

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

**FINDING OF NO SIGNIFICANT IMPACT**

**LOCATION**

Lehigh Valley International Airport (ABE)  
Hanover Township, Lehigh and Northampton Counties

**DESCRIPTION OF THE PROPOSED ACTION**

The Lehigh-Northampton Airport Authority (LNAA), owner and operator of the Lehigh Valley International Airport (ABE or herein referred to as “the Airport”), proposes to develop an air cargo facility (the Proposed Action) on the north side of the airport property. The existing e-commerce cargo airline operation associated with existing Cargo Facility 2 would be relocated to the new site.

The Proposed Action includes the following elements:

- *Cargo Building.* Construct a single-story warehouse type building with up to 125,000-sf of multi-use space for processing cargo from the airside to the landside quickly and efficiently.
- *Aircraft Parking Apron.* On the airside of the building, provide airfield pavement with an apron taxilane and hardstands for parking up to four widebody freighter aircraft (e.g., B767-300). Approximately 48,000-sy of new airfield pavement would be required for the cargo apron.
- *Truck Docks and Maneuvering.* On the landside of the building, provide new pavement for the truck-to-building interface with berths for trucks to back-up to the overhead doors that lead directly to the cargo staging areas inside the building. Approximately 10,200-sy of pavement would be required to support approximately 36 loading docks and the truck maneuvering area.
- *Access Road and Circulation.* Extend Willow Brook Road S into the project site to provide vehicular access and egress for cargo trucks and employees. This would require minor improvements to the south side of the intersection at Race Street to align the roadway for through-traffic, and to accommodate truck turning movements, all within the existing PENNDOT right-of-way and Hanover Township right-of-way.
- *Employee Parking.* Provide a surface parking lot for employees. The paved area would be close-in to the cargo building but physically separated from the truck loading docks and staging area. Approximately 4,600-sy of asphalt pavement would be required to accommodate approximately 88 parking spaces.
- *Truck Parking/Staging Area.* Provide a dedicated area for cargo trucks to safely park and wait for their turn at the cargo building. This area also provides for temporary storage of tractors, trailers, and tenant equipment that is not in use. Approximately 8,800-sy would be required for the truck parking/staging area.

- *AOA Security Fencing.* Provide perimeter fencing to secure the Airport Operations Area (AOA) and controlled-access gates to prevent unauthorized access. The AOA includes the cargo aircraft parking apron area and Taxiway D. Approximately 2,500-lf of fence would be required to secure the project site.
- *Site Preparation.* Site development activities include ground clearing, grading, drainage, and stormwater management; installation and connection of utility services (electricity, potable water, natural gas, sanitary sewer, and communications); security lighting and airfield pavement lighting; and relocating vehicle service roads, as needed to accommodate the project. Specific locations for the ancillary items will be determined during design. No off-site utility improvements are needed to accommodate the demands of the project.
- *Taxiway C/Aircraft Parking Modifications.* The project requires closing and removing a segment of existing Taxiway C between Taxiway B and Taxiway E. This section of Taxiway C is currently used mostly by small aircraft moving between Runway 13-31 and the aircraft T-hangars and would be replaced by the future Taxiway D as part of the Proposed Action. The existing transient aircraft parking apron (approximately 18,000-sy) has been closed since 2020 and would be removed and incorporated into the future cargo aircraft parking apron.
- *Parallel Taxiway D.* Provide a 75-ft wide partial parallel Taxiway D along the north side of Runway 6-24, between Taxiway B and Taxiway E and a taxiway connector to the cargo aircraft parking apron. Approximately 28,000-sy of new airfield pavement would be required to accommodate the future taxiway and connectors.
- *Stormwater Management.* Drainage improvements, such as an aboveground detention basin, grassed swales and ditches, and underground infiltration beds, would be required to adequately manage the quality and control the quantity of storm runoff from the project site.
- *Fuel Storage Facility.* Construct a fuel storage facility to provide aviation fuel for cargo aircraft operations. The site layout provides a space allowance to install up to four 50,000-gal above ground fuel storage tanks with an adjunct building (i.e., equipment shed) for pump control mechanisms. A perimeter roadway would be provided for over-the-road tanker trucks to deliver and offload fuel to the storage tanks, and for on-airport fuel trucks to transport fuel from the storage tanks to the cargo aircraft parking apron for refueling operations. Landside access to the facility for supplier deliveries would be through a security fence/gate connected to Willow Brook Road. Airside access for on-airport fuel trucks would be from an airport vehicle service road. This would be a commercial, self-contained, modular system installed aboveground and in compliance with all applicable federal, state, and local rules and regulations related to the safe installation and operation of aviation fuel storage facilities. No underground fuel storage, transfer or distribution system, or hydrant fueling operations are proposed.

## **PROPOSED FEDERAL ACTION**

At the time of preparation of the EA, major aviation elements of the proposed project and their connected actions were regulated by the FAA under H.R. 302 (P.L. 115-254), the “FAA Reauthorization Act of 2018” (the Act). Under Section 163(d), the Act allows the FAA to attain legal authority to approve or disapprove those portions of the Project that affect the ALP for the revisions that “materially impact the safe and efficient operation of aircraft at, to, or from the airport.” A copy of the Section 163 determination issued by the FAA is provided in Appendix A of the Final EA.

The project elements and connected actions also represent Federal Program actions including:

- Unconditional approval of those portions of the ABE Airport Layout Plan to depict the Proposed Action pursuant to 49 U.S.C. §§ 40103(b), 44718, and 47107(a) (16), and determination and approval of the effects of this project upon the safe and efficient utilization of navigable airspace pursuant to 14 C.F.R. Parts 77 and 157 and 49 U.S.C. § 44718.
- Determination under 49 U.S.C. §§ 40101(d)(1) and 47105(b)(3) as to whether the Proposed Action maintains and enhances safety and security and meets applicable design and engineering standards set forth in FAA Advisory Circulars.
- Federal grant-in-aid funding from the FAA through the Airport Improvement Program (AIP) and/or approval of an application to use Passenger Facility Charges (PFCs).
- Federal grant in-aid funding from the FHWA through the INFRA Grant Program.

## **PURPOSE AND NEED**

The purpose of the Proposed Action is to accommodate the current and forecast demand for air cargo facilities on airport property that meet industry design standards for safe, secure, and efficient cargo airline operations. The need for the Proposed Action is based on the existing cargo area’s functional deficiencies as described below. Additional information can be found in Chapter 2 of the Final EA.

- ABE has two express cargo carriers that collectively process more than 100,000 metric tons of air cargo each year. However, the airport’s existing cargo operation is hampered by an inadequate cargo facility that does not meet today’s industry standards.
- Express cargo carriers require specialized airport facilities and infrastructure to match their highly time dependent processing operations, and the key is to keep the facilities close to the aircraft. Unlike Cargo Facility 1 with its centralized layout, Cargo Facility 2 has a decentralized layout with the cargo building located off airport property.
- Under the current configuration, the added travel distance increases cargo processing time and costs, and the effects are compounded by having to comply with additional safety and security measures required to properly control vehicle and pedestrian passage through the gate. Also, the GSE storage area is not located near the cargo building or the aircraft parking apron, nor is the truck parking area.

## **ALTERNATIVES**

Six (6) alternatives, including the No Action Alternative, were considered. The alternatives were identified using a two-tiered screening process developed in consultation with the FAA. Level 1 criterion determined whether the alternative would respond to the Purpose and Need for the

Proposed Action. Alternatives determined to meet the Purpose and Need for the Proposed Action were carried forward for Level 2 screening. Alternatives determined to not meet the Purpose and Need for the Proposed Action were considered not reasonable for NEPA purposes and were eliminated from further consideration.

Level 2 criterion determined whether the alternative meets the secondary goals and objectives for the Proposed Action which were related to cost effectiveness/constructability. Alternatives determined to meet the secondary goals and objectives for the Proposed Action were carried forward for detailed analysis in Chapter 4 of the Final EA. Alternatives determined to not meet the secondary goals and objectives were considered not reasonable for NEPA purposes and were eliminated from further consideration.

