GREENBRIER VALLEY AIRPORT
Southwest Development Area
Draft Environmental Assessment

Prepared by:
PARRISH & PARTNERS

August 2021

FEDERAL AVIATION ADMINISTRATION

EASTERN REGION
AIRPORTS DIVISION

Short Environmental Assessment Form for AIRPORT DEVELOPMENT PROJECTS

Airport Name: Greenbrier Valley Airport Identifier: LWB

Project Title: Southwest Development Area

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

Responsible FAA Official

Date

INSTRUCTIONS

THIS FORM IS FOR LIMITED USE ON SPECIFIC TYPES OF PROJECTS. AIRPORT SPONSORS MUST CONTACT YOUR LOCAL AIRPORTS DISTRICT OFFICE (ADO) ENVIRONMENTAL PROTECTION SPECIALIST (EPS) BEFORE COMPLETING THIS FORM.

This form was prepared by FAA Eastern Region Airports Division and can only be used for proposed projects in this region.

Introduction: This Short Environmental Assessment (EA), is based upon the guidance in Federal Aviation Administration (FAA) Orders 1050.1F – *Environmental Impacts: Policies and Procedures*, and the *Environmental Desk Reference for Airport Actions* and 5050.4B – *NEPA Implementing Instructions for Airport Actions.* These orders incorporate the Council on Environmental Quality's (CEQ) regulations for implementing the National Environmental Policy Act (NEPA), as well as US Department of Transportation environmental regulations, and other applicable federal statutes and regulations designed to protect the Nation's natural, historic, cultural, and archeological resources. The information provided by sponsors, with potential assistance from consultants, through the use of this form enables the FAA ADO offices to evaluate compliance with NEPA and the applicable special purpose laws.

Use: For situations in which this form may be considered, refer to the APPLICABILITY Section below. The local ADO has the final determination in the applicability of this form to a proposed Federal Action. Proper completion of the Form will allow the FAA to determine whether the proposed airport development project can be processed with a short EA, or whether a more detailed EA or EIS must be prepared. **If you have any questions on whether use of this form is appropriate for your project, or what information to provide, we recommend that you contact the environmental specialist in your local ADO.**

This Form is to be used in conjunction with applicable Orders, laws, and guidance documents, and in consultation with the appropriate resource agencies. Sponsors and their consultants should review the requirements of special purpose laws (See 5050.4B, Table 1-1 for a summary of applicable laws). Sufficient documentation is necessary to enable the FAA to assure compliance with all applicable environmental requirements. Accordingly, any required consultations, findings or determinations by federal and state agencies, or tribal governments, are to be coordinated, and completed if necessary, prior to submitting this form to FAA for review. Coordination with Tribal governments must be conducted through the FAA. We encourage sponsors to begin coordination with these entities as early as possible to provide for sufficient review time. Complete information will help FAA expedite its review. This Form meets the intent of a short EA while satisfying the regulatory requirements of NEPA for an EA. Use of this form acknowledges that all procedural requirements of NEPA or relevant special purpose laws still apply and that this form does not provide a means for circumvention of these requirements.

Submittal: When using this form for an airport project requesting *discretionary funding*, the documentation must be submitted to the local ADO by April 30th of the fiscal year preceding the fiscal year in which funding will be requested. When using this form for an airport project requesting *entitlement funding*, the documentation must be submitted to the local ADO by November 30th of the fiscal year in which the funding will be requested.

Availability: *An electronic version of this Short Form EA is available on-line at http://www.faa.gov/airports/eastern/environmental/media/C10.DOC. Other sources of environmental information including guidance and regulatory documents are available on-line at http://www.faa.gov/airports_airtraffic/airports/environmental.*

APPLICABILITY

Local ADO EPSs make the final determinations for the applicability of this form. If you have questions as to whether the use of this form is appropriate for your project, contact your local EPS BEFORE using this form. Airport sponsors can consider the use of this form if the proposed project meets either Criteria 1 or Criteria 2, 3, and 4 collectively as follows:

1) It is normally categorically excluded (see paragraphs 5-6.1 through 5-6.6 in FAA Order 1050.1F) but, in this instance, involves at least one, but no more than two, extraordinary circumstance(s) that may significantly impact the human environment (see paragraph 5-2 in 1050.1F and the applicable resource chapter in the 1050.1F Desk reference).

2) The action is one that is not specifically listed as categorically excluded or normally requires an EA at a minimum (see paragraph 506 in FAA Order 5050.4B).

3) The proposed project and all connected actions must be comprised of Federal Airports Program actions, including:

(a) Approval of a project on an Airport Layout Plan (ALP),
(b) Approval of Airport Improvement Program (AIP) funding for airport development,
(c) Requests for conveyance of government land,
(d) Approval of release of airport land, or
(e) Approval of the use of Passenger Facility Charges (PFC).

4) The proposed project is not expected to have impacts to more than two of the resource categories defined in the 1050.1F Desk Reference.

This form cannot be used when any of the following circumstances apply:

1) The proposed action, including all connected actions, requires coordination with or approval by an FAA Line of Business of Staff Office other than the Airports Division. Examples include, but are not limited to, changes to runway thresholds, changes to flight procedures, changes to NAVAIDs, review by Regional Counsel, etc.

2) The proposed action, including all connected actions, requires coordination with another Federal Agency outside of the FAA.

3) The proposed action will likely result in the need to issue a Record of Decision.

4) The proposed action requires a construction period exceeding 3 years.

5) The proposed action involves substantial public controversy on environmental grounds.

6) The proposed project would have impacts to, or require mitigation to offset the impacts to more than two resources[1] as defined in the 1050.1F Desk Reference.

7) The proposed project would involve any of the following analyses or documentation:
    a. The development of a Section 4(f) Report for coordination with the Department of the Interior,
    b. The use of any Native American lands or areas of religious or cultural significance,
    c. The project emissions exceed any applicable *de minimis* thresholds for criteria pollutants under the National Ambient Air Quality Standards, or
    d. The project would require noise modeling with AEDT 2b (or current version).

If a project is initiated using this form and any of the preceding circumstances are found to apply, the development of this form must be terminated and a standard Environmental Assessment or Environmental Impact Statement (if applicable) must be prepared.

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[1] A resource is any one of the following: Air Quality; Biological Resources (including Threatened and Endangered Species); Climate; Coastal Resources; Section 4(f); Farmlands; Hazardous Materials, Solid Waste, and Pollution Prevention; Historical, Architectural, Archaeological, and Cultural Resources; Land Use; Natural Resources and Energy Supply; Noise and Noise-Compatible Land Use; Socioeconomics; Environmental Justice; Children's Environmental Health and Safety Risks; Visual Effects; Wetlands; Floodplains; Surface Waters; Groundwater; Wild and Scenic Rivers; and Cumulative Impacts.

Complete the following information:

Project Location

Airport Name: Greenbrier Valley Airport Identifier: LWB
Airport Address: 584 Airport Road
City: Lewisburg County: Greenbrier State: WV Zip: 24901

Airport Sponsor Information

Point of Contact: Mr. Brian Belcher, Airport Director
Address: 584 Airport Road, Box 1
City: Lewisburg State: WV Zip: 24901
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Email: Brianb@gvairport.com

Evaluation Form Preparer Information

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1. Introduction/Background:

Greenbrier Valley Airport (Airport) is proposing to develop approximately 25 acres of existing airport property, the Southwest Development Area, to support General Aviation (GA) activities. Greenbrier Valley Airport, which is also known by the Federal Aviation Administration (FAA) identifier LWB, is located in Greenbrier County, West Virginia, approximately three miles north of Lewisburg in the southeastern portion of the state (**refer to Attachment 1, Figure 1**). The airport can be accessed directly off US 219 (Seneca Trail) via Airport Road and is located north of the interchange of Interstate 64 with US 219.

This publicly owned and towered Airport, located at the coordinates of N 37° 51′ 29.90″, W 80° 23′ 58.10″ is served by the 7,003-foot long Runway 4-22, which supports 18,900 annual operations and nearly 8,000 enplanements (2018 data).[2] Airport users include commercial, corporate, general aviation, and military aircraft.

This EA will document the potential impacts associated with the proposed development of the Southwest Development Area at Greenbrier Valley Airport. As the proposed 25-acre site (**refer to Attachment 1, Figure 2**) is located on a federally obligated airport, the project is being evaluated to ensure that the action meets the requirements of the *National Environmental Policy Act*. In accordance with FAA Order 1050.1F, Paragraph 3-1.1, "the FAA may, at its discretion, decide to prepare an EA in order to assist agency planning and decision-making even if the proposed action fits within a CATEX." Accordingly, based on coordination with FAA Beckley Airport Field Office staff,

[2]FAA Terminal Area Forecast, Query Data, https://taf.faa.gov/Home/RunReport (accessed February 9, 2021).

a short-form EA is being prepared for the proposed project due to the associated large area of ground disturbance.

