) is in attainment for all criteria pollutants, the General Conformity Rule does not apply. The Proposed Action and Alternatives W1 and S1 will not result in any operational changes at the Airport; therefore, there is no increase in aircraft emissions associated with the project. While vehicular traffic is anticipated to increase, that growth is intrinsic to the forecast growth in passengers and not based solely on whether or not a new terminal building and other ancillary improvements are present. Air pollutant emissions associated with commercial aircraft, ground service equipment (GSE), and passenger surface traffic are not anticipated to change by any noticeable amount. With the shift of the terminal to the south, the access road length increases slightly and aircraft positioning on the apron may change by approximately 100’. While this added distance of travel may result in a minor increase in emissions from vehicles and the commercial aircraft, emissions of GSE are anticipated to decrease as a result of no longer needing to provide curbside pickup, as the Airport currently has no other baggage handling facilities.

The consideration of potential air quality effects is limited to the possibility that construction emissions could exceed the NAAQS for a criteria pollutant. The methodology for determining air quality impacts is limited to construction-related emissions associated with the Proposed Action and Alternatives W1 and S1. However, the extent of construction related to Alternatives W1 and S1 is less in scale than the construction related to extending the services from West Yellowstone; and therefore, only the emissions from the Proposed Action were evaluated and presented below.

Construction emissions are quantified using the ACRP Report 102 *Guidance for Estimating Airport Construction Emissions* and the electronic Airport Construction Emissions Inventory Tool (ACEIT), which relies on emission factors from the U.S. Environmental Protection Agency (USEPA) Motor Vehicle Emission Simulator (MOVES) model. Construction equipment mix and use was estimated. These estimates included material delivery, site preparation, and related construction of improvements. The main source of lead (Pb) emissions in construction projects would be operation of construction vehicles using leaded gasoline. Because leaded gasoline is no longer used, and diesel fuel (majority of anticipated construction equipment to be fueled by diesel) does not contain Pb, there are no Pb emissions anticipated from this project; and therefore, Pb emissions were not included in this analysis.

Table 4-1 shows the temporary construction-related emissions from the Proposed Action (see **Appendix D** for the detailed output). Mitigation for air quality is required if the project exceeds the NAAQS for a criteria pollutant.

Table 4-1: Construction Emissions Inventory (Short Tons)

	CO	NOx	SO ₂	PM ₁₀	PM _{2.5}	VOC
Total Construction Emissions	6.31	2.86	0.03	0.71	0.14	13.83

The potential construction-related emissions from the Proposed Action are temporary and would not result in a violation of the NAAQS or MAAQS.

The potential construction-related emissions from Alternatives W1 and S1 are also temporary and would not result in a violation of the NAAQS or MAAQS as the extent of construction for these alternatives is less in scale than the construction related to extending the services from West Yellowstone as with the Proposed Action.

4.1.3 Conclusion

As the non-development alternative, the No Action Alternative will have **no effect** on air quality, as no changes will occur in the project area.

Neither the Proposed Action or Alternatives W1 and S1 will result in any operational changes at the Airport. Since the project is in attainment, the General Conformity Rule does not apply. Temporary air quality impacts for the six criteria air pollutants (NAAQS and MAAQS) during construction will be short-term and of local impact. Emissions reduction strategies will be employed to minimize these air quality impacts as appropriate. Therefore, no significant, adverse, nor long term impacts to air quality are anticipated that could lead to a violation of the NAAQS or MAAQS. As a result, the Proposed Action and Alternatives W1 and S1 will have **no significant effect** on air quality.

4.1.4 Mitigation

No specific mitigation is required, as neither the Proposed Action nor Alternatives W1 and S1 would result in an exceedance of the NAAQS or MAAQS.

During construction activities, emissions reduction can be achieved by implementing Best Management Practices (BMPs) and by incorporating the provisions of FAA AC 150/5370-10 (most

current edition) *Standards for Specifying Construction of Airports*. These measures may include, but are not limited to, the following:

- Limit unnecessary equipment idling times.
- Include temporary erosion control measures (i.e. watering for dust mitigation) to minimize the impacts to air quality during construction within the specifications.
- Project specifications will also include requirements to meet permitting requirements for asphalt plant and crushing operations, as well as State and Federal air quality requirements.

4.2 Biological Resources

To satisfy the Endangered Species Act (ESA), the FAA must determine whether the Proposed Action and Alternatives W1 and S1 would affect a federally-listed species or habitat critical to that species. Federally-listed species include those that have been designated as threatened, endangered, or candidate species by the U.S. Fish and Wildlife Service (USFWS). Designated critical habitat is an area formally designated by the USFWS as having physical and biological features essential to the survival of listed species. The FAA must also assess impacts of the Proposed Action and Alternatives W1 and S1 on Montana State-listed endangered, threatened, and State-sensitive species.

Information about fish, wildlife, and plants occurring on and adjacent to the Airport was obtained through publicly available data sources, a field survey in September 2019, literature searches, and by coordinating with agencies such as the U.S. Fish and Wildlife Service (USFWS), Montana Fish Wildlife and Parks (MFWP), U.S. Forest Service (USFS), and the Montana Natural Heritage Program (MNHP).

4.2.1 Affected Environment

4.2.1.1 General Fisheries

There are no open surface waters on the Airport or in the immediate vicinity of the Proposed Action and Alternatives W1 and S1, aside from the town of West Yellowstone sewer lagoons. Therefore, fisheries or aquatic habitat do not exist within the project area. The Madison River occurs to the north and east of the project area, with the closest proximity to Proposed Action and Alternative W1 and S1 improvements being approximately 0.6 miles.

4.2.1.2 General Wildlife and Plant Resources

The proximity of the Airport to the surrounding Custer Gallatin National Forest and Yellowstone National Park provides suitable habitat for a variety of terrestrial species. Yellowstone National Park is widely considered to be the finest megafauna wildlife habitat in the lower 48 states. There are approximately 60 species of mammals, 18 species of fish, and 311 species of birds documented in the greater Yellowstone ecosystem.

A 9-foot tall animal control fence, installed in 2007, encompasses the vast majority of the Airport property. The high-tensile fence restricts entry to larger wildlife (deer, elk, moose, bear, and bison) in order to reduce hazards to aircraft. Birds and smaller wildlife, including fox and skunk are not restricted by the animal control fence. A Wildlife Hazard

Assessment (WHA) was completed in January 2014 for the Airport and identified several dens of foxes in the airside habitat, in addition to bird sightings.

The project area is located within the Environmental Protection Agency (EPA) Level IV ecoregion 17j, Yellowstone Plateau (Woods et al. 2002). Ecoregions are geological areas that share similarities in the type, quality, and quantity of environmental resources. Vegetation within the Yellowstone Plateau ecoregion encompassing the project area primarily consist of lodgepole pine forests.

Noxious weeds cause the loss of wildlife habitat, displace native plant species, reduce forage production for livestock and crop production, and are regulated by the State of Montana. The Montana County Noxious Weed Control Law (MCA 7-2101 through 2153) defines noxious weeds as being any exotic plant species that may render land unfit for agricultural use, forestry, livestock, wildlife, or other beneficial uses. According to the Montana Noxious Weed List (February 2017), there are 35 state-listed noxious weeds and 5 additional regulated plant species. These species have been assigned priorities (1A, 1B, 2A, 2B, and 3) based on the number of acres infested and current management criteria.

During the on-site investigation conducted by Morrison Maierle in September 2019, the following noxious weeds were observed on the Airport and Custer Gallatin National Forest: spotted knapweed (*Centaurea stoebe*) and hoary alyssum (*Berteroa incana*). It was also noted that the Airport property was being treated for noxious weeds while the investigator was on-site.

According to the Montana Fish, Wildlife and Parks Crucial Areas Planning System (CAPS) website, the majority of the Airport property is classified as Class 4 (lowest) for species richness. The area adjacent to the project area is classified as Class 1 (highest) for species richness due to the proximity of the Madison River.

4.2.1.3 Migratory Birds and Eagles

Migratory Birds

Migratory birds have the potential to occur within the general project area.

Eagles

Eagles have the potential to occur within the general project area.

4.2.1.4 Threatened, Endangered, Proposed, and Candidate Species

A review of the USFWS' Montana Ecological Field Office website was conducted in October 2019 to initially identify federally-protected species and critical habitat in Gallatin County. This review depicted the following species occur within Gallatin County according to the agency's October 23, 2018 *Endangered, Threatened, Proposed and Candidate Species for Montana Counties* list. Additionally, the July 29, 2019 List of Threatened, Endangered, Proposed, and Candidate Species currently lists the following species as potentially occurring in Yellowstone National Park (USFWS 2018).

Table 4-2-1. USFWS Listed Species for Gallatin County and Yellowstone National Park

Common Name	Scientific Name	Status	Gallatin County	Yellowstone National Park
Canada Lynx	<i>Lynx canadensis</i>	Threatened	X	X
Canada Lynx	<i>Lynx canadensis</i>	Critical Habitat	X	X
Grizzly Bear	<i>Ursus arctos horribilis</i>	Threatened	X	X
Ute Ladies' tresses	<i>Spiranthes diluvialis</i>	Threatened	X	
Wolverine*	<i>Gulo gulo luscus</i>	Proposed threatened	X	X
Whitebark Pine**	<i>Pinus albicaulis</i>	Candidate for listing	X	X

*During the development of the EA, the proposal to list the wolverine as threatened has been dropped. The wolverine is now listed as a Sensitive species in Region 1 of the USFS.

**During the development of the EA, the status of whitebark pine changed to *proposed for listing as a threatened species* as of December 2, 2020.

Data received from the MNHP stated that grizzly bears and whitebark pine were known to occur within a 1-mile radius of the project area. There is no critical habitat located within the Airport property. These data are located in **Appendix E**. A Biological Assessment (BA) was prepared by Morrison-Maierle for all of the federally-listed species within the proposed project area. This documented is located in **Appendix F**.

4.2.1.5 Montana Species of Concern and USFS Regional Forester Sensitive Species/Management Indicator Species

Species of concern are native Montana animals or plants that are considered to be “at risk” due to declining population trends, threats to their habitat, and/or restricted distribution. Species of concern also include those for which current, often limited, information suggests potential vulnerability and other “special status” species which have some legal protections in place but are not recognized as species of concern in the state. Designation of a species as a Montana Species of Concern is not a statutory or regulatory classification. Additionally, the Forest Service maintains a Regional Forester Sensitive Species List (**Table 4-2-2**) and provided a Biological Evaluation (BE) Wildlife Resource Report for species that could potentially occur in the project area. The BE document is located in **Appendix F** of this report.

The MNHP was contacted in October 2019 to conduct a file search for occurrences of species of concern on the sections of land containing the Airport property and a one-mile buffer on all sides. MNHP’s database search of this area identified occurrences of 15 species – Westslope Cutthroat trout (*Oncorhynchus clarkia lewisi*), Western toad (*Anaxyrus boreas*), Slender Indian Paintbrush (*Castilleja gracillima*), grizzly bear (*Ursus arctos*), wolverine (*Gulo gulo*), Clark’s nutcracker (*Nucifraga columbiana*), black-backed woodpecker (*Picoides arcticus*), little brown myotis (*Myotis lucifungus*), hoary bat (*Lasiurus cinereus*), whitebark pine (*Pinus albicaulis*), bison (*Bos bison*), many-flowered viguiera (*Viguiera multiflora*), Western pearlshell (*Margaritifera falcata*), dwarf purple monkeyflower (*Mimulus nanus*), and Suksdorf monkeyflower (*Mimulus suksdorfii*).

While these species exist in the area, the occurrence map provided by MNHP does not show any occurrences of these species on the Yellowstone Airport. There is one historic occurrence of *Viguiera multiflora* documented in Section 27 of the project area. This is the only species noted to occur within the same section as the project limits. It was not noted during the field investigation, and the exact location of the historical observance is not known. Additionally, the USFS has no record of this plant occurring within the project area.

Table 4-2-2. Species Analyzed in the Forest Service Biological Evaluation Wildlife Resource Report

Sensitive Species List Forest Service Region 1, February 2011	Sensitive Species (SS) or Management Indicator Species (MIS)
American peregrine falcon (<i>Falco peregrinus anatum</i>)	SS
Bald eagle (<i>Haliaeetus leucocephalus</i>)	SS and MIS
Black-backed woodpecker (<i>Picoides arcticus</i>)	SS
Flammulated owl (<i>Otus flammeolus</i>)	SS
Harlequin duck (<i>Histrionicus histrionicus</i>)	SS
Trumpeter swan (<i>Cygnus buccinator</i>)	SS
Bighorn sheep (<i>Ovis canadensis</i>)	SS
Gray wolf (<i>Canis lupus</i>)	SS
North American wolverine (<i>Gulo gulo luscus</i>)	SS
Townsend's big-eared bat (<i>Corynorhinus townsendii</i>)	SS
Grizzly Bear (<i>Ursus arctos horribilis</i>)	MIS (analyzed as a T&E species in this document)
Elk (<i>Cervus Canadensis</i>)	MIS
Wild Trout/Coldwater fisheries (<i>Salmo spp</i>)	MIS (no coldwater fisheries exist within the project area)
Goshawk (<i>Accipiter gentilis</i>)	MIS
Marten (<i>Martes Americana</i>)	MIS

Suzanne DiGiacomo, plant biologist with the USFS, stated that there are no known sensitive plants within the project area (Personal communication, September 2020).

4.2.2 Environmental Consequences

This section addresses the potential impacts of the Proposed Action and Alternatives W1 and S1 implementation to fish, wildlife, and plant resources, including federally-listed species and State of Montana sensitive species. According to FAA Order 1050.1F, a proposed action would have

significant impacts on fish, wildlife, or plant resources when the USFWS or 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. Adverse effects may include long term or permanent loss of unlisted plant and wildlife species; impacts to special status species or their habitats; a substantial loss, reduction degradation, disturbance, or fragmentation of native species' habitats or populations; or adverse impacts on species' reproductive success rates, natural mortality rates, non-natural mortality, or ability to sustain the minimum population levels required for maintenance.

The project area as it pertains to Biological Resources includes all areas to be affected directly (i.e. habitat impacts within the acquisition area) and indirectly (i.e. lighting, noise, changes to water quality) by the Proposed Action and Alternatives W1 and S1.

4.2.2.1 General Fisheries

There are no open surface waters on the Airport or in the immediate vicinity of the Proposed Action and Alternatives W1 and S1, aside from the West Yellowstone sewer lagoons. Fisheries and aquatic habitats do not exist within the project area.

4.2.2.2 General Wildlife and Plant Resources

General Vegetation

Permanent impacts to vegetation are anticipated to occur through the development of additional infrastructure on the Airport property. Additionally, it is estimated that approximately 10 acres of trees will need to be cleared for the Proposed Action installation of water and fiber optic lines along existing corridors between West Yellowstone and the Airport, and temporary clearings that will be required for areas bordering the Madison Addition near the West Yellowstone. Below is the estimated acreage of timber clearing that will take place outside of the animal control fence, broken out by corridor:

- Temporary (new) clearings bordering the Madison Addition – 4.13 acres
- Open motorized route on the Custer Gallatin National Forest – 1.18 acres
- Airport Access Road – 0.63 acres
- Overhead Power Line – 0.26 acres
- Jump Base Access Road – 0.47 acres

Timber clearing along the Madison Addition is anticipated to require the removal of up to a 30' width of timber at the USFS / private property interface (on property administered by the USFS) along the west and north sides of the Madison Addition, as well as the from the existing open motorized route on the Custer Gallatin National Forest to the intersection of Bechler Avenue in order to facilitate the installation of subsurface utilities (i.e. water main and fiber optic). In areas where infrastructure can be installed and reasonably allow timber to remain within the 30' clearing limits, then such timber will be allowed to remain. Such determinations will be dependent on water main and fiber optic locations in regards to timber location, timber density, and timber presence along the edges of the 30' clearing. Along all other areas, it is anticipated that up to an additional 10' perpendicular from existing corridors (open motorized route on the Custer Gallatin National Forest, airport access road, overhead power line, and Jump Base access road) will require timber removal in order to facilitate subsurface utility installation.

Since Alternatives W1 and S1 will be completed on Airport property, the extent of tree clearing is less (approximately 15% as compared extension of utilities from West Yellowstone) to facilitate installation of on-site infrastructure. Below is the estimated acreage of timber clearing that will take place within the confines of the Airport property and animal control fence:

- Water tank / well to south of terminal – 1.0 acres (approximate 200'x200' behind a timbered buffer from the airfield and terminal area).
- Sewer Level 2 septic system with drain field – 4.13 acres (approximate 300'x600' for drain field and infrastructure behind a timbered buffer from the airfield).

General Wildlife

A request for comment letter was sent to Montana Fish, Wildlife and Parks regarding the impact of proposed project activities on local wildlife species. No written response was received. A follow up phone call to Montana Fish, Wildlife and Parks was completed on March 4th, 2021. Email correspondence reflecting the synopsis of the contact and that Montana Fish, Wildlife, and Parks has no comment on the proposed project is provided in **Appendix K**. Small mammal species may be permanently or temporarily displaced from their burrows. Sufficient suitable habitat is available in the immediate vicinity to provide refuge for displaced species. Property within the airport fence, near the existing terminal, and between the Airport property and the highway has been highly altered, accommodates regular and frequent vehicle and air-traffic, and does not represent high-quality general wildlife habitat. Additionally, temporary project impacts will occur near a developed subdivision and an open motorized route on the Custer Gallatin National Forest that frequently sees human foot-traffic and vehicle use. The Proposed Action and Alternatives W1 and S1 are not anticipated to contribute to a trend towards federal listing or loss of viability for general wildlife or plant species. There would be negligible effects associated with water, sewer and fiber optic line improvements because installation disturbance would be short term and very limited in extent. Impacts from operation and maintenance of water, sewer and fiber optic facilities would also be negligible due to the fact the lines would be largely underground and require very limited maintenance. Other improvements are proposed to be largely a replacement of existing facilities (terminal building, beacon, parking lot, access road, etc.). The loss of habitat is insignificant when compared to available habitat in the surrounding Custer Gallatin National Forest and Yellowstone National Park.

4.2.2.3 Migratory Birds and Eagles

It will be necessary to remove some trees as a part of proposed project activities. All trees will be removed between September 15 and April 15 to avoid impacting active bird nests. The Proposed Action and Alternatives W1 and S1 may impact but will not likely contribute to a trend towards federal listing or loss of viability of migratory birds or eagles. The loss of habitat is insignificant when compared to available habitat in the surrounding Custer Gallatin National Forest and Yellowstone National Park.

4.2.2.4 Threatened, Endangered, Proposed, and Candidate Species

A Biological Assessment (BA) was prepared by Morrison-Maierle for all of the federally-listed species within the proposed project area and was submitted to the USFWS on July 20, 2020, along with a letter from the FAA to initiate informal consultation under Section 7 of the ESA and make determinations regarding the effects of the Proposed Action and

Alternatives W1 and S1 on federally listed species. The USFWS concurred with the findings of the BA and the determinations made by the FAA on July 31, 2020. The BA provided a thorough analysis of federally-listed species and is provided along with the correspondence between the FAA and the USFWS in **Appendix F**.

Following is a summary table of the findings that were documented in the BA and used in the FAA's determination and USFWS concurrence. The detailed rationale for determination for each species is located in the BA (located in **Appendix F**).

Table 4-2-3: Summary of Biological Assessment / Biological Opinion Findings

Species	Result of Analysis
Canada lynx	May affect but is not likely to adversely affect
Canada lynx Critical Habitat	No Effect
Grizzly Bear	May affect but is unlikely to adversely affect
Ute ladies' tresses	No Effect
Wolverine	Not likely to jeopardize the continued existence of
Whitebark pine	Not likely to jeopardize the continued existence of

4.2.2.5 Montana Species of Concern and USFS Regional Forester Sensitive Species

A request for comment letter was sent to Montana Fish, Wildlife and Parks regarding the impact of proposed project activities on local wildlife species. As noted under **Section 2.2.2**, no written response was received. A follow up phone call to Montana Fish, Wildlife and Parks was completed on March 4th, 2021. Email correspondence reflecting the synopsis of the contact and that Montana Fish, Wildlife, and Parks has no comment on the proposed project is provided in **Appendix K**. The USFS provided the Regional Forester Sensitive Species list and a Biological Evaluation (BE) of the potential impacts to the listed species. A summary of determinations by alternative for USFS Region 1 Terrestrial Sensitive Species is provided in the table below. The rationale for these USFS determinations are provided in the BE document located in **Appendix F**.

Table 4-2-4: Determination of effect for USFS Region 1 Terrestrial Sensitive Species

Species	Determination of Effect
American peregrine falcon	NI
Bald eagle	MIIH
Bighorn sheep	NI
Black-backed woodpecker	MIIH
Flammulated owl	NI
Gray wolf	MIIH
Harlequin duck	NI
Trumpeter swan	NI
Townsend's big-eared bat	NI
Wolverine*	MIIH

NI = No Impact; MIIH = May Impact Individuals or Habitat but Will Not Likely Contribute to a Trend Toward Federal Listing or Cause a Loss of Viability to the Population or Species.