#### Alternative Site 1 – Expand the Existing Cargo Complex

Alternative Site 1 utilizes existing airport property to expand the existing cargo complex to accommodate the Proposed Action to the degree practicable. This alternative would continue to use the same four aircraft parking positions for e-commerce airline operations, while the remaining vacant land adjacent to the southern and western edges of the cargo aircraft parking apron would be developed for the cargo building and ancillary facilities. Existing airside access from Taxiway A, and landside access from Postal Road, would remain unchanged.

This alternative consolidates all existing e-commerce cargo airline functions into one facility on existing airport property, allowing the current through-the-fence cargo operation to be closed, thereby satisfying two of the five screening criteria. However, due to the limited space available to accommodate additional cargo facilities, the following screening criteria would not be met: it would not be practicable to expand either of the two cargo facilities in the future, potentially constraining forecast cargo demand; the two cargo facilities would not be separated, resulting in continued interaction on the existing aircraft parking apron and vehicle service roads; and, it is unlikely that the elongated shape of the site would provide an optimal building design or site layout needed for the e-commerce facilities to operate efficiently. Alternative Site 1 was determined to not fully meet the project's Purpose and Need. Therefore, this alternative was not carried forward for Level 2 screening and was eliminated from further consideration.

#### Alternative Site 2 – Construct a New Cargo Facility (North)

Under Alternative Site 2, a new cargo facility would be constructed using existing airport property on the north side of ABE (east of Runway 13-31). All e-commerce cargo airline operations associated with existing Cargo Facility 2 would be relocated to the new site and the current facility would be closed. Ongoing integrated (FedEx) cargo airline activities at the existing Cargo Complex would continue, no improvements or changes are proposed.

This alternative consolidates all existing e-commerce cargo airline functions into one facility, and there is space available for future expansion. In addition, e-commerce and integrated cargo operations would be physically separated, through-the-fence cargo airline operations at ABE would be eliminated, and there is ample space available for an optimal building design and site layout for e-commerce facilities at the new location. Alternative Site 2 was determined to meet all five Level 1 screening criteria. Therefore, this alternative was carried forward for Level 2 screening analysis. This alternative also met the secondary goals and objectives associated with

the Level 2 criterion. Therefore, this alternative was deemed reasonable and, therefore, is carried forward for detailed environmental evaluation. This alternative was also identified as the Sponsor's Proposed Action and consists of the project components listed in Section 1.3.1 of the Final EA.

#### Alternative Site 3 – Construct a New Cargo Facility (Northwest)

Under Alternative Site 3, a new cargo facility would be constructed using existing airport property on the north side of ABE (west of Runway 13-31). All e-commerce cargo airline operations associated with existing Cargo Facility 2 would be relocated to the new site and the current facility would be closed. Ongoing integrated (FedEx) cargo airline activities at the existing Cargo Complex would continue, no improvements or changes are proposed.

This alternative consolidates all existing e-commerce cargo airline functions into one facility, and there is space available for future expansion. In addition, e-commerce and integrated cargo operations would be physically separated, through-the-fence cargo airline operations at ABE would be eliminated, and there is ample space available for an optimal building design and site layout for e-commerce facilities at the new location. Alternative Site 3 was determined to meet all five Level 1 screening criteria and as a result, it was also carried forward for Level 2 screening analysis. However, it was eliminated because the added time and costs required to prepare the site are not economically feasible. Therefore, this alternative does not meet the Secondary Goals and Objectives associated with the Level 2 Criterion.

#### Alternative 4 – Use Other Buildings

LNAA investigated the possibility of converting other existing buildings on Airport property (that are not currently used as cargo buildings) to meet the need for the Proposed Action. There are no surplus or vacant facilities at ABE that could be repurposed for air cargo operations, or other buildings or infrastructure that could be reasonably removed to provide sufficient space for cargo airline operations. Because no buildings or sites are available to be considered, none of the Level 1 screening criteria are met with this alternative. Therefore, Alternative 4 was eliminated from further consideration.

#### Alternative 5 – Use Other Airports

This alternative would relocate the Proposed Action to another airport. LNAA owns and operates two other airports in the Lehigh Valley. They are Queen City Airport (XLL) in Allentown and Braden Airpark (N43) in Easton. These are small general aviation airports that are not suitable for commercial cargo airline operations such as those associated with the Proposed Action, and it would not be feasible or reasonable to undertake the improvements and changes required to do so. No other airports exist in the Lehigh Valley region that could reasonably substitute for the Proposed Action. None of the Level 1 screening criteria are met with this alternative. Therefore, Alternative 5 was eliminated from further consideration.

#### No Action Alternative

LNAA has the option of taking no action related to cargo facility development at ABE. Under the No Action Alternative, the Proposed Action would not be implemented, no construction would occur, and the ongoing cargo airline operations at ABE would continue unchanged for the foreseeable future. Consequently, e-commerce cargo facilities would not be consolidated into



one location, current and future cargo demand would not be met, and safety, security, and efficiency would not be improved. The No Action Alternative does not meet any of the Level 1 screening criteria. However, for purposes of this EA, the No Action alternative was carried forward for “detailed analysis” as required by FAA Orders 1050.1F, 5050.4B, and by CEQ regulations for implementing NEPA.

## **DISCUSSION**

The EA addresses the effect of the Proposed Action on the quality of the human and natural environment and is incorporated into this Finding. The following impact analysis highlights the more thorough analysis presented in the document. The environmental impact categories of Coastal Resources, Section 4(f), Farmlands, Water Resources subcategories: Wetlands, Floodplains, and Wild and Scenic Rivers were not relevant to the Proposed Action due to their absence within the study area and no further analysis was conducted.

### **Air-Quality:**

The Proposed Action is in Allentown, Lehigh County. According to the EPA’s Green Book, the Allentown-Bethlehem-Easton area is designated as a marginal nonattainment area for ozone (O<sub>3</sub>), and Allentown is designated as a moderate nonattainment area for fine particulate matter (PM<sub>2.5</sub>). The Proposed Action is not exempt from the Clean Air Act nor is the project presumed to conform to the State Implementation Plan (SIP). Therefore, the EPA’s General Conformity Rule (40 CFR Part 93, § 93.153) applies to the project and an air quality analysis was prepared. In addition, transportation conformity was considered as part of the project development process. Transportation conformity is the process that is used to review the current transportation plan and program in a region to ensure they conform to the state’s air quality plan.

The LNAA, in coordination with the Lehigh Valley Transportation Study Metropolitan Planning Organization (LVTS MPO) and PennDOT, presented the project to the PA Interagency Consultation Group (ICG) to determine if the project is Regionally Significant per 40 CFR Part 93.101.34 The ICG determined that the project is not a regionally significant project. Given this determination, LNAA worked with LVTS MPO to successfully add the project to the Lehigh Valley’s 2023-2026 Transportation Improvement Program (TIP) (MPMS#121443) -Effective June 24, 2024. This four-year plan is developed to maintain and enhance the transportation system in Lehigh and Northampton counties. The TIP is refreshed biennially, allowing for the integration of new projects. The TIP, presented in Appendix C of the Final EA, was adopted by the LVTS in June 2024 and provided to PennDOT for inclusion in the SIP.

A General Conformity Applicability Analysis was prepared to determine whether a conformity determination is required. Two types of emission are considered. “Direct emissions” occur at the same time and place as the project, such as construction site emissions. “Indirect emissions” are reasonably foreseeable emissions that may occur later in time and/or are farther removed from the project, such as emissions from aircraft operations and vehicular traffic. The detailed analysis and results are presented in Appendix C and summary tables are included in Chapter 4 of the Final EA.

The Direct emissions consisted of construction related air emissions including mobile source emissions from construction vehicles and equipment, and fugitive dust emissions from earthmoving activities. These emissions would be short-term, temporary, and diminishing as the project nears completion. The results of the analysis demonstrated that the project-related construction emissions would be less than applicable de minimis thresholds.