2. Project Description (List and clearly describe **ALL** components of project proposal including all connected actions). A**ttach a map or drawing of the area with the location(s) of the proposed action(s) identified:**

The 25-acre site (**refer to Attachment 1, Figures 2 and 3**) is located west of Runway 4-22 and southwest of the commercial terminal building. Southwest Development Area program components include demolition of two existing hangars and construction of a Snow Removal Equipment (SRE) building, four new hangars, taxilanes, and two new aprons, as well as associated site development activities.

Anticipated Southwest Development Area program phasing is:

- Phase 1 (2022): Demolition of two existing T-hangars (totaling 13,037 square feet [SF]) and construction of the SRE building, parking, and apron (85,997 SF), one 14-unit (15,700 SF) and one 10-unit (11,550 SF) nested T-hangar (**refer to Attachment 1, Figure 4).**
- Phase 2 (2024): Construction of one, 8-unit (12,900 SF) Nested Hangar and associated taxilanes (**refer to Attachment 1, Figure 5)**
- Phase 3 (2024): Construction of an approximately 130,500 SF apron expansion to the southwest (**refer to Attachment 1, Figure 6)**
- Phase 4 (2025): Construction of one, 10-unit (15,840 SF) Nested Hangar and associated taxilanes (**refer to Attachment 1, Figure 5)**

Construction activities would generally consist of installation of permanent and temporary erosion control measures, site grading, repair of existing drainage infrastructure, installation of electrical service, asphalt paving, and construction of SRE and nested T-hangar structures. Phase 1 of the project also involves demolition of two existing T-hangars that were constructed in 1974.

Appropriate building and NPDES permits would be secured prior to construction. Demolition materials would be properly disposed of, most likely at the Greenbrier County Landfill located on Harper Road in Lewisburg, WV.

3. Project Purpose and Need:

The purpose of the Proposed Action, as identified in the project description, is to improve safety and maintenance activities at LWB by constructing an SRE facility that can accommodate future growth in a new, more efficient location and to enhance GA facilities through the removal of two aging, dilapidated hangars and constructing modern hangars with additional taxilanes and apron areas. Additional hangars will encourage an increase in based aircraft and enhance the Airport's ability to be self-sustaining.

LWB provides just over one million square feet of runway pavement that is required to be cleared within an hour. An SRE building is proposed within the Southwest Development Area to house, protect, and provide areas for maintenance of the equipment needed to fulfill this critical airfield safety requirement. The new building would accommodate the airport's existing equipment, including blowers, brooms, and plows, as well as additional equipment to be acquired (based on 10 to 15 percent future growth, as specified in Advisory Circular [AC] 150/5220-18A). The proposed SRE

building location would allow for quick access to the airfield, via the apron and Taxiway A. The conceptual layout for the building includes a structure with a central aisle (drive-through) design to maximize efficiency, access, and storage.

Regarding the proposed GA development, all existing hangars at LWB are currently leased. There is a waiting list and the airport receives verbal requests for T-Hangars and box hangars on a regular basis. Several individuals and corporations have expressed interest in being based at LWB. In fact, some entities on the waiting list have opted to explore other options after being on the list for an extended time. Some of these aircraft operators would likely relocate to LWB upon notification that space was available following construction of additional hangars. Hangar availability would attract new businesses and generate revenue for the airport.

Apron parking space is also at a premium. Although various planning criteria may not reflect a need for additional apron, there are numerous special events and activities that require additional, paved, aircraft parking areas. These activities include: 1) Presidential visits, which eliminate the opportunity to use most of the main apron for several days surrounding the visit; 2) special events, such as fly-ins; 3) prisoner transport; as well as other activities that limit the use of the existing apron by smaller GA aircraft.

The Southwest Development Area program would involve demolition of two deteriorated hangars that were originally constructed in 1974 and can hold up to 10 small aircraft. Phased over an estimated three-year period, an approximately 85,997 SF SRE facility and associated apron, 130,500 SF of GA apron, and four new nested T-hangars with the capacity to accommodate up to 42 aircraft would be constructed.

4. Describe the affected environment (existing conditions) and land use in the vicinity of project:

As shown in **Attachment 2**, the proposed site is comprised of existing airfield hangars, pavement, and mowed grass areas. The site is located entirely within Airport property, which is zoned Industrial (refer to **Attachment 3**).

As depicted in **Attachment 1, Figure 3,** there is a steep fall in elevation to the west, with the runway and airfield located approximately 30 feet above the bottom of the drainage swale to the west. Beyond the drainage swale, ground elevation then rises to the west in the direction of a single-family residence and wooded area. The single-family residence is located over 500 feet to the west of the proposed site and buffered by mature trees on non-Airport property. Other adjacent land uses include Airport Road and undeveloped, wooded property to the north, the airfield and associated development to east, and undeveloped airport property to the south.

Soils for the project area are predominantly (99 percent) mapped as Udorthents (refer to **Attachment 4**). The Udorthents soil is further classified as smoothed-rock outcrop complex, comprised of 65 percent Udorthents soil, 35 percent rock outcrop, and 5 percent minor soil components. The rock outcrops are described as having lithic bedrock located at 0 to 4 inches.

5. Alternatives to the Project: Describe any other reasonable actions that may feasibly substitute for the proposed project and include a description of the "No Action" alternative.

If there are no feasible or reasonable alternatives to the proposed project, explain why (attach alternatives drawings as applicable)**:**

Build Alternatives

Two Build Alternatives were evaluated in the identification of the optimum Southwest Development Area site plan. Review of the 2005 Airport Layout Plan (ALP) identifies the study area as the site of future GA/corporate development, including apron, conventional hangars, T-hangars, roads and parking (refer to **Exhibit 1**). As part of the planning efforts completed for the 2020 Master Plan Update (MPU), the 2005 ALP layout was slightly modified but maintains the original planning intent for future GA and corporate development to the south-southwest, adjacent to the existing GA/corporate area (refer to **Attachment 5**). The layout/location depicted in the 2020 MPU/ALP was evaluated as Alternative 1.

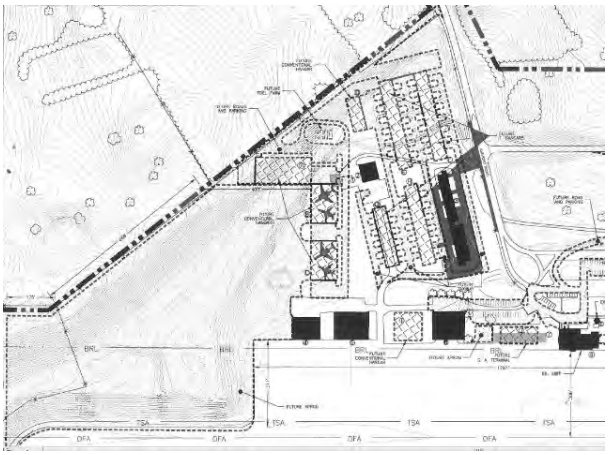
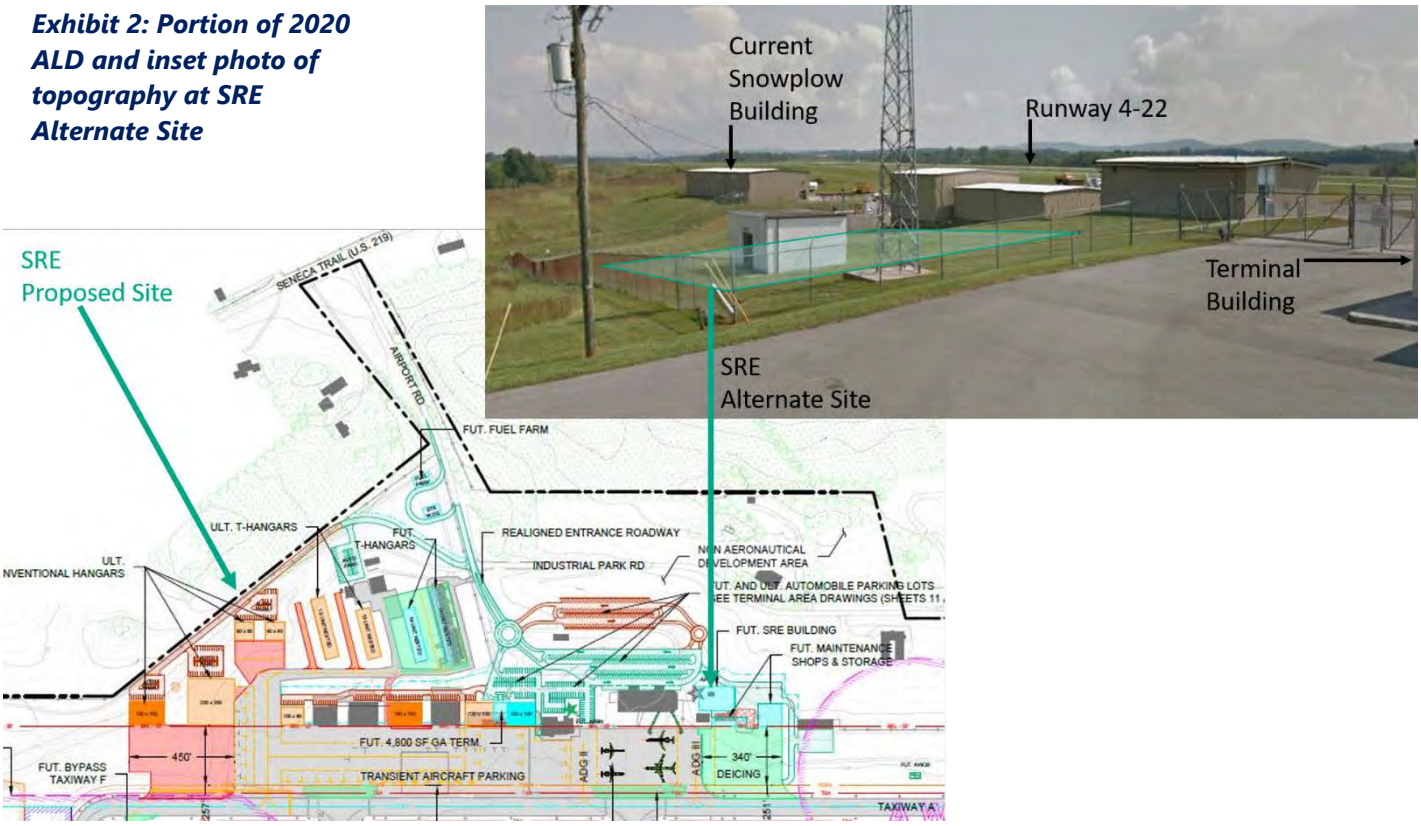