*During the preparation of the EA, the wolverine has now become a USFS Region 1 Terrestrial Sensitive Species

Table 4-2-5: Determination of Effect for USFS Management Indicator Species

Species	Determination of Effect
Grizzly Bear	Analyzed in the T&E section
Bald Eagle	Analyzed above
Elk	No effect in the planning unit and no significant effect on the species
Wild Trout	No fisheries exist within the project area
Goshawk	No significant impact
Marten	The project would not affect marten at the planning unity scale and the project would not have a significant impact on this species.

These determinations were made because there would be negligible effects associated with water and fiber optic line because installation disturbance would be short term and very limited in extent. Impacts from operation and maintenance of those facilities would also be negligible due to the fact the lines would be underground and require limited maintenance.

Property within the airport fence, near the existing terminal, and between the Airport property and the highway has been highly altered, accommodates regular and frequent vehicle and air-traffic, and does not represent high-quality wildlife habitat. The Proposed Action and Alternatives W1 and S1 may impact but will not likely contribute to a trend towards federal listing or loss of viability for Montana Species of Concern. The loss of habitat is insignificant when compared to available habitat in the surrounding Custer Gallatin National Forest and Yellowstone National Park.

4.2.3 Conclusion

The No Action Alternative is a non-development alternative, and therefore, will have **no effect** on threatened and endangered species, State sensitive species, general wildlife and vegetation, or migratory birds. The project area (specifically the beacon tower) will continue to provide habitat for many species, including undesirable bird species that increase the risk of aircraft-bird strikes.

The majority of the projects defined in the Proposed Action and Alternatives W1 and S1 are being constructed in areas of previous human use and disturbance. Impacts to Threatened, Endangered, Proposed, and Candidate species have been thoroughly analyzed in the above referenced Biological Assessment. The USFWS concurred with the Biological Assessment and the FAA's determination that the proposed project may affect, not likely to adversely affect the threatened grizzly bear and Canada lynx. They also concurred with the FAA's determination that the proposed action will have no effect on the threatened Ute ladies' tresses and Canada lynx critical habitat. Lastly, they acknowledged the FAA's determination that the Proposed Action is not likely to jeopardize the continued existence of the proposed wolverine and candidate whitebark pine (USFWS letter dated July 31, 2020 in **Appendix K**). Therefore, the Proposed Action and Alternatives W1 and S1 will have **no significant effect** on biological resources.

4.2.4 Mitigation

The following measures were included in the analysis in the BA and are recommended to avoid or minimize effects on migratory birds and grizzly bears.

Vegetation

All temporarily disturbed areas will be seeded with a site-approved weed-free seed mix. Reseeding will provide protection against noxious weed infestations and provide soil stability.

Migratory Birds

The following measures are recommended to avoid or minimize effects on the special status and migratory birds.

- Prior to nesting season (April 15 to September 15), remove all suitable nesting habitat from the project area/construction footprint. Management activity should include vegetation removal to minimize nesting habitat including mowing, grubbing, tree, and shrub removal. Habitat removal should be conducted during non-breeding season (October 1 through April 1) if practicable.
- If construction must occur during nesting season, minimize vegetation removal to the maximum extent possible. Conduct nesting season preconstruction nest surveys 7 days before disturbance of vegetation removal to identify and protect any nesting birds that may be affected by project activities.

Grizzly Bears, Canada Lynx, and Wolverine

A number of conservation measures have been developed regionally in order to reduce potential conflicts with grizzly bears. While no specific conservation measures have been identified for the Canada lynx or the wolverine, it is thought that the grizzly bear conservation measures will also play a role in mitigating potential impacts to the Canada lynx and the wolverine. These conservation measures include the Custer Gallatin National Forest (CGNF) Food Storage Order (located in **Appendix A of the Biological Assessment**), Montana Department of Transportation (MDT) Conservation Measures for Work in Grizzly Bear Habitat special provision (located in **Appendix A of the Biological Assessment**), and the town of West Yellowstone Grizzly Bear ordinances (located in **Appendix A of the Biological Assessment**). The list below is a summary of those provisions, orders, and ordinances:

The CGNF Food Storage Order (01-14-11-00-02) will be followed for all activities on the Custer Gallatin National Forest. The following measures will be implemented to meet the intent of the food storage order:

- Keep all areas in a neat condition; promptly clean up any project related spills, litter, garbage, etc.
- Keep all food and food-related items inside of a closed, hard-sided vehicle or special bear resistant container except when preparing or eating food.
- Store petroleum products, antifreeze, and personal items such as deodorants, toothpaste, soap and lotions in the same manner as food, as these products may attract bears.
- Deposit garbage and waste items in grizzly bear-resistant containers. Remove the accumulated garbage and waste from the project site daily and dispose of in accordance with all Tribal, Federal, State and local laws, regulations, and ordinances.

Additional conservation measures will include:

- No overnight camping is allowed within the project vicinity, except in designated campgrounds, by any crew member or other personnel associated with this project.
- Perform construction activities during daylight hours only, typically between 6:00 am and 9:00 pm.
- Personal firearms are prohibited on the project site. The use of bear spray as necessary to deter bears is allowed.
- Notify the Project Manager of any animal carcasses found in the project area.
- Notify the Project Manager of any grizzly bears observed in the vicinity of the project.
- Notify the appropriate agency (FWP or USFS) for guidance related to carcasses or bears observed in the project area.

Conservation measures associated with reclamation and facility operation post-construction include:

- All disturbed ground will be re-seeded with an airport/USFS approved local weed-free seed-mix.
- All soil and seed will be from a certified weed-free source.
- All garbage storage on the Airport property will be maintained in bear-resistant trash containers.

Clearing of timber for the installation of the utility lines will take place to the west, north, and east of the Madison Addition Subdivision in the town of West Yellowstone. These clearings are depicted on **Figure 3 of the Biological Assessment**. Any new clearings created by the installation of utility lines will be properly signed and/or barricaded to prevent the public from using them as motorized recreation or transportation routes. Barricades are proposed to be a series of boulders and/or USFS and town of West Yellowstone approved gates. Barricades will prevent access to the public but will allow for periodic maintenance activities for the utility lines. The location of the proposed barricades are depicted on **Figure 3 of the Biological Assessment (Appendix F)**.

4.3 Climate

4.3.1 Affected Environment

Research has shown there is a direct correlation between fuel combustion and greenhouse gas (GHG) emissions. GHGs are gases that trap heat in the atmosphere and are primarily a result of burning fossil fuels, such as carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), and perfluorocarbons (PFCs). Climate change due to GHG emissions is a global phenomenon, so the affected environment is the global climate.

FAA Order 1050.1F states that GHGs and climate change should be considered and evaluated as an impact category in FAA environmental documents, including both Environmental Assessments and Environmental Impact Statements.

4.3.2 Environmental Consequences

Although there are no federal standards for aviation-related GHG emissions, it is well-established that GHG emissions can affect climate. The CEQ has indicated that climate should be considered in NEPA analyses. As noted by the CEQ, however, “it is not currently useful for the NEPA analysis to attempt to link specific climatological changes, or the environmental impacts thereof, to the particular project or emissions, as such direct linkage is difficult to isolate and to understand”. Under the No Action Alternative, there would not be impacts associated with GHG emissions or climate. The main source of emissions related to the Proposed Action, as well as Alternatives W1 and S1, would be combustion connected with construction equipment and vehicles. No significant or sustained increase in construction or vehicular traffic is anticipated as a result of the Proposed Action, nor with Alternatives W1 and S1, and the associated construction and vehicular emissions, and therefore are expected to be negligible. Emissions resulting from the Proposed Action, or with Alternatives W1 and S1, would be temporary and not result in the significant or sustained increase of emissions of CO₂. The Proposed Action, and Alternatives W1 and S1, would not include actions that will likely cause or create a reasonably foreseeable increase in CO₂ emissions or have a reasonably foreseeable impact on the local, regional, or global climate.

4.3.3 Conclusion

As the no-development alternative, the No Action Alternative will result in no additional GHG emissions beyond normal projected growth. Therefore, the No Action Alternative will have **no effect** on climate.

The Proposed Action and Alternatives W1 and S1 will not cause or create an increase in aircraft operations at the Airport, although due to construction operations, will result in a temporary increase in GHG emissions during construction activity. The Proposed Action and Alternatives W1 and S1 will have **no significant effect** on climate.

4.3.4 Mitigation

No mitigation is required or proposed because the project-related increase in GHG emissions is negligible when compared to the amount of global GHG emissions.

4.4 Coastal Resources

Federal activities involving or affecting coastal resources are governed by the Coast Barriers Resource Act and the Coastal Zone Management Act. None of the alternatives would affect a coastal zone as the State of Montana is located entirely inland and does not contain any marine coastal barriers or coral reefs. Therefore, actions involving the Airport are not applicable to these regulations and are not considered for further evaluation.

4.5 Department Of Transportation Act, Section 4(f)

Section 4(f) of the U.S. DOT Act of 1966 (now codified at 49 U.S.C. 303) (DOT Section 4(f)) protects lands of “any publicly owned land from a public park, recreational areas, or wildlife and waterfowl refuge of national, state, or local significance, or land from an historic site of national, state, or local significance.” Congress amended DOT Section 4(f) in 2005 when it enacted the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU).

DOT Section 4(f) prohibits the use of land of significance in publicly owned public parks, recreation areas, wildlife and waterfowl refuges, and land of a historic site for transportation projects unless the Administration determines that there are no feasible and prudent avoidance alternatives and that all possible planning to minimize harm has occurred.

4.5.1 Affected Environment

To identify probable DOT Section 4(f) resources near the study area, local agencies were contacted, published recreation/refuge plans were reviewed, and a review of sites on or eligible for the National Register of Historic Place (NRHP) was conducted. **Figure 4-5-1** shows the locations of the DOT Section 4(f) resources discussed in the following sections, as well as in greater detail in the DOT Section 4(f) Evaluation in **Appendix G**.

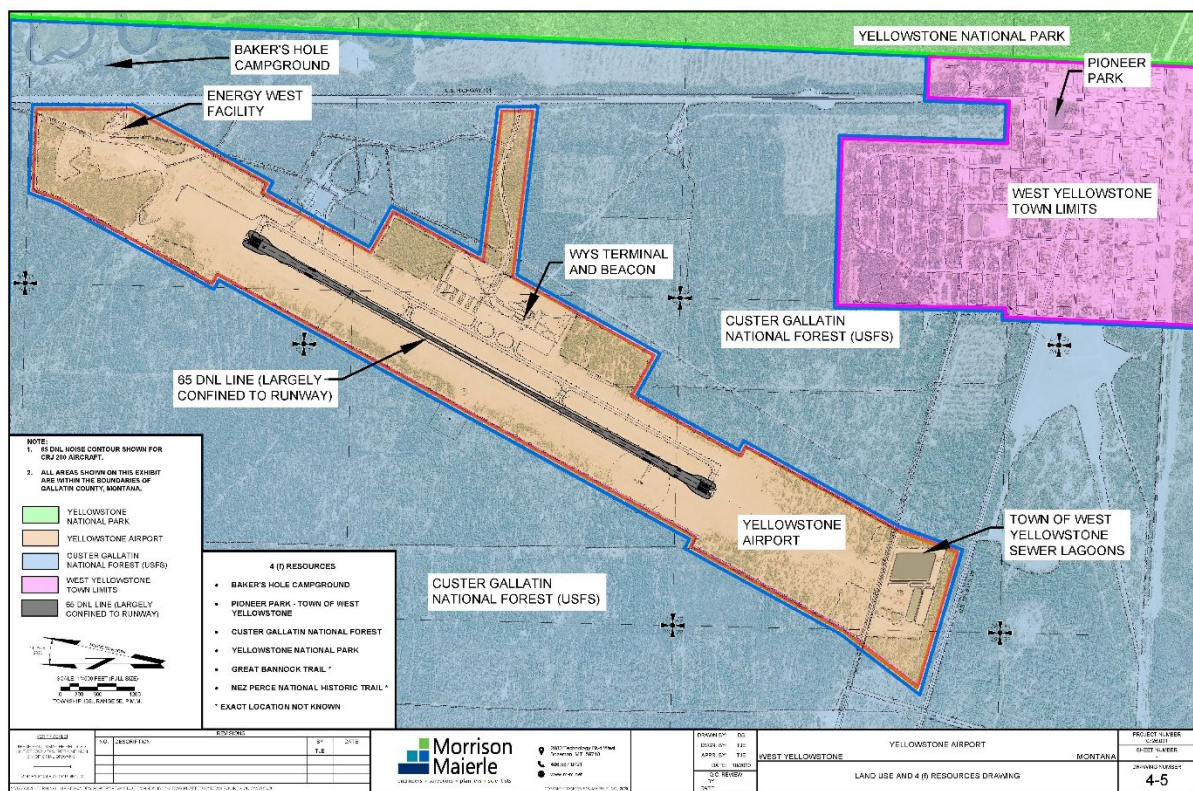


Figure 4-5-1: Existing Land Uses and DOT Section 4(f) Resources in Vicinity of Airport

4.5.1.1 Parks/Recreational/Refuge Resources

Publicly owned land is considered to be a park, recreation area, or wildlife and waterfowl refuge when the land has been officially designated as such by a federal, state or local agency and one of its major purposes is for a park, recreation area, or wildlife and waterfowl refuge.

Table 4-5-1 shows publicly owned lands considered to be DOT Section 4(f) resources that were identified near the study area.

Table 4-5-1: DOT Section 4(f) Resources Near the Study Area

Resource	Location	Description
Baker's Hole Campground	Approximately 1.3 miles northeast of the Proposed Action (terminal) area	Seasonal USFS campground open to tent and RV camping
Pioneer Park (West Yellowstone Town Park)	Approximately 1.75 miles southeast of the Proposed Action (terminal) area	Picnic shelters, restroom facilities, playground area, basketball court, softball diamond and area of scattered trees and open park for events.
Yellowstone National Park (YNP)	Located 0.8 miles west of the Proposed Action (terminal) area	YNP is the first national park and contains significant wildlife, geologic, and native historical resources.
Custer Gallatin National Forest (USFS)	Surrounds the entire Airport property	The USFS area surrounding the airport is largely lodgepole pine forest that provides a mix of recreational opportunities.

4.5.1.2 Historic Sites

The identification of DOT Section 4(f) resources that may be historic in nature was conducted in accordance with Section 106 of the National Historic Preservation Act. For the Proposed Action, the Area of Potential Affect (APE) under Section 106 of the National Historic Preservation Act (Section 106) corresponds to the study area under NEPA.

To identify potential historic sites, the *Cultural Resource Inventory of the Yellowstone Airport Terminal Area, Gallatin Co, MT* (CRI) was completed in April 2019 per Section 106 (**Appendix B**). The CRI was conducted during the Terminal Area Narrative Report (2019 TANR) for WYS and focused on identifying historic and cultural properties in the terminal area and parking lot. Two historic sites were identified and no cultural properties were identified in the CRI. These historic sites include the Yellowstone Airport Terminal (24GA1958) and the Yellowstone Airport Beacon Tower (24GA1981), both of which were documented and recommended in the CRI as eligible to the National Register of Historic Places (NRHP) and located on Figure **4-5-2**.

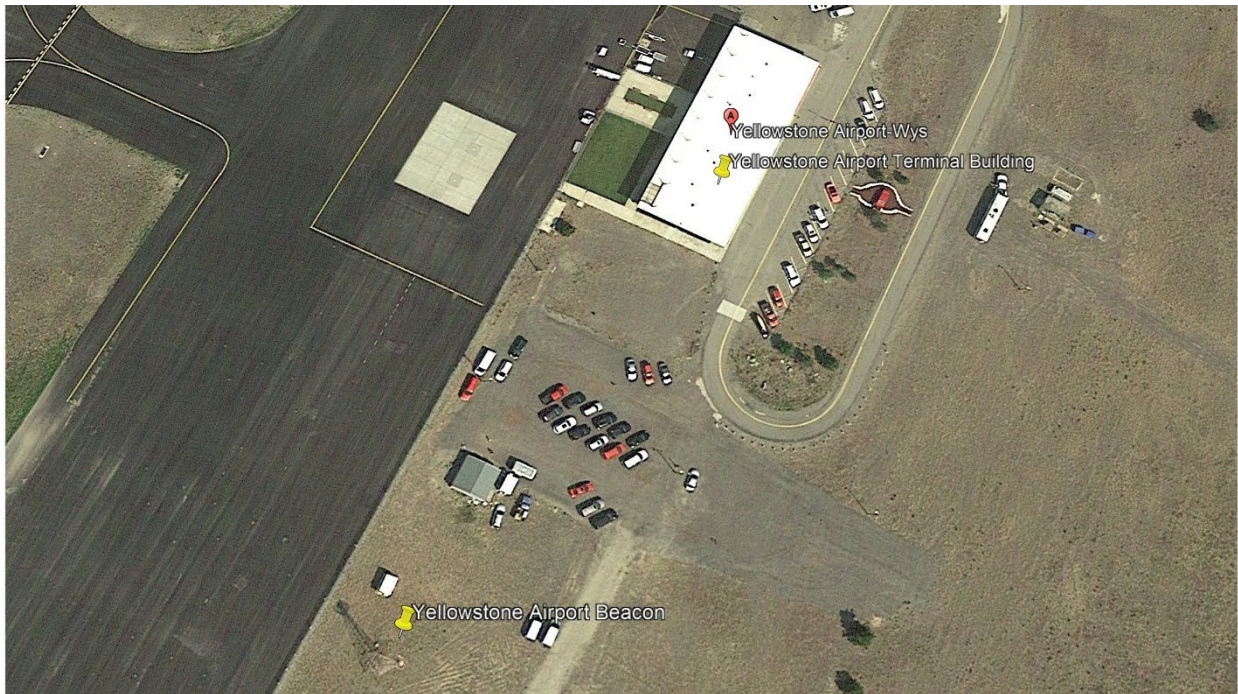


Figure 4-5-2: Terminal and Beacon DOT Section 4(f) Resources in Area of Potential Effect (APE)

The FAA contacted Tribes with historical ties to this area in letters dated August 29, 2019, in order to seek input on properties of cultural or religious significance that may be affected by the undertaking and to initiate government-to-government consultation. Eight Tribes were contacted, including the Blackfeet Nation, the Coeur d'Alene Tribe, the Confederated Salish and Kootenai Tribes of the Flathead Reservation, the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Umatilla Indian Reservation, the Kootenai Tribe of Idaho, the Nez Perce Tribe, and the Shoshone Bannock Tribes. As a result, the FAA was informed of the proximity of the Great Bannock Trail and the Nez Perce (Nee-Me-Poo) National Historic Trail (NPNHT) to the project area.

An *Addendum to the CRI* (Addendum) was conducted per Section 106 in order to examine the routes of the potential extension of water, sewer, and fiber optic lines from the town of West Yellowstone, Montana, to WYS (**Appendix B**). It was completed in March 2020. Specific consideration was given to any impact on the Great Bannock Trail and the NPNHT. The Addendum revealed that the exact routes of the trails are very elusive to determine; however, all research reviewed for the Addendum places both trails to the north of the project area. The field survey conducted for the Addendum uncovered no cultural or historic resources, nor any sign of the Great Bannock Trail or NPNHT.

A brief summary of these DOT Section 4(f) historic resources that were identified under Section 106 is provided in **Table 4-5-2** and additional detail can be found in the CRI and Addendum, located in **Appendix B**.

Table 4-5-2: Summary of DOT Section 4(f) Historic Resources

Yellowstone Airport Terminal Building (24GA1958)	Location: Within the APE	Status: Eligible to the NRHP
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Constructed between 1964 and 1965, the terminal building (photos provided below) illustrates the distinctive characteristics of the Mission 66 architectural style of western modernism (modern stylings combined with western rustic elements).



Yellowstone Airport Terminal



Airside of Terminal

The terminal building is a simple vernacular architectural expression of western modernism with prevalent use of un-coursed ashlar stone fabric, large numbers of tall-banded vertical windows and brown stained rustic board and batten wood siding with functional interior space and conventional airport seating. The terminal is an approximate 11,000 square foot structure with main floor, partial second story mezzanine office area(s), and a partial basement with the remainder of the structure constructed on a slab-on-grade foundation.

The terminal is unique in its function among Mission 66 buildings at an airport and is an example that has not been significantly altered since its construction. While the interior has undergone significant remodeling at different times, most notably in response to the post 9-11 Traffic Security Administration (TSA) requirements, as well as to accommodate rental cars, helicopter tours, and Life Flight business within the building, and also in upstairs offices, the café, and modified bathroom facilities, much of the feel of the original Mission 66 style is evident in the lobby of the terminal. Outside of resurfacing the top of the roof, the exterior has undergone minimal alteration. The terminal building remains in its original use yet today. The terminal building is further referenced in **Section 4.8** of this document.

Yellowstone Airport Beacon Tower (24GA1981)	Location: Within the APE	Status: Eligible to the NRHP
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The beacon tower (photo provided below) was relocated to the airport grounds around the same time as the construction of the airport (circa late 1964 to 1965), and was possibly relocated from the old airport location immediately west of the Town of West Yellowstone. Historian information provided by the Montana Department of Transportation reflects that the tower is the same construction style as those constructed in the 1930s. While the beacon tower is likely of the original construction style as it was pre-relocation, the rotating and lighted beacon equipment has gone through numerous changes as electrical equipment has expended its useful life.



