U.S. DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINSTRATION

FINDING OF NO SIGNICANT IMPACT/ RECORD OF DECISION

Location

Trenton Mercer Airport Ewing Township, New Jersey

Introduction

This Finding of No Significant Impact / Record of Decision (FONSI/ROD) sets out the Federal Aviation Administration's (FAA) consideration of environmental and other factors for Airport Layout Plan (ALP) approval for the Runway Protection Zones (RPZ) and Obstruction Mitigation project proposed at Trenton Mercer Airport (TTN) by the County of Mercer, the airport sponsor. The FAA arrived at the determinations and approvals presented in this FONSI/ROD by considering public comments and reviewing the environmental analysis in the Trenton Mercer Airport Runway Protection Zones and Obstruction Mitigation Environmental Assessment (EA) dated July 2019, which is hereby incorporated into this document by reference, along with all appendices. The FAA must comply with the National Environmental Policy Act of 1969 (NEPA) before taking any federal actions necessary to allow for the removal of obstructions and enhancements to the RPZ to take place at TTN. In accordance with Title 40, Code of Federal Regulation (CFR) § 1501.3 of the President's Council on Environmental Quality Regulations (CEO). the implementing federal regulations for the NEPA of 1969, the FAA supervised preparation of the aforementioned EA. The EA was prepared in accordance with the requirements of NEPA as discussed in FAA Orders 5050.4B, Airport Environmental Handbook, 1050.1F, Environmental Impacts: Policies and Procedures, and the Airports Desk Reference.

Background

Trenton Mercer Airport (TTN) is a public-use airport located in Ewing Township, New Jersey and is owned and operated by the County of Mercer. The airport has two runways, Runway 6-24 and Runway 16-34, and associated taxiways and infrastructure. It covers approximately 1,300 acres and is located four miles northwest of the City of Trenton; less than 45 minutes from the Philadelphia metropolitan area. The Airport has scheduled service alongside general and corporate aviation. TTN is home to three flight schools, numerous Fortune 500 company aviation units, U.S. Customs Service, Civil Air Patrol, New Jersey State Police, and the New Jersey National Guard. TTN is the fourth busiest airport in New Jersey with an average of 213 aircraft operations per day.

In March 2015, a RPZ Analysis and Obstruction Evaluation of "Title 14 CFR Part 77 – Safe, Efficient Use, and Preservation of Navigable Airspace" was conducted to determine if there were any obstructions that penetrate airspace surfaces surrounding the airport and

to identify incompatible land uses within the RPZs (Appendix C.) Results of the evaluation indicated that there are obstructions to the navigable airspace and incompatible land uses within the RPZ. Grant Assurance 20 of the FAA's Airport Improvement Program, *Hazard Removal and Mitigation*, and FAA Advisory Circular 150/5300-13A, Change 1, *Airport Design*, require an airport sponsor to take appropriate action to clear airspace and adequately protect instrument and visual flight operations by removing, lowering, relocating, marking or lighting, or otherwise mitigating existing airport hazards and preventing the establishment or creation of future airport hazards.

Proposed Project

Consistent with the 2015 RPZ Analysis and Obstruction Evaluation, the Proposed Project involves addressing critical airspace obstructions (i.e., penetrations to Runway End Siting Surface, Terminal Instrument Procedures, and Navigational Aid surfaces) and incompatible land uses within the RPZs (i.e., residential homes), The Proposed Project includes the following by runway end:

Runway 6 End:

- Removal of tree canopy areas (5.4 acres on and 1.8 acres off airport property)
- Removal of individual trees (10 off airport property)
- Voluntary fee simple acquisition/relocation of six residential properties to remove residential structures that are located in the RPZ and critical obstructions
- Voluntary fee simple acquisition of one parcel within the RPZ to remove critical obstructions
- Avigation easement on one parcel to remove critical obstructions

Runway 24 End:

- Removal of tree canopy areas (11.1 acres on and 1.4 acres off airport property)
- Avigation easements on 3 parcels to remove critical obstructions

Runway 16 End:

• Removal of tree canopy areas (3.5 acres on and 0.1 acres off airport property)

Runway 34 End:

- Removal of tree canopy areas (3.2 acres on and 4.2 acres off airport property)
- Removal/lowering of one utility pole (on airport)
- Installation of seven obstruction lights to mark a railroad
- Avigation easements on 2 parcels to remove critical obstructions

Proposed Agency Actions

The FAA actions involved in the implementation of the Proposed Project include the following:

 Unconditional approval of the updated ALP for Trenton Mercer Airport, pursuant to 49 U.S.C. § 40103(b), and § 47107(a)(16), and determination on, and approval of, the effects of this 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 for Federal funding under the Airport Improvement Program (AIP), and/or approval of an application to use Passenger Facility Charges (PFCs) under 49 U.S.C. Section 40117 (this FONSI/ROD does not determine eligibility or availability of potential funds);
- 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;
- Determination under 49 U.S.C. § 44502(b) that the Proposed Project is reasonably necessary for use in air commerce or in the interests of national defense;
- Maintain continued close coordination with the County of Mercer and appropriate FAA program offices, as required, for safety during construction. (14 C.F.R. Part 77); and
- Approval of appropriate amendments to the TTN Airport Certification Manual (ACM), as required, pursuant to 49 U.S.C. §44706 and 14 CFR Part 139.

Purpose and Need

The purpose and need for the Proposed Project is to:

- Remove critical obstructions identified in the 2015 RPZ Analysis and Obstruction Evaluation and FAA Flight Procedure Office TERPS Analysis completed in April/May 2015.
- Enhance the safety of aircraft operations.
- Comply with federal design standards and grant assurances (obligations) with respect to obstructions to airspace and incompatible land uses in the RPZs.

Alternatives

No Action Alternative: Under the No Action Alternative, no work would be done to address obstructions or incompatible land uses within the RPZ. Obstructions would remain and continue to impact the navigable airspace. Incompatible land uses within the RPZ would also remain. The No Action alternative would not meet the project purpose and need, but was carried forward as a baseline for comparison of impacts, pursuant to Council of Environmental Quality regulations and FAA Orders 1050.1E and 5050.4B.