Exhibit 1: Portion of 2005 ALP

The 2020 MPU/ALP locates a future SRE building northeast of the terminal (**Attachment 5, Figure 2**). However, based on additional review, locating the proposed SRE facility within the Southwest Development Area provides notable benefits and was further evaluated as Alternative 2. Specifically, the Alternative 1 site northeast of the terminal building is located at a lower elevation than the airfield (refer to **Exhibit 2**), which has multiple disadvantages.

Exhibit 2: Portion of 2020 ALD and inset photo of topography at SRE Alternate Site



The SRE Alternate Site identified in the 2020 MPU/ALP (Alternative 1):

- would require the snow removal equipment to traverse an inclined drive to access the airfield
- may require construction of a two-story SRE building or alternatively, a large amount of fill and possible relocation/reconstruction of existing buildings to accommodate the necessary earthwork

The Alternative 2 SRE Proposed Site within the Southwest Development Area was previously identified in the 2020 MPU/ALP for similar facilities, including conventional hangars, vehicular parking, and additional apron area. This location is within the planned expanded fill footprint and would not require relocation/reconstruction of any existing buildings. Most importantly, the proposed site provides at-grade access to the airfield, improving SRE response time. The Alternative 2 site for the SRE facility within the Southwest Development Area has added airfield safety benefits and reduces construction costs. Accordingly, Alternative 2 has been identified as the Preferred Alternative.

No-Action Alternative

The No-action Alternative describes the existing condition of the Airport and is used as a baseline for comparison with the Preferred Alternative to determine potential impacts. Under the No-action Alternative, no new hangars, SRE, taxilanes, or apron facilities would be constructed, and the two existing T-hangars (G07 and G08) would not be demolished. With this Alternative, no action would be taken to meet the Purpose and Need for the proposed project.

Proposed Action

The Preferred Alternative was selected as the Proposed Action for this EA in that it best addresses the Purpose and Need of the project: constructing an SRE facility, replacing two dilapidated hangars and enhancing GA/Corporate facilities at LWB with the construction of two additional aprons and four hangars, and an SRE building adjacent to the existing GA area.

The Proposed Action includes:

- installation of temporary erosion control measures
- installation of drainage infrastructure necessary to maintain existing drainage patterns
- phased impact to an approximately 25-acre construction area (over an estimated three years)
- approximately 220,00 cubic yards of fill (obtained from a commercial borrow site)
- construction of approximately 8.5 acres of additional impervious surfaces, including apron, taxilanes, an SRE building, and hangars

Proposed Federal Action

On October 5, 2018, HR 302, the "FAA Reauthorization Act of 2018" (the Act) was signed into law (P.L. 115-254). As outlined in FAA correspondence included in **Attachment 6**, Section 163(d) of the Act limits the FAA's review and approval authority for ALPs to those portions of ALPs or ALP revisions that:

1. Materially impact the safe and efficient operation of aircraft at, to, or from the airport;
2. Adversely affect the safety of people or property on the ground adjacent to the airport as a result of aircraft operations; or
3. Adversely affect the value of prior Federal investments to a significant extent.

LWB is requesting the following federal actions associated with the proposed project:

- Unconditional approval of the updated ALP for the Greenbrier Valley Airport for the development actions subject to FAA approval authority, pursuant to 49 U.S.C. § 40103(b), and § 47107(a)(16), including the proposed aprons, taxilanes, and hangar development, and determination on, and approval of, the effects of the Proposed Project upon the safe and efficient utilization of navigable airspace pursuant to 49 U.S.C. §44718 and 14 CFR Parts 77 and 157;
- Determination under 49 U.S.C. § 47107 relating to the eligibility of the proposed project elements for Federal funding under the Airport Improvement Program (AIP) (this decision does not determine eligibility or availability of potential funds) and/or determinations under 49 USC § 40117, as implemented by 14 CFR 158.25, to impose and use passenger facility charges (PFCs) collected at the airport to assist with construction of potentially eligible development items shown on the ALP; and
- Determination under 49 U.S.C. §§ 40101(d)(1) and 47105(b)(3) whether the proposed project meets applicable design and engineering standards set forth in FAA Advisory Circulars.

6. Environmental Consequences – Special Impact Categories (refer to the Instructions page and corresponding sections in 1050.1F, the 1050.1F Desk Reference, and the Desk Reference for Airports Actions for more information and direction. Note that when the 1050.1F Desk Reference and Desk Reference for Airports Actions provide conflicting guidance, the 1050.1F Desk Reference takes precedence. The analysis under each section must comply with the requirements and significance thresholds as described in the Desk Reference).

(A) AIR QUALITY

(1) Will the proposed project(s) cause or create a reasonably foreseeable emission increase? Prepare an air quality assessment and disclose the results. Discuss the applicable regulatory criterion and/or thresholds that will be applied to the results, the specific methodologies, data sources and assumptions used; including the supporting documentation and consultation with federal, state, tribal, or local air quality agencies.

NO. An assessment of potential increased emission sources associated with the Proposed Action identified GA aircraft operations, airport-related vehicular traffic, and new facility construction. Based on 2020 MPU inventory and forecast data, there are approximately 22 based aircraft at LWB, consisting of 18 single-engine (SE), 1 multi-engine (ME), 1 jet, and 2 rotorcraft. Operations by the SE and ME piston aircraft contribute to the 13,200 annual general aviation (GA) operations (or 55 average day of peak month [ADPM] operations) at LWB. The FAA-approved 2020 MPU forecasts project that GA operations will grow a modest 14 percent to 15,000 annual operations (63 ADPM operations) by 2036. It is important to note that although the COVID-19 pandemic has had a significant impact on aviation worldwide, LWB is already seeing significant signs of recovery and it is anticipated that the 2020 FAA-approved forecasts of aviation activity remain realistic.

The proposed new T-hangar facilities would accommodate GA piston aircraft. With the proposed demolition of two delipidated T-hangars (housing 10 aircraft) and construction four new T-hangars (housing up to 42 aircraft), the Proposed Action could increase the number of GA airplanes based at LWB by approximately 32 aircraft and result in increased vehicular traffic also. GA aircraft, which are typically associated with private transport and recreational flying, are smaller, quieter, and often not operated daily. The jets (turbine aircraft) that provide scheduled commercial service at LWB burn more fuel and are the basis of the US Environmental Protection Agency's (USEPA) aircraft exhaust emission standards.