Yellowstone Airport Beacon

The importance of beacons to rural navigation is illustrated by their numbers across Montana by mid-century. The improvement of radar and other navigational aids resulted in the decommissioning beacons nationwide beginning in 1951. In Montana, the assessment process began in the early 1960s. Many of these beacons were donated by the FAA to the Montana Aeronautics Commission, local governments, and other recipients for use. The eligibility of this beacon is based on its move to its present location within the period of significance, maintaining its value as a navigation tool for pilots across the state. The beacon is further referenced in **Section 4.8** of this document.

The Great Bannock Trail	Location: North of the APE	Status: Does not have an Eligibility Determination
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The Great Bannock Trail (portions of which were also likely used by the Nez Perce in 1877 on what is known as the Nez Perce (Nee-Me-Poo) National Historic Trail) is known to have existed in the general area of the Proposed Action, although the exact location of the Great Bannock Trail is not known.

The Great Bannock Trail was an aboriginal travel corridor approximately 200 miles in length stretching from the Camas Meadows in Idaho, across Targhee Pass and into the Madison River Valley, over the Gallatin Range and into the Gardiner River drainage, up the Yellowstone River and the Lamar River, to the Absaroka Mountains, and finally to the Clark Fork of the Yellowstone River and Shoshone River in Wyoming. Although named after the Bannocks of the Snake River Plains, the trail was used by several other tribes including the Flathead, Fort Hall and Wyoming Shoshoni, the Lemhi, and the Nez Perce along with early-day white explorers and trappers.

Use of the Great Bannock Trail has been suggested to have occurred for at least forty years—from approximately 1838 to 1878. Nez Perce Chief Joseph, along with approximately 750 followers, traveled portions of this route in 1877 while being pursued by U.S. Army General Oliver O. Howard. Less than a year later hostile Bannocks used the trail in 1878 in an attempt to reach hunting grounds in Wyoming. There are also records that individuals around the town of West Yellowstone drove cattle on the trail during the late 1890s and early 1900s. The Great Bannock Trail is further referenced in **Section 4.8** of this document.

The Nez Perce (Nee-Me-Poo) National Historic Trail	Location: North of the APE	Status: Designated by Congress as a National Historic Trail in 1986
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The Nez Perce (Nee-Me-Poo) National Historic Trail (NPNHT) extends approximately 1,170 miles on a circuitous route from the vicinity of Wallowa Lake, Oregon, to the Bear's Paw Battlefield near Chinook, Montana. The location near the APE is identified in **Figure 4-5-3**.

It is named for the 1877 flight of the Nez Perce from their homelands while pursued by U.S. Army Generals Howard, Sturgis, and Miles (Nez Perce War of 1877). Chief Joseph, Chief Looking Glass, Chief White Bird, Chief Ollokot, Chief Lean Elk, and others led nearly 750 Nez Perce men, women, and children and twice that many horses over 1,170 miles through the mountains, on a trip that lasted from June to October of 1877. This route was used in its entirety only once; however, component trails and roads that made

up the route bore generations of use prior to and after the 1877 flight of the nontreaty Nez Perce.

The Nez Perce passed through the Hebgen Basin (in which the Airport lies) in late August 1877. On August 9th, the military caught up with the Nez Perce at the Big Hole River in Montana. After a twenty-four-hour battle with heavy casualties on both sides, the Nez Perce moved rapidly from the Big Hole Battlefield through the upper Big Hole, south over Bannock Pass and re-entered Idaho. On August 20th, the Nez Perce and 260 men of the US Army clashed at Camas Meadows about thirty-six miles southwest of the current APE. The Nez Perce took the offensive and captured nearly all of the Army pack mules. This slowed the Army's advance and allowed the Nez Perce to escape over Targhee Pass into Yellowstone country. They likely used portions of the Great Bannock Trail along their route in the area near the APE. The Nez Perce crossed into Yellowstone Park just to the east of the current APE.

Congress passed the National Trails System Act in 1968, establishing a framework for a nationwide system of scenic, recreational, and historic trails. The Nez Perce (Nee-Me-Poo) National Historic Trail was added to this system by Congress as a National Historic Trail in 1986. Nee-Me-Poo is the traditionally accepted name of the Nez Perce Tribe which means "The People". The Nez Perce National Historic Trail is further referenced in **Section 4.8** of this document.



Figure 4-5-3: Approximate Location of the Nez Perce (Nee-Me-Poo) National Historic Trail Near the APE as Designated by Dashed Line

For additional information on these historical resources please refer to **Appendices B, G,** and **Section 4.8.**

4.5.2 Environmental Consequences

The Airport is located on the Yellowstone plateau approximately 300 feet from Highway 191 at the northeast property corner, approximately 400 feet from U.S. 20 at the south property line and is completely surrounded by lodgepole pine trees as part of the Custer Gallatin National Forest. The Airport is nearly hidden from ground level unless on Airport property.

The Proposed Action and Alternatives W1 and S1 do not change flight patterns or operations at the airport.

4.5.2.1 Parks/Recreational/Refuge Resources

Baker's Hole Campground, Pioneer Park, Yellowstone National Park:

Baker's Hole Campground, Pioneer Park, and Yellowstone National Park are outside of the study area and will not be affected by improvements on Airport property or the utility improvements for water and fiber optic being extended from West Yellowstone. No direct use of these resources under DOT Section 4(f) will be required under the Proposed Action or Alternatives W1 and S1. Visual impacts from improvements on Airport property will not be visible to any of these resources, nor will the timber removal on the Custer Gallatin National Forest land and near the town of West Yellowstone be visible as viewed from these resources. The Proposed Action and Alternatives W1 and S1 do not change flight patterns or operations of the airport, including noise impacts. Therefore, no constructive use under DOT Section 4(f) would occur as a result of the Proposed Action and Alternatives W1 and S1 as these alternatives will not adversely affect the activities, features, and attributes that qualify these resources for protection under DOT Section 4(f). Therefore, Baker's Hole Campground, Pioneer Park, and Yellowstone National Park are not projected to be impacted either directly or indirectly under DOT Section 4(f) due to either the Proposed Action or Alternatives W1 and S1.

Custer Gallatin National Forest (USFS):

The extension of water and fiber optic utilities lines from the town of West Yellowstone to Airport property will cross the Custer Gallatin National Forest (administered by the USFS). The utilities installation will require the clearing of timber to facilitate installation of the utilities. While much of the infrastructure will remain below the surface, there will be the need for fire hydrants, blow offs, valve boxes, utility junction boxes, and other ancillary structures that will be exposed at or above the ground surface. Construction of the utilities will result in short duration occupation and disturbance of the property administered by the USFS.

Construction and occasional maintenance of the infrastructure improvements on the Custer Gallatin National Forest will be carried out under a special use authorization from the USFS that will be issued to the State or Town (depending on final ownership of infrastructure) for the improvements and include maintenance of the corridor, weed management, and maintenance of barriers that will prevent public motorized use of the utility corridor in areas not currently authorized for motorized use by the public.

The location of the utility corridor was specifically planned to minimize impact to the Custer Gallatin National Forest by utilizing an open motorized route, access roads for the Airport and USFS Jump Base, and an existing overhead power line corridor.

As the utilities will remain physically present on the Custer Gallatin National Forest, the Proposed Action will result in "direct use" of the DOT Section 4(f) resource. However, the physical use has been determined to be *de minimus* considering that the installation of the utility infrastructure crossing the Custer Gallatin National Forest utilizes existing travel corridors, does not affect the overall physical characteristics of the Custer Gallatin National Forest, and will not adversely affect the activities, features, and attributes that qualify the Custer Gallatin National Forest for protection under DOT Section 4(f). The DOT Section 4(f) evaluation included in **Appendix G** includes additional detail regarding this determination.

No project-related constructive use effects are anticipated to occur under the Proposed Action, as neither the timber removal nor presence of underground utilities for water and fiber optic will impair the property after installation.

Alternatives W1 and S1 will have no direct or constructive use under DOT Section 4(f) of the Custer Gallatin National Forest as both alternatives will be installed on Airport property and not cross the Custer Gallatin National Forest.

4.5.2.2 Historic Sites

Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470 et seq.) requires federal agencies to consider the effects of their undertaking on properties on or eligible for inclusion in the NRHP. The Section 106 process provides the basis for informing a determination of “use” of a historic site that is also a DOT Section 4(f) resource. While Section 106 is introduced in this discussion, it is further explained and its application discussed in detail in **Section 4.8**. An evaluation of the applicability of DOT Section 4(f) upon each historic site in relation to the Proposed Action and Alternatives W1 and S1 is provided as follows:

Yellowstone Airport Terminal (24GA1958):

The terminal building will be demolished as part of the Proposed Action. As discussed in **Chapter 3**, it was determined that the rehabilitation or repurposing of the terminal was not reasonably feasible and did not meet the Purpose and Need. The Proposed Action will have an “adverse effect” through the removal of the terminal under Section 106; therefore, the Proposed Action will result in “direct use” of the terminal under DOT Section 4(f). No project-related constructive use effects are anticipated to occur under the Proposed Action.

Alternatives W1 and S1 will have no direct or constructive use under DOT Section 4(f) of the terminal building as these are related to alternatives concerning water and sewer infrastructure that are directly related to terminal improvements; but are not related to the alternatives specifically regarding the fate of the existing terminal.

Yellowstone Airport Beacon Tower (24GA1981):

The beacon and tower will be replaced as part of the Proposed Action. As discussed in **Chapter 3**, it was determined that the alternatives to replacing the beacon and tower were not feasible and did not meet the Purpose and Need. The existing tower, tower foundation, and beacon will be removed from its existing location. The Proposed Action will have an “adverse effect” through the removal of the beacon and tower under Section 106; therefore, the Proposed Action will result in “direct use” of the airport beacon tower under DOT Section 4(f). No project-related constructive use effects under DOT Section 4(f) are anticipated to occur under the Proposed Action.

Alternatives W1 and S1 will have no direct or constructive use under DOT Section 4(f) of the beacon and tower as these are related to alternatives concerning water and sewer infrastructure that are directly related to terminal improvements; but are not related to the alternatives specifically regarding the fate of the existing beacon and tower.

Great Bannock Trail:

The exact location of the Great Bannock Trail is unknown, although all research reviewed for the Addendum places the Great Bannock Trail to the north of WYS, and field surveys conducted for the Addendum uncovered no sign of the Great Bannock Trail. The FAA conducted government-to-government consultation with the Shoshone Bannock Tribes, and they posed no objections to the Proposed Action. There are no known direct or indirect effects anticipated to the Great Bannock Trail due to either the Proposed Action or Alternatives W1 and S1 and no use under DOT Section 4(f).

Nez Perce National Historic Trail (NPNHT):

Investigation into the location of the NPNHT in the Addendum placed the official designated route of the NPNHT to the north of the Airport (see **Section 4.5.1.2**) and uncovered no physical remnants of the NPNHT in any of the surveys. The FAA conducted government-to-government consultation with the Nez Perce Tribe, and the Nez Perce Tribal Historic Preservation Officer (NP THPO) raised concerns that any potential effect due to the Proposed Action on the NPNHT or to the Nez Perce Tribe could not be adequately evaluated without an ethnographic study to gather oral history regarding the Nez Perce experience during the Nez Perce War of 1877 while pursued by the United States Army (US Army).

The Proposed Action will largely be constructed on Airport property in areas of developed or heavily disturbed land, except for the utility corridor for water and fiber optic improvements which will be extended from the town of West Yellowstone to WYS and cross the Custer Gallatin National Forest. The FAA, USFS, and MDT have agreed that an ethnographic study is the appropriate means to examine potential effects on the NPNHT and current Nez Perce Tribe due to the utility corridor crossing the Custer Gallatin National Forest, because of the gravity and significance of the Nez Perce War of 1877 upon the Nez Perce Tribe, the ambiguous nature of the true path they followed, and the proximity of the utility corridor crossing the Custer Gallatin National Forest to the designated location for the NPNHT. While there are no known direct or indirect impacts under DOT Section 4(f) at this time, mitigation measures are described below to account for the potential for adverse impacts that could be uncovered during the ethnographic study.

Alternatives W1 and S1 are anticipated to have no direct or constructive use of the NPNHT under DOT Section 4(f) as these are related to alternatives concerning water and sewer infrastructure that would be constructed entirely within Airport property and will not cross the Custer Gallatin National Forest.

4.5.3 Conclusion

As the non-development alternative, the No Action Alternative will have **no effect** on DOT Section 4(f) resources.

The Proposed Action will result in a **direct use** under DOT Section 4(f) of the Custer Gallatin National Forest due to the extension of water and fiber optic utilities crossing the Custer Gallatin National Forest under the Proposed Action. However, the physical use has been determined to be **de minimus** considering that the installation of the utility infrastructure crossing the Custer Gallatin National Forest will largely remain below the surface and utilize existing travel corridors and will not adversely affect the activities, features, or attributes of the Custer Gallatin National Forest as it is currently used in this area for recreation. **No constructive use** effects under DOT

Section 4(f) are anticipated to occur under the Proposed Action, as neither the timber removal nor presence of underground utilities for water and fiber optic will impair the property after installation. Alternatives W1 and S1 will have **no direct or constructive use** under DOT Section 4(f) of the Custer Gallatin National Forest as both alternatives will be installed on Airport property and not cross the Custer Gallatin National Forest.

The Proposed Action will have an **adverse effect** under Section 106 on the terminal and beacon tower as both structures will be removed, resulting in the loss of historical integrity; and therefore, will result in a **direct use** under DOT Section 4(f). A Memorandum of Agreement (MOA) (**Appendix I**) under Section 106 has been established to mitigate the adverse effect. Alternatives W1 and S1 will have **no effect** under Section 106 on the terminal and beacon; and therefore, **no direct or constructive use** under DOT Section 4(f), as neither alternative will require the physical removal or modification of the structures.

The Proposed Action and Alternatives W1 and S1 will have **no effect** under Section 106, and therefore, **no direct or constructive use** under DOT Section 4(f) on the Great Bannock Trail, as the Trail is located to the north of WYS and field surveys uncovered no sign of the Trail.

Although no direct or indirect impacts have been identified, the Proposed Action has an **unknown effect** under Section 106 on the archaeological and cultural aspects of the NPNHT and Nez Perce Tribe; and therefore, also have the **potential for a use** under DOT Section 4(f). A Programmatic Agreement (PA) (**Appendix I**) under Section 106 has been established to determine if any adverse effects will be identified through an ethnographic study. Alternatives W1 and S1 will have **no effect** under Section 106 on the archaeological and cultural aspects of the NPNHT and Nez Perce Tribe as both alternatives will be installed on Airport property and not cross the Custer Gallatin National Forest; and therefore, will have **no direct or constructive use** under DOT Section 4(f).

If no adverse effects under Section 106 are identified through the ethnographic study conducted under the terms of the PA, then there is no use of the DOT Section 4(f) resource, and no further action is required. If adverse effects are identified through the ethnographic study, the Signatories of the PA will execute a Memorandum of Agreement (MOA) to document the mitigation requirements for the adverse effects consistent with 36 CFR § 800.5-6, will notify the Advisory Council of Historic Preservation of the adverse effect finding, and invite them to participate in consultation consistent with 36 CFR § 800.6(a)(1). Additionally, a DOT Section 4(f) Evaluation under DOT Section 4(f) will be conducted to determine if there is any use of the DOT Section 4(f) resource.

Further discussion of the Section 106 findings and the resulting MOA and PA are discussed in **Section 4.8**. A DOT Section 4(f) Evaluation (**Appendix G**) was prepared to evaluate alternatives and make the required findings under DOT Section 4(f).

4.5.4 Mitigation

Based on the DOT Section 4(f) Evaluation and coordination with FAA, MDT, and SHPO, a finalized Memorandum of Agreement (MOA) has been signed and is attached in **Appendix I**. The MOA includes required mitigation elements which include:

- Conduct a Historic American Engineering Record (HAER) level II documentation of Yellowstone Airport Terminal and the Yellowstone Airport Beacon Tower at the Yellowstone Airport.
- During construction of the improvements:
 - Preserve the upper portion of the beacon tower to include the top platform and beacon apparatus and enough of the tower to convey the design and function of the beacon in order to display either within the new airport terminal; or outside the new terminal building and within the terminal area, at WYS.
 - Design, manufacture, and install an interpretive sign for the beacon tower display to explain the importance of Montana's Historic Airway Beacon System.
 - SHPO will be provided the opportunity to review and comment upon the design and location of the beacon tower display and the text and design of the interpretive sign. SHPO will be provided a copy of the final designs.
 - Preserve rock materials from the façade of the original terminal to be repurposed into the new terminal, outside landscaping, and/or platform for the beacon tower described above.
 - Design, manufacture, and install an interpretive display in the new terminal to provide pictures of the original terminal building and explain efforts to repurpose materials or features of the original terminal into terminal area improvements.
 - SHPO will be provided the opportunity to review and provide comment on the details of repurposing the rock materials before plans are finalized, and review and comment on the interpretive sign. While no minimum amount of rock materials to be repurposed is specified in the MOA, SHPO will provide review and comment to ensure that the intent of this stipulation is met.

Based on the DOT Section 4(f) Evaluation and coordination with FAA, USFS, MDT, the Nez Perce Tribe, and SHPO, a Programmatic Agreement (PA) is in the process of being signed as of the time this draft EA was released. A draft of the PA can be found in **Appendix I**, with the finalized PA to be included in **Appendix I** of the Final EA. The PA includes required mitigation elements which include conducting an ethnographic study with the Nez Perce Tribe regarding the NPNHT in the Hebgen Basin of Montana pursuant to 36 CFR § 800.14(b)(ii) and 36 CFR § 800.14(b)(v) when effects on historic properties cannot be fully determined prior to approval of an undertaking and other circumstances warrant a departure from the normal Section 106 process.

If adverse effects are identified through the ethnographic study, the Signatories of the PA will execute a Memorandum of Agreement (MOA) to document the mitigation requirements for the adverse effects consistent with 36 CFR § 800.5-6, will notify the Advisory Council of Historic Preservation of the adverse effect finding, and invite them to participate in consultation consistent with 36 CFR § 800.6(a)(1).

4.6 Farmlands

The Farmland Protection Policy Act (FPPA) found at 7 U.S.C. 4201-4209, regulates Federal actions with the potential to convert farmland to non-agricultural use. Farmland is defined as “prime, unique, or of statewide or local importance” as referenced in the FPPA, or as determined by the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS).

Any airport development action funded under the Airport Improvement Program (AIP) or subject to FAA approval that would permanently convert areas designated farmland to a non-agricultural use is subject to FPPA coordination. The FPPA does not apply to land already considered “previously converted” or committed to “urban development or water storage”. FAA guidance indicates airport developed lands are considered lands under urban development. Therefore, when evaluating potential impacts on farmlands, it is necessary to evaluate only those areas designated as important and are in active agricultural use or not yet developed.

4.6.1 Affected Environment

The NRCS Web Soil Survey website was accessed to determine the classification of soils within the project area, defined as the Airport property and offsite locations identified for terminal related improvements (see **Figure 1-4 and 1-5**). According to the Soil Survey for Gallatin County Area, Montana, one soil map unit occurs within the project area. The soil unit is Typic Cryochrepts, obsidian sand substratum (46-3A), and is classified as “not prime farmland”.

4.6.2 Environmental Consequences

Since the FPPA does not apply to land already committed to “urban development or water storage”, such as the existing Airport property, only those improvements off site are subject to FPPA requirements. However, given the absence of identified prime, unique, or important farmland in the project area, no impacts relating to farmlands are anticipated.

4.6.3 Conclusion

The No Action Alternative will have **no effect** on “Important Farmland” resources under the FPPA because it is a non-development alternative.

The Proposed Action and Alternatives W1 and S1 will have **no effect** on “Important Farmland” resources under the FPPA because there are no prime, unique, or farmland of statewide or local importance in the project area.

4.6.4 Mitigation

Farmland areas protected under the FPPA will have no impact under the No Action Alternative, the Proposed Action, nor Alternatives W1 and S1. Therefore, no mitigation is required.

4.7 Hazardous Materials, Solid Waste, and Pollution Prevention

Hazardous materials are products or wastes regulated by the EPA or the MDEQ. These include substances regulated under the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund), the Resource Conservation and Recovery Act (RCRA), and

regulations for solid waste management, above-ground storage tanks (ASTs) and underground storage tanks (USTs). Existing databases for hazardous waste sites, generators, and remediation activities maintained by the EPA and the MDEQ were reviewed to help identify the potential for encountering hazardous wastes, substances, or materials at the Airport and on surrounding lands.

4.7.1 Affected Environment

Hazardous Materials

The EPA's listing of Superfund sites includes one site (Idaho Pole Company) in Gallatin County in Bozeman, 70 air miles to the north.

The EPA RCRA Info website did not indicate any RCRA sites within the Airport property, or in immediate proximity to any of the Proposed Action improvements. There are four sites identified that are reporting to the EPA within the town of West Yellowstone. All of these sites are hazardous waste generators that are conditionally exempt small quantity generators associated with automotive repair and maintenance facilities.