After construction, additional air emissions (indirect) would result from the project-related increase in aircraft operations and corresponding GSE activity on the airside, and truck traffic and employee vehicles on the landside. Airside emissions were quantified using the FAA's Aviation Environmental Design Tool (AEDT), and the landside emissions were quantified using the EPA's MOVES3 model. Three future scenarios were modeled, and emission inventories were prepared for each scenario. The results demonstrate that the project related emissions increase would be less than applicable de minimis thresholds under both build scenarios.

Under the No Action Alternative, no emissions increase would occur. Under the Proposed Action, the net increase in construction emissions, and operations emissions, are de minimis. Accordingly, it can be concluded that the Proposed Action and the No Action Alternative would not cause or contribute to new violations of the NAAQS, increase the frequency or worsen existing violations of the NAAQS, or delay attainment of the NAAQS. Therefore, the Proposed Action and the No Action Alternative would not result in significant adverse impacts on air quality.

#### **Biological Resources:**

The Pennsylvania Department of Conservation and Natural Resources (PA DCNR) PA Natural Diversity Inventory (PNDI) database was used as a screening tool to ascertain any known records for threatened or endangered species within a one-mile radius around the Proposed Action site as determined by the PNDI form. The results indicate "no known impact" for state listed species under the jurisdiction of the PA Game Commission (PAG), PA Fish and Boat Commission (PAFB) and the PA DCNR. No further coordination is required with these jurisdictional agencies. The PNDI receipt also documents that there are no impacts anticipated on federally listed or proposed species. Because no federally protected species are present, no further consultation/coordination under the Endangered Species Act is required. A copy of the PNDI receipt is included in Appendix D of the Final EA.

Because no such species or habitat occur near the project area, the Proposed Action and No Action Alternative would not cause a significant impact on biological resources.

#### **Climate:**

During the construction period, on-road vehicles and non-road equipment would increase greenhouse gas (GHG) emissions. These emissions would be short-term in nature. Construction is anticipated to last 3 years, with year 2 generating the greatest emissions. During year 2 of construction, its anticipated that 977.42 metric tons of CO<sub>2</sub>e would be generated. In comparison to the Bi-County Level annual emissions of approximately 9,924,247 metric tons of CO<sub>2</sub>e, the Proposed Action would account for a 0.010% increase.

After construction, GHG emissions from additional aircraft and on-road vehicle operations would also increase under the Proposed Action. Build Year Plus 5 Years and Plus 10 Years were calculated. The Build Year Plus 5 would generate 6,573.53 CO<sub>2</sub>e, which would be a 0.066% increase when compared to the Bi-County Level annual emissions of approximately 9,924,247 metric tons of CO<sub>2</sub>e. The Build Year Plus 10 would generate 13,454.90 CO<sub>2</sub>e, which would be a 0.136% increase when compared to the Bi-County Level annual emissions of approximately 9,924,247 metric tons of CO<sub>2</sub>e. Based on the estimated construction and operations emissions the Proposed Action would not significantly contribute to global climate change.

**Hazardous Materials, Solid Waste, and Pollution Prevention:**

Environmental Data Resources, Inc (EDR) conducted a search of available environmental records to determine the potential for encountering hazardous waste during construction (see Appendix F of the Final EA). According to the EDR report, no federal or state listed cleanup actions are associated with the Proposed Action site, and no spills, releases or other reportable events are recorded for this location. Underground fuel tanks are associated with the existing airport maintenance facility adjacent to the proposed site, but the tanks would not be affected by the Proposed Action. If construction-related activities result in the discovery of previously unknown hazardous substances, LNAA would be responsible for removing and disposing of contaminated media in accordance with state and local regulations for hazardous waste management.

Construction and operation of the Proposed Action would involve the use, transfer, handling, storage, and disposal of regulated hazardous materials and industrial wastes. During the construction phase, contractor staging areas would be located at various locations within the project site. The staging areas may include portable above ground storage tanks (ASTs) for fuel storage, as well as lubricants and solvents typically used for equipment maintenance. The general contractor would be required to develop a Spill Prevention, Control, and Countermeasures (SPCC) Plan to identify precautions, training requirements, and response measures that would be taken to prevent and contain accidental releases of hazardous materials and for the proper storage and disposal of residual wastes. After construction, the Proposed Action would involve the use of regulated substances (such as batteries, fuel, petroleum, oils, lubricants, solvents, degreasers, etc.) that are typically associated with the routine operation of an air cargo facility including building maintenance and equipment repairs.

The Resource Conservation and Recovery Act (RCRA) hazardous waste permitting program ensures the safe management of hazardous wastes. Under this program, EPA establishes requirements regarding the treatment, storage, and disposal of hazardous wastes. If a RCRA permit is required, the proposed North Cargo Facility is likely to be classified as either a Small, or Very Small, Quantify Generator. The cargo airline tenant(s) would be responsible for the proper use, management, and disposal of all hazardous substances and wastes, and for compliance with applicable permit requirements including Best Management Practices (BMPs).

The Proposed Action includes allowance to construct a supplemental above-ground fuel storage facility (tank farm) adjacent to the Proposed Action site. As described in Section 1.3.2 of the Final EA, the tank farm size, layout, and operation would be similar to ABE's existing tank farm on the south side of the airport, and it would be designed for jet fuel only (no 100 Low Lead is



proposed). The tank farm would be a commercial, self-contained, modular system consisting of aboveground tanks, pumps, valves, piping, and appurtenances. Fuel storage tanks would be supplied/refilled by commercial, over-the-road tanker trucks, and the fuel would be dispensed by on-airport aviation fuel trucks used specifically to refuel airline passenger and cargo jets parked on the terminal apron and the cargo apron, respectively. No underground fuel storage, transfer, or distribution system, or hydrant fueling operations are proposed.

Any tank farm that stores aviation fuel must comply with the following storage and dispensing requirements: AC 150/5230-4B47 and NFPA 407. It is also noted that the FAA uses the standards contained in NFPA 407 as the agency's standard for the storage and delivery of aviation fuel in an airport environment. In addition, the proposed tank farm would be permitted, regulated, and operated in accordance with Pennsylvania's Storage Tank Program. This program includes requirements for preparing and maintaining a Spill Prevention and Response Plan (SPRP). The SPRP lists and describes BMPs and control measures available to reduce the potential for a leak or spill to occur, and countermeasures to minimize potential risks to human health and the environment if a leak or spill were to occur. Compliance with federal, state, and local requirements for hazardous materials and waste including BMPs and control measures provide adequate assurance that potential risks to human health and the environment would be managed effectively. No adverse impacts are anticipated.

Construction-generated debris and non-hazardous solid waste disposal requirements include site clearing and grubbing and removing existing pavements for foundation work related to construction of the cargo building and the aircraft parking apron. Construction wastes not diverted, recycled, or re-used would be transported to and disposed of in local permitted construction/demolition waste facilities. After construction, project-induced municipal solid waste (MSW) would not be appreciably different than existing conditions and commensurate with a typical warehouse-type building. The building tenant(s) would be responsible for using a licensed contractor/hauler to provide regularly scheduled trash pick-ups and proper disposal. The contractor would analyze the anticipated waste stream and determine the appropriate mix of commercial recycling services vs waste disposal in accordance with federal, state, and local regulations and applicable permit requirements.

Overall, there would be a temporary increase in solid waste disposal requirements during the construction period followed by a marginal increase in solid waste collection and disposal associated with the operation the Proposed Action. Neither the construction nor the operation of the Proposed Action would generate unusual types or inordinate amounts of solid waste. Airport construction projects do not normally generate significant amounts of perishable or non-perishable waste, other than wastes associated with large scale construction projects and/or substantial demolition work. Pollution prevention measures are available to minimize solid waste that cannot be avoided.

Operations under the Proposed Action would not violate federal, state, local, or tribal regulations pertaining to hazardous materials; produce an appreciably different quantity or type of hazardous or solid waste; or otherwise adversely affect human health and the environment; therefore, implementation of the Proposed Action would not result in significant impacts associated with hazardous materials or solid waste.