Lead (Pb) is the hazardous air pollutant of concern regarding piston-engine aircraft and one of the six criteria pollutants regulated under the National Ambient Air Quality Standards (NAAQS). In fact, although air lead concentrations have decreased by 99 percent between 1980 and 2018,[3] piston-engine aircraft operating on leaded fuel are the "largest remaining aggregate source of lead emissions to air in the country."[4] In a 2020 USEPA study to provide estimated ranges of lead concentrations that may occur at airports where leaded aviation gas is used, it was found that ME piston aircraft had a disproportionately larger impact on lead concentrations compared to SE aircraft activity.[5] As depicted in **Exhibit 3**, at a given activity level, a higher percentage of ME aircraft correlated with higher model-extrapolated Pb concentrations at the Maximum Impact Site (within approximately 50 feet of most often used runway end). For reference, the lead NAAQS standard is 0.15 µg/m^3 and the approximately 15,000 total GA operations annually at LWB equate to approximately 3,750 Landing and Take-off Operations [LTOs] per 3-month period. As LWB currently has only one ME based aircraft (less than 6 percent) and experiences GA activity levels below 5,000 LTOs per 3-month period, lead emissions at hazardous levels are not anticipated to

[3] USEPA, www.epa.gov/air-trends/lead-trends

[4] USEPA, https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100YG46.pdf

[5] USEPA, *Model-extrapolated Estimates of Airborne Lead Concentrations at US Airports*, https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100YG52.pdf, p. 54.

result from the Proposed Action. The 2020 USEPA report found that lead concentrations at airports are typically well below the lead NAAQS and that the small area of highest lead concentrations (within 50 feet [15 meters], where aircraft conduct pre-flight engine checks) at most airports, would be located within the fence line and not accessible to the public.[6] The report concluded that because lead levels dissipate quickly with distance from piston-engine exhaust, lead levels at the monitored airports were "uniformly below the lead air standard" within 164 feet (50 meters) of the high concentration areas.[7] At LWB, the closest residences are located over 1,600 feet from the runway ends.

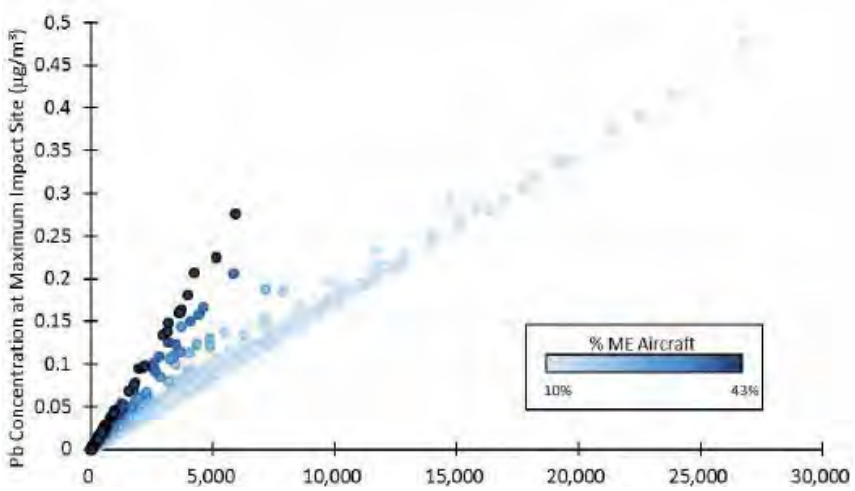


Exhibit 3: Relationship between 3-Month Lead Concentration and 3-Month Piston-Engine Aircraft Activity

Furthermore, exhaust emissions other than lead from piston aircraft, particularly at the operational levels experienced at LWB, would not be harmful. Finally, as additional GA aircraft based at LWB would likely not be operated daily, the anticipated increase in vehicular trips would be less than the number of potential new airplanes (32 aircraft) and due to the rural nature of the region, would not result in harmful emissions.

Construction-related air emissions are considered "direct" sources of emissions under the *Clean Air Act* General Conformity Rule and in attainment areas, such as Greenbrier County, can be reported for disclosure purposes under NEPA.[8] Sources of construction-related emissions include the exhaust from heavy equipment, delivery trucks, and construction worker vehicles traveling to and from the site; dust from earthwork/grading; equipment movement on unpaved areas; and, fugitive emissions from the storage/transfer of raw materials.[9]

Construction activities would impact approximately 10 acres of the 25-acre site and would be phased over an estimated three years. Proposed construction would include approximately 220,000 cubic yards of fill and approximately 8.5 acres (370,260 square feet) of additional impervious surfaces including aircraft apron, taxilanes, SRE building, and hangars.

The proposed project site is located in an area that is in attainment for all NAAQs. Phased construction would result in only portions of the approximately 10-acre area of impact being disturbed during each construction period. Given the attainment status and proposed phased

[6] USEPA, https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P100YG46.pdf
[7] *Ibid.*
[8] FAA, *Aviation Emissions and Air Quality Handbook*, Version 3, Appendix A, p. 42, http://www.faa.gov/regulations_policies/policy_guidance/envir_policy/airquality_handbook/media/Air_Quality_Handbook_Appendices.pdf (January 9, 2019).
[9] *Ibid.*

construction, it was deemed appropriate to evaluate potential project-related construction emissions comparatively based on prior modeling results. For this effort, analysis performed with the Airport Construction Emissions Inventory Tool (ACEIT) on a similar project (two new buildings, aircraft parking apron, and associated development on a 40-acre site) at a much larger airport was reviewed.[10] This prior assessment demonstrated that project-related construction emissions would be less than the *de minimis* thresholds for each of the three construction seasons between 2019 and 2021. The highest annual emissions calculated were:

- Ozone (NOx) – 56.8 tons/year (100 tons/year threshold) in 2020;
- Ozone (VOC) – 44.2 tons/year (50 tons/year threshold) in 2019;
- Carbon Monoxide, SO_2 and NO_2 – 57.0 tons/year (100 tons/year threshold) in 2020; and
- Particulate Matter (PM_{10}) – 1.8 tons (100 tons/year threshold) in 2019.

Based on these results from a larger project, it is anticipated that emissions would not exceed *de minimis* thresholds during construction of the proposed Southwest Development Area at LWB.

(2) Are there any project components containing unusual circumstances, such as emissions sources in close proximity to areas where the public has access or other considerations that may warrant further analysis? If no, proceed to (c); if yes, an analysis of ambient pollutant concentrations may be necessary. Contact your local ADO regarding how to proceed with the analysis.

NO

(3) Is the proposed project(s) located in a nonattainment or maintenance area for the National Ambient Air Quality Standards (NAAQS) established under the Clean Air Act?

NO, the proposed site is located within Greenbrier County, which is in attainment for all NAAQS.

4) Are all components of the proposed project, including all connected actions, listed as exempt or presumed to conform (See FRN, vol.72 no. 145, pg. 41565)? If yes, cite exemption and go to (B) Biological Resources. If no, go to (e).

N/A, the proposed site is located within Greenbrier County, which is in attainment for all NAAQS.

(5) Would the net emissions from the project result in exceedances of the applicable *de minimis* threshold (reference 1050.1F Desk Reference and the *Aviation Emissions and Air Quality Handbook* for guidance) of the criteria pollutant for which the county is in non-attainment or maintenance? If no, go to (B) Biological Resources. If yes, stop development of this form and prepare a standard Environmental Assessment.

NO, the proposed site is located within Greenbrier County, which is in attainment of all NAAQS.

(B) BIOLOGICAL RESOURCES

Describe the potential of the proposed project to directly or indirectly impact fish, wildlife, and plant communities and/or the displacement of wildlife. Be sure to identify any state or federal species of concern (Candidate, Threatened or Endangered).

1) Are there any candidate, threatened, or endangered species listed in or near the project area?

[10]AECOM Technical Services, Inc., Short Environmental Assessment Form, Philadelphia International Airport, Consolidated Support Facilities, July 2018.

Pursuant to Section 7 of the *Endangered Species Act* of 1973, as amended, the project area was evaluated for the presence of federally protected species or their suitable habitats. The United States Fish and Wildlife Service (USFWS) list of federally protected species known to occur or potentially occur in Greenbrier County was reviewed.[11] Potentially occurring, listed species include:

- Indiana bat (*Myotis sodalis*), Endangered, known winter habitat includes Greenbrier County;
- Northern long-eared bat (*Myotis septentrionalis*), Threatened, may occur throughout West Virginia;
- Shale barren rock cress (*Boerchera serotina*), Endangered, Greenbrier County;
- Small whorled pogonia (*Isotria medeoloides*), Threatened, Greenbrier County; and,
- Virginia spirea (*Spirea virginiana*), Threatened, along Greenbrier River in Greenbrier County.

A USFWS Information for Planning and Conservation (IPaC) species list was also reviewed. IPaC identified Indiana bat, Northern long-eared bat, candy darter (*Etheostoma osburni*), small whorled pogonia, Virginia spirea, and running buffalo clover (*Trifolium stoloniferum*) as species that may be affected by the Proposed Action (refer to **Attachment 7**).

Review of additional USFWS sources indicates that aquatic habitats supporting known or potential distributions of Virginia spirea in Greenbrier County are limited to Greenbrier River, which is located over two miles east of the proposed Southwest Development Area site.[12] Similarly, the candy darter is a small, freshwater fish that requires an aquatic habitat, which is not present at the proposed site. In addition, the proposed project would not involve tree clearing or a site that consists of caves or mine portals; thus, no impacts to the Indiana or Northern long-eared bat would occur. The shale barren rock cress is highly habitat-restricted and the shale barrens that it requires are not present at the proposed site. Potentially suitable habitat for the small whorled pogonia, which is a member of the orchid family, includes older hardwood stands with an open understory, often with acidic soils, a thick layer of dead leaves, and on slopes near small streams. This habitat is not present at the proposed site. Finally, running buffalo clover is not known to exist within Greenbrier County[13] and is most frequently found in recently disturbed habitats with filtered sunlight. Because the proposed site has been previously disturbed, there are no trees and thus, only direct sunlight.