MDEQ's online mapping website (available at <http://svc.mt.gov/deq/wmadst/>) did not identify any USTs, leaking USTs, Remediation Response sites, or hazardous waste handlers on the Airport or in the immediate vicinity of any proposed improvements. The MDEQ online mapping website indicated that there was a petroleum release on the subject property and the release was considered "resolved" in 1997.

Environmental Solutions performed an inspection for asbestos and lead-based paint in the existing terminal building and generator building in November 2016 as part of the 2019 *TANR*. Laboratory testing of materials samples taken from the structures did not detect lead-based paint. Asbestos materials were found in both the existing terminal building and generator building that will require mitigation. Reports for the lead-based paint and asbestos testing are provided in **Appendix H** and a synopsis of asbestos materials found at the terminal and generator buildings is as follows:

- Terminal – Roof Exterior Asphalt Tar/Sealant
- Terminal – 9x9 Floor Tile w/Mastic
- Generator Building – Exterior Roof

The Gallatin County transfer station is not an approved facility to receive asbestos laden or any other hazardous materials.

Solid Waste and Pollution Prevention

Construction, renovation, or demolition typically produces debris (i.e. dirt, concrete, asphalt, electrical components, etc.) that requires proper disposal.

The town of West Yellowstone does not provide refuse services, but there are two refuse services that operate in the area (L&L Site Services and Republic Services). West Yellowstone residents and businesses may use the Gallatin County transfer station located 4 miles north of town on Highway 191. That site also includes recycling collection (newspapers, plastics, propane canisters, and more) and compost facility that are open to the public and local businesses.

4.7.2 Environmental Consequences

Hazardous Materials

Potentially hazardous materials used during construction of the Proposed Action would include paving materials, oils, fuel and grease from construction equipment, as well as paint and chemical substances used during construction and installation activities. The same potentially hazardous materials would be used in the construction of Alternatives W1 and S1, with the exception of paving materials. When used per the manufacturer's instructions and for their intended use, the chemicals and products are not anticipated to be hazardous.

In regards to the demolition of the existing terminal and generator buildings, prior testing (**Appendix H**) indicated that the only known hazardous materials that are present are asbestos-laden roofing tar and sealant, roofing shingles, and floor tile with mastic. Asbestos accredited persons must perform all work impacting, disturbing, or requiring the removal of identified asbestos laden materials following regulatory requirements.

Herbicides and fertilizers may be used to maintain grassed areas or control weeds within the airport and USFS properties, and as approved by those entities. Application of fertilizers and herbicides would be consistent with the manufacturer's recommendations for storage and handling of the product.

Equipment such as excavators, loaders, backhoes, dump trucks, dozers, man lifts, cranes, gradalls, concrete mixer and pump trucks, delivery semi-trucks, and bobcats are types of equipment anticipated to be used over several years on site. Proper use, storage, inspection, and maintenance of equipment will minimize potential releases of petroleum or other hazardous materials, while onsite. Spill or waste materials will be disposed of at an appropriately-permitted facility.

Solid Waste and Pollution Prevention

The Proposed Action will generate solid waste in both the construction of new facilities, as well as demolition of existing infrastructure and native elements. **Table 4-7** reflects the anticipated solid waste, and perspective disposition that would be produced as a result of the Proposed Action.

Table 4-7: Solid Waste Elements of Proposed Action and Alternative W1 and S1 (where applicable)

Solid Waste Generated	Solid Waste Disposition
Packaging for new materials	Recycle cardboard, steel banding, wood shipping components. Proper disposal of plastic wrap, foam, and recyclable items if not deemed practical for recycling.
Wood	Recycle as practical, but likely to be disposed of in permitted landfill facilities. Suitable wood may be used for firewood.
Glass	Recycle as practical or dispose of in permitted landfill facilities. As windows are single pane, it is unlikely that reasonable reuse can be anticipated.
Existing asphalt (from reconstruction of existing)	Recycle through reclaiming of asphalt into existing/new road base course or new parking lots or milling and use

Solid Waste Generated	Solid Waste Disposition
access road and reconfiguration of existing paved parking lots)	to improve existing airport perimeter road or secondary parking areas. Excess could be donated to a local municipality and any further excess would be disposed of in accordance with applicable laws, rules, regulations, and the <i>Montana Solid Waste Management Act</i> .
Concrete	Recycle as practical (reuse of blocks and/or crushed for other uses), but likely to be disposed of in permitted landfill facilities.
Concrete Washout	Disposed of in permitted gravel pit facility.
Excess base course / subbase / native soils	Recycle through potential reuse for extension of access road, new parking lots, under terminal sidewalks, etc., or general use as site grading. Any excess that is not able to be wasted on the project site can be stockpiled within the Airport's existing borrow site to the northwest of the runway.
Steel tower structure (from beacon tower)	Recycle any remnants from any mitigation actions (educational display, etc.).
Steel / Aluminum (from structure demolitions)	Main steel structures are sizeable enough to warrant possible reuse. Any ancillary steel/aluminum from conduit, framing components, etc. can be scraped vs. dumped in a landfill. Any material not suitable for reuse will be disposed of in permitted landfill.
Rock façade (terminal only)	Slab rock used throughout the building can be stockpiled for incorporation into the new terminal improvements if desired or salvaged for reuse. Anticipate that some rock will be damaged in removal and disposed of in permitted landfill facilities.
Roofing/Floor Tiles	Roofing and floor tiles have been found to be laden with asbestos and will therefore have to be removed by a licensed contractor as an initial step in the demolition and disposed of in a permitted landfill facility (not the Gallatin County transfer station).
Electrical conduit	Above ground elements to be disposed of in landfill. Below grade elements to be abandoned in place or reused for other conduit run purposes.
Electrical wiring	Wiring can be recycled, and misc. components may be able to be transferred to the new terminal (i.e. airfield electrical vault regulators, newer electrical panels, etc.). Older/aged components may be able to be utilized in other State structures, auctioned as surplus, or donated to non-profit organizations. Some elements are aged (pilot control for airfield lighting) and won't be considered for reuse and will be salvaged for scrap.
HVAC – Mechanical Systems / Lighting / Plumbing Fixtures	Older/aged components may be able to be utilized in other State structures or auctioned as surplus, or donated to non-profit organizations. It is not likely to reutilize any of these components within the new terminal due to age/condition/non-conformity with State high-efficiency

Solid Waste Generated	Solid Waste Disposition
	building standards. Anything not suitable for reuse will be disposed of in permitted landfill facilities.
Arsenic Removal and Chlorination System (terminal only)	The existing terminal has an existing system that would not be necessary if connected to utilities from West Yellowstone. Should an onsite water system be implemented, this equipment may be able to be utilized in the new terminal facilities. If not required, the equipment can be salvaged for use elsewhere.
Generator (generator building only)	Equipment was installed in 1980. While aged, it has experienced little use and can likely be considered for use in another other State structure, or auctioned as surplus. Worst case, if it is found not to be serviceable, then it can be salvaged for scrap.
Diesel Fuel Storage Tank (generator building only)	The tank is aged and concrete exterior degrading significantly. Diesel fuel will be pumped from the tank and reused as appropriate, or disposed of in accordance with applicable regulations. The tank will likely be disposed of in a permitted landfill facility (not the Gallatin County transfer station).
Fencing (terminal only)	Chainlink fencing and gates can be stockpiled in the Airport boneyard for future use within the Terminal Area. Fence posts may be able to be salvaged if concrete foundations can be easily removed. That, or concrete foundations can be cut off and disposed of, with the steel post being salvaged for scrap or reuse.
Timber removal	If allowed by USFS permitting, can be sold after being chipped, or for firewood. Stumpage that may need to be removed can be stockpiled and burned when appropriate.

The Gallatin County transfer station has noted that WYS is eligible to dispose of demolished materials and construction waste through their facility with certain restrictions:

- Cinder blocks must be broken down to 6-inch minus – no full blocks,
- Will accept most anything construction-related except fluids,
- Lumber – acceptable if dimensionally fits within trash trailers for transfer,
- No hazardous materials previously noted could be disposed of at the site as it is not permitted for such materials.

If Alternative W1 were utilized to provide onsite water instead of extending water from West Yellowstone, the arsenic removal and chlorination system currently being used in the existing terminal may be salvaged and utilized in the new terminal to treat water. If it is not utilized in the new terminal, it could be salvaged for use elsewhere.

If Alternative S1 were utilized to provide onsite sewer instead of extending sewer services from West Yellowstone, the existing septic tanks can be reduced (removed) where design permits, and force main to the existing drain field abandoned in place. The SRE building septic tank may need to remain as it collects effluent via the force main from the ARFF building. The FBO septic tank would be reviewed for possible removal to see if grades would facilitate adequate gravity drainage. Tanks that are removed may be able to be recycled as septic tanks, depending on age

and condition, disposed of in permitted landfill facilities, or as otherwise allowed by State DEQ regulations.

4.7.3 Conclusion

The No Action Alternative will have **no effect** on hazardous materials, solid waste, or pollution prevention activities because it is a non-development alternative.

Under the Proposed Action and Alternatives W1 and S1, any waste materials generated will be handled and disposed of in accordance with appropriate Federal, State, and local laws and regulations.

Select asbestos materials identified within the existing terminal and generator buildings are the only known hazardous wastes identified within the Proposed Action area. The improvements do have the potential to cause short-term, temporary impacts regarding hazardous materials, pollution prevention, and solid waste. Proper disposal of demolition debris and requirements for the Contractor SPCC plans, measures to address an on-site spill, and a General Permit for Storm Water Discharges Associated with Construction Activity from MDEQ will reduce the overall potential for impacts. Therefore, the Proposed Action and Alternatives W1 and S1 are expected to have **no significant effect** on hazardous materials, solid waste, or pollution prevention activities.

4.7.4 Mitigation

While no specific mitigation is required, the following BMPs may be employed to prevent, minimize, and control the potential release of petroleum products, solid waste, and pollution.

- Qualified personnel shall abate and remove asbestos materials in advance of other demolition activities in accordance with regulatory requirements.
- Designate a contained area for equipment storage, short-term maintenance, and refueling.
- Inspect construction vehicles and equipment for leaks and repair immediately.
- Use of approved spill response kit, as necessary.
- Clean up leaks, drips and other spills immediately to avoid soil or groundwater contamination.
- Conduct major vehicle maintenance or washing off site.
- Ensure that all spent fluids, including motor oil, radiator coolant, or other fluids and used vehicle batteries are collected, stored, and recycled as hazardous waste off site.
- Ensure that all construction debris are taken to appropriate landfills (as necessary) and all sediment disposed of in approved upland areas or off-site.
- If necessary for dust control, use only a minimal amount of water.
- Contract documents will require the Contractor to have a Spill Prevention, Control, and Countermeasure (SPCC) plan in place and measures to address an on-site spill. Additionally, the Contractor will be required to obtain a General Permit for Storm Water Discharges Associated with Construction Activity from MDEQ. This permitting requires the Contractor to develop an erosion control plan to minimize the potential for water quality degradation.

4.8 Historical, Architectural, Archaeological, Cultural Resources

The National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470 et seq.) established the Advisory Council on Historic Preservation (ACHP) and the National Register of Historic Places (NRHP) maintained by the Secretary of Interior. Section 106 of the NHPA requires federal agencies to consider the effects of their undertaking on properties on or eligible for inclusion in the NRHP. Section 106 also requires consultation with ACHP, the State Historic Preservation Office (SHPO), and/or the Tribal Historic Preservation Officer (THPO) if there is a potential adverse effect to historic properties on the eligible for NRHP listing.

The NHPA and its implementing regulations require the identification and evaluation of significant historical resources that may be affected by a proposed project. It further requires that resources so identified be avoided, if possible, or when avoidance is not possible, that any adverse effects of the project on the resources be mitigated.

For the purposes of Section 106, historic properties are defined as prehistoric and historic sites, buildings, structures, districts, landscapes, and objects that are either eligible for or listed in the NRHP, as well as artifacts, records, and remains related to such properties. Historic properties can also include those cultural resources that are associated with the cultural practices or beliefs of a living community. Historic properties must demonstrate importance in history, architecture, archaeology, engineering, or a culture and meet one or more of the significance criteria identified under Section 106:

- Criterion A – Sites and/or structures associated with events that have made a significant contribution to broad patterns in history.
- Criterion B – Sites and/or structures associated with the lives of persons significant in our past.
- Criterion C – Sites and/or structures that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D - Have yielded, or be likely to yield, information important in prehistory or history.

In addition to demonstrating significance, an historic property must demonstrate integrity. The seven aspects of integrity include: location, setting, design, materials, workmanship, feeling, and association.

4.8.1 Affected Environment

The identification of DOT Section 4(f) resources that may be historic in nature was conducted in accordance with Section 106 of the National Historic Preservation Act. For the Proposed Action, the Area of Potential Affect (APE) under Section 106 of the National Historic Preservation Act (Section 106) corresponds to the study area under NEPA.

As discussed in **Section 4.5**, Cultural Resources Inventories per Section 106 (located in **Appendix B**) were completed for the Area of Potential Effect (APE) of the Proposed Action and Alternatives W1 and S1 to identify potential historic sites. The first survey, *Cultural Resource Inventory of the Yellowstone Airport Terminal Area, Gallatin County, MT* (CRI) was completed in April 2019 for the Yellowstone Airport Terminal Area and was conducted during the 2019 TANR. The second survey was an *Addendum to the Cultural Resource Inventory of the Yellowstone*

Airport Terminal Area, Gallatin County, MT (Addendum) and was focused on the routes proposed to extend water, sewer and fiber optic utilities from the town of West Yellowstone and onsite that were not reviewed with the 2019 *TANR*. The fieldwork for the Addendum was conducted between September and November 2019 and the Addendum completed in March 2020.

Government-to-Government Consultation

The FAA sent an invitation for government-to-government tribal consultation on the Proposed Action to the following Tribes in letters dated August 29, 2019 (**Appendix K**): the Blackfeet Nation, the Coeur d'Alene Tribe, the Confederated Salish and Kootenai Tribes of the Flathead Reservation, the Confederated Tribes and Bands of the Yakama Nation, the Confederated Tribes of the Umatilla Indian Reservation, the Kootenai Tribe of Idaho, the Nez Perce Tribe, and the Shoshone Bannock Tribes. A summary of the responses provided are as follows:

- Confederated Salish and Kootenai Tribes of the Flathead Reservation posed no objections to the undertaking.
- Shoshone Bannock Tribes: Emailed the FAA on August 30, 2019 to request a consultation via staff to staff meeting where the Airport improvements could be presented.
 - Staff from FAA, MDT Aeronautics Division and Morrison-Maierle met with the Shoshone Bannock Tribes on October 15, 2019 to present the projects included within the Proposed Action. During this meeting, the Tribes brought up concerns about the Great Bannock Trail. The Tribes requested that the Cultural Resource Inventory(s) (CRI) be provided once completed for further review and comment.
- Nez Perce Tribe: Called attention to the Nez Perce (Nee-Me-Poo) National Historic Trail (NPNHT), which commemorates the US Army's pursuit of Nez Perce during the summer of 1877 during the Nez Perce War of 1877. The communication stated that both the events and the trail are hugely significant to the Nez Perce Tribe.

The NPNHT and the Great Bannock Trail were given specific consideration during the research and fieldwork for the Addendum. No evidence (based on surface observation) was found for either resource within the project area, and information obtained through literature searches placed the location of both Trails to the north of the APE for the Proposed Action and Alternatives W1 and S1.

In letters dated March 20, 2020, the CRI and the Addendum were sent to the Tribes that were previously contacted in August of 2019 to again extend the invitation for government-to-government tribal consultation and seek input on properties of cultural or religious significance that may be affected by the Proposed Action or Alternatives W1 and S1. A summary of the responses provided are as follows:

- Shoshone Bannock Tribes: The Tribes wanted to ensure that their ancestral presence within the area was noted and had a question about LIDAR surveys; both issues were addressed either within the Addendum or through follow up e-mail contact. While the Tribes noted they would provide a response upon acknowledging receipt of the CRI, no response was received and no further concerns were raised.
- Nez Perce Tribe: While the Tribe acknowledged that surface observation did not reveal the presence of archaeological resources, they voiced concern that

the analysis did not analyze the trail as ethnographic or a traditional cultural property.

- Staff from FAA, USFS, MDT Aeronautics Division and Morrison-Maierle (the consultant for the Airport) attended teleconferences (May 4th, 2020 and June 22, 2020) with the Nez Perce Tribal Archaeologist / Tribal Historic Preservation Officer (THPO) to further discuss the Tribe's concerns and work to find an acceptable solution regarding the NPNHT.

Identified Resources

Resources that were identified through government-to-government consultation with the Tribes were also considered under Section 106:

- The Great Bannock Trail
- The Nez Perce (Nee-Me-Poo) National Historic Trail (NPNHT)

These resources were discussed in detail in **Section 4.5**.

Based on the information within the CRI and the Addendum, the following historic resources were determined to be eligible to the NRHP:

1. Yellowstone Airport Terminal (24GA1958)
2. Yellowstone Airport Beacon (24GA1981)

These resources were discussed in detail in **Section 4.5**. Additional detail regarding their Section 106 determinations of eligibility to the NRHP are provided below.

Yellowstone Airport Terminal (24GA1958)

The Yellowstone Airport Terminal was opened for service in 1965. Its design is termed western modernism, a simple architectural expression referring to the prevalent use of uncoursed ashlar natural stone fabric, large numbers of tall-banded vertical windows and brown stained rustic board and batten wood siding with functional interior space and conventional airport seating. The airport has a canted overhang roof supported by steel beams that provided the arriving contemporary passenger a feeling of strength, functionality, and efficiency.

Understandably, the airport's branding focused on the airport's high elevation and significance as Yellowstone National Park's west entrance. With National Park Service funding, and given its date of construction, the airport terminal design can be associated with the Park Service's Mission 66 program and policy. Called "Mission 66," this was a ten-year National Park Service (NPS) program intended to modernize NPS infrastructure facilities (visitor centers, housing, interpretive centers, etc.) in time for the fiftieth anniversary of the establishment of the Park Service in 1966.

The Yellowstone Airport Terminal site retains all seven aspects of integrity and was determined eligible for listing to the NRHP under Criteria A and C.

Yellowstone Airport Beacon Tower (24GA1981)

The Yellowstone Airway Beacon Tower is of a construction style of towers constructed in the 1930s. This beacon tower was relocated to the airport grounds at the same time as

the Yellowstone Airport was constructed at its current location, circa late 1964 or early 1965. While the beacon tower is likely of the original construction style as it was pre-relocation, the rotating and lighted beacon equipment has gone through numerous changes as electrical equipment has expended its useful life. Airport staff noted that modifications (beacon light source) have been made as recently as 2009.

The style of the Yellowstone Airway Beacon is the same as beacons and towers constructed as part of the Transcontinental Airway System established in the early days of aviation. These lighted beacons and other navigational aids facilitated navigation along designated flight corridors prior to the development of radio navigation. As radar and other navigational aids improved and became more common place, beacons started being decommissioned nationwide as early as 1951 through the 1970s. In Montana, the assessment process began in the early 1960s. Many of these beacons were donated to the Montana Aeronautics Commission (MAC), local governments, and other recipients for use. A few beacons and towers were repurposed, but most were put back to work in their original capacity.

The Yellowstone Airport Beacon Tower retains a high level of integrity, despite its relocation in the 1960s, and was determined eligible for listing to the NRHP under Criteria A and C.

4.8.2 Environmental Consequences

The following discussion outlines the Section 106 process for assessing the effects the Proposed Action would have on historic properties. Resources that are listed in or eligible for the NRHP are considered in the Section 106 process by a qualified professional. Ultimately, FAA officials make the Section 106 determination and coordinate with the Montana SHPO. The effects determination will consider both direct and indirect impacts from construction and operation activities. Effects determinations make one of the following conclusions:

- No effects - historic properties are not present in the area of potential impact or the project does not impact resources.
- No adverse effect on historic properties – the project does not have a negative effect on the historic property.
- Adverse effect on historic properties – evaluations of measures to avoid, minimize, or mitigate impacts to the historic property will need to be considered.

4.8.2.1 Yellowstone Airport Terminal Building (24GA1958) and Yellowstone Airport Beacon Tower (24GA1981)

The Proposed Action would have an adverse effect on historic properties under Section 106, as the Proposed Action includes the demolition of the existing terminal building and airport beacon. Both structures have been identified for listing on the NRHP for their character-defining historic elements.

With the loss of these structures, the environment will be both visually impacted, as well as changed with the loss of architecture representative of their respective historical eras. Visually, the impact to the historic character will be the change to the vistas that the structures have been part of since the 1960's. While both the terminal and beacon will be replaced near the existing infrastructure, the historic character of the original conditions will not be retained. In addition to the loss of the structures on the vistas, is also the visual

integrity of the structures themselves. The western modernism design associated with the 'Mission 66' era that modernized and memorialized the fiftieth anniversary of the Park Service represented a distinct architectural approach that attempted to mimic nature through use of native materials and use of space. The reflection of that time period will be lost with the demolition of the terminal.

