6.0 MITIGATION MEASURES AND OTHER CONSIDERATIONS

This chapter describes the mitigation measures that would be implemented to avoid, minimize, and mitigate anticipated environmental and social consequences that may occur from the implementation of the Proposed Action. No significant impacts are anticipated, all Local, State and Federal regulations would be followed, mitigation would occur when necessary, and BMPs would be utilized to the extent practicable for each resource category.

6.1 RESOURCES NOT SIGNIFICANTLY AFFECTED

The following resources are not significantly affected by the proposed project:

- Air Quality
- Biotic Resources
- Coastal Barriers
- Land Use Compatibility
- Section 4(f), Parks and Recreation Areas
- Federally-listed Endangered or Threatened Species
- Energy Supplies and Natural Resources
- Socioeconomic, Environmental Justice, and Children’s Health and Safety Risks
- Farmlands
- Floodplains
- Hazardous Materials
- Historic and Archaeological Resources
- Light Emissions and Visual Effects
- Noise
- Solid Waste
- Water Quality
- Wetlands
- Wild and Scenic Rivers

6.2 RESOURCES WHERE BMPs and/or MITIGATION WOULD BE IMPLEMENTED

Construction activities during the construction phase of this project are anticipated to have localized effects on the built and natural environment in the immediate areas of construction as well as impacts to MMU’s operations. Effects resulting from construction activity are anticipated in the following areas and BMPs would be utilized to assure that construction impacts are minimized to the extent practicable. Possible construction effects are described below:

**Air Quality** - Construction activity may have some adverse temporary effect on ambient air quality, primarily in the area immediately adjacent to the area of disturbance.
Construction activity would result in the short-term emission of air pollutants originating from fugitive dust and as the by-product of construction equipment fuel combustion. Construction contractors would be required to use properly maintained and operated construction equipment and the use of tarp covers on trucks transporting refuse and construction materials to and from the site. These measures would minimize any air quality effects associated with construction of the project.

**Wetlands** – Wetland boundaries and their transition boundaries that are not a component of the NJDEP permitting process and are outside of the project area limit of disturbance would be marked with silt fencing and construction fencing to prevent sedimentation and/or inadvertent disturbance to these regulated areas.

Impacted wetlands would be mitigated through use of a through a third party provider and located off of Airport property. Third party providers are available in this region of NJ. All wetland mitigation would be completed in accordance with NJDEP permit conditions and would be subject to NJDEP review and approval to assure that the mitigation is appropriate for the characteristics, functions, and values of the impacted wetlands.

**Hazardous Materials** - Historic fill is located throughout the project site with some areas of fill containing PAHs and/or metals at concentrations that would require special handling and disposal in accordance with NJDEP regulations. During construction, an environmental professional would be on-site to screen soils for visual, olfactory, or PID evidence of impact in order to manage any encounters with soil conditions that were not observed during the SSI.

The following soil erosion and sediment control BMP’s would be implemented during construction to minimize potential migration of the historic fill contaminants to adjacent non-fill areas:

- Silt fence would be placed along the down gradient perimeter of the project limits.
- The duration of the work within wetland areas would be kept to a minimum to complete the task and is subject to pre-approval by NJDEP.
- Staged soils would be placed upon and covered with plastic sheeting in upland areas outside of the floodway as per NJDEP standards set forth in the Flood Hazard Control Act rules (N.J.A.C. 7:13).
- Saturated excavated soils would be dewatered in upland areas on the project site.
- Upland dewatering absorption pits would be designed to ensure no direct surficial drainage to adjacent wetlands and waterways takes place. Pits would be located in accordance with the NJDEP standards.
- Quick germinating and growing vegetation and biodegradable geotextile fabric would be utilized to expedite stabilization of bare earth areas.
If construction activities encounter contaminated soil, surface water or groundwater all local, State and Federal regulations would be followed and worker protection measures would be implemented.

**Air Traffic/Airport Operations** - As a result of the proposed construction activities, several closures to pavements throughout the construction period are anticipated which would lead to variations in air traffic and operations. Some tenants, primarily using jet aircraft, plan to temporarily relocate and utilize other nearby airports during these construction periods.

Construction activities would be carefully coordinated with MMU tenants, operations, and the contractor(s). Notices to Airmen (NOTAMs) would be issued by MMU management as needed. The construction sites would be marked and barricaded in accordance with current FAA standards.