The 25-acre study area was surveyed by qualified biologists. No threatened or endangered species were observed and no habitat for listed species was identified (refer to **Attachment 7**).

[11] USFWS, "Known and Potential Distribution of Federally Listed Endangered and Threatened Species and Proposed Species in West Virginia", updated April 2015.
[12] USFWS, http://www.fws.gov/westvirginiafieldoffice/PDF/AquaticHabitatsSupportingFederallyListedEndangeredThreatenedSpecies.pdf (January 20,2020).
[13] WVDNR, "Rare, Threatened and Endangered Species," http://www.wvdnr.gov/wildlife/endangered.shtm (January 20, 2020).

Based on an absence of potentially suitable habitat, it is anticipated that the Proposed Action would have **no effect** on federally protected species.

As described on the WV Department of Natural Resources' website, West Virginia does not have state threatened and endangered species legislation; therefore, the species listed as State threatened or endangered are those found on the USFWS's list of federally threatened and endangered species and no impacts are anticipated.[14]

(2) Will the action have any long-term or permanent loss of unlisted plants or wildlife species?
NO

(3) Will the action adversely impact any species of concern or their habitat?
NO

(4) Will the action result in substantial loss, reduction, degradation, disturbance, or fragmentation of native species habitats or populations?
NO

(5) Will the action have adverse impacts on a species' reproduction rates or mortality rate or ability to sustain population levels?
NO

(6) Are there any habitats, classified as critical by the federal or state agency with jurisdiction, impacted by the proposed project?
NO

(7) Would the proposed project affect species protected under the Migratory Bird Act? (If **Yes**, contact the local ADO).
NO, the IPaC report (refer to **Attachment 7**) lists 2 migratory birds that may be affected by the Proposed Action (black-capped chickadee, *Poecile atricapillus practicus*, and yellow-bellied sapsucker, *Sphyrapicus varius*); however, there are no trees located on site. Although, two existing hangars would be demolished as part of the proposed project, no nests have been observed on these structures and it is unlikely that impacts to migratory birds would occur.

If the answer to any of the above is "Yes", consult with the USWFS and appropriate state agencies, and provide all correspondence and documentation.

(C) CLIMATE
(1) Would the proposed project or alternative(s) result in the increase or decrease of emissions of Greenhouse gases (GHG)? If neither, this should be briefly explained and no further analysis is required and proceed to (D) Coastal Resources.
YES, Increase. As discussed under **(A) Air Quality**, the proposed new T-hangar facilities would accommodate GA piston aircraft. With the proposed demolition of two delipidated T-hangars (housing 10 aircraft) and construction four new T-hangars (housing up to 42 aircraft), the Proposed Action could increase the number of GA airplanes based at LWB by approximately 32

[14] *Ibid.*

aircraft and result in increased vehicular traffic also. However, it is important to note that GA aircraft, which are typically associated with private transport and recreational flying, are smaller, quieter, and often not operated daily. The jets (turbine aircraft) that provide scheduled commercial service at LWB burn more fuel and are the basis of EPA's aircraft exhaust emission standards. In 2021, EPA published the *Control of Air Pollution from Airplanes and Airplane Engines: GHG Emission Standards and Test Procedure-Final Rule* (40 Code of Federal Regulations [CFR] Parts 87 and 1030). These regulations are specific to jets, not the piston aircraft that would be based at LWB because of the Proposed Action.

The proposed project site is in an area that is in attainment for all NAAQs. Phased construction would result in only portions of the approximately 10-acre area of impact being disturbed during each construction period. Given the attainment status and proposed phased construction, it was deemed appropriate to evaluate potential project-related construction emissions comparatively based on prior modeling results. For this effort, analysis performed with the Airport Construction Emissions Inventory Tool (ACEIT) on a similar project (two new buildings, aircraft parking apron, and associated development on a 40-acre site) at a much larger airport was reviewed.[15] This prior assessment demonstrated that project-related construction emissions would be less than the *de minimis* thresholds for each of the three construction seasons between 2019 and 2021. The highest annual emissions calculated were:

- Ozone (NOx) – 56.8 tons/year (100 tons/year threshold) in 2020;
- Ozone (VOC) – 44.2 tons/year (50 tons/year threshold) in 2019;
- Carbon Monoxide, SO_2 and NO_2 – 57.0 tons/year (100 tons/year threshold) in 2020; and
- Particulate Matter (PM_{10}) – 1.8 tons (100 tons/year threshold) in 2019.

Based on these results from a larger project, it is anticipated that GHG emissions would not exceed *de minimis* thresholds during construction of the proposed Southwest Development Area at LWB.

(2) Will the proposed project or alternative(s) result in a net decrease in GHG emissions (as indicated by quantitative data or proxy measures such as reduction in fuel burn, delay, or flight operations)? A brief statement describing the factual basis for this conclusion is sufficient.

N/A

(3) Will the proposed project or alternative(s) result in an increase in GHG emissions? Emissions should be assessed either qualitatively or quantitatively as described in 1050.1F Desk Reference or Aviation Emissions and Air Quality Handbook.

YES. As previously discussed, the project will result in construction and operation increases in GHG, but the increases will be below established *de minimis* thresholds and the construction emissions will be temporary.

(D) COASTAL RESOURCES

(1) Would the proposed project occur in a coastal zone, or affect the use of a coastal resource, as defined by your state's Coastal Zone Management Plan (CZMP)?

NO Explain. West Virginia does not have any coastal resources.

[15]AECOM Technical Services, Inc., Short Environmental Assessment Form, Philadelphia International Airport, Consolidated Support Facilities, July 2018.

(2) If **Yes**, is the project consistent with the State's CZMP? (If applicable, attach the sponsor's consistency certification and the state's concurrence of that certification).

N/A

(3) Is the location of the proposed project within the Coastal Barrier Resources System? **NO** (If **Yes**, and the project would receive federal funding, coordinate with the FWS and attach record of consultation).

N/A

(E) SECTION 4(f) RESOURCES

(1) Does the proposed project have an impact on any publicly owned land from a public park, recreation area, or wildlife or waterfowl refuge of national, state, or local significance, or an historic site of national, state, or local significance? Specify if the use will be physical (an actual taking of the property) or constructive (i.e. activities, features, or attributes of the Section 4 (f) property are substantially impaired.) If the answer is "No," proceed to (F) Farmlands.

NO, the proposed project is located entirely on existing Airport property and there are no adjacent Section 4(f) resources. As requested by WV SHPO, a Historic Property Inventory (HPI) form was completed for the Airport (**Attachment 8**). As a result, WV SHPO determined that no architectural properties eligible for or included in the National Register will be affected by the proposed project. Furthermore, WV SHPO indicated that no archaeological resources have been documented within the project area, which has been impacted by previous ground disturbing activities; the proposed project will have no effect on archaeological historic properties.

(2) Is a *De Minimis* impact determination recommended? If "yes", please provide; supporting documentation that this impact will not substantially impair or adversely affect the activities, features, or attributes of the Section 4 (f) property; a Section 106 finding of "no adverse effect" if historic properties are involved; any mitigation measures; a letter from the official with jurisdiction concurring with the recommended *de minimis* finding; and proof of public involvement. (See Section 5.3.3 of 1050.1F Desk Reference). If "No," stop development of this form and prepare a standard Environmental Assessment.

N/A

(F) FARMLANDS

Does the project involve acquisition of farmland, or use of farmland, that would be converted to non-agricultural use and is protected by the Federal Farmland Protection Policy Act (FPPA)? (If **Yes**, attach record of coordination with the Natural Resources Conservation Service (NRCS), including form AD-1006.)

NO. The entire site is encompassed within the existing Airport property boundary; thus, no potential farmland would be converted to non-agricultural use due to the Proposed Action. In addition, approximately 99 percent of the 25-acre site is mapped as Udorthents, which is not classified as prime or statewide important farmland (refer to **Attachment 4**). Therefore, no significant impacts to farmland protected under the FPPA would result from the Proposed Action.

(G) HAZARDOUS MATERIALS, SOLID WASTE, AND POLLUTION PREVENTION

(1) Would the proposed project involve the use of land that may contain hazardous materials or cause potential contamination from hazardous materials? (If Yes, attach record of consultation with appropriate agencies).

NO. Although a confirmed release was identified in 2017 as part of the fuel farm closure and relocation, this release was located at the existing fuel farm, which is approximately 1,000 feet (0.2 mile) northeast of the Southwest Development Area. The release of petroleum from the existing Underground Storage Tank (UST) system was identified and reported to the West Virginia Department of Environmental Protection (WVDEP) on October 6, 2017. WVDEP responded with a Confirmed Release Notice to Comply form on October 10, 2017, which issued Leak# 17-033. During the limited site assessment activities, soil samples from 13 soil borings were collected for screening with a Photoionization Detector (PID). Contamination was detected at most of the sample locations, including soil contamination above the current WVDEP Leaking Underground Storage Tank action level at nine sites.