### **Historical, Architectural, Archeological, and Cultural Resources:**

ABE, originally known as Allentown-Bethlehem-Easton Airport, was previously determined to be ineligible for the National Register of Historic Places as a historic district on December 19, 2014 (PA-SHARE Project # 2002PR17230). There are no existing buildings or structures located on the project site, and no historic properties have been recorded within visual range.

A Request to Initiate Consultation was sent to the Pennsylvania Historical and Museum Commission/State Historic Preservation (PHMC) Office via Pennsylvania's Historic and Archaeological Resource Exchange (PA-SHARE) on July 21, 2022. The package included a form, project location map showing the area of potential effect (APE), a thorough project description, current photographs of the project area. In consultation with PHMC, the FAA reviewed the information and determined that the Proposed Action does not have the potential to cause effects on historic properties or archaeological resources. No further analysis or agency correspondence is required. If construction activities result in the discovery of historic resources or artifacts, then those construction activities would be suspended until FAA, in consultation with the LNAA and PHMC, determines what action must be taken to address the potential for adverse effects.

### **Land Use:**

The Proposed Action occurs on the north side of ABE in Hanover Township in Lehigh County. According to Hanover Township Zoning Map, the Proposed Action is primarily located on existing Airport property that is zoned Airport Industrial and designated for future aeronautical use. In addition, the proposed improvements to Willow Brook Road S for the access road affect a medium density residential area with two occupied residences between the Airport's property boundary and the south side of Race Street. The proposed access roadway also affects the existing PENNDOT right-of-way where the signalized intersection of Race Street and Willow Brook Road would be improved.

Under the Proposed Action, a 44-acre area on the north side of the Airport would be developed and operated as an air cargo facility, which is a more intensive use of the site than it is today. This would have the effect of increasing traffic volume along Race Street and Willow Brook Road as discussed in Section 4.13 of the Final EA and causing off-airport visual effects including light emissions to occur as discussed in Section 4.14 of the Final EA. These are minor impacts that would not cause or contribute to a significant adverse impact on land uses adjacent to the Airport. No land acquisition is required, no businesses or residences would be relocated, no natural resource areas would be affected, and no zoning changes are necessary to implement the Proposed Action. No other impacts have been identified that would have land use ramifications. Additionally, no conflicts or inconsistencies have been identified between the Proposed Action and the objectives of *The River Central Multi-Municipal Comprehensive Plan* which includes the Townships of Hanover (Lehigh County) and East Allen, and the Boroughs of Catasauqua, Northampton, and North Catasauqua.

The Proposed Action is not located near, nor would it create, a wildlife hazard as defined by the FAA. Stormwater management facilities required for the Proposed Action would be designed to comply with FAA standards to avoid or minimize wildlife hazards.

The Proposed Action would not cause or contribute to potentially significant land use impacts in any other impact category analyzed in this EA. The Proposed Action would not create a wildlife hazard, and the Proposed Action would not conflict with local laws, ordinances, or comprehensive or plans. Therefore, it can be concluded that no significant land use impact would occur under the Proposed Action or the No Action Alternative.

**Natural Resources and Energy Supply:**

During the construction phase, the Proposed Action would consume natural resources used for building materials such as sand, gravel, steel, and wood, as well as energy (diesel and gasoline) for construction equipment and vehicles. After construction, the Proposed Action would require electricity for power, natural gas for heating and cooling, water for domestic use and fire protection, and fuel for aircraft, vehicles, and ground service equipment.

The Proposed Action would not require any scarce or unusual building materials, or other consumable resources known to be in short supply. The project site is in an urbanized area. All utilities are readily available on site or nearby. No upstream utility improvements or additional capacity would be needed to accommodate the Proposed Action. The demand for electricity, natural gas, and water would not exceed the supplies available from public utilities.

Under the Proposed Action, there would be a temporary increase in fuel consumption during the construction period, the effects of which would diminish with completion of the project and restoration of the site. After construction, there would be minor increases in jet fuel and gasoline consumption attributable to the increase in aircraft operations, truck trips, employee trips, and GSE activity, resulting from the addition of two inbound B767 cargo flights per day. The incremental increase in fuel consumed would not exceed the supply available from distributors.

Neither the Proposed Action nor the No Action Alternative would not have the potential to cause demand to exceed available or future supplies of these resources. Therefore, no significant impacts are anticipated.

**Noise and Noise-Compatible Land Use:**

Construction activities would temporarily increase noise exposure in the immediate vicinity of the Proposed Action site. Earth moving, pile driving, and pavement removal are the typically the loudest, with some equipment capable of generating noise levels up to 95 dB within proximity of operation. Distance rapidly decreases construction-related noise levels and given the North Cargo Area's primary construction site is well within airport boundaries, area residents are unlikely to experience an increase in noise due to direct construction activities. Additionally, heavy equipment is limited to accessing the site from the east and north, as access is restricted by a low bridge westbound on Race Street from the project site. However, some enabling projects, such as the extension of Willow Brook Road to the south to connect to the North Cargo Area, could cause some increase in noise during active hours.

A noise analysis was conducted for both aircraft noise and roadway noise. More detailed information, analysis, graphics, and copies of agency correspondence can be found Appendix H: Noise Technical Memorandum of the Final EA. The FAA's Aviation Environmental Design Tool (AEDT) is the required tool for analyzing aircraft noise. Per FAA Order 1050.1F, aircraft noise is required to be evaluated in terms of the DNL metric. DNL, or Day-Night Average Sound

Level, reflects a person's cumulative exposure to sound over a 24-hour period, expressed as the noise level for the average day of the year on the basis of annual aircraft operations. FAA Order 1050.1F further defines that a significant impact would occur if a proposed action results in an increase of 1.5 dB or more in any noise sensitive area at or above the DNL 65 dB noise exposure level when compared to the No Action Alternative for the same timeframe. The Federal Highway Administration's (FHWA) Traffic Noise Model (TNM) is a tool that is used to analyze roadway traffic noise. While it is primarily used for analysis of the effects of highway noise barriers in the FHWA context, TNM offers the ability to evaluate roadway traffic noise against a user-defined network of noise receptors using the FAA's DNL metric. Construction noise is temporary and is evaluated qualitatively to determine if nearby residents would be adversely affected.

#### Aircraft Noise

The noise analysis for the Proposed Action reflects additional Boeing 767 operations enabled by the larger cargo facility. This is expected to be two additional daily Boeing 767 operations (one arrival and one departure) five years after construction (2028) and four additional daily Boeing 767 operations (two arrivals and two departures) starting ten years after construction (2033). For the Proposed Action scenarios, the AEDT taxiway node network was modified to reflect changes to the airport taxiway network that would take place as part of the Proposed Action. This includes decommissioning Taxiway C west of Taxiway E and construction of a new taxiway, Taxiway D, south of the proposed cargo facility. Aircraft were assigned updated taxipaths as appropriate to account for differences in how they would reach their runway and parking areas, and B767 operations were added to the Proposed Action taxiway segments.

The noise analysis for the No Action Alternative is based on a no-growth scenario. This is because aircraft traffic for the past several years has remained relative steady, and there are no other projects at ABE that would increase aircraft operations in the foreseeable future. Therefore, the 2028 and 2033 average daily operations and noise contours for the future no build scenario are the same as existing conditions in the 2022 operational year model.

The analysis for both the 2028 scenario and the 2033 scenario when compared to the No Action Alternative indicated no significant noise impacts. For the 2028 scenario, the noise contour increases slightly in area to 908 acres, the number of included residents remains the same at 232. The two potentially sensitive receptors at 1555 Race Street and 1565 Race Street remain outside of the DNL 65 dB noise contour, and no individual noise sensitive receptors, such as schools or places of worship, are located within the DNL 65 dB noise contour. Additionally, no residential land uses are included in the DNL 70 dB or higher noise contours.