**Noise** – Construction activity may have some adverse temporary effect on ambient noise in the area immediately adjacent to the area of disturbance. Construction activity would result in short-term noise events primarily due to the operation of earth-moving equipment; however, work would occur only during the daytime hours as allowed by local ordinance. Construction contractors would be required to use properly maintained and operated construction equipment and abide by the local regulation pertaining to permissible work hours. These measures would minimize any noise effects associated with construction of the project.

**Water Quality** – Short-term construction impacts would be minimized by strict adherence to a SESC Plan as required under the NJPDES permit required by Morris County and NJDEP. The minimum design standards for erosion control, as established under the *Soil Erosion and Sediment Control Act* (N.J.S.A. 4:24-39) would be addressed during the final design phase with the development of a detailed schedule for the phasing and implementation of traditional BMPs. Appropriate temporary erosion and sediment control measures would be planned and implemented to minimize disturbance to the area and reduce the risk of contamination to water resources. The SESC Plans would prescribe the measures needed to comply with the NJDEP Rules while avoiding and/or minimizing wetland impacts. Limit of disturbance minimization, protection of undisturbed areas, temporary dewatering during installation of proposed drainage systems, adequate water bypass systems, and an aggressive soil stabilization program are anticipated to be key elements of the SESC Plans.

Several nonstructural LID-BMPs are feasible for the Proposed Action based upon NJDEP guidance and include:

- Pavement widths have been established as the minimum allowable per FAA standards (Impervious Area Management);
- Safety Area Improvements are designed at the minimum allowable per FAA standards (Minimizing Site Disturbance);
Runway and Taxiway Safety areas provide sheet flow across vegetated areas where water is slowed, filtered, and infiltrated into the soil (Vegetation and Landscaping/Time of Concentration Modifications); and
Slope reduction techniques are employed in safety area grading locations resulting in additional travel time for stormwater runoff to receiving downstream waterbodies (Time of Concentration Modifications).

All proposed stormwater management measures would be designed for consistency with NJDEP standards for both water quality (N.J.A.C. 7:8-5.5) and groundwater recharge (N.J.A.C. 7:8-5.4). Runoff quantity impacts associated with the Proposed Action are anticipated to be in compliance with the standards outlined in N.J.A.C. 7:8-5.4 and 7:8-5.6, therefore, no structural stormwater management measures are anticipated to be necessary to meet stormwater runoff quantity control requirements.

Long-term impacts would be avoided and minimized through strict adherence to the current edition of the New Jersey Stormwater Best Management Practices Manual and NJDEP Stormwater Management Rules, found at N.J.A.C. 7:8. As previously noted, these guidelines require LID-BMPs to be implemented to the maximum extent practicable to meet stormwater management requirements and structural practices implemented when nonstructural practices are not practicable.

Fish, Wildlife and Plants- Tree clearing activities, if necessary, would only be permitted October 1 through March 31 to avoid affecting the summer roosting and foraging habitat of the Indiana bat, a Federally listed endangered species. Conservation measures, as required by the USFWS, would be implemented to protect the bog turtle habitat, a federally listed threatened species.

Based upon correspondence from USFWS, dated August 14, 2014 adverse impacts to bog turtle would not occur if the following conservation measures are implemented during construction within the Runway 5 departure end project area:

1. Temporary work areas and access routes would be located outside of wetlands.
2. Toed-in (buried) silt fencing (as a wildlife barrier) would be installed. Silt fencing would be placed along the edge of wetland areas.
3. A biologist would personally oversee and monitor the installation of silt fencing, and in advance of such work, search these areas (e.g., adjacent to culverts) for the presence of bog turtles.
4. All work areas, equipment and staging areas would be searched daily for bog turtles prior to the commencement of work.
5. If a bog turtle is found, construction work would cease and the New Jersey Field Office would be contacted immediately (the animal would not be moved).
6. To minimize sedimentation along the Runway 5 departure area, jute matting or other erosions control blanket on disturbed areas would be used immediately after project completion and areas of temporary disturbance would be promptly re-vegetated with native herbaceous species.
7. Construction equipment would be washed thoroughly to avoid introduction of invasive species. Washing would occur off-site and at least 500 feet away.

6.3 OTHER CONSIDERATIONS

The need for the project has been the subject of numerous reviews by stakeholders. As of the date of this EA, there is no known opposition to the Proposed Action. Additionally, there is no known agency opposition to the Proposed Action as of the date of this EA.