Although contamination does exist at the existing UST system location, the concentrations of petroleum-related contaminants were below hazardous levels. All applicable regulations will be followed and if additional contaminated material is encountered during UST closure activities, the WVDEP will be notified by the contractor and the necessary corrective actions will be taken to remediate the site location to below the WVDEP LUST action levels.

(2) Would the operation and/or construction of the project generate significant amounts of solid waste? If **Yes**, are local disposal facilities capable of handling the additional volumes of waste resulting from the project?

NO. Daily aviation operations within the Southwest Development Area would not result in an appreciable amount of solid waste. Demolition of two existing T-hangars would produce construction debris/solid waste. Historic stockpiling of some construction debris has also occurred within the project area, south of the hangars to be demolished and the existing pavement. This debris may not be deemed suitable fill material and may be removed from the site. The closest disposal facility is located on Harper Road in Lewisburg, WV. Any solid waste generated during construction would likely be disposed there. This facility, which was opened in 1976, has ample capacity remaining with an estimated closure of 2041.[16]

(3) Will the project produce an appreciable different quantity or type of hazardous waste? Will there be any potential impacts that could adversely affect human health or the environment?

Based on the age of the two existing T-hangars to be demolished, there is potential that asbestos-containing materials (ACM) or lead-based paint (LBP) may be present. In WV, the disposal of ACM is regulated by the Department of Health and Human Resources, Bureau for Public Health (Title 64, Series 63 [64CSR63]), as well as Department of Environmental Protection's Division of Air Quality (45CSR15) and Division of Water and Waste Management, Office of Solid Waste Management (33CSR1). LBP is regulated by the Department of Health and Human Resources, Bureau for Public Health (64CSR42). Prior to demolition activities, the hangars should be assessed

[16] Landfill Methane Outreach Program, "Project and Landfill Data by State," West Virginia, https://www.epa.gov/lmop/project-and-landfill-data-state (January 20, 2021).

by a licensed inspector, and if ACM or LBP are identified above allowable limits, applicable regulations must be followed. In addition, all demolition requires that written notification be filed with the WVDEP Division of Air Quality in accordance with 45CSR15.

(H) HISTORIC, ARCHITECTURAL, ARCHEOLOGICAL, AND CULTURAL RESOURCES

(1) Describe any impact the proposed project might have on any properties listed in, or eligible for inclusion in the National Register of Historic Places. (Include a record of your consultation and response with the State or Tribal Historic Preservation Officer (S/THPO)).

As requested by WV SHPO, a Historic Property Inventory (HPI) form was completed for the Airport. As a result, WV SHPO determined that no previously documented archaeological resources are located within the project area and no architectural properties eligible for or included in the National Register will be affected by the proposed project (**Attachment 8**). Because the Proposed Action is consistent with existing aviation development at LWB and would be buffered from adjacent properties by a natural barrier of mature trees, no impacts to the viewshed of the nearby residence are anticipated. No further WV SHPO consultation is necessary unless plans for the proposed project are changed.

(2) Describe any impacts to archeological resources as a result of the proposed project. (Include a record of consultation with persons or organizations with relevant expertise, including the S/THPO, if applicable).

The proposed site is previously disturbed. As described in **Attachment 4**, nearly the entire site (99 percent) is mapped as Udorthents. The Udorthents soil is further classified as smoothed-rock outcrop complex, comprised of 65 percent Udorthents soil, 35 percent rock outcrop, and 5 percent minor soil components. In addition, the topography drops sharply to the west; therefore, no excavation, only fill, is anticipated for construction of the Proposed Action. Based on review of the submitted HPI form, WV SHPO determined that no previously documented archaeological resources are located within the project area (**Attachment 8**).

(I) LAND USE

(1) Would the proposed project result in other (besides noise) impacts that have land use ramifications, such as disruption of communities, relocation of residences or businesses, or impact natural resource areas?

NO. The proposed Southwest Development Area is located on existing Airport property and would not result in disruption of communities, relocation of residences or businesses, or impacts to natural resource areas.

(2) Would the proposed project be located near or create a wildlife hazard as defined in FAA Advisory Circular 150/5200-33, "Wildlife Hazards On and Near Airports"?

NO. No aspects of the proposed Southwest Development Area would result in creation of a potential wildlife hazard near Greenbrier Valley Airport. The closest disposal facility is located on Harper Road in Lewisburg, which is over 10,000 feet from the Greenbrier Valley Airport and thus, complies with the guidelines established in FAA AC 150/5200-33.

(3) Include documentation to support sponsor's assurance under 49 U.S.C. § 47107 (a) (10), of the 1982 Airport Act, that appropriate actions will be taken, to the extent reasonable, to restrict land use to purposes compatible with normal airport operations.

Refer to sponsor's assurance included as **Attachment 9**. The Proposed Action is located on existing Airport property and is compatible with airport activity.

(J) NATURAL RESOURCES AND ENERGY SUPPLY

What effect would the project have on natural resource and energy consumption? (Attach record of consultations with local public utilities or suppliers if appropriate)

The proposed Southwest Development Area would involve energy efficient Light Emitting Diode (LED) lighting for four hangars and the SRE building, which would not burden the existing service; thus, no significant increase in energy demand at LWB would be expected to result from implementation of the Proposed Action. In addition, consumable natural resources to be used for construction of the proposed project would not be considered scarce or unusual. Sources of construction materials needed for the proposed project are available locally and regionally and would not cause an undue demand on supplies in the area.

(K) NOISE AND NOISE-COMPATIBLE LAND USE

Will the project increase noise by DNL 1.5 dB or more for a noise sensitive area that is exposed to noise at or above the DNL 65 dB noise exposure level, or that will be exposed at or above the DNL 65 dB level due to a DNL 1.5 dB or greater increase, when compared to the no action alternative for the same timeframe? (Use AEM as a screening tool and AEDT 2b as appropriate. See FAA Order 1050.1F Desk Reference, Chapter 11, or FAA Order 1050.1F, Appendix B, for further guidance). Please provide all information used to reach your conclusion. If yes, contact your local ADO.

NO. Although construction of two new T-hangars could accommodate an additional 32 based aircraft, the resulting additional GA operations would be anticipated to result in a negligible impact on noise levels at LWB. Based on noise contours generated for the 2020 MPU, the future (2036) 65 decibel DNL noise contour remains entirely on existing airport property (**Attachment 10**). These contours are based on the Proposed Action and additional future aircraft operations that are not part of the Proposed Action; therefore, noise impacts associated with additional aircraft in the Proposed Action will be less than anticipated in the 2020 MPU.

Noise impacts may result during construction of the proposed Southwest Development Area but would be temporary in nature and their degree of impact would subside as construction concludes. Noise impacts during construction are primarily associated with an increase in ambient noise levels from the construction equipment. Typical noise levels generated by different types of construction equipment are presented in **Table 1**.

Table 1 Noise Level (dBA) for Construction Equipment	
EQUIPMENT	**dBA Leq @ 50 feet**
Front Loader	79
Back Hoe	85
Dozer	80
Tractor	80
Grader	85
Truck	91
Paver	89
Concrete Mixer	85
Pile Driver	100
Jackhammer	88
Rock Drill	98
Saw	78
SOURCE: Grant, Charles A. and Reagan, Jerry, A., *Highway Construction Noise: Measurement, Prediction and Mitigation.*	

Above 65 dBA, noise sensitive land uses, such as residential, are typically discouraged. The project site is located on existing Airport property. The closest residence is located over 500 feet to the west, ten times the distance for the provided noise levels in **Table 1**. Distance would rapidly attenuate noise, and it is not anticipated that construction, which would be limited to weekdays between 7:00 am and 5:00 pm, would occur close enough to existing residences to cause disturbances.

(L) SOCIOECONOMICS, ENVIRONMENTAL JUSTICE, and CHILDREN'S HEALTH and SAFETY RISKS

(1) Would the project cause an alteration in surface traffic patterns, or cause a noticeable increase in surface traffic congestion or decrease in Level of Service?

NO. Although the construction of new hangars could result in an additional 32 based GA aircraft, these aircraft operators would not be anticipated to utilize the airport daily, thus GA aircraft operations are projected to increase 14 percent over 20 years and vehicular traffic accessing LWB would not be anticipated to decrease the Level of Service of the area's rural roadways. Noticeable increases in traffic volumes may occur during the construction period, which is anticipated to be completed in three phases between 2022 and 2025. Impacts to traffic volumes during construction would be limited to weekdays between 7:00 am and 5:00 pm and would include travel to and from the site by construction workers, as well as construction equipment and dump trucks hauling fill material. The airport is accessed by US Route 219, which provides a two-way left turn lane at the airport entrance, facilitating traffic flow even during heavier airport traffic times and during construction. Impacts to area traffic volumes during construction would be temporary in nature, ending when construction concludes, and would not be anticipated to result in significant traffic congestion in the vicinity of the airport.