While both the terminal and beacon are proposed to be replaced with new structures, they will likely differ in architecture and construction from that of the original. A similar profile of the terminal is proposed to be retained (at most, two stories, depending upon final design), and a beacon height similar to the existing tower and beacon (approx. 50') to provide visual clearance over existing trees in the vicinity is likely. Elements of the new structures are proposed to be more complementary to the more modern architecture and construction materials as are present in neighboring Yellowstone National Park. Additional information can be referenced in **Section 4.5** *Department of Transportation Act, Section 4(f)*, and **Section 4.13** *Visual Effects*.

On September 14th, 2020, SHPO concurred with the FAA determination that the removal of the existing terminal and beacon and tower under the Proposed Action will constitute an "adverse effect" to these historic resources under Section 106 and a Memorandum of Agreement (MOA) was prepared to mitigate this adverse effect (**Appendix I**). See **Appendix B** to find correspondence between FAA and SHPO, as well as a copy of the CRI, which discusses both resources in detail and provides the basis for the FAA's determination.

4.8.2.2 Great Bannock Trail

No archaeological or cultural resources within the APE were identified by the CRI and the Addendum, and no physical evidence of the Great Bannock Trail was found. Information obtained through literature searches placed the location of the Great Bannock Trail to the north of the APE for the Proposed Action and Alternatives W1 and S1. After being forwarded a copy of the CRI and Addendum with the letter dated March 20, 2020, the Shoshone Bannock Tribes posed no objection to the Proposed Action or Alternatives W1 and S1.

4.8.2.3 Nez Perce (Nee-Me-Poo) National Historic Trail (NPNHT)

No archaeological or cultural resources within the APE were identified by the CRI and the Addendum, and no physical evidence of the NPNHT was found. Information obtained through literature searches placed the location of the NPNHT to the north of the APE for the Proposed Action and Alternatives W1 and S1. Therefore, the disturbance of ground due to the implementation of the Proposed Action or Alternatives W1 and S1 is unlikely to affect the NPNHT.

As stated above, the FAA sent letters to tribal entities in letters dated August 29, 2019, and March 20, 2020, to invite government-to-government consultation on the Proposed Action and Alternatives W1 and S1 and to seek input on properties of cultural and religious significance that may be affected by the undertaking (**Appendix K**).

During government-to-government consultation, the Nez Perce Tribe raised concerns that any potential effect to the NPNHT or Nez Perce Tribe could not be adequately evaluated without an ethnographic study on the NPNHT to gather oral history regarding the Nez

Perce experience during the Nez Perce War of 1877 while pursued by the United States Army (US Army).

The Proposed Action and Alternatives W1 and S1 will largely be constructed on Airport property in areas of developed or heavily disturbed land; however, the utility corridor for water and fiber optic improvements will be extended from the town of West Yellowstone to the airport and cross the Custer Gallatin National Forest. The FAA, MDT, and USFS have agreed that approximately 800 members of the Nez Perce Tribe passed through the general area of the designated route of the NPNHT, and likely did not stay within the boundaries of the NPNHT as it is delineated today. These parties have also agreed that the events surrounding the Nez Perce War of 1877 on the NPNHT were a traumatic and significant event upon the Nez Perce of the time, and potentially has lasting impacts upon current members of the Nez Perce Tribe.

The FAA, MDT, and USFS have agreed with the NP THPO that, due to the gravity and significance of the Nez Perce War of 1877 upon the Nez Perce Tribe, the ambiguous nature of the true path they followed, and the proximity of the utility corridor crossing the Custer Gallatin National Forest for water and fiber optic improvements to the designated location for the NPNHT; that an ethnographic study is the appropriate means to examine potential effects on the NPNHT and current Nez Perce Tribe due to the utility corridor crossing the Custer Gallatin National Forest. A Programmatic Agreement (PA) under Section 106 has been developed in order to conduct an ethnographic study and assess any effects due to the Proposed Action activities which cross the Custer Gallatin National Forest (**Appendix I**).

The FAA notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination under Section 106 with specified documentation regarding the Yellowstone Airport Terminal and the Yellowstone Airport Beacon Tower as well as the potential for adverse effects under Section 106 to be identified as a result of the evaluation of the ethnographic study conducted under a PA. The ACHP chose not to participate in consultation.

4.8.3 Conclusion

As the non-development alternative, the No Action Alternative will have **no effect** under Section 106 on historical, architectural, archeological, or cultural resources.

The Proposed Action will have an **adverse effect** under Section 106 on the terminal and beacon as both structures will be removed, resulting in the loss of historical integrity. A Memorandum of Agreement (MOA) under Section 106 amongst the FAA, MDT, and SHPO has been signed to mitigate the adverse effect and is attached in **Appendix I**. Alternatives W1 and S1 will have **no effect** under Section 106 on the terminal and beacon as neither alternative will require the physical removal or modification of the structures.

A Programmatic Agreement (PA) under Section 106 amongst the FAA, USFS, MDT, Nez Perce Tribe, and SHPO is in the process of being signed as of the time this draft EA was released. A draft of the PA can be found in **Appendix I**, and the finalized PA will be included in **Appendix I** of the Final EA. The PA has been established in order to conduct an ethnographic study to determine if any adverse effects under Section 106 will be further identified due to the Proposed Action on the archaeological and cultural aspects of the NPNHT and Nez Perce Tribe.

If no adverse effects under Section 106 are identified through the ethnographic study conducted under the terms of the PA, then there is no use of the DOT Section 4(f) resource, and no further action is required. If adverse effects are identified through the ethnographic study, the Signatories of the PA will execute a Memorandum of Agreement (MOA) to document the mitigation requirements for the adverse effects consistent with 36 CFR § 800.5-6, will notify the Advisory Council of Historic Preservation of the adverse effect finding, and invite them to participate in consultation consistent with 36 CFR § 800.6(a)(1). Additionally, a DOT Section 4(f) Evaluation under DOT Section 4(f) will be conducted to determine if there is any use of the DOT Section 4(f) resource.

4.8.4 Mitigation

Based on coordination with FAA, MDT, and SHPO, a finalized Memorandum of Agreement (MOA) under Section 106 has been signed and is included in **Appendix I**. The MOA includes required mitigation elements which include:

- Conduct a Historic American Engineering Record (HAER) level II documentation of Yellowstone Airport Terminal and the Yellowstone Airport Beacon Tower at the Yellowstone Airport.
- During construction of the improvements:
 - Preserve the upper portion of the beacon tower to include the top platform and beacon apparatus and enough of the tower to convey the design and function of the beacon in order to display either within the new airport terminal; or outside the new terminal building and within the terminal area, at WYS.
 - Design, manufacture, and install an interpretive sign for the beacon tower display to explain the importance of Montana's Historic Airway Beacon System.
 - SHPO will provide the opportunity to review and comment upon the design and location of the beacon tower display and the text and design of the interpretive sign. SHPO will be provided a copy of the final designs.
 - Preserve rock materials from the façade of the original terminal to be repurposed into the new terminal, outside landscaping, and/or platform for the beacon tower described in (1) above.
 - Design, manufacture, and install an interpretive display in the new terminal to provide pictures of the original terminal building and explain efforts to repurpose materials or features of the original terminal into terminal area improvements.
 - SHPO will be provided the opportunity to review and provide comment on the details of repurposing the rock materials before plans are finalized, and review and comment on the interpretive sign. While no minimum amount of rock materials to be repurposed is specified in the MOA, SHPO will provide review and comment to ensure that the intent of this stipulation is met.

Based on coordination with FAA, USFS, MDT, the Nez Perce Tribe, and SHPO, a finalized Programmatic Agreement (PA) under Section 106 is in the process of being signed as of the time this draft EA was released. A draft of the PA can be found in **Appendix I**, and the finalized PA

will be included in **Appendix I** of the Final EA. The PA includes required mitigation elements which include conducting an ethnographic study with the Nez Perce Tribe regarding the NPNHT in the Hebgen Basin of Montana pursuant to 36 CFR § 800.14(b)(ii) and 36 CFR § 800.14(b)(v) when effects on historic properties cannot be fully determined prior to approval of an undertaking and other circumstances warrant a departure from the normal Section 106 process.

If adverse effects are identified through the ethnographic study, the Signatories of the PA will execute a Memorandum of Agreement (MOA) to document the mitigation requirements for the adverse effects consistent with 36 CFR § 800.5-6, will notify the Advisory Council of Historic Preservation of the adverse effect finding, and invite them to participate in consultation consistent with 36 CFR § 800.6(a)(1).

4.9 Land Use

The compatibility of existing and planned land uses near an airport is typically associated with the extent of the airport's noise impacts and with the types of land uses that may adversely affect aircraft operations. A noise sensitive area is an area where noise interferes with baseline activities associated with its use. Examples can include: residential, education, health, religious houses, and recreational sites (i.e. Custer Gallatin National Forest and Yellowstone National Park), wildlife refuges, or cultural/historic sites. Examples of land uses that present a challenge to aircraft operations could include municipal landfills, wetland mitigation sites, water or wastewater impoundments, or other use that may attract wildlife species hazardous to aviation.

The FAA has determined the cumulative noise energy exposure of individuals to noise from aviation activities must be established in terms of day/night average noise level (DNL). The FAA requires the DNL metric for airport environmental studies because it uses a single number to describe the constantly fluctuation noise levels at a received location during an average 24-hour day. The area exposed to noise levels at DNL 65 decibels (dB) and above are interest for airports. This is because the FAA's guidelines show that that residential areas and other noise-sensitive land uses are normally incompatible in areas where noise levels above DNL 65 dB occur.

4.9.1 Affected Environment

Existing Land Uses at and Near the Airport

The Airport was constructed at its current location in 1963 as a cooperative effort between the United States Departments of Interior and Agriculture, the FAA, and State of Montana. A deed transferred the Airport property from the United States to the State of Montana. The deed in 1963 included a number of restrictions involving how the airport was to be operated (the same restrictions were included in a Corrected Deed in 1968). On December 6, 2018, the FAA released the Airport from select deed restrictions after providing a Notice of Opportunity for Public Comment in the Federal Register for specific areas of the airport (Federal Register 82:243, Wednesday, December 20, 2017, page 60467). A synopsis of the deed restrictions that were released is provided in **Table 4-9-1**, with areas as reflected on **Figure 4-9-1**:

Table 4-9-1: Summary of Deed Restrictions Released in 2018

Deed Restriction Released in 2018	Area Affected Note: Approximately 735.90 acres were conveyed for Public Airport Purposes
Deed Restriction 1. "The State of Montana will use the lands conveyed for airport development."	Approximately 176 acres described as South Non-Aeronautical Area, North Non-Aeronautical Area, and Terminal and Access Road Non-Aeronautical Area was released from this deed restriction.
Deed Restriction 6. "That all facilities of the airport developed with Federal aid and all those useable for landing and take-off of aircraft will be available at all times without charge for use by the Departments of Agriculture and Interior in the conduct of its official business in common with other aircraft."	All property was released from this deed restriction.
Deed Restriction 7. "That no commercial overnight facilities, such as motels, hotels, or private residences will be constructed on the property conveyed."	Approximately 67 acres described as Terminal and Access Road Non-Aeronautical Area is released from this deed restriction.
Deed Restriction 8. "That commercial advertising signs will be prohibited within the airport access road area."	Approximately 67 acres described as Terminal and Access Road Non-Aeronautical Area was released from this deed restriction.

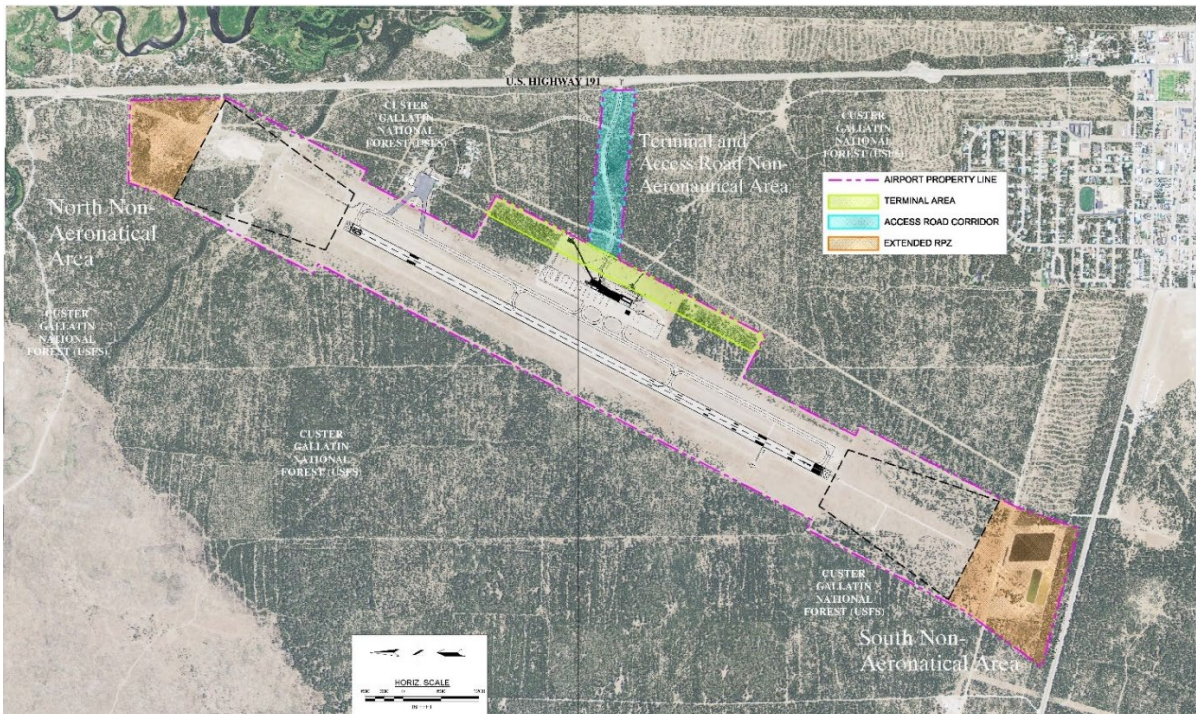


Figure 4-9-1: Areas Associated with the Release of Deed Restrictions in 2018

While the release of these deed restrictions would now allow non-aeronautical development at the Airport, no such development has been proposed at the time of the writing of this EA.

Figure 4-9-2 reflects the major land uses that are at the Airport and in the vicinity. On Airport, the town of West Yellowstone maintains their sewage lagoons under a lease with the Airport at the south end of the property. Energy West leases a portion of the Airport property off the very north end, adjacent to Highway 191.

Land use immediately surrounding the Airport is completely Custer Gallatin National Forest. Neighboring land uses that are buffered by the Custer Gallatin National Forest include the National Park Service (Yellowstone National Park), as well as the town of West Yellowstone near the southern portion of Airport property.

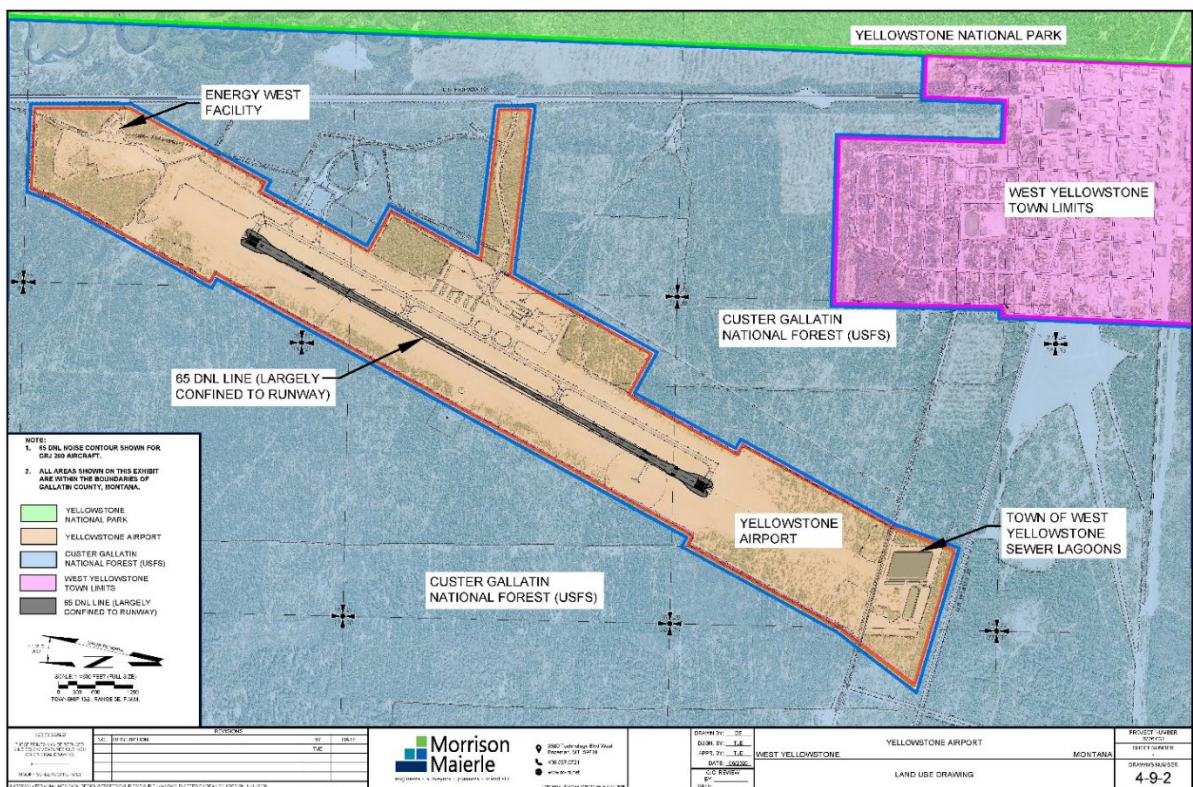


Figure 4-9-2: Existing Land Uses in Vicinity of Airport

Land Use Controls

While many airports have an Airport Affected Area (AAA) or Airport Influence Area (AIA) established to protect (zone) airspace surrounding Airport property, such zoning efforts over the Custer Gallatin National Forest is not practical. The Airport and surrounding area fall under multiple land use and zoning jurisdictions. Responsible entities include West Yellowstone, Gallatin County, Custer Gallatin National Forest, the State of Montana, and the National Park Service.

The town of West Yellowstone has established zoning districts within the Town limits for residential, business, light manufacturing, entertainment, public lands and institutions, and transitional areas.

While Gallatin County has not established zoning in the area, they do have legislation that guides subdivision review and health department review of wells and sanitary sewer treatment.

The State of Montana has not established zoning in the area, either under the Montana Department of Transportation – Highways Division for operations and maintenance of highway facilities, nor under the Department of Transportation – Aeronautics Division as the Sponsor of the Airport. MDT Highways does control access to their highway network through the approach permitting process. MDT Aeronautics, under the latest airport Master Plan completed in 2015, does have recommended development standards for potential non-aeronautical areas that follow West Yellowstone zoning district requirements.

Yellowstone National Park and the Custer Gallatin National Forest operate under the guidance of the federal government. While no formal zoning is in place, there are mechanisms to regulate land through manual and handbook direction, and special use permits which are evaluated based on compatibility with NPS and USFS guidelines. Specifically, this area of the Custer Gallatin National Forest is managed and guided by the 1987 Gallatin National Forest Plan, which provides direction on management of the resources found in the Custer Gallatin National Forest.

Land Use Compatibility

The compatibility of existing and planned land uses near an airport is typically associated with the extent of the airport's noise impacts and with the types of land uses that may adversely affect aircraft operations. Existing commercial jet aircraft and operations remain consistent with what was evaluated in the 2014 jet service EA for WYS and are therefore representative of current conditions. While the Proposed Action does not involve airport aircraft operations or related noise impacts, the Proposed Action still needs to be considered with respect to land use compatibility. The Airport has operated since the 1960's in proximity to all adjoining land uses currently identified with no known issues. Since the Proposed Action is replacing existing infrastructure on the Airport or installing underground utilities along existing an open motorized route on the Custer Gallatin National Forest, access roads, or overhead power line corridors and is not implementing any new use(s), it is anticipated that there will be no land use compatibility issues associated with adjoining uses, or wildlife, birds and associated habitat.

The 65 DNL contour is shown on **Figure 4-9-2**. Previous analysis of noise levels associated with Airport operations was completed with the EA for initiation of jet service in 2014. The 65 DNL contour shown on **Figure 4-9-2** reflects that the noise contour is largely confined to the runway pavement, and remains well within the limits of the Airport property boundary. Existing commercial jet aircraft and operations remain consistent with what was evaluated in the 2014 jet service EA and are therefore representative of current conditions.

4.9.2 Environmental Consequences

There is no acquisition of land proposed with the Proposed Action, nor change in existing land use proposed. The Proposed Action includes improvements that are replacing or are an extension of existing infrastructure. Construction of the Proposed Action improvements will interrupt some existing land uses, but only for a short period of time. The timber removal and any temporary construction occupying various land uses will not result in any long term or permanent change of land use. Such interruptions may include, but may not necessarily be limited to those identified as follows in **Table 4-9-2**.