Action Alternative: Chapter 2 of the EA describes the alternative areas considered. Eight areas around TTN had vegetation or structures of sufficient height that could constitute obstructions to the airport. The project area was then narrowed down to those obstructions that could possibly affect airport operations, and the actual effect/benefit of removing obstructions on airport operations, safety, potential environmental impacts, impacts to the community. Based on this, the critical obstruction area was defined as the area that affected Part 77 20:1 and 34:1 surfaces; runway end siting surfaces; and MALSR light plane obstructions. This is the area that must be cleared in order to maintain the minimum approach surfaces at the airport. Areas with residential homes in the runway protection zones were also incorporated into the project area for analysis.

Once the project area was determined, obstruction mitigation methods specific to the obstruction type were considered. The methods included:

- Method 1: Clearing, grubbing, and grading Includes individual trees and tree canopy areas, involves cutting the tree trunk to ground level, grubbing out the stumps to below ground surface, re-grading the ground surface with topsoil, and seeding and mulching the disturbed area.
- Method 2: Clearing, grubbing, grading, and replanting Includes individual trees and tree canopy areas, involves cutting the tree trunk to ground level, grubbing out the stumps to below ground surface, re-grading the ground surface with topsoil, and seeding and mulching the disturbed area. This includes replacement plantings with lower growing trees at a 1:1 ratio on residential properties, maintaining a screen of trees on commercial properties, and a landscaping plan for the golf course.
- Method 3: Clearing, leaving stumps in place Includes individual trees or tree canopy areas, involves cutting the tree trunk to approximately 3 inches from the ground surface, and removal of the woody material, leaving understory (with a height of 4 foot or less) intact and only during dry and/or frozen ground conditions by low ground pressure tracked equipment or by hand to not disturb the ground. These procedures create minimal surface disturbance to environmentally sensitive areas such as wetlands, wetland transition areas, riparian zones, archeologically sensitive areas, etc.
- Method 4: Crown reduction / tree topping Includes individual trees and tree canopy areas, involves reducing the tree canopy heights by proper pruning methods.
- Method 5: Selective tree thinning Includes selective thinning of tree canopy areas, involves the removal of tall trees with stumps, small trees, and brush will remain.
- Method 6: Lighting vegetative obstructions Includes individual trees and tree
 canopy areas, would consist of complying with standards as outlined in Federal
 Aviation Administration Advisory Circular AC 70/7460-1L, Obstruction Marking
 and Lighting, involves erecting tower(s) with red obstruction lights in tree canopy
 areas
- Method 7: Lighting fixed obstruction This involves directional boring at the ROW Line and perpendicular to the railroad track from an on airport electrical vault. Directional boring would provide electricity to the first obstruction light and the remaining obstruction lights would be connected to the first light with pull boxes along the ROW line that the obstruction lights are set on. Obstruction lighting would consist of complying with standards as outlined in Federal Aviation Administration Advisory Circular AC 70/7460-1L, Obstruction Marking and Lighting, involves erecting seven poles with red obstruction lights adjacent to the railroad tracks.
- Method 8: Removing/Lowering Utility Pole Includes removing or lowering one utility pole located on airport property. If no electrical service is provided the pole will be removed, if electrical service is provided the pole will be lowered in accordance with standards as outlined in Federal Aviation Administration Advisory Circular AC 70/7460-1L, Obstruction Marking and Lighting.

Dependent upon the property affected, the property owner's desires, and the environmental sensitivity of the land (i.e., wetlands, riparian zones, archeological resource areas, etc.), a combination of Methods 1 through 3 were used to address the obstacles. Methods 4, 5, and 6 were not considered feasible for the following reasons: the trees would continue to grow and penetrate critical airspace; topping trees can result in the death or decay of the tree; there would be continued maintenance costs; and in some cases these methods would result in greater environmental impacts. Methods 7 and 8 were used to address obstructions, such as utility poles (Method 7) and railroad markings (Method 8) that could not be removed. Where needed, easements, land purchases, or One Time Right of Entry will be obtained by the sponsor.

The sponsor's preferred alternative and the FAA selected alternative is as follows:

Runway 6 End

- County Owned and State Owned Property- Obstruction removal on airport property in non-environmentally sensitive areas will be by Method 1: Clearing, grubbing, and grading. In environmentally sensitive areas Method 3: Clearing, leaving stumps in place so no ground disturbance takes place will be used.
- Private Residential properties- Obstruction removal on private residential properties will be by Method 2: Clearing, grubbing, grading and replanting trees at a 1:1 ratio.

In summary work on the Runway 6 End will result in:

Removal of tree canopy areas (5.4 acres on and 1.8 acres off airport property)

- 5.7 acres of trees using Method 1
- 1.5 acres of trees using Method 3

Removal of individual trees (10 off airport property)

- Two trees using Method 1
- Six trees using Method 2
- Two trees using Method 3

Land Acquisition

- Fee simple acquisition/relocation of 6 residential properties and the removal residential structures that are located in the RPZ and critical obstructions
- Fee simple acquisition of 1 parcel within the RPZ
- Avigation easement on 1 parcel

Runway 24 End

- County-Owned and Railroad Property- Obstruction removal on airport property in non-environmentally sensitive areas will be by Method 1: Clearing, grubbing, and grading. In environmentally sensitive areas Method 3: Clearing, leaving stumps in place so no ground disturbance takes place will be used.
- Commercial properties- Obstruction removal on commercially owned property will be by Method 2: Clearing, grubbing, grading and replanting a vegetative screen.

In summary work on the Runway 24 End will result in:

Removal of tree canopy areas (11.1 acres on and 1.4 acres off airport property)

- 9.3 acres of trees using Method 1
- 0.5 acres of trees using Method 2
- 2.7 acres of trees using Method 3

Land Acquisition

Avigation easements on 3

Runway 16 End:

- County-Owned Property- Obstruction removal on airport property in nonenvironmentally sensitive areas will be by Method 1: Clearing, grubbing, and grading. In environmentally sensitive areas Method 3: Clearing, leaving stumps in place so no ground disturbance takes place will be used.
- Golf Course (county owned) Obstruction removal on golf course property in non-environmentally sensitive areas will be by Method 2: Clearing, grubbing, and grading with replacement landscaping. In environmentally sensitive areas Method 3: Clearing, leaving stumps in place so no ground disturbance takes place will be used.