(2) Would the project cause induced, or secondary, socioeconomic impacts to surrounding communities, such as changes to business and economic activity in a community; impact public service demands; induce shifts in population movement and growth, etc.?

NO. Although no increased public service demands or shifts in population would occur, hangar availability would attract new businesses and generate revenue for the airport and in the community. No negative socioeconomic impacts would be anticipated to result from the Proposed Action.

(3) Would the project have a disproportionate impact on minority and/or low-income communities? Consider human health, social, economic, and environmental issues in your evaluation. Refer to DOT Order 5610.2(a) which provides the definition for the types of adverse impacts that should be considered when assessing impacts to environmental justice populations.

NO. The proposed site is located on existing Airport property and would not result in any relocations or other residential impacts.

Regarding environmental justice populations, demographic and economic data from the USEPA's EJ Screen database for the project vicinity and State was compared (**Attachment 11)**. County-level information was available from U.S. Census Bureau's QuickFacts data but is not considered directly comparable (per the Census Bureau). As shown in **Table 2**, the percentages of minority and low-income populations in the vicinity of the Southwest Development Area are lower than that of West Virginia. No disproportionate impacts to environmental justice populations would be anticipated to result from the Proposed Action.

Table 2
SOCIOECONOMIC DATA

Statistic	Airport Vicinity* (1-mile radius of project)	Greenbrier County+	West Virginia*
Minority Population (%)	7	6.1+	8
Low Income Population (%)	33	16+	39

Sources: *U.S. EPA EJScreen website, EJScreen Report (Version 2020), https://ejscreen.epa.gov/mapper/ejscreen
+US Census Bureau QuickFacts, https://www.census.gov/quickfacts/fact/table/greenbriercountywestvirginia,WV/RHI825219#RHI825219

(4) Would the project have the potential to lead to a disproportionate health or safety risk to children?

NO.

If the answer is "YES" to any of the above, please explain the nature and degree of the impact. Also provide a description of mitigation measures which would be considered to reduce any adverse impacts.

N/A

(M) VISUAL EFFECTS INCLUDING LIGHT EMISSIONS

(1)Would the project have the potential to create annoyance or interfere with normal activities from light emissions for nearby residents?

NO. The Proposed Action is consistent with the existing airport-related development. The minimal amount of light emissions associated with the proposed Southwest Development Area

would not create an annoyance for adjacent properties. As discussed previously, the proposed site is located over 500 feet from the closest residence and would be buffered by a stand of mature trees on non-Airport property.

(2) Would the project have the potential to affect the visual character of nearby areas due to light emissions?

NO. The Proposed Action is consistent with the existing airport–related development.

(3) Would the project have the potential to block or obstruct views of visual resources?

NO. The Proposed Action is located entirely on existing Airport property in an area of existing aviation-related development.

If the answer is "YES" to any of the above, please explain the nature and degree of the impact using graphic materials. Also provide a description of mitigation measures which would be considered to reduce any adverse impacts.

(N) WATER RESOURCES (INCLUDING WETLANDS, FLOODPLAINS, SURFACE WATERS, GROUNDWATER, AND WILD AND SCENIC RIVERS)

(1) WETLANDS

(a) Does the proposed project involve federal or state regulated wetlands or non-jurisdictional wetlands? (Contact USFWS or appropriate state natural resource agencies if protected resources are affected) (Wetlands must be delineated using methods in the US Army Corps of Engineers 1987 Wetland Delineation Manual. Delineations must be performed by a person certified in wetlands delineation. Document coordination with the resource agencies).

NO. No USFWS National Wetland Inventory (NWI) wetlands or surface waters are identified on site (refer to **Attachment 12**). The site was surveyed by qualified biologists (refer to Biological Opinion included in **Attachment 7**). Results of the field survey were that the grass-lined drainage swales are non-jurisdictional. The swales are filled with upland vegetation and no defined bed or bank were visible or identified. No streams or wetlands were identified during the field survey.

(b) If yes, does the project qualify for an Army Corps of Engineers General permit? (Document coordination with the Corps).

N/A

(c) If there are wetlands impacts, are there feasible mitigation alternatives? Explain.

N/A

(d) If there are wetlands impacts, describe the measures to be taken to comply with Executive Order 11990, Protection of Wetlands.

N/A

(2) FLOODPLAINS

(a) Would the proposed project be located in, or would it encroach upon, any 100-year floodplains, as designated by the Federal Emergency Management Agency (FEMA)?

NO. Refer to **Attachment 13.**

(b) If Yes, would the project cause notable adverse impacts on natural and beneficial floodplain values as defined in Paragraph 4.k of DOT Order 5620.2, *Floodplain Management and Protection*?

N/A

(c) If Yes, attach the corresponding FEMA Flood Insurance Rate Map (FIRM) and describe the measures to be taken to comply with Executive Order 11988, including the public notice requirements.

N/A

(3) SURFACE WATERS

(a) Would the project impact surface waters such that water quality standards set by Federal, state, local, or tribal regulatory agencies would be exceeded or would the project have the potential to contaminate a public drinking water supply such that public health may be adversely affected?

NO. There are no surface waters located on or near the proposed site. The closest river is the Greenbrier River, which is located over two miles east of the site.

(b) Would the water quality impacts associated with the project cause concerns for applicable permitting agencies or require mitigation in order to obtain a permit?

NO. The project would be required to obtain a National Pollution Discharge Elimination System (NPDES) General Permit for Construction. During construction, sediment transport and potential impacts to off-site surface waters would be minimized by implementing Best Management Practices (BMPs), such as silt fencing and the use of check dams in ditches to catch sediment. In addition, efforts would be made to schedule construction operations to minimize the exposure of excavated areas and re-vegetate these areas as soon as possible after grading.

If the answer to any of the above questions is "Yes", consult with the USEPA or other appropriate Federal and/or state regulatory and permitting agencies and provide all agency correspondence.

N/A

(4) GROUNDWATER

(a) Would the project impact groundwater such that water quality standards set by Federal, state, local, or tribal regulatory agencies would be exceeded or would the project have the potential to contaminate an aquifer used for public water supply such that public health may be adversely affected?

NO

(b) Would the groundwater impacts associated with the project cause concerns for applicable permitting agencies or require mitigation in order to obtain a permit?

NO. LWB has a current Underground Injection Control (UIC) Permit (1411-14-025). The 130,500-square foot apron expansion that is part of the Proposed Action is located in the vicinity of the UIC permit site (refer to **Attachment 14, Figure 1**). Representatives from WV Department of Environmental Protection's (WVDEP) Groundwater and UIC Program met on-site with the Project Team on December 4, 2018, to discuss the UIC permit and review options for the apron expansion. During the site visit it was discussed that the location where the UIC identifies the sinkhole (injection site) is not specifically definable. It appears that the surface drainage flows

overland, through a series of pipes and ditches as it filters into the ground. A visible sink hole was observed several hundred feet southwest of the site.

There may be some modifications required to the current UIC permit to reflect existing conditions throughout the airport property. The initial phase of a project to evaluate the hydrology of most of the airport property is underway.

Attachment 14, Figure 1 depicts the location of the proposed apron expansion in relation to the features observed on site. From the existing storm water outfall, water flows through a constructed ditch to a location that shows signs of being an infiltration point. The current UIC permit allows for construction around the injection points, provided measures are constructed to prevent contaminants from entering the subsurface system. In accordance with the permit, fill for the new apron would be constructed over the existing open ditch and the existing storm water pipe(s) would be extended. Conceptual design for the new apron includes connecting to the existing storm water pipe with a new storm drain and constructing an outfall just upstream of the suspected groundwater infiltration point, with the goal being for the drainage pattern in this area to remain unchanged from current conditions.

The WVDEP indicated that they are not opposed to the proposed expansion of the apron area, provided that an alternate primary treatment system is included and maintained (**Attachment 14**). An alternate primary treatment system will be finalized during future design phases. Following completion of the ongoing drainage studies at LWB, the UIC permit will be modified as necessary through additional coordination with the WVDEP Groundwater and UIC Program.

The Proposed Action would be required to obtain a NPDES General Permit for Construction from the WVDEP. As part of this notice of intent, a specific SWPPP would have to be developed, defining the erosion and sediment control measures that would be in place during construction. A Groundwater Protection Plan and Spill Prevention, Control, and Countermeasure Plan (SPCC) would be included.

(c) Is the project to be located over an EPA-designated Sole Source Aquifer?

NO

If the answer to any of the above questions is "Yes", consult with the USEPA or other appropriate Federal and/or state regulatory and permitting agencies and provide all agency correspondence as an attachment to this form.