For the 2033 scenario, the noise contour increases in area to 938 acres and includes 309 residents. The two potentially sensitive receptors at 1555 Race Street and 1565 Race Street continue to remain outside of the DNL 65 dB noise contour, and no individual noise sensitive receptors, such as schools or places of worship, are located within the DNL 65 dB noise contour. Additionally, no residential land uses are included in the DNL 70 dB or higher noise contours.

#### Noise Associated with Additional Roadway Traffic

The proposed cargo facility is expected to have a single point of roadway access that will handle most traffic entering and exiting the area, located at the intersection of East Race Street and Willow Brook Road. This intersection is in close proximity to the previously identified potentially sensitive receptors at 1555 Race Street and 1565 Race Street. While these residences are not within the 65 dB contour and thus are technically compatible with the outdoor noise environment, additional Race Street traffic associated with the Proposed Action was evaluated for the ability to cause potential perceptible noise impacts at these residences.

Peak-hour traffic data was captured for the intersection of Race Street and Willow Brook Road, which is currently a four way stop controlled by a traffic light. Under the Proposed Action, this intersection would experience additional traffic to and from the south as vehicles access the proposed cargo facility. The Proposed Action scenarios were modeled by applying additional traffic associated with the project to the road segments comprising the Race Street and Willow Brook Road intersection. The volume of additional vehicle traffic added was determined by the Transportation Impact Assessment (TIA) conducted for the Proposed Action.

For the 2028 Proposed Action Alternative, an AAD value of 255 trucks and 325 cars were added to the intersection traffic, while for the 2033 Proposed Action Alternative, this was 510 trucks and 650 cars. The relative difference in DNL values was then measured for significance at the two sensitive receptors at 1555 Race St. and 1565 Race St.

For the 2028 scenario, there was approximately DNL 0.1 dB increase at each site relative to the No Action Alternative. For the 2033 scenario there was approximately DNL 0.2 dB increase at each site relative to the No Action Alternative. These increases were considered minor as the changes in sound pressure levels (SPL) of less than 1 dB are not perceptible to the human ear, except in laboratory settings.

#### *Aircraft Noise and Roadway Noise Combined (2028 and 2033)*

Aircraft noise and roadway noise were logarithmically combined for the two sensitive receptors located on Race St. yielding a single noise exposure value for these two noise sources. For the 2028 and 2033 analysis years, this combined noise value was then compared against the existing 2023 combined noise exposure value, which reflects noise associated with the No Action Alternative.

The FAA's threshold of significance for noise impact related to an agency action is DNL 1.5 dB for areas that meet or exceed DNL 65 dB upon the completion of the action. While this significance threshold is relevant to noise associated with changes in aircraft operations due to the proposed agency action, roadway noise was also quantitatively evaluated to provide a more comprehensive accounting of noise exposure in the immediate airport environment. The maximum noise increase found when analyzing combined aircraft and roadway noise at the two identified sensitive receptors is approximately DNL 0.4 dB, at 1565 Race Street. When considering aircraft noise alone, the maximum increase is approximately DNL 0.6 dB, also at 1565 Race Street. While only the aircraft noise increase values are critical to the regulatory determination of significance, both the aircraft and combined noise values are clearly below the FAA significance threshold for noise, at a level of impact that is well below the human capacity for perceptibility in changes in noise, where a change of 3 dB is considered "just perceptible" at



mid-range noise frequencies. Therefore, it can be determined that the Proposed Action and No Action Alternative would not result in a significant increase in noise.

### **Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety**

#### **Risks:**

Under the Proposed Action, development of the North Cargo area would result in a short term and temporary increase in construction-related employment and spending, the effects of which would diminish as the project nears completion. After construction, the existing e-commerce cargo airline operation would relocate from one side of the airport to the other. Because ABE is located in a large metropolitan area, these project related changes would not have the effect of causing or contributing to a major shift or change in population, income, employment, or public service demands in the community. Additionally, no property would be acquired. Therefore, there would be no relocation of residences or businesses, no division of established communities, and no changes to the community tax base. No alterations to roadways would occur that would temporarily or permanently restrict traditional community access or disrupt local transportation patterns or substantially reduce levels of service of roads serving the Airport or the surrounding community. On this basis, no adverse social or economic impacts are anticipated to occur under the Proposed Action. Under the No Action Alternative, the Proposed Action would not be implemented, and no changes would occur.

An Environmental Justice (EJ) screening analysis was conducted to consider the potential for the Proposed Action to cause disproportionate and adverse effects on low-income or minority populations in the vicinity of ABE. If potentially significant adverse effects were determined to be present, applicable mitigation may be warranted to ensure that no minority or low-income populations bear a disproportionate burden of those effects. Minor impacts on the physical and natural environments that could potentially affect residential areas adjacent to the Airport include increased air pollution and greenhouse gas emissions, increased risks associated with hazardous materials and wastes, increased noise from aircraft and traffic operations, changes to the visual landscape, and changes in the quality and quantity of storm runoff. Though some of these impacts are temporary and none approach significance thresholds for the associated environmental resource categories, EJ communities border the airport near both ends of the primary runway, as well as directly north of the airport where roadway changes associated with access to the Proposed Action would take place. Non-EJ communities within the GSA border the airport in the vicinity of the secondary runway, which is much less intensively utilized, and there are no non-EJ communities near the intersection of Willow Brook Road and Race Street, where impacts associated with surface transportation changes would be focused.

Regarding the potential for two added cargo flights per day (one additional flight in the one- to five-year timeframe, and a second additional flight in the six- to ten-year timeframe), the Proposed Action would not introduce aircraft overflights or noise to a previously unaffected area, and the minor increase in noise levels would be distributed approximately equally to EJ areas beyond the east and west ends of Runway 6-24. There would be a minor increase in carbon monoxide (CO) emissions over an area with a high concentration of EJ Census block groups, but because the added flights represent less than 2 percent of the total aircraft operations at ABE, the project related effects would be minor and likely not detectable to the overflowed EJ population.

On this basis, no disproportionate adverse impacts to an EJ population would occur under the Proposed Action. Under the No Action Alternative, the Proposed Action would not be implemented, and no changes would occur.

Potential impacts to children's environmental health and safety were considered in the context of the other resource categories. The Proposed Action would not cause or contribute to potentially significant adverse impacts to air quality or water quality, significantly change aircraft or traffic noise levels, require the relocation of businesses or residences, or alter the social fabric of the community. In addition, the Proposed Action would not create or make more readily available any products or substances that could potentially harm children via contact or ingestion through air, food, drinking water, recreational waters, or soil. On this basis, no adverse health or safety risks are identified that would disproportionately affect children. Under the No Action Alternative, the Proposed Action would not be implemented, and no changes would occur.

**Traffic:**

Under the Proposed Action, ongoing cargo activities associated with existing Cargo Facility 2 on the west side of the Airport (along Postal Road) would relocate to the proposed air cargo facility on the north side of the Airport (along Race Street). This would have the effect of decreasing traffic volume on Postal Road and increasing traffic volume on Race Street and through the signalized intersection (Willow Brook Road S) that would serve the Proposed Action site. To accommodate increased turning movements and larger vehicles, the Proposed Action includes minor modifications to the intersection to achieve the following: (1) provide an improved entrance road to the proposed cargo facility; (2) accommodate safe truck turning paths; and (3) maintain efficient traffic operations during and after construction.

During the construction period, Willow Brook Road S would be realigned to allow for a new access road to be extended east into the Proposed Action site, and the southwest corner of Race Street and Willow Brook Road S would be revised to accommodate truck turning movements. Other potential modifications include lengthening the westbound left turn as needed to provide 175-ft of queuing/storage by restriping the gore area, and restriping and signing the eastbound the Race Street approach to provide a dedicated right turn lane without impacting overall or eastbound approach operations. Based on PENNDOT's direction, these modifications are not required for this project at this time. The need for the potential modifications will be determined during the design process in coordination with PENNDOT and Hanover Township. Correspondence with PENNDOT is included in Appendix I of the Final EA.