In summary work on the Runway 16 End will result in:

Removal of tree canopy areas (3.5 acres on and 0.1 acres off airport property)

- 2.7 acres of trees using Method 1
- 0.9 acres of trees using Method 3

Runway 34 End

- County-Owned and Railroad Property- Obstruction removal on airport property in non-environmentally sensitive areas will be by Method 1: Clearing, grubbing, and grading. In environmentally sensitive areas Method 3: Clearing, leaving stumps in place so no ground disturbance takes place will be used.
- Cemetery Property- Per the property owner's desires, obstruction removal on cemetery property will be by Method 1: Clearing, grubbing, and grading.

In summary work on the Runway 34 End will result in:

Removal of tree canopy areas (3.2 acres on and 4.2 acres off airport property)

- 6.7 acres of trees will be removed using Method 1
- 0.7 acres of trees will be removed using Method 3

Removal/lowering of one utility pole (on airport) using Method 8 Installation of seven obstruction lights to mark a railroad using Method 7 Land Acquisition

 Avigation easements on 2 parcels (tax parcels 365-2, 366-1) to remove critical obstructions

Discussion

The attached EA addresses the effects of the Proposed Project on the human and natural environment. The Proposed Project has the potential to affect the following resource

categories: Air Quality; Climate Change; Biological Resources; Department of Transportation Act: Section 4(f); Hazardous Materials, Pollution Prevention, and Solid Waste; Historical, Architectural, Archaeological, and Cultural Resources; Compatible Lands Uses; Socioeconomics, Environmental Justice, and Children's Environmental Health and Safety Risks; Visual Effects; and Water Resources. These resources were not in the project areas: Coastal Resources; Farmlands; and Wild and Scenic Rivers.

The following impact analysis provides highlights of the more thorough analysis presented in the EA.

Air Quality

According to the USEPA Green Book (current as of February 28, 2018), the Proposed Project is located within a nonattainment area for 8-hour ozone and in a maintenance area for carbon monoxide and PM2.5. Although the Proposed Project will not result in any increases in operational emissions at the airport, a temporary increase in emissions from use of various construction equipment and travel by contractors will occur. A construction emissions analysis was completed to determine if the Proposed Project would exceed any *de minimis* rates specified in the Clean Air Act (CAA), (42 U.S.C. § 7401 et seq.) and/or would result in the worsening of the attainment status or prevent future attainment as predicted by the State Implementation Plan. The results of the emissions inventory, demonstrated that criteria pollutant emissions for the Proposed Project are less than the *de minimus* thresholds. As a result, a conformity analysis is not required under the CAA and no significant impacts to air quality are anticipated.

Climate Change

The Proposed Project would increase Green House Gasses (GHG) emissions when compared to the No-Action Alternative due to construction activities. Based on the calculations, resulting carbon dioxide equivalent emissions are approximately 8,856 metric tons CO2e in 2018 and 5,874 metric tons CO2e in 2021. When compared to the total Delaware Valley regional GHG emissions for 2010, GHG emissions from the Proposed Project consist of less than 0.02% of the total Delaware Valley Region emissions. There are currently no federal requirements for reporting greenhouse gases from aviation sources nor are there significance thresholds.

Biological Resources

The Proposed Project will result in relatively minor loss of upland forest, successional upland field (shrub land), and forested wetlands. Approximately 18.2 acres of upland forest out of 131.1 acres will be impacted. Because of the large amount of remaining upland forest, the Proposed Project is not expected to have a substantial impact on native species' habitats or their populations.. The loss of 5.2 acres of successional upland field (shrub land) is not considered significant because historically these areas have been cleared and are now reverting to shrub land. The successional shrub land areas currently contain unwanted plants or invasive species and are not considered critical habitat by federal or state agencies. Lastly, the loss of 4.2 acres of forested wetlands out of 40.9 acres is not considered significant because the wetlands will be converted to scrub-shrub wetlands and an acceptable mitigation plan has been developed. The minor loss or

alteration of vegetative cover will not significantly reduce wildlife habitat or result in the loss of habitat connectively. There is also adjacent habitat to the project area where wildlife can migrate; therefore, no significant impacts to wildlife are expected.

Threatened and Endangered Species

Two federally listed Threatened and Endangered Species, the Indiana Bat and Northern Long-Eared Bat, potentially occur in the project area. The Little Brown Bat, a species currently under US Fish and Wildlife Service (USFWS) review for protection under the Endangered Species Act, may also occur in the area. An acoustic survey was conducted to determine the presence or absence of these species. The results of the survey indicate that the Proposed Project may affect, but is not likely to adversely affect the Northern Long-Eared Bat and Indiana bat. However, since the project site is within the known range of the Northern Long-Eared Bat and Indiana Bat, there is potential for the bats to occupy the site in future years. The Little Brown Bat may travel through, forge, and have maternity roosts within the project area. Therefore, to prevent injury or death to individual Little Brown bats that may roost within the project area, a USFWS recommended time-of-year restriction on tree clearing of any tree greater than five inches in diameter will be in place from April 1 to September 30. In addition, if the tree clearing within the project site is not completed prior to September 15, 2020, the USFWS must be contacted to determine if additional summer surveys will be required.

Based on the New Jersey Natural Heritage Program (NJ NHP) and a Habitat Assessment, potential habitat for the Cooper's hawk, Great blue heron, and Eastern meadowlark exists within the project area. The project could potentially affect the following:

- 22.7 acres of Cooper's hawk habitat that includes upland forest, forested wetlands, and residential areas.
- 4.72 acres of Great blue heron habitat that includes upland forest near streams, wetlands, late successional field near wetlands and streams.
- 3 acres of Eastern meadowlark habitat that includes maintained grass, emergent wetlands, and residential areas with maintained lawns.

Impacts to the state-listed species are not expected to be significant due to the large amount of remaining habitat and connective corridors that will be preserved. In addition, seasonal clearing and mowing restrictions will reduce the potential for impacts.