N/A

(5) WILD AND SCENIC RIVERS

Would the proposed project affect a river segment that is listed in the Wild and Scenic River System or Nationwide River Inventory (NRI)? (If Yes, coordinate with the jurisdictional agency and attach record of consultation).

NO. There are no surface waters located on or near the proposed site. The closest river is the Greenbrier River, which is located over two miles east of the site. The Greenbrier River is not

classified as a Wild and Scenic River; however, the 109-mile river segment from the confluence of the East and West Forks in Pocahontas County, downstream to the I-64 Bridge in Caldwell, Greenbrier County, is included in the NRI. The proposed project would not impact this segment of the Greenbrier River.

(O) CUMULATIVE IMPACTS

Discuss impacts from past, present, and reasonably foreseeable future projects both on and off the airport. Would the proposed project produce a cumulative effect on any of the environmental impact categories above? Consider projects that are connected and may have common timing and/or location. For purposes of this Form, generally use 3 years for past projects and 5 years for future foreseeable projects.

NO. The proposed Southwest Development Area is unlikely to contribute to any significant adverse cumulative impacts.

The cumulative impact analysis under NEPA requires the evaluation of a Proposed Action's direct and indirect impacts on a particular resource to determine if those effects in combination with the effects of other projects on the same resource would be cumulatively significant. Accordingly, the resources of concern relative to the proposed Southwest Development Area include potential water quality impacts associated with construction of additional impervious surfaces and increased stormwater runoff.

LWB is located in a rural area and recent residential, commercial, and industrial development in the vicinity of the Airport has been limited. Population growth in Greenbrier County has been slow, increasing only 0.9 percent from 2010 to 2015, and is expected to continue this trend or even see a slight decline over the next 10 years.[17] Development pressure in the vicinity of the airport is anticipated to remain low.

Recent development projects at the Greenbrier Valley Airport have consisted of apron reconstruction/taxilane relocation and the addition of 18,000 square feet (0.41 acre) of impervious surfaces. Also, within the past three to five years in the West Side Business Park, Rainelle Medical Center (RMC) clinic was constructed, and an expansion of Mott Manufacturing was approved. Approximately 1.56 acres of additional impervious surfaces (both parking area and structures) are associated with these two facilities.

The list of potential future projects at LWB are included in **Table 3**.

[17]West Virginia University, Bureau of Business and Economic Research, College of Business and Economics, data released March 2014 (Greenbrier County population of 35,480 people in 2010 projected to be 35,828 people in 2015 and 35, 670 people in 2025).

Table 3 Proposed Capital Improvement Program Projects at Greenbrier Valley Airport	
YEAR	**PROJECT**
2021	Install Security Fencing
	Acquire Security Equipment
	Install AWOS & Wind Cones
	Acquire Security Equipment (Police Vehicle)
	Acquire Snow Removal Equipment (SRE)
	Design SRE Facility
2022	Rehabilitate Runway 4/22 (Design)
	Construct SRE Facility – Phase 1
	Acquire Avigation Easement
2023	Rehabilitate Runway 4/22 (Construction)
	Construct SRE Facility – Phase 2
2024	Rehabilitate Taxiway A (Design)
	Acquire SRE
	Construct South Taxiways and GA Apron

Except for the Proposed Action (2022-2023 Construct SRE Facility and 2024 Construct South Taxiways/GA Apron), the CIP projects listed in **Table 3** involve rehabilitation of existing pavements, installation of security fencing/weather equipment, and acquisition of SRE equipment, and not construction of new impervious surfaces.

Stormwater/Water Quality

The Airport's Stormwater Pollution Prevention Plan (SWPPP) has recently been updated (refer to **Attachment 15**) as a component of renewing LWB's WV/NPDES Multi-Sector General Water Pollution Control Permit WV0111457. In review of the SWPPP, stormwater from the proposed new hangars would likely flow westward to a drainage swale that flows to the south end of the Airport's property and into a depression. Stormwater from the SW apron expansion would drain to Outfall 1, where it likely percolates into the ground. As discussed previously, the SW apron expansion would be designed to maintain existing stormwater flows and avoid cumulative impacts. Based on preliminary design, no new stormwater detention ponds are anticipated. A modification to the existing UIC Permit would be coordinated with WVDEP Groundwater and UIC Program.

The Proposed Action and other improvements impacting greater than one acre of land would be required to obtain a NPDES General Permit for Construction from the WVDEP. As part of this

notice of intent, a specific SWPPP would have to be developed, defining the erosion and sediment control measures that would be in place during construction.

Cumulatively, no significant water quality impacts are anticipated as sediment and erosion control measures and BMPs would be implemented for both the current and future construction projects.

7. PERMITS

List all required permits for the proposed project. Has coordination with the appropriate agency commenced? What feedback has the appropriate agency offered in reference to the proposed project? What is the expected time frame for permit review and decision?

In accordance with Section 106 of the National Historic Preservation Act, project concurrence has been received from the West Virginia State Historic Preservation Officer. Additional permits and approvals for the Proposed Action include:

FEDERAL

- National Environmental Policy Act review
- FAA Form 7460-1, Notice of the Proposed Construction
- Construction Safety Phasing Plan, AC 150/5370-2F

STATE

- Underground Injection Control (UIC) Permit (1411-14-025)-modification required
- State Pollution Discharge Elimination System General Permit for Construction Notice of Intent
- Stormwater Pollution Prevention Plan (SWPPP, update)
- Groundwater Protection Plan (update)
- SPCC/Spill Prevention Response Plan
- 45CSR17 Compliance (implementation of Best Management Practices during construction)

Coordination of these approvals would be completed prior to construction. Based on WVDEP e-Permitting search results for Greenbrier County, Greenbrier County Airport Authority has an active NPDES permit (WVG610012, refer to **Appendix 15**). The Airport's UIC Permit was recently renewed and remains valid through April 23, 2026. Correspondence is ongoing with the WVDEP Groundwater and UIC Program regarding the required modification of this permit for the Proposed Action (**Attachment 13**).

Prior to demolition activities, the hangars should be assessed by a licensed inspector, and if ACM or LBP are identified above allowable limits, applicable regulations must be followed. In addition, all demolition requires that written notification be filed with the WVDEP Division of Air Quality in accordance with 45CSR15.

8. MITIGATION

Describe those mitigation measures to be taken to avoid creation of significant impacts to a particular resource as a result of the proposed project, and include a discussion of any impacts that cannot be mitigated.

No mitigation measures are required for the Proposed Action; BMPs would be implemented during construction to minimize potential environmental impacts.

9. PUBLIC INVOLVEMENT

Describe the public review process and any comments received. Include copies of Public Notices and proof of publication.

A draft version of this EA will be made available for public review and comment for 30 days. The document will be available on the Greenbrier Valley Airport's website (www.gvairport.com/about/rfps-documents), at the Airport, and at the Greenbrier County Library in Lewisburg, West Virginia. Notice of the availability of the Draft EA will also be advertised in the *West Virginia Daily News* and *The Register - Herald* (refer to **Attachment 17**).

10. LIST OF ATTACHMENTS

Attachment

1 – Project Figures
2 – Site Photographs
3 – Zoning Map
4 – NRCS Custom Soil Resource Report
5 – Airport Layout Plan Drawings
6 – FAA Approval Authority Review
7 – Biological Opinion & USFWS Protected Species/Migratory Birds Information
8 – WV SHPO Concurrence & HPI Form
9 – Sponsor Assurances
10 – Noise Contour Map
11 – Socioeconomic Data
12 – NWI Information
13 – FEMA Floodplain Map
14 – UIC Permit Information and Correspondence
15 – Stormwater Pollution Prevention Plan
16 – WV DEP e-Permitting Search Results
17 – Public Involvement

Project Title: Southwest Development Area, Greenbrier Valley Airport **Identifier:** LWB

11. PREPARER CERTIFICATION

I certify that the information I have provided above is, to the best of my knowledge, correct.

Laura M Stevens
Signature

July 20, 2021
Date

Laura M. Stevens, AICP
Name

Senior Environmental Planner
Title

Parrish and Partners, LLC
Affiliation

(803) 978-7611
Phone #

12. AIRPORT SPONSOR CERTIFICATION

I certify that the information I have provided above is, to the best of my knowledge, correct. I also recognize and agree that no construction activity, including but not limited to site preparation, demolition, or land disturbance, shall proceed for the above proposed project(s) until FAA issues a final environmental decision for the proposed project(s), and until compliance with all other applicable FAA approval actions (e.g., ALP approval, airspace approval, grant approval) and special purpose laws has occurred.

Mark Lowery / CFO
Assistant Director
Signature

7-28-2021
Date

Brian Belcher, C.M.
Name

Airport Director
Title

Greenbrier Valley Airport
Affiliation

(304) 645-3961 x223
Phone #

OFFICIAL SEAL
STATE OF WEST VIRGINIA
NOTARY PUBLIC
GEORGEANNE WALL MORGAN
587 Seneca Trail S Ronceverte WV 24970
My Commission Expires February 11, 2026

Georgeanne Wall Morgan