A Traffic Impact Analysis (TIA) analyzed the potential effects of the Proposed Action on the surrounding roadway network. The TIA included Race Street and Willow Brook Road. Traffic volumes and capacity analyses were developed for the 2022 Existing Condition, the first operational year No Build Condition, and the first operational year Build Condition. According to the TIA, the Proposed Action has the potential to generate 104 AM Peak hour trips and 116 PM Peak hour trips, with 51 truck trips during each peak hour. Car traffic is anticipated to follow existing traffic patterns. Truck traffic is anticipated to be to and from Route 22.

The TIA is based on level of service (LOS). Level of service is a qualitative measure used to describe the operating conditions of a roadway (intersection) based on factors such as speed,

travel time, maneuverability, delay, and safety. The LOS of a facility is designated with a letter, A to F, with A representing the best operating conditions and F the worst. No LOS analysis was performed for the construction period because temporary impacts would be managed by the Maintenance and Protection of Traffic (MPT) Plan. After construction, the LOS analysis presented in the TIA assumes the worst-case traffic situation by assuming all future project related traffic demand would occur in the first operational year. By bounding the analysis, if the LOS under the Build condition is acceptable, it can be determined that the incremental increase in traffic volume over time would also be acceptable.

The results of the TIA are as follows:

- Under the 2022 Existing Condition, the Race Street/Willow Brook Road intersection operates at LOS B during the AM and PM Peak hours.
- Under the first operational year No Build Condition, the Race Street/Willow Brook Road intersection operates at a LOS C during the AM and PM Peak hours (LOS C is an acceptable level of service).
- Under the first operational year Build Condition, the Race Street/Willow Brook Road intersection operates at a LOS C during the AM and PM Peak hours.

Based on these findings:

- The intersection at Race Street/Willow Brook Road intersection is expected to decrease from LOS B in 2022 to LOS C in the No Build Condition; this is due to projected background growth.
- The additional traffic generated by the Proposed Action would not have the effect of further lowering the LOS at this intersection.
- The LOS at this intersection would not decrease below an acceptable level for any foreseeable traffic scenario.

Under the No-Action Alternative, the Proposed Action would not be implemented, and the project related traffic volumes would not occur. The LOS would still decrease from LOS B to LOS C, even without the Proposed Action.

Under the Proposed Action, the roadway elements of the Proposed Action would proceed under PENNDOT's Highway Occupancy Permit (HOP) permit program and in coordination with Hanover Township. During the construction period, there would be a short-term and temporary increase in construction-induced traffic volume and work-related activities near the intersection of Race Street and Willow Brook Road, the effects of which would diminish as the project nears completion. Compliance with PENNDOT's HOP program including the MPT plan provides adequate assurance that potential traffic impacts would be less than significant. After construction, there would be additional traffic volume through the intersection, which would have only a minor effect on delay during peak hours in the morning and/or in the afternoon. The LOS for this intersection would not decrease below acceptable levels based on PENNDOT standards. Therefore, it can be concluded that the operational impacts on surface traffic would also be less than significant. Under the No-Action Alternative, the Proposed Action would not be implemented, and the project related traffic impacts would not occur. Therefore, no significant traffic impacts are anticipated under the Proposed Action and the No Action Alternative.

### **Visual Effects:**

Under the Proposed Action, nighttime activities are not anticipated during the construction phase. If construction is necessary after dark, portable light towers would typically be used to illuminate a specific work area only. In which case, the light emissions would be localized and temporary. After construction, the introduction of cargo airline operations on the north side of the Airport including nighttime activities would have the potential to increase ambient lighting within and around the Proposed Action site. On the airside, high mast lights associated with the existing transient aircraft parking apron would be removed and replaced with area flood lighting necessary for safety, security, and nighttime cargo apron operations. Apron lights would be mounted on the south side of the cargo building and directed towards the aircraft and GSE activities. Ground level pavement edge lights would not be visible beyond the project site. On the landside, high mast lighting for safety and security would be installed along the access roadway and around the employee and truck parking areas. However, these lighting elements and the corresponding light intensity would be consistent with other airport lighting and roadway lighting in the project area. The Proposed Action does not involve high intensity runway or taxiway lights, sequenced flashing/strobe lights, or other types of directional lighting required for pilot navigation.

Commercial/industrial land uses near the Proposed Action site are compatible with light emissions from airport activities including nighttime cargo operations. The Proposed Action may be visible or partially visible from two residences—1555 and 1565 Race Street. The distance from both residences to the proposed cargo facility is approximately 1,100 feet, and the line-of-sight would be obstructed, or at least partially obstructed, by terrain and vegetation. Even if the project related lighting is visible from either residence, the light emissions would not be directional, and because the residences would be more than 1,000 away, flood lighting required to illuminate the project area would not be expected to shine directly into either residence, thus reducing the potential for annoyance.

Existing traffic area lighting at the intersection of Race Street and Willow Brook Road would be modified as needed to accommodate changes to the access road and curb alignments. Because the intersection is already lighted and no major changes to the intersection are proposed, roadway lighting under the Proposed Action would not be appreciably different. However, the Proposed Action would increase turning movements through the intersection, thereby increasing the potential for vehicular headlights to be directed at the nearest residence as cargo trucks and employee vehicles arrive and depart the Proposed Action site using Willow Brook Road S. To reduce the potential for annoyance, a visual buffer or barrier such as landscaping would be placed between the proposed entrance road (source of traffic light emissions) and the sensitive receptor (the nearest home(s)).

Under the Proposed Action, the cargo facility would be developed thereby altering the visual character of the study area as well as the viewshed from land uses adjacent to the project site. The most prominent visual change would be the proposed cargo building and cargo aircraft taxiing and parking where they were not visualized before. Other visual changes would include the presence of above ground fuel storage tanks, and employee and truck parking areas. Paved

surfaces such as the taxiway extension would not be visible from locations off airport property. The proposed air cargo facility is consistent with the nature of the visual character of the area, and it would be surrounded by other aviation support facilities, so there would be very little contrast.

Under the Proposed Action, there would be a minor increase in ambient light emissions and a minor increase in headlight emissions near the two residences at 1555 and 1565 Race Street, the potential effects of which would be mitigated using BMPs. Therefore, project related light emissions are not anticipated to create a significant annoyance or interfere significantly with normal activities near the Proposed Action. Minor changes in lighting conditions would not adversely affect the visual aesthetic quality of the area. Because no resources in the area are identified as visually important or possessing unique characteristics with aesthetic value, no intrusive or adverse visual impacts are anticipated. Under the No Action Alternative, there would be no change in light emissions or to the existing visual character of the area. Therefore, no significant visual impacts are anticipated under the Proposed Action or the No Action Alternative.

## **Water Resources**

### Wetlands

The nearest mapped wetland is located approximately 0.45 miles north of the Proposed Action site. No wetlands would be affected by the Proposed Action or the No-Action Alternative.

### Floodplains

The nearest Federal Emergency Management Agency (FEMA) mapped floodplain is located approximately 1.65 miles to the southwest. No floodplains would be affected by the Proposed Action or the No Action Alternative.

### Surface Waters

No surface water resources are located on or near the project site. No wetlands, floodplains, or hydric soils are present. The nearest surface water feature is the Catasauqua Creek, located approximately one-half mile north of the Proposed Action site and eventually drains to the Lehigh River. No drinking water resources, or public water supply wells, are present. The nearest public water supply well is located approximately one mile west of the project site. No wild or scenic rivers are present. The nearest waterbody designated as a National Wild and Scenic River is a segment of the Delaware River (Lower) and is 14 miles east of the airport, and north of Easton, PA. No surface water resources would be affected by the Proposed Action or the No-Action Alternative.

Indirect impacts would be managed through the NPDES/Pennsylvania Chapter 102 Erosion and Sediment Control permitting process. Stormwater runoff during construction would be covered by the NPDES/102 permit, which requires the implementation of a Stormwater Pollution Prevention Plan (SWPPP) to reduce or prevent stormwater contamination during construction activities. It also requires the submission of a completed Notice of Intent (NOI) advising PADEP



and the public of LNAA's request for additional permit coverage for construction phase activities.