Department of Transportation Action of 1966, Section 4 (f) Resources

Section 4(f) of the U.S. DOT Act of 1966 (now codified at 49 U.S.C. § 303) protects publicly owned parks, recreational areas, wildlife and waterfowl refuges, and public and private historic sites. Within the project area, there are two publicly owned (County of Mercer) parks: the Mountain View Golf Course and the West End Soccer Complex. The project will require the removal of 1.6 acres of tree canopy on the Mountain View Golf Course and 1.7 acres of tree canopy on the West End Soccer Club. To minimize or mitigate the impacts trees will be removed during the off-season and replanting and landscaping will take place. There are two historic sites within the project area. The CSX railroad is part of the Delaware and Bound Brook Railroad Historic District, and the First Presbyterian Church, Ewing Cemetery is considered historic. Mitigation plans were

developed for each entity to minimize impacts. Obstruction lights will be installed to mark the CSX railroad track and 0.4 acres of trees will be removed within the Delaware and Bound Brook Railroad Historic District. At the First Presbyterian Church, Ewing Cemetery, 4 acres of trees will be removed. A hedgerow will be planted to maintain the vegetative screen between the cemetery and airport. There are archeological sites off the Runway 6, 24, and 34 Ends.

In the case of archeological sites, an avoidance plan was developed which prevented potential impacts to the sites. The mitigation plans were accepted by the respective agency with jurisdiction, and it was agreed that with mitigation, the Proposed Project would have a *de minimis* impact on the physical characteristics of the Mountain View Golf Course, Ewing Cemetery, West End Soccer Complex and historic and archeological sensitive resources. After consideration of the mitigation measures, the Proposed Project will not adversely affect the activities, features, and attributes that qualify the Mountain View Golf Course, Ewing Cemetery, West End Soccer Complex and historic and archeological resources trail for protection under Section 4(f). After consultation with the agencies with jurisdiction, and considering public comments, the FAA has determined that impacts to the Section 4(f) resources affected by the project would be *de minimis*.

Hazardous Materials, Pollution Prevention, and Solid Waste

On the Runway 16 end, approximately 0.13 acres of tree clearing will take place within a historic fill area. There are an additional 1.2 acres of tree clearing within 240 feet of the historic fill area. Tree removal in the boundaries of the historic fill area and 0.79 acres of tree clearing in the adjacent area are located in environmentally sensitive areas. Tree removal Method 3 will be used in these areas, which includes leaving stumps in place so no ground disturbance takes place. Since no ground disturbance will take place, hazardous or contaminated materials should not be encountered. On the Runway 34 end, approximately 2.3 acres of tree removal will take place within 100 feet of a contaminated groundwater area associated with the Naval Air Warfare Center. Sampling in the area will take place prior to work. Should contaminated soil be found, handling will be in accordance with local and state requirements.

The Proposed Project will generate solid waste in the form of construction debris from land clearing and vegetation removal activities. Where practicable, solid waste will be recycled by the contractor. Material that cannot be recycled will be disposed of off-site by the contractor consistent with federal, state and local regulations. Solid waste disposal will not significantly impact the capacity of nearby disposal facilities.

Historic, Architectural, Archeological, and Cultural Resources

Within the project area, there are three eligible or National Register of Historic Places listed properties: the Burt/Hendrickson/Atchey Farmstead, the Trenton Mercer Armory and the First Presbyterian Church and Cemetery of Ewing. There is also a historic district: the Delaware and Bound Brook (Reading) Railroad Historic District. Coordination with the NJ Historic Preservation Office (HPO) did not identify any concerns related to tree clearing activities or obstruction lighting in the historic properties

or the historic district. Potential archeological sites were identified within the project area. Stage 1B archeological testing was conducted in coordination with the NJHPO. Based on the test results, an avoidance plan for short and long-term protection was developed. The NJHPO agreed that with implementation of this plan there would be no adverse effects to historic, architectural, archeological, and cultural resources.

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

The Proposed Project includes land acquisition and relocation, and acquisition of several avigation easements. Land acquisition of the Runway 6 end involves the voluntary fee simple acquisition and relocation of up to six residential properties, totaling 2.85 acres, to remove residential structures within the RPZ. The Runway 6 end land acquisition program also includes the fee simple acquisition of one state-owned parcel totaling 18.07 acres, which is located within the RPZ, as well as an avigation easement on a second state-owned 55.45-acre parcel. On the Runway 24 end, two commercial business parcels and a railroad parcel, totaling 49.4 acres, will require avigation easements. The Runway 34 end will require two avigation easements, totaling 80.5 acres, and the acquisition of two parcels, one on the cemetery property and one on railroad property, totaling 24.79 acres.

Property acquisition will be consistent with the requirements of the Uniform Relocation Assistance and Real Property Acquisition Policies Act (URA). Since property acquisition will take place with cooperative property owners participating in a voluntary program, and acquisition will follow the requirements of the URA, no significant and/or adverse impacts related to property acquisition are expected. The Proposed Project will not result in any significant changes to transportation, planned development or employment. In addition, there are no significant impacts to noise, changes to traffic patterns, water quality or use, or any other resource that may adversely affect communities. In addition to there being no significant natural or social impacts, no disproportionate impacts on low-income or minority populations will occur. The Proposed Project also will not create any children's health or safety risks.

Light Emissions & Visual Impacts

The Proposed Project will result in changes to the topography and, therefore, views from residential areas will change. The changes will not significantly alter the character of the land, and mitigation (i.e. selective replanting of trees and landscaping) will further minimize visual changes. Since the Proposed Project is adjacent to an airport, which is already well-lit, changes to the topography will not cause an annoyance or contrast. There will be no significant impacts due to lighting or visual impacts related to the Purposed Project.

Water Resources

Stormwater: The Proposed Project involves the removal of 31 acres of trees and 10 individual trees. Significant increases in stormwater runoff are not anticipated since tree canopy obstruction removal will involve leaving stumps and vegetative understory that is less than four feet tall in place within wetlands, wetland transition areas, and riparian

zones to comply with NJ Department of Environmental Protection (NJ DEP) permit requirements. In addition, tree removal takes place in a built environment with paved surfaces already in place (e.g., Airport runways, taxiways, and roads, residential development, and commercial development) and a tree replanting program will replace trees that are re-moved on residential, commercial, and golf course properties.