Table 4-9-2: Proposed Action Items and Land Use Impacts

Proposed Improvement	Anticipated Land Use Impact
Construct New Terminal Building	<ol style="list-style-type: none"> 1. Relocation of existing services within proposed footprint of new terminal (rental car parking, car wash, 2. Temporary closure of a portion of airside apron adjoining new terminal for construction access. Not anticipated to result in any impacts to air traffic or any apron airside accesses. 3. Potential access issue to south apron pivot gate that may require access coordination for existing Part 135 helicopter tour business. 4. Traffic control on access road for reduced speeds for vehicles and to identify temporary construction accesses.
Expand Concrete Commercial Parking Pad	<ol style="list-style-type: none"> 1. Temporary closure of a portion of airside apron. Anticipated to result in minor impact to commercial aircraft parking position possibly requiring tighter turn out from parking position. 2. Rehabilitation of asphalt surrounding the existing apron will also occur to address existing rutting issues. Asphalt rehabilitation proposed to occur outside of commercial flight dates if schedule/weather allows, or very short term pedestrian and baggage handling access to be coordinated from a temporary parking position.
Reconstruct and Extend Airport Access Road	<ol style="list-style-type: none"> 1. Temporary closure or one-way traffic control required to facilitate construction traffic and rehabilitation construction. 2. Alternate parking and pedestrian accesses planned to be coordinated to facilitate access to existing terminal during construction impacts fronting the existing terminal.
New Parking Lot Infrastructure	<ol style="list-style-type: none"> 1. Temporary closure or one-way traffic control required to facilitate construction traffic and new parking lot construction. 2. Alternate parking and pedestrian accesses planned to be coordinated to facilitate access to existing terminal during construction impacts fronting the existing terminal.
New Water/Fiber Utility Infrastructure	<ol style="list-style-type: none"> 1. Temporary closure of open motorized route on the Custer Gallatin National Forest with traffic control for timber removal and utility installation, and potentially Airport Access Road for utility crossings. 2. Temporary noise impacts to residences within Madison Addition during timber removal and utility installation along west, north boundaries

Proposed Improvement	Anticipated Land Use Impact
	<p>with the USFS, as well as connection between the open motorized route on the Custer Gallatin National Forest and Madison Addition on the east side.</p> <p>3. Installation of utilities will require a special use permit from the USFS to allow installation on land administered by the USFS.</p>
New Sewer Utility Infrastructure	<p>1. Anticipate temporary access coordination with FBO for fuel farm to facilitate sewer crossing of two track road.</p> <p>2. Anticipate alternating closures of airside taxiway accesses between apron and parallel taxiway for crossing of force main. Anticipate only one taxiway closure needed at a time.</p> <p>3. Temporary closure of dirt two track between animal control fence and sewer lagoons for crossing of force main.</p>
Replacement of Existing Airport Beacon with New Beacon and Tower	<p>1. Removal of the existing beacon will need to be coordinated following startup of the new beacon, or coordinated outside of airport's operational season. Anticipate temporary power run to be required as existing beacon power within footprint of new terminal.</p>
Demolish Existing Terminal and Generator Buildings	<p>1. Temporary closure or one-way traffic control required to facilitate demolition.</p>

FAA Order 1050.1F does not list any specific significance thresholds under the Land Use category.

4.9.3 Conclusion

The No Action Alternative will have **no effect** on land use, as it is a non-development alternative.

Under the Proposed Action, Airport improvement projects will take place on property types (USFS and Airport) that will remain as presently used following temporary construction. New water and fiber utility infrastructure will be constructed within an easement covered under a special use permit provided by the USFS. Therefore, the Proposed Action will have **no significant effect** on land use within the vicinity of the Proposed Action.

Alternative W1 would include at least one new well, holding tank, domestic water storage tank, an arsenic removal system, and the distribution infrastructure to tie to existing facilities serving other terminal area structures (ARFF, SRE, FBO buildings). Such a facility could be sited to the south of the apron area in the approximate 20 acres of timbered area within the animal control fence. All infrastructure would be proposed to remain on Airport property; and therefore, have **no effect** on land use.

Alternative S1 would provide additional gravity sewer infrastructure and possible lift station to a higher level treatment Level 2 septic system. The system would be proposed to the north of the

existing access road and existing hangar area that is well travelled. All infrastructure would be proposed to remain on Airport property; and therefore, have **no effect** on land use.

4.9.4 Mitigation

No subdivision applications, zoning laws, or zoning regulations will need to be created or augmented in order to implement the Proposed Action and Alternatives W1 and S1. Therefore, no mitigation is required with respect to land use regulations. Construction plans and phasing will be reviewed and measures implemented to minimize temporary impacts to existing land uses to the greatest extent practical. Such measures may include: traffic control, construction phasing, work hour/day restrictions, provision for temporary facilities, etc.

4.10 Natural Resources and Energy Supply

Executive Order (EO) 13693, *Planning for Federal Sustainability in the Next Decade* (signed March 19, 2015), instructs federal agencies to increase efficiency and improve their environmental performance by reducing energy use and cost by finding renewable or alternative energy solutions. FAA policy encourages the development of facilities that exemplify the highest standards of design, including sustainability. Additionally, the agency advocates that all elements of the transportation system should be designed with a view to their aesthetic impact and conservation of resources such as energy, pollution prevention, harmonization with the community environment, and sensitivity to the concerns of the traveling public.

Impacts on the energy supply and natural resources may occur if changes in the stationary facilities at the airport cause a measurable effect on local supplies of energy, if the Proposed Action caused increased consumption of fuel by aircraft and ground vehicles, or if unusual materials that are in short supply are needed for the proposed airport improvements. FAA Order 1050.1F does not establish a specific significance threshold for natural resources and energy supply impacts, but suggests impacts may occur when the potential demands of an action exceed available or future supplies of natural resources or energy.

4.10.1 Affected Environment

The energy supply for the Airport consists of electricity supplied by Fall River and natural gas is provided by Energy West. These energy resources are not in short supply in this region of Montana. Gasoline and diesel fuel typically power airport vehicles and equipment. Water is provided for Airport use by an onsite well, and wastewater disposal for users at the Airport is provided by onsite septic systems.

The existing terminal building was constructed in 1963 and occupies approximately 11,730 SF between three floors. While areas of the building have undergone numerous partial remodels to office spaces and to facilitate post-911 security improvements, the main building components and materials are of original construction from the 1960s. Such components as the insulation, single pane windows, mechanical, electrical, plumbing systems and fixtures, among other components are largely original. While the furnace system is not original, the gas forced air furnaces were manufactured in 1996 and likely do not compete well with current efficiency standards. The terminal building continues to operate with an individual water well and septic system (upgraded in 2009, but already undersized for its use). The generator building and generator components were constructed in 1980 and have not been modified. The beacon and tower were relocated to

the airport at the time of initial construction in 1963 and as noted in **Section 4.8**, are of a construction style of towers constructed in the 1930s. No known changes have been made to that system, other than modifying the beacon to change the bulb type.

Natural resources and construction materials such as asphalt, concrete, and gravel are readily available in the Gallatin County, southwest Montana, and eastern Idaho areas.

4.10.2 Environmental Consequences

The Proposed Action is not likely to cause or create an increase in aircraft operations, so the environmental consequences of the alternatives are limited to demolition and construction activities and the future operation of the facilities.

There are no known natural resource or energy resource shortages for the Airport or local community. However, temporary energy supply resources will be needed to construct the new terminal building and associated improvements. Additionally, energy resources will be required to demolish the existing terminal. Temporary fuel needs, coupled with BMPs employed during construction to reduce energy consumption, are anticipated to result in a *de minimis* impacts to natural resources and energy supplies. It is anticipated that there will be no notable impacts to scarce mineral resources or other consumable construction materials. As noted in **Section 4.7 Hazardous Materials, Solid Waste, Pollution Prevention**, it is intended to recycle components as is reasonable to reduce impacts on the local solid waste transfer station and landfills. Some of the components (i.e. façade rock) may be able to be reutilized in the construction of the new terminal to further reduce refuse impacts and requirements for new materials.

New construction requires energy efficiency according to State of Montana Architecture & Engineering Minimum Design Standards and High Performance Building Standard Goals. The High Performance Building Standard Goals are included in **Appendix J**. Designing and constructing the new facilities to these standards largely aligns with Leadership in Energy and Environmental Design (LEED) Certification Silver criteria. An integrated design process to optimize energy performance, enhance indoor environmental quality and conserve natural resources are encouraged for all projects.

While design for the Yellowstone Airport terminal has not been started, nor components evaluated for energy efficiency, the recent replacement of the terminal building in Butte, Montana may provide for a measure of magnitude for energy impacts as the design generally followed LEED Silver requirements. The original Butte terminal (22,145 SF) was originally constructed in approximately 1962 and was replaced in 2018 with a 40,633 SF facility. Utility costs were recorded at \$6.20 per SF in the old terminal, and \$2.63 per SF in the new terminal, almost a 58% reduction in utility costs per SF as a result of improved insulation and efficiency in mechanical, electrical, and plumbing systems and fixtures. It is anticipated that the new Yellowstone Airport terminal will encompass approximately 29,000 SF. Using Butte as an order of magnitude with a 58% reduction in utility costs per SF and increasing the building footprint by approximately 247% reflects that the Yellowstone Airport terminal may be able to experience utility costs less than a 5% increase over that of their existing terminal building.

Continued utilization of the water well and septic system can result in problematic situations should there be issues with the single source of water supply for the terminal and ancillary buildings (i.e. collapsed well). With regards to the septic system, the airport is largely seasonal with very limited use during the winter months. This seasonal nature is a draw on natural

resources - wastewater, in particular, that is most effectively treated when a consistent, constant nutrient load is produced.

4.10.3 Conclusion

As the non-development alternative, the No Action Alternative will result in no additional natural resource or energy supply requirements. Therefore, the No Action Alternative will have **no effect** on natural resources and energy supplies. While this may be true, the existing building is aged and has many low efficiency features that require a lot of effort and expense to maintain. Limited building insulation and low R-value of single pane windows will continue to require a higher level of natural gas to sustain comfortable temperatures. In addition, there are no cooling systems in the existing terminal beyond a single ceiling fan. Roof leaks are also prevalent that further compromise the integrity of the insulation, among other issues including building code compliance with current standards.

The Proposed Action and Alternatives W1 and S1 are not likely to cause or create an increase in aircraft operations. Construction materials and fuel sources to construct and operate the Proposed Action and Alternatives W1 and S1 are readily available in the region. BMPs will be implemented and High Performance Building Standard Goals adhered too in order to reduce energy consumption. Tapping into the municipal systems for water supply and sewer treatment is a natural resource benefit due to economy of scale. While the effluent flows produced from the airport vary by season, tying to the municipal system does allow for metered flow of effluent to combine with the larger flows from Town to provide for more effective treatment. While Alternatives W1 and S1 are not as favorable with respect to the natural resource benefit, design options do make them viable alternatives. Therefore, the Proposed Action and Alternatives W1 and S1 will have **no significant effect** on natural resources and energy supplies.

4.10.4 Mitigation

There is no specific mitigation required. BMPs will be employed where applicable during construction in order to reduce energy consumption associated with the temporary use of construction equipment.

4.11 NOISE AND COMPATIBLE LAND USE

Noise is measured in decibels on a logarithmic scale. For every 10-decibel increase, a sound is 10 times more powerful. Long-term exposure to noise at 65 decibels or higher begins to affect physiological functions, and permanent hearing loss can occur with long or repeated exposure to sounds in excess of 85 decibels. Airports are recognized as a common contributor of noise.

The FAA Airport Noise Compatibility Planning Final Rule established noise contour maps as a tool to measure and assess noise effects near airports and to determine if noise-sensitive land uses near airports would be affected by changes in airport operations. The FAA has developed a prediction model, the Airport Environmental Design Tool (AEDT), which uses inputs such as runway use, aircraft operations, and flight track geometry to produce noise contour maps. The Final Rule also established guidelines for land use compatibility that identify what land uses are normally considered compatible (i.e. agricultural, commercial, industrial) and those that are normally considered incompatible (i.e. residential areas, schools, and churches).

Day-Night Average Sound Level (DNL) is the metric used to quantify noise levels and represents the 365-day average, in decibels, of the day and night average sound level. Sixty-five (65) DNL is considered a significant threshold because all land uses are considered compatible with noise levels below 65 DNL.

4.11.1 Affected Environment

A noise analysis was prepared for the 2014 EA for initiation of jet service to the Airport, and was applied to this environmental evaluation using the FAA's AEDT process. The DNL 65 db noise contour is reflected on **Figure 4-9-2** in **Section 4.9** of this chapter. The DNL 65 db noise contour is largely confined to the limits of the runway pavement, extending for a short distance outside of the pavement limits at the runway thresholds. The DNL 65 db noise contour does not extend outside the limits of Airport property.

Current land use immediately surrounding the Airport is Custer Gallatin National Forest (USFS). Other land uses that are in the vicinity of the Airport include Yellowstone National Park and the town of West Yellowstone.

4.11.2 Environmental Consequences

According to the FAA's 1050.1F Environmental Desk Reference, Chapter 17, environmental analysis of potential noise impacts from aviation development is typically performed for projects such as new or extended runways and taxiways, land purchases for airport-related uses, substantial amounts of airport construction or demolition activities, substantial changes in aircraft operations, or new or relocated airport access roadways.

While noise levels are expected to increase in the future due to projected increases in air traffic, neither the Proposed Action or Alternatives W1 and S1 are likely to cause or create an increase in aircraft operations or result in changed flight patterns. Therefore, no significant changes to the DNL 65 db noise contour are expected, and it will remain within Airport property. The construction of project improvements and demolishing the existing terminal building will lead to a temporary increase in noise in the terminal area. The removal of trees along utility corridors adjacent to the town of West Yellowstone is not anticipated to result in a noticeable increase in noise once construction has been completed.

Temporary increases in noise are expected from equipment used to construct improvements, remove timber, and demolish the terminal and generator buildings. It is anticipated that temporary noise impacts to the general public will be observed in the vicinity of private residences in the Madison Addition as a result of equipment and processes involved with tree removal and installation of water main and fiber optic utility improvements. As the trees requiring removal are lodgepole pine, equipment such as chainsaws, chippers, and tracked vehicles are anticipated to be used. These types of equipment can produce noise levels anywhere from 85 to 110 decibels. Prolonged or repeated exposure to sounds louder than 85 decibels can damage hearing and accelerate hearing loss, while sounds softer than 75 decibels are unlikely to damage hearing. However, proximity to construction equipment also matters; a 20-foot distance from equipment producing 110 decibels of noise will result in only 74 decibels at the 20-foot threshold. For equipment producing 100 decibels, a distance of 60-feet would be needed to bring noise levels below the regulatory level of 65 decibels. Removal of select trees and installation of water main and fiber utilities in the vicinity of the Madison Addition is anticipated to take several weeks. While actions will cause an increase in noise levels during construction, the duration will be temporary.

Private residential structures vary in distance from the interface between private property and the Custer Gallatin National Forest, but many are as close as approximately 20' from the boundary to the National Forest and near the edge of any utility corridor or easement. Construction-related noise cannot be avoided but impacts can be minimized through BMPs outlined below.

4.11.3 Conclusion

The No Action Alternative will have **no effect** on noise levels or noise-compatible land use, as it is a non-development alternative. Current noise levels and land uses would remain as they presently exist.

The Proposed Action and Alternatives W1 and S1 are not likely to cause or create an increase in aircraft operations or flight patterns and the 65-decibel DNL noise contour (**Figure 4-9-2**) will not be altered by the Proposed Action or Alternatives W1 and S1. While the Proposed Action will have result in a temporary increase in noise during construction, it will be short-term. Therefore, the Proposed Action will have **no significant effect** on noise levels or noise-compatible land use.

Alternatives W1 and S1 will also have **no significant effect** on noise levels or noise compatible land use, as they would be entirely constructed on Airport property and within the animal control fence, and therefore experience less temporary impact during construction on noise levels to surrounding property.

4.11.4 Mitigation

While specific mitigation linked to noise is not required, the following BMPs may be implemented by the contractor to minimize or reduce noise levels:

- Proper maintenance of equipment to reduce noise caused from faulty or damaged mufflers and loose engine parts such as screws, bolts, or metal pieces.
- Use proper mufflers and sound-absorbing materials for construction equipment.
- Equipment operation training and proper hearing protection for construction workers.
- Limited construction hours in the vicinity (1/8 mile) of residential areas (i.e. restricted to 8 a.m. – 5 p.m. weekdays, with no work allowed on Saturdays, Sundays, or holidays)

4.12 Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks

Title VI of the US Civil Rights Act of 1964, as amended, EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, and Order DOT 5610.2, *Environmental Justice* require that no minority or low-income person shall be disproportionately adversely impacted by any project receiving federal funds. For transportation projects, this means that no particular minority or low-income person may be disproportionately isolated, displaced, or otherwise subjected to adverse effects. Potential impacts are assessed in terms of property acquisitions or relocations, changes in access to employment areas, and other changes in low-income and minority communities/neighborhoods. To determine whether an

environmental justice population is present, Federal agencies must refer to U.S. Census data to establish the demographic and socio-economic baseline.

DOT Order 5610.2 defines minorities as Black, Hispanic, Asian-American, American Indian and Alaska Native, and Native Hawaiians and Other Pacific Islander individuals. The order also identifies low income individuals as a person having a median household income at or below the Department of Health and Human Services' (HHS) poverty guidelines. The Census Bureau's annual statistical poverty thresholds on income and poverty and typically used to define low income. EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks*, requires federal agencies to identify disproportionately high impacts and adverse impacts to children. Environmental health risks and safety risks include any product or substance that a child is likely to come in contact with or ingest, such as air, food, drinking water, recreational waters, soil, or products they might use or be exposed to. According to the FAA's 1050.1F Environmental Desk Reference Chapter 12, impacts to children's health and safety should be considered as they related to the affected environment of other impact categories, such as air quality, water quality, noise, and hazardous materials.

The FAA has not established significance thresholds for socioeconomic, environmental justice, or children's environmental health and safety risks.

4.12.1 Affected Environment

Population and Race

Historical population data from U.S. Census for the State of Montana, Gallatin County, and the town of West Yellowstone over the period ranging from the 1990s to 2018 are shown in **Table 4-12-1**. The US Census Bureau estimates the base population of West Yellowstone at 1,365 and Gallatin County at 111,876 in 2018. Since the 2010 census, the population increased by an estimated 8.7% for West Yellowstone and 25.0% for Gallatin County. The town of West Yellowstone is predominantly white (96.6%), followed by Asian (1.3%) and American Indian and Alaska Native (1.2%) ethnicities. Gallatin County is predominantly white (94.8%), followed by Hispanic (4.0%), Multiethnic (2.0%), Asian (1.6%) and American Indian and Alaska Native (1.0%) ethnicities.

Table 4-12-1 Historical Populations – State of Montana, Gallatin County, and West Yellowstone

Year	State of Montana	Gallatin County	Town of West Yellowstone
1990	799,065	50,759	910
2000	902,195	68,406	1175
2010	990,722	89,513	1271
2018	1,062,305	111,876	1382

Economy and Employment

As reflected by the U.S. Census Bureau, the breakdown of employment within Gallatin County is as follows:

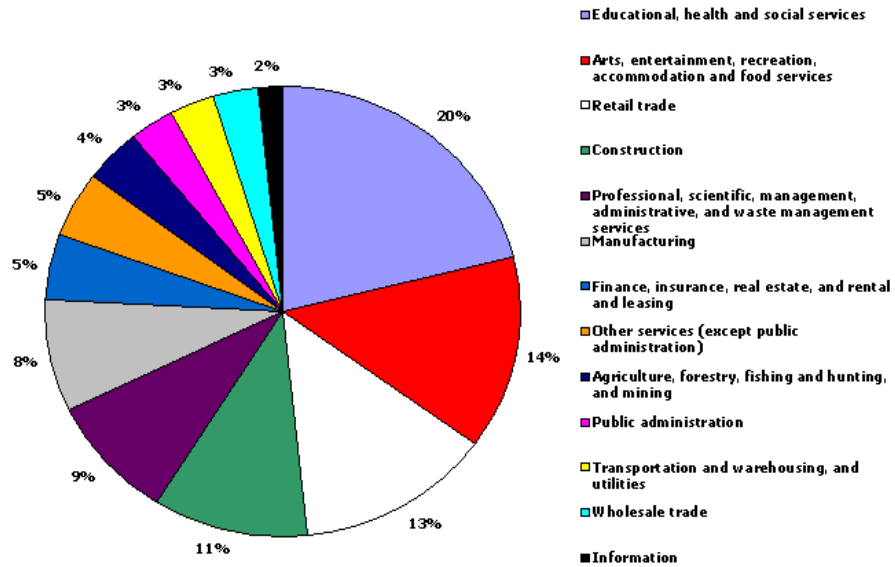


Figure 4-12-1: Gallatin County Employment Breakdown

As a gateway to Yellowstone National Park, the town of West Yellowstone is largely tourism driven, with the service industry (arts, entertainment, recreation, accommodation and food services) making up the majority of the immediate local economy. **Table 4-12-2** depicts the historical unemployment rates for Gallatin County and the State of Montana. Older historical data for the town of West Yellowstone is unavailable. Median household income for Gallatin County is \$67,047 per year, approximately \$12,321 higher than the statewide average, while West Yellowstone is \$33,605 per year, approximately \$21,121 lower than the statewide average. The unemployment rate in December, 2018 was 2.7% in Gallatin County as compared to 3.9% for Montana and the Nation.