Under the NPDES permit process, water quality best management practices (BMPs) would be recommended to deal with sedimentation and erosion control, containment of construction materials (hydraulic fluids, fuel, etc.), washing of construction vehicles, cleaning of concrete mixers, etc. These BMPs would be incorporated into the project's construction documents and become an obligation of the contractor. LNAA would monitor compliance with these practices and assure that the stormwater management systems are protected. All contractors would be required to comply with applicable federal, state, and local laws and regulations, including FAA guidance contained in AC 150/5370-10F, Standards for Specifying Construction of Airports, including Item P-156 Temporary Air and Water Pollution, Soil Erosion and Siltation Control; AC 150/5320-15A, Management of Airport Industrial Waste; AC 150/5320-5C (including Change 1) Subsurface Drainage Design, and AC 150/5200-33C-Hazardous Wildlife Attractants on or near Airports. No construction activity would occur within any regulated wetland or surface water body. No Clean Water Act, Section 404 permit would be required to implement the Proposed Action.

After construction, the addition of approximately 15 acres of new impervious surface would have the potential to increase stormwater runoff volumes and pollution concentrations when compared to existing conditions. The resulting increase in storm runoff volume would be managed on-site through project-related improvements to the existing drainage system including BMPs and control measures as needed to permit the Proposed Action to be implemented in compliance with NPDES/102 requirements including a Post Construction Stormwater Management (PCSM) Plan.

The PCSM Plan for the proposed airside Taxiway D modifications and new cargo apron as well as the landside roadway improvements, will be permitted as part of a Major Amendment No. 5 to the approved NPDES General Permit PAC390061 for Stormwater Discharges Associated with Construction Activities. The PCSM Plan will document the stormwater analysis for permanent site conditions following construction of the project and address the stormwater management BMPs implemented to control the stormwater runoff volume, peak flow, and water quality. The project is located within Subareas 22 and 25 of the Catasauqua Creek Act 167 Plan. The proposed development will use existing aboveground detention basins and new underground infiltration beds to maintain peak rate control for all storm events. Final pavement increase totals may necessitate the construction of an additional underground stormwater detention basin to assist in controlling the peak runoff rates. New underground infiltration beds and soil amendment areas, located within the airside limits of the project, will be used to provide the required volume control for the 2-year storm event. Additionally, existing impervious surfaces will be removed to minimize the net increase in proposed runoff. Water Quality BMPs include street sweeping, soil amendments, and the subsurface infiltration beds. These facilities will be designed in accordance with PADEP standards and will be implemented as a method of protecting the integrity of stream channels and maintain and protect the physical, biological, and chemical qualities of the receiving stream.

Groundwater:

According to the EPA's EnviroMapper website, the nearest EPA-designated Sole Source Aquifer (SSA) is the New Jersey Coastal Plain aquifer, which extends inland to Easton, PA, approximately ten miles east of ABE. Geotechnical information for the project site indicates that groundwater exists in the hydrostatic water table below the Proposed Action site; however, no groundwater was encountered in 20 test borings up to 95 feet deep. No public drinking water wells are located on or adjacent to the Proposed Action site. The nearest known drinking water resources are four municipally owned and operated groundwater wells located within 1,200 feet of the Catasauqua Water Plant, at Walnut and St. John Streets, approximately one mile west of the Proposed Action site.

During construction, up to 80 acres of upland terrain would be temporarily impacted by clearing, grading, drainage, trenching, excavation, and other construction phase activities, i.e., limit of disturbance. Since these activities involve the use of vehicles and equipment, fuels and lubricants, and the storage of construction materials, there is a risk of release or spills of hazardous materials or petroleum products that could reach groundwater below the land surface and be transported within the aquifer. Groundwater and contamination can move slowly, or rapidly, depending on the aquifer formation. Under the Proposed Action, project specific BMPs and SWPPPs (discussed above) would prevent or minimize the potential release of contaminants into groundwater. The BMPs and SWPPPs require measures to prevent spills, offer swift response to accidental spills, and define acceptable on-site storage of fuel and lubricants.

Groundwater was not encountered during test borings. Therefore, groundwater control measures, other than stormwater drainage in excavations, is not anticipated to be required. Under the Proposed Action, stormwater would be directed or conveyed to enter the swales and infiltrate through the grass and soil. Pollutants in the stormwater would be removed by the grass and soil in this infiltration process, thereby helping to protect groundwater resources from contamination.

Hazardous materials, including aircraft fuel storage and fueling operations, are discussed in Section 4.8 of the Final EA. Regulated substances (such as batteries, used fuel, petroleum, oils, lubricants, solvents, degreasers, etc.) are typically associated with the routine operation of a cargo facility including building maintenance and equipment repairs. Hazardous waste BMPs generally involve procedures for good housekeeping, including safely storing all hazardous substances and wastes in secure areas and routinely inspecting storage areas and containers for leaks or spills. The building tenant would be responsible for the proper management and disposal of all hazardous substances and wastes, and for compliance with applicable permit requirements. The proposed fuel storage facility (described in Section 1.3.2 and discussed further in Section 4.8 of the Final EA) would include leak and spill prevention features. In addition, the proposed tank farm would be permitted, regulated, and operated in accordance with PADEP's Storage Tank Program. This program includes requirements for preparing and maintaining a Spill Prevention and Response Plan (SPRP). The SPRP lists and describes BMPs and control measures available to reduce the potential for a leak or spill to occur, and countermeasures to minimize potential risks to human health and the environment if a leak or spill were to occur. The SPRP would be developed during the design phase and would identify appropriate BMPs.

Deicing operations would be performed occasionally during winter months. This process involves spraying various deicing and anti-icing fluids to melt snow, ice, and frost from an aircraft's surface and to prevent reformation. These fluids, typically composed of ethylene glycol (EG) or propylene glycol (PG), have a high biochemical oxygen demand (BOD), which can have harmful effects on receiving waters, if not managed correctly.

Stormwater associated with deicing operations is regulated through the airport's NPDES industrial permit and would be subject to various BMP requirements as well as effluent limits. Carefully configured systems of BMPs play a key role in maintaining compliance with permit requirements. The Proposed Action would include a plan to isolate, capture, collect, store, and properly dispose of deicing stormwater before it reaches receiving waters. Aircraft deicing BMPs would avoid or minimize the potential for groundwater degradation. The following factors were also considered:

- No airport rescue/firefighting training is associated with the Proposed Action.
- No underground fuel storage, transfer or distribution system, or hydrant fueling operations are proposed.
- No drinking water wells, or other types of injection or extraction wells, are proposed.

The City of Allentown sources its water from two large springs, Little Lehigh Creek, and the Lehigh River. About half the water is drawn from Schantz Spring and Crystal Spring, and the well fields are located southwest of Allentown and about ten miles southwest of ABE. The other half comes from surface water—with the majority of that coming from the Little Lehigh Creek. The Lehigh River acts as a secondary water source. The City of Bethlehem sources its water from the Wild Creek Reservoir located in the Pocono Mountains in Carbon County. These surface and groundwater resources would not be affected by the Proposed Action. The nearest known drinking water resources are four municipally owned and operated groundwater wells located within 1,200 feet of the Catasauqua Water Plant, at Walnut and St. John Streets, approximately 1.0 mile west of the project site. The proposed Action would occur outside the designated Half Mile Default Wellhead Protection Area (WPA) associated with each of those facilities.

A significant impact on surface water exists if “the action would: (1) exceed groundwater quality standards established by Federal, state, local, and tribal regulatory agencies; or (2) contaminate an aquifer used for public water supply such that public health may be adversely affected.” Under the Proposed Action, compliance with PADEP permit requirements, including an approved Erosion and Sedimentation Control Plan, Long-Term Stormwater Operation and Maintenance Plan, and water quality BMPs included in the project's design, provide adequate assurance that the Proposed Action would not cause or contribute to a significant adverse impact on surface water and groundwater resources. Any residual effects would be less than significant. The No Action Alternative would have no significant impact on surface water resources.