Groundwater: Based on United States Geological Survey (USGS) groundwater records from the nearest monitoring well, the depth to the water table in the project area is 15.92 feet. Ground disturbing activities, such as clearing, grading or grubbing, typically do not exceed three feet in depth, and therefore will not affect the water table. Groundwater recharge will also not be affected, as understory vegetation will remain. Coordination with the US Environmental Protection Agency, the Delaware River Basin Commission, the NJ DEP, and the Township of Ewing was conducted to determine if there were concerns relating to potential impacts to groundwater. None of these agencies identified concerns related to groundwater resources.

Floodplains: The Proposed Project does not involve development within a designated floodway, floodplain, or flood hazard area but does involve removing vegetation within these federal and state designated areas. However, based on Federal Emergency Management Agency (FEMA) guidance, "Further Advice on Executive Order 11988 Floodplain Management," the Proposed Project does not meet the criteria of a "critical action," and will not result in a significant encroachment to the base floodplain or state flood hazard areas.

<u>Riparian Zones:</u> The Proposed Project will encroach upon approximately 4.8 acres of riparian zones. Mitigation will be required as a condition of the NJ DEP Flood Hazard Area Individual Permit (FHAIP) in order to compensate for the loss or disturbance of riparian zone vegetation. The sponsor's preferred method for compensatory mitigation is to purchase credits from a mitigation bank. Based on a NJ DEP meeting, (November 2, 2016), the Nishisakawick Mitigation Bank is located in the same watershed as the Trenton Mercer Airport and may available credits that can be used.

Wetlands: The Proposed Project will result in approximately 4.2 acres of forested wetlands being permanently converted to scrub-shrub wetlands. There are also temporary impacts associated with the removal of 1.1 acres of trees in the scrub-shrub/emergent wetland areas and 5.2 acres of trees and vegetation in the wetland transition area with the areas being converted to brushy cleared land. Compensatory mitigation is required for the permanent impacts associated with the conversion of forested wetlands to scrub-shrub wetlands. The sponsor's preferred method for compensatory mitigation is to purchase credits from a mitigation bank and make monetary contributions to the Wetland Mitigation Fund. Based on a NJ DEP meeting, (November 2, 2016), the Willow Grove Lake Wetland Mitigation Bank is located in the same watershed as the Trenton Mercer Airport and may have available credits that can be used.

Compatible Land Use

The Proposed Project will not conflict with applicable land use plans or policies, including plans for residential development. The Proposed Project will not result in any increase in wildlife attractants. Finally, the Proposed Project will not result in significant noise impacts.

Cumulative Impacts

Past, present and reasonably foreseeable projects at the airport and surrounding community were considered and evaluated to see if the collective impacts from these projects or actions would result in significant impacts to any resource category. Past projects at the airport included:

- Rehabilitation of Runway 6-24
- Reconstruction of Taxiways H and B

Current projects include:

- Reconstruction of Taxiway D
- Rehabilitation of Taxiway G
- Construction of Scotch Road remote parking lot.

Projects under consideration in the foreseeable future include:

- Redevelopment of the former Naval Air Warfare Center
- Reconstruction of Taxiway F
- Construction of Taxiway B & J connector
- Construction of an Airport Rescue and Fire Fighting facility
- Construction of a Snow Removal Equipment/Maintenance facility
- Construction of a replacement Electrical Building
- Construction of a replacement Terminal Facility
- Rehabilitation of Taxiway E
- Extension of Taxiway H
- Construction of a Deicing Containment Facility
- Extension of Taxiway F

The past and on-going projects were subject to environmental review and determined not to have significant environmental impacts. For projects under consideration, in particular the Terminal Replacement project, available information on project conception and potential impacts associated with the project was provided in the Final EA. Even when impacts to resources were considered collectively, the Proposed Project will not result in any significant cumulative environmental impacts. Projects under consideration for future development will undergo environmental review prior to construction but their cumulative impacts are also not expected to cause a significant impact.

Public and Agency Participation

Opportunities for questions, comments, and information sharing were provided during both project scoping and throughout the analysis development of the EA. The following is a list of public and agency outreach actions.

Agency Coordination:

Scoping letters were sent to federal, state, county, and local officials at the initiation of the Proposed Project. In addition, resource specific coordination took place between the sponsor and following agencies: USFWS, NJDEP, NJHPO, the Township of Ewing, Mercer County, and FAA.

Elected Officials

Comment letters on behalf of constituents were received by two elected officials. Response letters were provided (Appendix B).

Public Meetings and Workshops:

Meetings with potentially affected property owners were conducted on May 15, 2017 and May 16, 2017. Affected property owners were notified of the meetings via certified mail on April 26, 2017, and a follow up letters were sent via UPS on May 4, 2017. Approximately 30 members of the public attended the May 15, 2017 meeting and 12 comment forms were received. At the second meeting, on May 16, 2017, approximately 20 people attended and 11 comment forms were received. The comments received focused on requests for more information on noise and property acquisition. In addition to the public meetings, informational packages were sent to those unable to attend, and email communication and individual meetings with property owners took place.

Copies of the Draft EA were made available to all relevant Federal and State agencies. Throughout the process, the public and agencies were offered an opportunity to provide comments at the meetings and/or by mail or email. There was a 30-day review and comment period from November 9, 2018 through December 10, 2018. In response to requests from the public, the public comment period was then extended until January 11, 2019, for a total of 64 days. Copies of the EA and supporting documentation were made available at the airport, the Mercer County Clerk's Office, the Ewing Public Library, and on-line at https://www.csco.com/TTNEA. Announcement of the availability of the EA for review and comment was posted in the following publications: the Trentonian, Trenton Times, and the Bucks County Courier Times. Newsletters were also sent to the property owners. A general public meeting was also conducted on November 27, 2018. Approximately sixty-five members of the public attended the meeting.