Table 4-12-2 Historical Unemployment Rates

Area	2010	2014	2017
West Yellowstone	Unknown	Unknown	2.5%
Gallatin County	7.7%	4%	3%
State of Montana	7%	5%	4%

The American Community Survey 5-Year Estimates depict 14.4% of the population of West Yellowstone in poverty. The Small Area Income and Poverty Estimates (SAIPE) Tool reflects Gallatin County at 9.0% of the population in poverty.

There are no indicators of concentrations of low income or poverty populations, or concentrations of high minority, non-English speaking, or foreign-born populations within the immediate vicinity of the Airport or Proposed Action improvements.

Children’s Environmental Health and Safety Risks

According to the 2010 Census, there are 279 children aged 19 or younger living in West Yellowstone, representing 21.7% of the population (**Table 4-12-3**). Children under 5, representing 5.8% of the population, are the most vulnerable to environmental hazards.

There are no known schools, daycare facilities, playgrounds, or other places where children are concentrated within the immediate vicinity of the Airport.

Table 4-12-3: 2010 Town of West Yellowstone Population Demographics for Children by Age

Age	Number	Percentage of Total Population
Under 5	74	5.8
5 to 9 years	85	6.7
10 to 14 years	62	4.9
15 to 19 years	58	4.6

Additionally, the EPA EJ Screen Data Mapper was queried. This is the EPA’s Environmental Justice Screening and Mapping tool. No sites were identified as an environmental justice issue in West Yellowstone. Additionally, the Natural Resources Conservation Service maintains a list of Montana’s Environmental Justice Communities. There are no communities currently dealing with environmental justice issues within Gallatin County.

4.12.2 Environmental Consequences

The Proposed Action and Alternatives W1 and S1 are not likely to cause or create an increase in aircraft operations at the Airport beyond normal projections. The alternatives will also not have a significant effect on noise, vibrations, or fuel consumption, which are of socioeconomic and environmental concern. The Proposed Action and Alternatives W1 and S1 activities are limited to the land within and immediately surrounding the Airport, and will have no negative effect on economic activity, employment, income, housing, public services, social conditions, or low income or minority populations in the vicinity of the airport. There are no new proposed businesses associated with the new terminal, but rather continued representation of business that are already present that will be relocated from the existing terminal. The Proposed Action and Alternatives W1 and S1 are also not expected to have adverse impacts on air quality, climate, hazardous materials, noise, and water resources that could lead to significant individual or cumulative human health of environmental effects to low income or minority populations. Likewise, the Proposed Action and Alternatives W1 and S1 will have no effect on children’s environmental health and safety as the proposed activities are limited to terminal area improvements and utility infrastructure.

Given the duration of Proposed Action and Alternatives W1 and S1 improvements, there is the potential for positive effects on economics and housing as construction personnel utilize local businesses, enhanced water system integrity and redundancy for the town of West Yellowstone with looped improvements in the immediate vicinity of West Yellowstone. In addition, removing the timber provides for a wildfire buffer by removing fuels that immediately adjoin private property and residences in the town of West Yellowstone. Such effects may improve business viability and reduce homeowner risks associated with wildfire.

4.12.3 Conclusion

The No Action Alternative will have **no effect** on socioeconomics, environmental justice, or children’s environmental health and safety, as it is a non-development alternative.

The Proposed Action and Alternatives W1 and S1 will have **no effect** on economic activity, employment, income, housing, public services, social conditions or low income or minority

populations in the vicinity of the Airport. Additionally, the Proposed Action and Alternatives W1 and S1 will have **no effect** on the individual or cumulative environmental health of low income and minority populations, or children's environmental health and safety.

4.12.4 Mitigation

The No Action Alternative, Proposed Action, and Alternatives W1 and S1 will have no negative effect on socioeconomics, environmental justice, or children's environmental health and safety. Therefore, no mitigation is required.

4.13 Visual Effects (Including Light Emissions)

Broadly defined, visual effects are the extent to which the Proposed Action or alternative(s) would either: 1) produce light emissions that create annoyance or interfere with activities; or 2) contrast with, or detract from, the visual resources and/or the visual character of the existing environment. Generally, underdeveloped areas such as national parks, national forests lands, and recreation or wilderness areas could be considered to have high visual sensitivity. Developed urban areas and commercial and industrial sites are areas of low visual sensitivity due to their altered landscapes. Visual effects are often subjective because they include personal aesthetic preferences. These impacts can include contrasts between an area and its environment and the general perception of the community concerning any change. Usually, visual effects at an airport that may provide potential significance include structures that may block scenic vistas, or significantly detract from the context of a site.

4.13.1 Affected Environment

Light Emissions

Airport facilities and operations cause light emissions that can affect visually sensitive land uses such as homes, parks, or recreational areas near an airport area. However, lighting is required at the Airport to facilitate safe operations. Existing light emissions from the Airport include lighting to airfield components (runway, taxiways, and ramp entrances) and airport support facilities that include the terminal, Fixed Based Operator (FBO), general aviation hangars, apron, and portions of the access road and vehicle parking areas. The following light sources currently exist at WYS:

- High Intensity Runway Lighting (HIRL) system along Runway 01/19;
- Medium Intensity Taxiway Lighting (MITL) along the parallel taxiway and apron entrances;
- Lighted airfield signage;
- Precision Approach Path Indicator (PAPI) for Runway 01;
- Vertical Approach Slope Indicator (VASI) for Runway 19;
- Localizer for Runway 01;
- Medium Approach Light System with Runway Alignment Indicator Lights (MALSR) for Runway 01;
- Runway End Identifier Lights (REILs) for Runway 19;
- Rotating beacon with clear and green lenses on 50 foot tower to south of Terminal;
- Identification, strobe, and landing lights typically installed on aircraft.
- USFS Jump Base – limited apron and high-pressure sodium street lighting, in addition to building mounted exterior lighting;

- Obstruction lighting on wind cones, Automated Weather Observation System (AWOS), and Automatic Dependent Surveillance - Broadcast (ADS-B);
- Exterior structure lighting on the FBO, Snow Removal Equipment (SRE), and Aircraft Rescue Fire Fighting (ARFF) buildings;
- Parking lot and east side apron lighting (overhead high-pressure sodium) – various locations north of FBO (1), between ARFF and Terminal (1), and south and east of Terminal (6);
- Terminal-mounted lighting – 9 overhead apron lights and exterior mounted lighting (under eave sidewalk illumination on both airside and landsides of building);
- Lighted entrance sign at Highway 191

Visual Resources and Visual Character

The Airport is located on the Yellowstone plateau approximately 300 feet from Highway 191 at the northeast property corner, approximately 400 feet from U.S. 20 at the south property line, and is completely surrounded by lodgepole pine trees as part of the Custer Gallatin National Forest. There are no homes immediately adjacent to the Airport and it cannot be seen from Highway 191. The Airport is nearly hidden from ground level unless on Airport property. Yellowstone National Park is approximately 0.85 miles to the east of the terminal area, and the town of West Yellowstone (nearest corner of the Madison Addition) is to the south approximately 1 mile, both beyond the Custer Gallatin National Forest (administered by the USFS) adjoining the Airport.

The Yellowstone Airport terminal and beacon, as described in **Sections 4.5 and 4.8**, are located in the terminal area of the Airport and within the Proposed Action's project area. Both are eligible for listing on the NRHP for their character-defining historic elements. The beacon is of 1930s era materials and style and/or the distinctive characteristics of the period of initial construction (the terminal was constructed with the Airport in the 1960's). The beacon and associated tower visually represents a relocated Montana airway beacon and beacons utilized for rural aviation navigation across mid-century Montana before the widespread use of radar and other navigational aids. The terminal is of western modernism design associated with the 'Mission 66' era that modernized and memorialized the fiftieth anniversary of the Park Service, and represented a distinct architectural approach that attempted to mimic nature through use of native materials and use of space. The Cultural Resource Inventory also notes that the canted overhang roof supported by steel beams probably gave the arriving contemporary passenger a feeling of strength, functionality, and efficiency. Additional historic information for the beacon and terminal can be referenced in the Cultural Resource Inventory in **Appendix B**. Other important visual components to the Airport terminal area include: vistas of surrounding mountain ranges to the north, west, and south, as well as lodgepole pine forest (approx. 40-foot tree heights) surrounding the Airport.

4.13.2 Environmental Consequences

Visual effects in the airport environment are measured by the contrast with the existing environment, architecture, historic or cultural setting, or land use planning. Visual effects are subjective, and their significance is typically defined by the community or a jurisdictional agency.

Light Emissions

Light emissions are not anticipated to notably change at the airport, rather the existing equipment (beacon, apron flood lighting, parking lot lighting, and exterior building illumination) is proposed to be updated or replaced with more efficient or complementary equipment. As a number of the

lighting fixtures are aged and constructed during a time when light emissions may not have been considered as sensitively, design will involve appropriate sighting and number of fixtures (i.e. specific apron lighting for commercial aircraft only versus floodlighting a good portion of the south 2/3rds of the existing apron) to meet lighting needs while mitigating light pollution to the greatest extent possible.

The Proposed Action includes the replacement of the historic Airport beacon with a new and modern airport beacon. While the new beacon may be considered to be collocated with the new terminal building, design may require that the beacon be located elsewhere within the terminal area or near the primary windcone and segmented circle as identified on the ALP (Sheet 3 of 13) in **Appendix A**. As for the terminal, it is proposed that similar lighting associated with the existing terminal will be included on the new terminal (security lighting, exterior building illumination, apron lighting), as well as access road and parking lot lighting in the terminal area. No lighting improvements are proposed for the access road corridor between Highway 191 and the main terminal area, nor any of the water, sewer, or fiber optic utility corridors. No other changes to airport lighting will occur as a result of proposed project activities.

While the commercial air traffic serving the Airport does not have any nighttime flights, the General Aviation users do operate out of the Airport at varied hours. The presence of a helicopter life flight operation on the field that operates at all hours and days of the year is also a consideration. Implementation of lighting will need to be sensitive to user needs for nighttime operations, as well as to the nightscape environment of the surrounding Custer Gallatin National Forest and adjacent Yellowstone National Park so as to reduce any light pollution (i.e. residual 'glow') from areas of heavy lighting concentrations. Special attention will be required in replacing or installing any new lighting fixtures so as to not blind pilots accessing the apron, or the helicopter life flight operating with night vision equipment.

Lighting will also be required to adhere to State of Montana High Efficiency Building Standard Goals. Any parking lot lighting design will consider existing illumination methods provided and also consider methods to maintain the night (dark) skies as reasonably as possible. Maintaining a balance to provide functional lighting while reducing the impacts of artificial light will aid in the proper functioning of the Airport and natural ecosystems. Artificial lighting affects species migration patterns, predator-prey relationships, and the circadian rhythms of many organisms as just a few of the consequences of light pollution. No concern with regards to lighting impacts on wildlife were noted by Yellowstone National Park, US Fish and Wildlife Service or Montana Fish, Wildlife and Parks. In addition, it is important to minimize lighting impacts in order to maintain a safe pilot environment in transitioning from night vision to a lighted environment (i.e. night vision goggle use by the life flight helicopter based at the airport).

Alternatives W1 and S1 have no associated lighting characteristics.

Visual Resources and Visual Character

Airport infrastructure is not within the visual line-of-site from any maintained roads, homes or buildings that are not associated with the Airport property. Visual character changes are expected to occur on the Airport property, mainly with respect to the new terminal building. As a destination hub for an entrance to Yellowstone National Park, the design of the new terminal will be complimentary to the local environment and established architecture within the region.

Trees that are proposed to be removed to facilitate water, sewer, and fiber optic utility infrastructure will open visual corridors where none presently exist along the west, north, and a

section of the east side of the Madison Addition. The viewsheds (view parallel along the length of the corridors) are not in the direct line of sight of any residences, but rather run perpendicular to residences views. The trees will be removed to provide for a short section of open space between private properties and trees that will remain in the Custer Gallatin National Forest. Residents will not be able to look down the length of any corridor unless standing on the interface of private and the Custer Gallatin National Forest. Along established corridors, limited tree removal is proposed that will result in widening of existing corridors in select locations to facilitate water, sewer and fiber optic utility improvements. There are no private residences along existing corridors.

Visual impacts associated with Alternatives W1 and S1 are anticipated to be less than those of the Proposed Action since they are to be completed entirely on Airport property. The tree removal associated with the installation of these improvements (well and water tank for W1 and Type 2 drain field area for S1) is in areas that will remain shielded from view of the general public. While timber will still need to be removed to clear terrain for the improvements, it is anticipated that it will be less than the timber removal required to facilitate the Proposed Action.

4.13.3 Conclusion

The FAA has not established a significance threshold for visual effects in FAA Order 1050.1F; however, the FAA has identified factors to consider when evaluating the context and intensity of potential environmental impacts for visual effects. Factors to consider include the degree to which the action would have the potential to:

- Create annoyance or interfere with normal activities from light emissions; and
- Affect the visual character of the area due to the light emissions, including the importance, uniqueness, and aesthetic value of the affected visual resources.

The No Action Alternative, as a non-development alternative will have **no effect** on light emissions or visual resources at the airport.

The proposed lighting improvements under the Proposed Action would primarily be replacements for existing lighting systems or new lighting features compatible with surrounding uses. The Airport has existed at the same location since the 1960's and comparable airport lighting features have been present in this area for many decades. The new or modified lighting installations associated with the Proposed Action will have **no significant effect** on light emissions.

As, no light emissions are associated with Alternatives W1 and S1, they will have **no effect** on light emissions.

Under the Proposed Action, the existing terminal, generator building, beacon tower and beacon, and ancillary improvements will be demolished and replaced with new. The Proposed Action includes the removal of trees to facilitate utility corridors. Removal of the existing terminal and beacon will change the visual character of the existing facilities; however, the new terminal complex will be of a style and design to be complimentary to the local environment and established architecture of the region. Alternatives W1 and S1 will be located on Airport property, but still require some tree removal. Improvements will largely be subsurface and not visible, aside from any storage tank, well and arsenic removal equipment storage structure. It is proposed to have the storage tank located a short distance south of the apron in order to be shielded by existing lodgepole forest.

4.13.4 Mitigation

Mitigation in the form of shielding and lower lumen fixtures can be considered to mitigate effects on night vision of pilots, as well as reduce impacts to the nightscape environment in the surrounding Custer Gallatin National Forest and adjacent Yellowstone National Park (i.e. residual 'glow' from areas of heavy lighting concentrations).

Design of the new terminal building will be complimentary to the local environment and established architecture of the region, with consideration of the Airport's role as a destination hub to Yellowstone National Park. Impacts and mitigation related to the visual nature of removing the existing terminal and the beacon and tower, both of which are eligible to the National Register of Historic Places (NRHP), are discussed in **Sections 4.5 and 4.8**.

Areas disturbed during construction would be seeded in accordance with specifications and as coordinated with the USFS for subject property with a species compatible with Airport operations and USFS requirements to help minimize erosion. Weed control would be completed as compatible with Airport operations and USFS requirements.

4.14 Water Resources

Due to the interrelationship between surface water, groundwater, floodplains, and wetlands, these resource categories and their analysis is conducted under the all-encompassing impact category of "water resources." Impacts to any part of the system can have negative consequences to the functioning of the entire system. The project area, unless otherwise defined, as it pertains to Water Resources includes all areas to be affected directly (i.e. water resources impacts within the Proposed Action and Alternatives W1 and S1 area of improvements) and indirectly (i.e. downstream effects to water resources) by the Proposed Action and Alternatives W1 and S1.

4.14.1 Affected Environment

Surface Water Resources

There are no surface water resources on the Airport property. The town of West Yellowstone maintains their sewage lagoons on the southeastern boundary of the Airport property, and are located outside of the animal control fence. The Madison River is located just north of the northern Airport boundary.

Because there are no surface water resources within the boundary of the Airport property, nor near any of the proposed off-airport improvements, no further discussion of surface water quality is not considered for further evaluation.

Floodplains

The Federal Emergency Management Agency (FEMA) maintains detailed Flood Insurance Rate Maps (FIRMs) for flood prone and flood hazard areas. A review of FEMA's website indicates that the Airport property is located on FEMA Floodplain Map 30031C1625D and 30031C1600D, both with an effective date of September 2, 2011. The online map data layer indicates that the map is "not printed" and that the project area is "Zone D". Zone D indicates area of undetermined flood hazard. While 'undetermined', all but the very north end of the Airport and the town of West Yellowstone are on an elevated bench above the Madison River. As a result, the Airport and the surrounding area in which the proposed project activities are located are not within a 100-year floodplain.

Because there are no floodplains within the boundary of the Airport property, nor near any of the proposed off-airport improvements, discussion of floodplains are not considered for further evaluation.

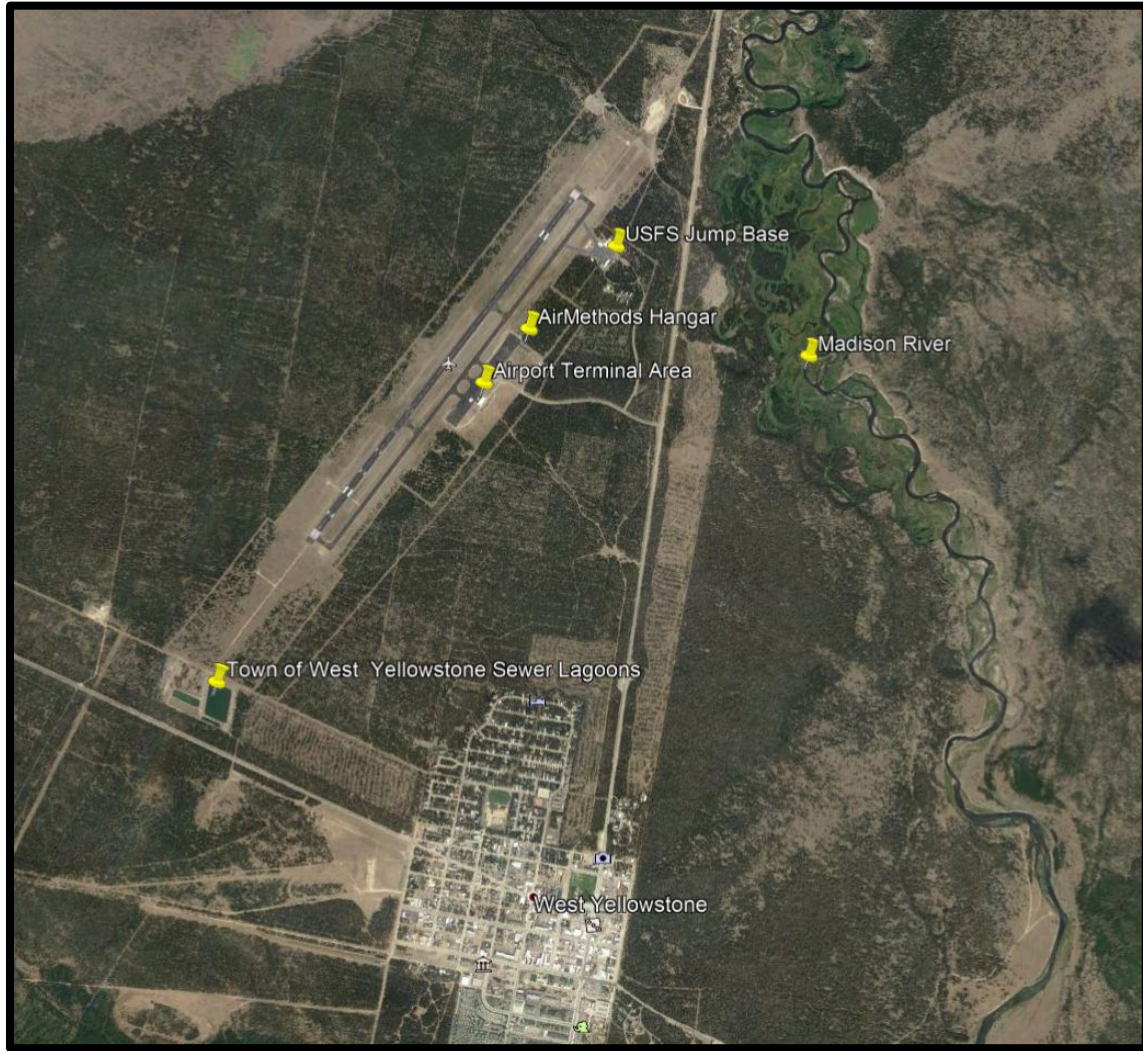


Figure 4-14-1: Surface Water Resources in Proposed Action Vicinity

Groundwater

Records of wells maintained by the Groundwater Information Center (GWIC) at the Montana Bureau of Mines and Geology show approximately 15 wells on and in the general vicinity of the Airport. Water utilities for the terminal area structures (terminal, ARFF, SRE, FBO) are provided from a single well. Arsenic levels are noted to be above acceptable levels for sustained human consumption, and are therefore reduced via existing arsenic removal systems in each of the buildings. The single hangar on the airport is served by an individual well. The terminal and hangar well logs indicate a static groundwater depth of 25 to 63 feet. According to the EPA Map of Sole Source Aquifer Locations, no sole source aquifer exists beneath the project area. The

nearest area identified as a sole source aquifer is in neighboring Idaho, approximately 5.5 miles to the southwest.