## **CUMULATIVE IMPACTS**

To determine cumulative impacts to the environment, recent projects, ongoing projects, and reasonably foreseeable projects were identified. The potential impacts from these projects were compared to the significance thresholds in FAA Order 1050.1F and the FAA's Environmental Desk Reference for Airport Actions to determine whether significant cumulative impacts will occur when combined with the Proposed Action. Based on this analysis, cumulative impacts are not anticipated from implementation of the Proposed Action.

## **PUBLIC AND AGENCY PARTICIPATION**

The 2019 Master Plan Update included a Public Involvement Plan (PIP). Public participation came from Project Advisory Group (PAG) meetings, LNAA Board of Governors briefings, a regional context workshop, and two public information meetings. Interim documents and other information were also posted on the LNAA website and various social media outlets. There were also opportunities to review and comment on documents posted on the airport's website and two public meetings were held.

The Proposed Action has been addressed during regularly scheduled meetings of the LNAA Board of Governors, which are open to the public. Each month, meeting agendas and meeting minutes are posted on the LNAA's website. The meetings are also video recorded and posted online.

In addition, opportunities for agency/public comment are embedded into applicable permitting processes:

- NPDES permits issued by PADEP and the Lehigh County Conservation District (LCCD) are a matter of public record. When the project's design is complete, and LCCD issues the NPDES permit, public notice will be published in the Pennsylvania Bulletin, pursuant to 25 PA Code §102.32(c). Persons aggrieved by the permit action may request an informal hearing with DEP within 30 days of publication.
- Local land development plans are subject to Township approval and are required to be discussed at Town Council meetings, which are held the 1st and 3rd Wednesdays of each month and are open to the public.

The Draft EA document was available for public review and comment for 30 days (April 17 – May 17, 2024). To ensure the public was aware, LNAA published a Notice of Availability (NOA) in the Express Times and posted the NOA and Draft EA on the Airport's website at <https://www.flyabe.com/airport-authority/documents>. LNAA also sent certified letters to the property owners at 1555 and 1565 East Race Street informing them of the availability of the Draft EA. There were no comments received or requests for a Public Hearing during the 30-day comment period. All Public Information documentation can be found in Appendix K of the Final EA.

## **PERMITS**

Implementation of the Proposed Action would require the following permits and/or approvals:

- A National Pollution Discharge Elimination System permit from the Lehigh County Conservation District.
- A Highway Occupancy Permit from PENNDOT for intersection improvements that involve construction in PENNDOT's right-of-way.
- A Resource Conservation and Recovery Act permit from PADEP for the use, handling, storage, and disposal of regulated hazardous materials and industrial wastes.
- Fuel storage tanks in the Commonwealth of Pennsylvania must be registered and permitted with PADEP. Operation and maintenance of the aircraft fuel storage tanks is covered under 25 PA Code Section 245.
- Local Development Permits: Civil Permit, Building Permit, Independent Electrical Permit, Independent Plumbing Permit, and Independent Pile Foundation Permit.

## **MITIGATION MEASURES**

In addition to any mitigation associated with the permit approvals above, the following mitigation measures and/or conditions listed below will be carried out.

### *Air Quality*

As discussed in Section 4.1 of the Final EA, to reduce emissions from construction phase activities, the following BMPs would be implemented during the construction period:

- Use ultra-low sulfur diesel fuel in all diesel-powered construction equipment.
- Use, where possible, of water or chemicals for control of dust in construction operations such as grading of roads or the clearing of land.
- Application of asphalt, oil, water or suitable chemicals on dirt roads, material stockpiles and other surfaces which may give rise to airborne dusts, and
- Prompt removal of earth or other material from paved streets onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

### *Biological Resources*

As discussed in Section 4.2 of the Final EA, during the construction phase, contractor would be required to implement the following BMPs to reduce the potential for adverse effects on biological resources:

- Use erosion control measures, consistent with NPDES permit requirements, to protect plants and wildlife in undisturbed areas.
- Landscape restoration to reconstitute existing habitat while minimizing wildlife attractants.

Accordingly, the project components would be designed in such a way as to reduce the potential to cause or enhance wildlife hazards to aviation as follows:

- Adhere to AC 150/5200-33C - Hazardous Wildlife Attractants on or near Airports.



### Hazardous Materials, Solid Waste, and Pollution Prevention

As discussed in Section 4.8, during the construction phase, contractors would be required to implement the following strategy to mitigate potential risks to human health and the environment:

- Develop and adhere to an approved Spill Prevention, Control, and Countermeasures Plan that includes BMPs and control measures to reduce the potential for a leak or spill to occur, and countermeasures to minimize potential risks to human health and the environment if a leak or spill were to occur.

After construction, the tenant/operator(s) would be required to:

- Obtain and adhere to the appropriate Resource Recovery and Conservation Act permit that includes hazardous waste BMPs that generally involve procedures for good housekeeping related to procurement, proper storage, handling, spill preparedness, disposal, and training.
- Develop and maintain a Spill Prevention and Response Plan that includes BMPs and control measures to reduce the potential for a leak or spill to occur, and countermeasures to minimize potential risks to human health and the environment if a leak or spill were to occur.

### Traffic

As discussed in Section 4.14 of the Final EA, during the construction period, LNAA would implement the following strategy to accommodate vehicular traffic through the work zone:

- Develop and adhere to a PENNDOT approved Maintenance and Protection of Traffic Plan that gives direction to the contractor about when it can work on the roadway, take out lanes of traffic, detour traffic, etc.

In addition, the following design measures may be implemented if PENNDOT determines they are necessary and includes them in the Highway Occupancy Permit:

- Lengthen the westbound left turn as needed to provide 175-ft of queuing/storage by restriping the gore area, and/or
- Restripe and sign the eastbound the Race Street approach to provide a dedicated right turn lane without impacting overall or eastbound approach operations.

### Visual Impacts

As discussed in Section 4.15 of the Final EA, the project components would be designed in such a way as to lessen the effects of light emissions and the potential for annoyance:

- Shielding or angular adjustments of lights (dark-sky compliant lighting).
- Alternative placement of lights consistent with operational requirements.

After construction, if vehicular headlights are determined to be causing annoyance to nearby residences, LNAA could decide to:

- Install a visual buffer or barrier between the proposed entrance road and those residences.

### Water Resources

As discussed in Section 4.16, appropriate water quality BMPs and control measures would be determined during the project's design and permitting processes. As a condition for FAA environmental approval, LNAA would:

- Adhere to NPDES/Chapter 102 permit terms and conditions for minimizing, reducing, and avoiding potential impacts to surface water and groundwater resources including, but not limited to, preparing a Stormwater Pollution Prevention Plan to reduce or prevent stormwater contamination during construction activities, design measures to reduce the quantity and improve the quality of storm runoff and discharges, and a Post Construction Stormwater Management Plan for monitoring compliance with applicable water quality standards.

**CONCLUSION AND APPROVAL:**

I have carefully and thoroughly considered the facts contained in the attached EA. Based on that information, I find the proposed Federal action is consistent with existing national environmental policies and objectives of Section 101(a) of the National Environmental Policy Act of 1969 (NEPA) and other applicable environmental requirements. I also find the proposed Federal action will not significantly affect the quality of the human environment or include any condition requiring any consultation pursuant to section 102(2)(C) of NEPA. As a result, FAA will not prepare an EIS for this action.

**RECOMMENDED:**

**HEATHER FRANCES  
DAVIS-JENKINS** Digitally signed by HEATHER  
FRANCES DAVIS-JENKINS  
Date: 2024.08.02 07:49:32  
-04'00'

08/02/2024

Heather Davis-Jenkins  
Environmental Protection Specialist,  
Harrisburg Airport District Office

Date

**APPROVED:**

**RICKY W  
HARNER** Digitally signed by RICKY  
W HARNER  
Date: 2024.08.02  
09:00:53 -04'00'

Rick Harner  
Manager  
Harrisburg Airport District Office

Date