During this comment period, a total of 56 comment letters were received. Public comments focused on the following issues or areas of concern:

- Need for the project
- Alleged changes to flight patterns and noise impacts
- Impacts to PA residents in Buck County
- Concerns flights will fly lower once the trees are removed
- Requests for a cumulative Environmental Impact Statement
- Concerns projects will lead to increased air traffic and larger plans
- Alleged inadequate mitigation
- Alleged segmentation of environmental impacts

All comments received were addressed in Appendix P. A copy of the Final EA and FAA's finding will also be made available to the public.

Permits and Mitigation Measures

The following permits are anticipated. The airport sponsor is required to obtain these permits, and any other unforeseen applicable permit, prior to implementation of the Proposed Project. The sponsor is responsible for adhering to all specified mitigation measures or conditions contained in the permits, or as presented and agree upon in correspondence.

- NJDEP Freshwater Wetlands Letter of Interpretation- Pursuant to N.J.A.C. 7:7A Subchapter 4
- Freshwater Wetlands Statewide General Permit or Freshwater Wetlands Individual Permit – Pursuant to N.J.A.C. 7:7A Subchapters 7, 9
- Wetland Transition Area Waiver Pursuant to N.J.A.C. 7:7A Subchapter 8
- Water Quality Certification Pursuant to N.J.A.C. 7:7E and N.J.A.C. 7:7A
- Review by the Delaware and Raritan Canal Commission- Pursuant to N.J.A.C 7:45.
- Review by the Delaware River Basin Commission
- Soil Erosion and Sediment Control Plan (SESCP) Certification Pursuant to the NJ Soil Erosion and Sediment Control Act (N.J.S.A. 4:24-39 et seq)
- NJ Pollution Discharge Elimination System (NJPDES) Permit (5G3 Construction Activity Stormwater GP) – Pursuant to N.J.A.C. 7:14A
- NJDEP Stream Encroachment Permit-Pursuant to the NJDEP Flood Hazard Area Control Act and implementing regulations N.J.A.C. 7:13
- Water Quality Management Plan Consistency Determination Pursuant to N.J.A.C. 7:15
- CSX Railroad Utility Permit
- CAX Railroad Right of Entry Permit

In addition to the above, the following mitigation measures and/or conditions will be carried out:

Air Quality

 Use of construction equipment that can operate on alternative fuels or electricity wherever possible to minimize emissions associated with diesel and gasoline powered equipment

Biological Resources

- All project activities will be conducted from October 1 through March 31 to avoid threatened and endangered species and migratory bird breeding seasons
- If tree clearing is not complete by September 15, 2020, the USFWS must be contacted again to determine if additional summer surveys are required
- No grubbing of soils, removal of stumps, or the removal of root systems of any vegetation within wetlands, wetland transition areas, and riparian zones
- Clearing activities in the vicinity of wetlands will be conducted such that individual trees are felled in a direction away from the wetland

- The duration of the construction period will be minimized to the extent possible
- Vegetation removal will occur in winter months when the ground is dry and/or frozen
- Appropriate soil erosion and sediment control devices will be used during construction
- Staging and other areas temporarily disturbed by construction will take place in previously disturbed areas (i.e., paved or cleared areas) to the maximum extent possible
- Replanting of lower growing trees on private residential property, tree screens on commercial business property, and landscaping on golf course property

Hazardous Materials, Pollution Prevention, and Solid Waste

- Contract specifications will address the handling of historic fill by identifying
 areas of historic fill, including basic health and safety measures, and requiring that
 the fill remain onsite. In lieu of preparing specifications for "potentially"
 contaminated soils, soil characterization / sampling in the proposed work area
 prior to the work may be considered.
- Consistent with requirements of the Stormwater Pollution Prevention Plan, the construction contractor will be required to implement Best Management Practices for handling hazardous materials onsite.
- Oil and other solvents used during maintenance of construction equipment will be recycled or disposed of in accordance with applicable regulatory requirements.
 All hazardous materials will be transported, handled and disposed of in accordance with applicable regulatory requirements.
- In the event of an accidental release of hazardous materials during construction, containment and cleanup will occur in accordance with applicable regulatory requirements.

Archeological Resources

- The masonry remnant in Survey Area 1 and structural remains and three specimen trees in Survey Area 7 will be marked on the vegetation and obstruction removal maps as "Environmentally Sensitive, Do Not Impact."
- The masonry remnant in Survey Area 1 and structural remains and three specimen trees in Survey Area 7 will be marked with orange flags in the field by a NJ HPO approved archeologist prior to construction activities taking place.
- If ground disturbing activities are expected to take place on the state-owned parcel (Block 423 Lot 18), Stage 1B testing will be conducted after the County acquires the property in fee simple.
- If for any reason Proposed Project recommendations were to change and ground disturbing activities were to take place near the masonry remnant in Survey Area 1 and Survey Areas 6, 7, and 8, a Phase II Archeological Survey would be conducted and further coordination with the NJ HPO would take place.
- Tree removal will be conducted only when the ground is frozen or dry, and all
 visible structural remains will be avoided.

- Only handheld equipment will be used for tree removal within 25 feet of the masonry remnant in Survey Area 1 and within Survey Area 7, and no disturbance will be made to the ground surface during tree removal.
- The trees, brush, and stumps will be cut as close to the ground as practicable, but shall not be to a height of more than three inches above the ground.
- The trees, branches, and brush will be removed from the site area, and no grubbing of stumps will be allowed in the archeologically sensitive areas.
- Proper soil erosion and sediment control plans will be utilized and maintained during tree removal.

Water Resources

- No grubbing of soils, removal of stumps, or the removal of root systems of any vegetation within wetlands and wetland transition areas.
- Clearing activities in the vicinity of the wetland will be conducted such that individual trees are felled in a direction away from the wetland.
- Minimize the duration of the construction period to the extent possible
- Vegetation removal will occur in winter months when the soils are dry and/or frozen and will be done using low ground pressure equipment or hand held equipment.
- Larger trees will be removed from the project area, while smaller shrubs will be cut in small segments and left in place.
- Appropriate soil erosion and sediment control devices will be used during construction.