The terminal area structures noted above are served by septic tanks (3 total) to separate solids before draining to a gravity sewer main system and central lift station. The lift station pumps effluent to a drain field on the airport. The majority of sewer infrastructure was installed in 2009. The one existing hangar has its own septic tank and drain field. The USFS Jump Base has several septic systems serving its facility.

Wetlands

The project area was delineated for wetlands in September 2019 using the Level 2 Routine Determination Method outlined in the 1987 United States Army Corps of Engineers (USACE) Manual and the USACE Supplement for Western Mountains, Valleys, and Coast. No surface waters nor wetlands were observed during the on-site investigation of the Proposed Action improvement areas.

The US Fish and Wildlife Service maintains the National Wetland Inventory (NWI) database that maintains a nationwide inventory of US wetlands to provide biologists and others with information on the distribution of wetlands to aid in wetland conservation effort. NWI data cannot be used to assess regulatory compliance requirements for a project, but it can serve as a resource for information regarding the likely presence of a wetland or waterway within a project area. The USFWS NWI database was accessed on October 17, 2019. NWI data indicated the presence of the sewage lagoon ponds at the southwestern edge of the Airport property. While the lagoon ponds do create an environment for the growth of wetland vegetation, it is not native and is routinely removed from the lagoons as part of the maintenance program whenever such vegetation develops. Additionally, the NWI data indicated extensive wetlands and riparian area associated with the Madison River, however, this is outside of the project area.

Because there are no wetlands present within the footprint of the Proposed Action or Alternative W1 or S1 improvements, wetlands are not considered for further evaluation.

Wild and Scenic Rivers

According to the National Wild and Scenic Rivers System website (accessed October 2019), the only three rivers in Montana that are considered Wild and Scenic are portions of the Flathead River, the Missouri River, and East Rosebud Creek. None of these waters are located in Gallatin County or within 100 miles of the proposed project area. Neighboring Wyoming and Grand Teton National Park has the Snake River Headwaters Wild and Scenic River that is located approximately 32 miles to the southeast at its nearest point.

Because there are no wild and scenic rivers within the boundary of the Airport property, nor near any of the proposed off-airport improvements, wild and scenic rivers are not considered for further evaluation.

4.14.2 Environmental Consequences

FAA Order 1050.1F indicates significance thresholds for impacts to surface and groundwater resources would be met if the Proposed Action results in exceedances of water quality standards established by Federal, State, local, and tribal regulatory agencies or contamination of a public water supply (surface water or aquifer) such that public health may be adversely affected. The Order identifies a variety of factors that must be considered including if an action that has the potential for substantial degradation of water quality, water quality problems that cannot be avoided or mitigated, or if water quality permits or authorizations would be difficult to obtain.

Groundwater

The No Action Alternative would continue to use water wells as the source water for the terminal area buildings, as well as the existing septic systems for sewer effluent treatment. The hangar that is served by a well and septic would remain being served by this infrastructure.

The Proposed Action would result in the Airport terminal being connected to the town of West Yellowstone municipal water supply system which is sourced from a surface water spring with back up wells for redundant water supply. While the existing well that the Airport currently utilizes could remain useable for other various water needs on the Airport (i.e. irrigation), it is anticipated that the well will be abandoned in place (capped below ground level and plugged with bentonite). Given the depth to groundwater observed in onsite wells, it is anticipated that subsurface construction (water/sewer/any building basement or foundation) will not encounter groundwater.

With the installation of sewer transmission infrastructure to the town of West Yellowstone sewer treatment facility at the south end of the Airport, the Proposed Action provides for taking existing septic systems (tanks and drain fields) for terminal area structures, and existing hangar offline. All effluent will be directed to a central lift station for pumping to town of West Yellowstone sewer treatment facility at the south end of the airport for more comprehensive treatment than is provided by a standard drain field system. Existing septic tanks would be removed and drain fields would be proposed to be abandoned in place in accordance with DEQ guidelines.

Alternative W1 would supply water to the Airport terminal through a connection to an onsite water tank supplied by a new well. Alternative W1 would facilitate connection of USFS Jump Base facilities as with the Proposed Action if desired in the future. It is anticipated that the existing well would be abandoned as noted above with the Proposed Action. As the installation of a new well would be replacing the use of the existing well for water for consumptive use, it is anticipated that the well will have negligible draw down of groundwater supplies beyond what the existing well provides. There will need to be an initial filling of the tank to provide reserves for fire protection, and for any resupply. Necessary surplus volume would be episodic and not anticipated to have a long-term impact on the aquifer. Given the distance from the proposed well and tank site to the south of the terminal being approximately 4,300 feet to the nearest limits of the town of West Yellowstone and the nearest USFS Jump Base well facilities, it anticipated that there will be no impact to any other groundwater supplies.

For Alternative S1 improvements, the conditions for the Proposed Action would remain the same, except effluent would be directed into a drain field area associated with the Type 2 treatment system. Alternative S1 would facilitate connection of USFS Jump Base facilities as with the Proposed Action if desired in the future. Deliberate siting of the Type 2 system drain field would not interfere with existing wells or overlap with an existing drain field or mixing zone. While the existing improvements would be replacing other drain fields, increased growth at the airport will introduce additional pollutants, in particular nitrogen, into the ground that could limit the potential for potable water well development in the area of the USFS Jump Base or downstream of the mixing zone. The mixing zone boundary is anticipated remain to be on Airport property, with Custer Gallatin National Forest (administered by the USFS) beyond. No impacts to neighboring groundwater users are anticipated.

4.14.3 Conclusion

As the project area does not contain any surface waters, floodplains, wetlands or wild and scenic rivers, the No Action Alternative, the Proposed Action, and Alternatives W1 and S1 will have **no effect** on these resources.

Groundwater

The No Action Alternative will result in continued use of the existing septic and drain field system that is exceeding DEQ permitting thresholds (see Section 2.2.6) during peak periods of use. As there is an eminent upgrade being considered for either the connection to town of West Yellowstone sewer treatment facility or enhancing the existing system, the No Action Alternative will have **no significant effect** on groundwater.

The Proposed Action does involve permanent construction (i.e. structures, impervious surfaces) and excavation activities that would have a potential to affect groundwater. However, as no improvements are anticipated to encounter groundwater, beyond well development, there are no surface waters in the immediate vicinity of the improvements, and construction is anticipated to be of short duration, it is anticipated that any potential to affect groundwater would be negligible. With the implementation of BMPs during construction to prevent and minimize spills that could reach groundwater through infiltration, the Proposed Action will have **no significant effect** on groundwater resources.

Alternative W1 does involve permanent well installation and construction (i.e. water main, tank and well house/arsenic removal structures). The system would be designed, operated and permitted to meet all drinking water standards, aside from any fire suppression water supply. Temporary impacts are not expected because BMPs would be implemented during construction to prevent and minimize spills that could reach groundwater through infiltration. As a result, Alternative W1 will have **no significant effect** on groundwater resources.

Alternative S1 does involve permanent construction of an on-site wastewater treatment system, which would be permitted and regulated by the Montana Department of Environmental Quality (DEQ). The system would be permitted and would have a drain field and mixing zone where pollutants are allowed to exceed water quality standards. The system would be designed and operated to meet all groundwater quality standards at the mixing zone limit. Temporary impacts are not expected because BMPs would be implemented during construction to prevent and

minimize spills that could reach groundwater through infiltration. As a result, Alternative S1 will have **no significant effect** on groundwater resources.

4.14.4 Mitigation

The Proposed Action and Alternatives W1 and S1 are not in the immediate vicinity of surface waters, floodplains, wetlands, or wild and scenic rivers. In addition, there is no significant effect on groundwater, therefore, no mitigation is required for any alternatives for groundwater.

Preventative Measures

In regards to groundwater, a Stormwater Discharge General Permit will be required because the project activities will likely impact more than one acre of land. A Stormwater Pollution Prevention Plan (SWPPP) and an accompanying Notice of Intent will be developed by the Contractor to help ensure pollutants do not interact with surface waters during times of stormwater runoff. The following BMPs may be employed to prevent and minimize impacts to groundwater:

- Schedule construction activities for dry weather periods.
- Designate a contained area for equipment storage, short-term maintenance, and refueling.
- Inspect vehicles and equipment for leaks and repair immediately and clean up leaks, drips and other spills immediately to avoid soil or surface water contamination.
- Inspect all vehicles and equipment that may have come in contact with invasive plants, or the seeds of these plants, and carefully clean vehicles and equipment before arriving on-site.
- Conduct major vehicle maintenance and washing off site.
- Ensure that all spent fluids including motor oil, radiator coolant, or other fluids and used vehicle batteries are collected, stored, and recycled as hazardous waste off site.
- Ensure that all construction debris is taken to appropriate landfills and all sediment disposed of in upland areas or off-site.
- If necessary for dust control, use only a minimal amount of water.

Monitoring

Alternative W1 improvements would result in a public water supply that will need to be regularly monitored for acceptable consumption as required by State DEQ regulations. The Proposed Action improvements would be monitored as they already are with the town of West Yellowstone improvements.

Any Alternative S1 improvements would be installed under permit through the State DEQ agency. Such permitting may require monitoring to ensure compliance with the permitted flows and any other criteria that State DEQ may require.

4.15 Cumulative Impacts

According to the CEQ, cumulative impacts are “impacts on the environment which result from incremental impacts of the action when added to other past, present, and reasonably foreseeable

future actions” and that “can result from individually minor but collectively significant actions taking place over a period of time.”

A cumulative impact analysis provides information on impacts resulting from other actions that have occurred or that will occur within a defined time and geographic area. Cumulative impacts are evaluated on past actions, present actions, and reasonably foreseeable future actions. Airport actions are considered along with actions of tribes, private developers, the FAA or others. This information is used to decide whether a proposed project’s impact to a specific resource would cause a significant impact on that resource when added to past, present, and reasonably foreseeable future actions within a specific geographic area or designated time frame.

4.15.1 Past, Present, and Future Project Listing

To properly assess cumulative impacts, this section identifies all projects in the recent past, present, and reasonably foreseeable future actions. The recent past includes projects implemented within the past five years. Current projects include those which have been publicly funded, privately permitted, or under construction during development of this Environmental Assessment (2019-2020). Future projects include those for which funding has been earmarked or a needs assessment has been identified the project for consideration in the reasonably foreseeable future. Planning studies, equipment purchases, environmental review, and design projects are not included.

Projects considered for this analysis include: other projects using Federal-Aid money, such as the FAA Airport Improvement Program or other federally-funded projects in the general vicinity; Airport capital improvement projects; Montana Department of Transportation – Statewide Transportation Implementation Plan, which identifies future transportation projects; and proposed private developments within the local jurisdictions.

The Hebgen Lake Ranger District of the Custer Gallatin National Forest provided a listing of projects with Biological Resources Report information in March, 2020. The town of West Yellowstone was contacted in April, 2020 for information on recent development projects. The Gallatin County Planning Department website was reviewed for upcoming projects that could be potentially taking place in the vicinity of West Yellowstone. No projects were noted to be occurring near West Yellowstone.

Based on a review of projects in the vicinity of the Airport, the following projects were identified and evaluated for cumulative impacts.

Table 4-15-1: Cumulative Impacts - Past Projects (occurring within past five years)

Year	Action or Project
Airport	
2014-2016	Aircraft Rescue Fire Fighting Building Construction (fire station) – AIP 3-30-0082-015-2014
2015-2017	Taxiway and Apron Rehabilitation Design (design only) - AIP 3-30-0082-016-2015
2017-2018	Taxiway and Apron Rehabilitation Construction (pavement rehabilitation (mill and overlay), timber obstruction removal (approx. 51 acres inside the animal control fence) – AIP 3-30-0082-018-2016
2017-2018	Air Methods Hangar Construction (private construction of hangar, well, septic drainfield)

2017	Airport Automatic Dependent Surveillance – Broadcast tower and power install
2018	Car wash pad infrastructure installed – water line extension, power, concrete pad with metal frame car port type structure (airport and rental car agency project)
2019	Fixed Base Operator (FBO) 100LL aviation self-fueling system installed (above ground double steel wall concrete lined tank – skid mounted)
Montana Department of Transportation	
2016	Targhee Pass to West Yellowstone – US 20 chip seal
2017	Town of West Yellowstone – US 191 Canyon Street mill and overlay

Table 4-15-2: Cumulative Impacts - Current Projects

Year	Action or Project
Airport	
2019-2020	Pavement Maintenance Project (design only completed to date, but construction in spring of 2020 – seal coat and pavement markings) – AIP 3-30-0082-020-2019.
Montana Department of Transportation	
2020	Rainbow Point Turn Lane and Widening – US 191 construction
Town of West Yellowstone	
United States Forest Service	
2020-2027	North Hebgen Timber Harvest

Table 4-15-3: Cumulative Impacts - Future Projects

Year	Action or Project
Airport	
2021-2023	Proposed Action – terminal building, access road, parking lot, apron, water/sewer improvements
2021	Precision Approach Path Indicator (PAPI) replacement
2022	Construct Snow Removal Equipment Building
2022	Demolish Existing Snow Removal Equipment Building
2023	Proposed Action – terminal and generator building demolition
2023	Taxiway and Apron Pavement Maintenance (seal coat, crack seal, striping)
2024	Automated Weather Observation System (AWOS) replacement
2025	Rehabilitate Runway (mill and overlay)
2025	Rehabilitate Airfield Lighting System (new conductor and fixtures)
Montana Department of Transportation	
2024	Cougar Creek Bridge replacement w/possible wildlife underpass
Town of West Yellowstone	
2021-2022	Mechanical Wastewater Treatment System construction
United States Forest Service	
2022-2030	South Plateau Landscape Area Treatment Project

Note: These projects have been earmarked or identified for consideration in the reasonable future by various planning documents or actions in process.

4.15.2 Environmental Impact Category Analysis

The following subsections analyze the potential cumulative impacts for each environmental impact category in which the implementation of the Proposed Action and Alternatives W1 and S1 might contribute to cumulative impacts when considered with other past, present, and reasonably foreseeable future actions. The Proposed Action and Alternatives W1 and S1 in conjunction with other implemented or proposed projects, identified in **Section 4.15.1**, may together yield significant impacts, even though the direct and indirect impacts from the alternatives alone are not significant.

As detailed earlier in this chapter, the following resources are not present in the project area and will not be affected by the Proposed Action and Alternatives W1 and S1 and, therefore, would not contribute to significant cumulative impacts, and will not be addressed further:

- Coastal Resources
- Farmlands
- Surface Waters
- Floodplains
- Wetlands
- Wild and Scenic Rivers

The following resources are present in the project area, but when impacts from the project are combined with past, present, and reasonably foreseeable projects, significant impacts are not expected. BMP's as described in the previous sections of this chapter will be implemented to further reduce or eliminate impacts. Cumulative impacts are not anticipated because none of the past, present, and reasonably foreseeable future projects examined are anticipated to have long-term impacts on these resources and temporary impacts due to their construction will occur at different timeframes and/or locations than the Proposed Action and Alternatives W1 and S1. Additionally, all of these projects either implemented BMPs, or will implement BMPs to further reduce the potential for cumulative impact.

- Air Quality
- Climate
- Hazardous Materials, Pollution Prevention, and Solid Waste
- Land Use
- Natural Resources and Energy
- Noise and Compatible Land Use
- Socioeconomic Impacts, Environmental Justice, and Children's Environmental Health and Safety Risks
- Visual Effects
- Water Resources

The remaining resources merit further consideration for cumulative impacts, and are discussed below.

Biological Resources

Threatened and Endangered Species

Cumulative impacts for Threatened and Endangered species listed under the ESA have been thoroughly analyzed within the Biological Assessment and subsequent USFWS Biological

Opinion (**Appendix F**) for the Proposed Action and Alternatives W1 and S1. That analysis revealed that **no significant cumulative impacts** were identified regarding threatened, endangered, proposed, or candidate species when considered with other past, present, and reasonably foreseeable future actions.

State Listed Species of Concern

The literature review and associated analysis for state listed species of concern concluded that the Proposed Action and Alternatives W1 and S1 may impact but will not likely contribute to a trend towards federal listing or loss of viability to state listed species of concern. All projects examined are short-term, limited largely to the previously disturbed areas, and unlikely to significantly impact a state listed species of concern. There are **no significant cumulative impacts** regarding state listed species of concern when considered with other past, present, and reasonably foreseeable future actions.

General Wildlife and Vegetation

Tree removal under the Proposed Action and Alternatives W1 and S1 will permanently remove potential nesting and foraging habitat for some bird and wildlife species but is small compared to available habitat within the surrounding Custer Gallatin National Forest and Yellowstone National Park. Temporary disturbance from construction is expected. Overall, the Proposed Action and Alternatives W1 and S1 may impact individuals, but will not likely contribute to a trend towards federal listing for any species or loss of viability for general wildlife and vegetation. All projects examined are short-term, limited to previously disturbed areas, and unlikely to significantly impact general wildlife and vegetation. Therefore, the Proposed Action and Alternatives W1 and S1 will result in **no significant cumulative impacts** to general wildlife or vegetation when considered with other past, present, and reasonably foreseeable future actions.

Migratory Birds

Suitable nesting habitat for migratory birds is present within the project area. Tree removal under the Proposed Action and Alternatives W1 and S1 will permanently remove potential nesting and foraging habitat for some bird and wildlife species, but the loss of habitat is small when compared available habitat in the surrounding Custer Gallatin National Forest and Yellowstone National Park. Temporary disturbance from construction is expected. Overall, the Proposed Action and Alternatives W1 and S1 may impact individuals, but will not likely contribute to a trend towards federal listing or loss of viability for migratory bird species. All projects examined are short-term, limited to previously disturbed areas, and are unlikely to significantly impact migratory birds. Therefore, the Proposed Action and Alternatives W1 and S1 will result in **no significant cumulative impacts** to migratory birds when considered with other past, present, and reasonably foreseeable future actions.

Department of Transportation Act, Section 4(f)

The Proposed Action will involve the removal of a historic airport terminal and beacon tower and beacon, resulting to an “adverse effect” to the historical setting and a “direct use” of DOT Section 4(f) resource. While the Proposed Action will adversely affect the historic terminal building and beacon tower and beacon by removing them, none of the past, present, and reasonably foreseeable future projects listed will further impact these same resources. The Proposed Action will result in **no significant cumulative uses** to DOT Section 4(f) resources.

Historical, Architectural, Archaeological and Cultural Resources

The Proposed Action involves the demolition of the existing terminal building and beacon tower and beacon that have been determined to be eligible for the NRHP, resulting in an “adverse effect”

to historic properties. Most of the character-defining historic elements and the distinctive characteristics of the properties, while mitigated according to the MOA, will not be fully retained. Alternatives W1 and S1 will have no effect on the terminal and beacon as neither alternative will require the physical removal or modification of the structures.

The Proposed Action and Alternatives W1 and S1 are in the vicinity of the NPNHT, which has raised concerns of the Nez Perce Tribe that there could be a potential effect to the NPNHT or to the Nez Perce Tribe. A PA has been established that will complete an ethnographic study on the NPNHT to gather oral history regarding the Nez Perce experience during the Nez Perce War of 1877 while pursued by the US Army. Results of the ethnographic study will be reviewed and a determination for effect made prior to any construction commencing on land administered by the Custer Gallatin National Forest as identified for Proposed Action or Alternative W1 and S1 improvements.

All of the past, present, and reasonably foreseeable projects listed are not anticipated to affect NRHP-listed or eligible properties/buildings. With the demolition of the terminal and beacon and tower there will be impacts to Section 106 historic resources. However, when viewed with all past, present, and reasonably foreseeable future projects, **no significant cumulative impacts** are expected.

4.15.3 Conclusion

The No Action Alternative will result in **no effect** on cumulative impacts, as it is a non-development alternative.

Based on the review and findings of known ongoing, planned and proposed projects in the vicinity of the Airport and project area, it is concluded that the Proposed Action when added to past, present, and reasonably foreseeable future projects will result in **no significant cumulative impacts** to the following resources: air quality; biological resources; climate; coastal resources; Department of Transportation, Section 4(f) resources; farmlands, hazardous materials, pollution prevention and solid waste; land use; natural resources and energy supply; noise and noise-compatible land use; socioeconomic impacts, environmental justice, and children's environmental health and safety; visual effects; and water resources. This conclusion was reached because: the projects result in no effects or de-minimus (so small as to be negligible or insignificant) effects; the impacts associated with the construction activity of the projects is temporary in nature; and/or mitigation measures are proposed for the projects that, when implemented, will result in no cumulative impacts.

The Proposed Action and Alternatives W1 and S1 when added to past, present, and reasonably foreseeable future projects will contribute to cumulative impacts on historic resources by the demolition of the existing terminal building and airport beacon and tower. Given the location of the existing terminal building and beacon in the Proposed Action and Alternatives W1 and S1 improvements, there is no practicable measures to entirely avoid impacting these resources. The Proposed Action is necessary to provide an updated terminal facility that meets current and future passenger, Transportation Security Administration (TSA), and Airport Administrative needs.

Future federal projects will be subject to review under NEPA to determine whether significant environmental impacts are likely and to identify mitigation measures for any identified adverse effects. Through the planning processes and associated regulations, the USFS and town of West

Yellowstone are able to control many potential cumulative effects associated with any new growth and development.