Federal Agency Findings

In accordance with all applicable laws, the FAA makes the following findings for the Proposed Project based on all appropriate information and analysis contained in the EA and other portions of the Administrative Record of the EA:

- A. The Proposed Project is reasonably consistent with existing plans of public agencies for development of areas surrounding the airport. (49 U.S.C. §47106(a)(1). The FAA is satisfied that the Proposed Project is consistent with plans (existing at the time the Proposed Project is approved) of public agencies for development of areas surrounding the airport based on extensive coordination efforts with public agencies as indicated in the EA.
- B. The interest of the communities in or near where the Proposed Project may be located were given fair consideration. (49 U.S.C. §47106(b)(2). The FAA is satisfied that the interests of the communities in or near where the Proposed Project will be located were given fair consideration as demonstrated by the EA.
- C. The FAA is satisfied that consistent with 49 U.S.C. §47107(a)(10), the airport sponsor has, and will continue to take all necessary actions, including the adoption of zoning laws, to ensure the land uses in the airport vicinity are compatible with airport operations. During the preparation of this EA, there has

been coordination with agencies that have indicated an interest in the Proposed Project.

D. The FAA has given this Proposed Project the independent and objective evaluation required by the Council on Environmental Quality (40 C.F.R. Section 1506.5).

The FAA's review and ultimate decision process included the FAA's rigorous exploration and objective evaluation of reasonable alternatives and probable environmental consequences; regulatory agency and Native American consultations, as required; and public involvement. FAA furnished guidance and participated in the preparation of the EA by providing input, advice and expertise throughout the planning and technical analyses, along with administrative direction and legal review. FAA has independently evaluated the EA and takes responsibility for its scope and content.

E. The Proposed Project does not include a physical or constructive use of any resources protected under 49 U.S.C. §303(c) (Section 4(f) of the DOT Act), including any resources subject to the requirements of Section 106 of the National Historic Preservation Act.

The FAA ensured that all appropriate analyses were performed and required coordination was conducted with regulatory agencies having an interest in or jurisdiction over all resources. Coordination with the NJ Historic Preservation Office resulted in their agreement with the findings of the Stage 1A and 1B survey report in which it was recommended that with implementation of the avoidance and mitigation plan, here is a high probability that the proposed project will have no effect on any archaeological or architectural properties that could be eligible for inclusion in the National Register of Historic Places. As stated above, while the proposed project will remove trees from the Mountain View Golf Course and the West End Soccer Complex, removal of these trees will not create a constructive use as replanting will take place at the golf course and the trees removed at the soccer complex represent a small amount of tree canopy at the complex. The Proposed Project will not affect or impair the attributes of these two Section 4(f) resources. The County of Mercer, which has jurisdiction over the Mountain View Golf Couse and the West End Soccer Complex, has concurred, through letter dated September 12, 2018, that the removal of obstructions will not result in a use of these Section 4(f) resources. Based consultation with the agencies with jurisdiction, and considering public comments, the FAA has determined that impacts to the Section 4(f) resources affected by the project would be de minimis

F. The Proposed Project will conform to the State Implementation Plan (SIP) in accordance with Section 176 of the Clean Air Act (CAA) Amendments (42 U.S.C. §7506(c)).

As stated above, the project is located in Mercer County, New Jersey, which is in a non-attainment area for 8-hour ozone and in a maintenance area for carbon monoxide and Particulate Matter 2.5 Micrometers. As aircraft operations are not expected to change as a result of the Proposed Project in accordance with FAA

Order 5050.4B, an aircraft operational emissions inventory was not prepared and is not required under FAA guidelines for preparing NEPA documents. The Proposed Project's total emissions during construction are below the General Conformity *de minimis* thresholds based on specific emissions calculations and therefore, would conform to the SIP. Therefore, a Conformity Determination is unnecessary and significant adverse impacts to air quality would be unlikely. The requirements of the General Conformity Rule have been met as discussed in Section 4.2 of the EA. Further, the NAAQS analysis performed demonstrates that the Proposed Project will not result in an exceedance of the NAAQS. As such, the Proposed Project conforms to the New Jersey State Implementation Plan and complies with the Clean Air Act Section 176(c)(1) and would not:

- Cause or contribute to any new violation of any standard in any area.
- Increase the frequency or severity of any existing violation of any standard in any area.
- Delay timely attainment of any standard or any required interim emission reductions or other milestones in any area.

G. The FAA finds that Executive Order 11988, which directs federal agencies to reduce the risk of flood loss, minimize the impacts of floods on human safety, health and welfare, and restore and preserve the natural and beneficial values served by floodplains, has been followed and as required, complied with appropriately.

Although the Proposed Project does not involve development within a designated floodway, floodplain, or flood hazard area it does involve removing vegetation within these federal and state designated areas. The removal of vegetation is not considered a "critical action" based on Executive Oder 11988 Floodplain Management guidance. Proposed Project will encroach within the limits of the base floodplain. Obstruction removal will take place within the 100-year floodplain involving the removal of 0.64 acres of vegetation at the Runway 16 end. Avoidance of the base floodplain is not possible with regard to the Proposed Project since vegetation removal is associated with obstructions identified at the existing runway end, which are already located within the base floodplain. This encroachment does not constitute a significant encroachment as it would not: 1) create a high likelihood of loss to human life; 2) create adverse effects to safe airport operations or interrupt aircraft services; and/or 3) create a notable adverse impact on the floodplain's natural and beneficial floodplain values. The public disclosure requirements concerning the encroachment have been complied with through the public outreach program, and making the EA available for review and comment. For these reasons, the FAA is satisfied that the Proposed Project would not be a significant encroachment on Floodplains and that implementation of the Proposed Project would comply with all the requirements of EO 11988.

H. The Proposed Project does not result in any harm to Federal or state threatened and endangered species or their habitat. (Section 7(c) of the Endangered Species Act of 1974, U.S.C. § 1531, as amended).

Federally listed threatened and endangered species potentially in the project area include the Indiana Bat and the Northern Long-Eared Bat. An acoustic survey to determine the presence or absence of the Indiana Bat and Northern Long-Eared Bat within the vicinity of the airport was conducted. According to "the habitat and acoustic survey data collected, the current habitat does not support the Indiana Bat and that any potential impacts to Northern Long-Eared Bats resulting from this project would be negligible to both the local and overall population. The USWFS concurred with the determination that the Proposed Project may affect, but is not likely to adversely affect the Northern Long-Eared bat and Indiana Bat. They also stated "since the project site is within the known range of the Northern Long-Eared Bat and Indiana Bat, the project site may be occupied by Northern Long-Eared Bats and Indiana Bats in future years." Therefore, if the tree clearing within the project site is not completed prior to September 15, 2020, the USFWS must be contacted to determine if additional summer surveys will be required. No other federally listed or proposed endangered and threatened species are known to exist in the project study area vicinity. In addition, no habitat in the study area is currently designated or proposed as "critical habitat" in accordance with provisions of the Endangered Species Act. With respect to Cooper's hawk, Great blue heron, and Eastern meadowlark, state-listed species, potential habitat for these species exists within the project area. However, based on coordination with the New Jersey Heritage Program, impacts to the state-listed species is not expected to be significant due to the large amount of remaining habitat and connective corridors that will be preserved. Seasonal clearing and moving restrictions will further reduce the potential for impacts. Therefore, based on consultation with responsible state and federal agencies, and incorporation of the recommended mitigation measures and conditions, the Proposed Project is not expected to result in any harm to Federal or state threatened endangered species or their habitat.

I. The FAA finds that the Proposed Project conforms to the Avoidance, Minimization, and/or Compensation of Harm to Wetlands in Accordance with Executive Order 11990 and the Clean Water Act.

The Proposed Project will result in the permanent conversion of 4.2 acres of forested wetland to scrub-shrub wetlands, the removal of 1.1 acres of trees in scrub-shrub/emergent wetland areas, and the removal of 5.2 acres of trees and vegetation in the wetland transition area. The 1.1 acres of trees in scrub-shrub/emergent wetland areas and 5.2 acres of trees and vegetation in the wetland transition area will be converted to brushy cleared land. These impacts are unavoidable if the project is to meet the Purpose and Need but will be mitigated as required by the applicable permitting agencies.

J. The Proposed Project will result in the voluntary acquisition of private property and will conform with the principles under Title II of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970.

Fair and reasonable relocation payments and aid will be available consistent with Title II of the Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970. For residents being voluntarily relocated, comparable, decent, safe

and sanitary housing is available for occupancy on the open market or will be built, if necessary, before affected people are displaced.

K. The Proposed Project will not result in disproportionately high and adverse impacts to minority or low-income populations.

There are no minority or low-income communities within the project area or that will be affected by this project. Future more, all property acquisitions will be voluntary.

Decision and Order:

The FAA recognizes its responsibilities under the National Environmental Policy Act of 1969 (NEPA) and its implementing regulations (40 C.F.R Part 1500 to Part 1508) and its own directives and guidance. Recognizing these responsibilities, I have carefully considered the FAA's goals and objectives in relation to the various aspects of the Trenton Mercer Airport Runway Protection Zones and Obstruction Mitigation Environmental Assessment (EA) as discussed in the July 2019 EA and I have used the environmental process to make a more informed decision. The review included: the purpose and need that this project would serve; the alternative means of achieving the purpose and need for the project; the environmental impacts of the alternatives discussed herein; and the mitigation and conditions necessary to preserve and enhance the human environment. This decision is based on a comparative examination of environmental impacts, operational factors, and economic factors for each of the alternatives. The EA provides a fair and full discussion of the impacts of the Proposed Project. The NEPA process included appropriate planning and design for avoidance and minimization of impacts, as required by NEPA, the CEO regulations, other special purpose environmental laws, and appropriate FAA environmental directives and guidance.

The FAA has determined that environmental and other relevant concerns presented by interested agencies and the general public have been addressed in the EA. The FAA believes that with respect to the Proposed Project, there are no outstanding environmental issues within FAA's jurisdiction to be studied. Further, it is the determination of the FAA that, with respect to the Proposed Project, the requirements of NEPA and all other applicable federal environmental requirements and Executive Orders have been met. In making this determination, the FAA must decide whether to approve the federal actions necessary for the Proposed Project implementation. FAA approval signifies that applicable federal requirements relating to airport development planning have been met and permits the airport Sponsor to proceed with development. Not approving these actions would prevent the Sponsor from proceeding with the development.

After careful and thorough consideration of the facts contained herein and subsequent to my review of the EA and all of its related materials, I find that the proposed Federal action is consistent with existing national environmental policies and objectives as set forth in Section 101 of the NEPA and other applicable environmental requirements and will not significantly affect the quality of the human environment or otherwise include any condition requiring consultation pursuant to section 102(2)(C) of NEPA.

Accordingly, pursuant to the authority delegated to me by the Administrator of the FAA, I find that the actions summarized in this FONSI/ROD are reasonably supported and approved. I hereby direct that action be taken together with the necessary related and collateral actions, to carry out the agency actions noted above. Specifically:

- Unconditional approval of the TTN ALP pursuant to 49 U.S.C. § 40103(b) and § 47107(a)(16), and determination of the proposed action's effects upon the safe and efficient utilization of navigable airspace pursuant to 14 CFR Parts 77 and 157 and 49 U.S.C. §44718;
- Determination under 49 U.S.C. § 47107 relating to the eligibility of the Proposed Project for Federal funding under the Airport Improvement Program (AIP), and/or approval of an application to use Passenger Facility Charges (PFCs) under 49 U.S.C. Section 40117 (this FONSI/ROD does not determine eligibility or availability of potential funds);
- 3. Determination under 49 U.S.C. §§ 40101(d)(1) and 47105(b)(3) as to whether the Proposed Project meets applicable design and engineering standards set forth in FAA Advisory Circulars;
- 4. Determination under 49 U.S.C. § 44502(b) that the airport development is reasonably necessary for use in air commerce or in the interests of national defense;
- 5. Maintain continued close coordination with the County of Mercer and appropriate FAA program offices, as required, for safety during construction. (14 C.F.R. Part 77); and
- 6. Approval of appropriate amendments to the TTN Airport Certification Manual (ACM), as required, pursuant to 49 U.S.C. 44706 and 14 CFR Part 139.

Approved:

Susan Mowery-Schalk

Airports Division Manager

Federal Aviation Administration

Eastern Region

Right of Appeal

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