

SECTION 5 **ENVIRONMENTAL OVERVIEW**

5.0 INTRODUCTION

This section provides an overview of existing environmental resources and addresses the potential environmental effects for the proposed landside and airside improvements at DMW described in this Master Plan.

The information provided in this overview is preliminary in nature and should not be viewed as a completed *Affected Environment* chapter of an environmental document nor a complete discourse on environmental conditions. While the following subsections provide an overview of the potential environmental impacts of the proposed improvements with respect to the environmental categories identified in FAA Order 1050.1E, *Policies and Procedures for Considering Environmental Impacts*, it is not considered an Environmental Assessment (EA) or an Environmental Impact Statement (EIS). Rather, this Environmental Overview is intended to assist decision-makers in identifying potential environmental problems that may arise from implementation of the proposed Master Plan development and determine the appropriate level of environmental compliance that may be required to implement these improvements in accordance with National Environmental Policy Act (NEPA) of 1969. Depending on the nature and extent of these impacts, more detailed environmental documentation would be required prior to implementation of the proposed projects. Coordination with various governmental agencies has been performed to provide insight to resources of concern and potential impacts resulting from the recommended improvements. Agency correspondence received as a result of this coordination is included in **Appendix B**.

This Overview is based on a review of available resource materials, including, but not limited to the Westminster and New Windsor, Maryland United States Geological Survey (USGS) 7.5 minute series topographical map (dated 1977 and 1971, respectively); a color aerial photograph (dated November 1, 2004); the Federal Emergency Management Agency's (FEMA) Flood Insurance Rate Maps (FIRM) for the unincorporated areas of Carroll County, Maryland [Community Panel Numbers 2400150100B and 24001500050B (August 7, 1981)]; the US Fish and Wildlife Service (FWS) National Wetland Inventory (NWI) maps for Westminster and New Windsor, Maryland (September 4, 2002); the *Soil Survey of Carroll County Maryland* (USGS 1969); and correspondence received from the Carroll County Department of Recreation and Parks and the Carroll County Bureau of Comprehensive Planning. In addition, the *Final Environmental Assessment for the Five-Year Capital Improvement Program*, prepared by Delta Airport Consultants in May 2003, and its corresponding agency coordination was used as guidance in the preparation of this Environmental Overview. In addition, a limited field reconnaissance of DMW was performed in July 2005.

5.1 AIRCRAFT NOISE

Aircraft noise is often the most noticeable environmental effect that an airport produces on its surrounding community. If the sound is sufficiently loud or frequent in occurrence, it may interfere with various activities or be considered a nuisance. Since 1972, the FAA has been developing and enforcing aircraft noise standards, which are based on cumulative day-night average noise levels

(DNL). In simple terms, DNL is the average noise level over a 24-hour period, except noise occurring at night (defined as 10:00 PM through 7:00 AM), which is artificially increased by 10 decibels (dB). The weighting reflects the added intrusiveness of nighttime noise events attributable to the fact that community background noise levels decrease at night. As an individual's response to noise is highly subjective, special circumstances can affect tolerance. The FAA guidelines indicate that all uses are normally compatible with aircraft noise exposure levels below 65 DNL. This limit is supported by the US Department of Housing and Urban Development (HUD). The HUD standards address whether sites are eligible for Federal funding support for some type of noise mitigation.

The Transportation Systems Center for the United States Department of Transportation (DOT) developed the Integrated Noise Model (INM), Version 6.1, a complex computer program which calculates aircraft noise levels around an airport using annual aircraft operations data. The INM, which has been accepted as a standard by the FAA, the United States Environmental Protection Agency (EPA), and HUD, was used to perform the noise analysis for this Environmental Overview. It uses an extensive internal database of aircraft noise and performance statistics. The input data required include average daily and nightly aircraft operations by specific aircraft type, typical flight paths, runway geometry, and average annual runway and flight path use statistics by aircraft category. The data used in this document are derived from records maintained by both DMW and by the FAA.

In order to provide Carroll County with an appropriate tool for enhancing the compatibility of land uses in the vicinity of the Airport, a noise evaluation of aircraft operations was performed. Existing noise contours were identified, as well as future noise contours for forecasted aircraft activity during the 5-, 10-, and 20-year planning period. Existing noise exposure levels resulting from 2004 operations are depicted as DNL contours and presented on **Exhibit 5.1-1**. Noise contours are also depicted for the Preferred Alternative for the years 2010, 2015, and 2025. The figure illustrates DNL values from 65 to 75 in 5 dB increments. DNL contours are a graphical representation of how the noise from DMW's aircraft operations is distributed over the surrounding area on an average day of a given year.

There are approximately 147 acres of land within the existing DNL 65 dB contour; approximately 181 acres of land within the year 2010 DNL 65 dB contour; approximately 202 acres of land within the DNL 65 dB contour for the year 2015; and approximately 246 acres of land within the DNL 65 dB contour for the year 2025. Land use compatibility is discussed in further detail in **Section 5.2**.

5.2 LAND USE COMPATIBILITY

The land use analysis conducted for this Environmental Overview considered both existing and future land use plans, as well as zoning for Carroll County and the City of Westminster. The goal of land use planning is to guide incompatible land uses away from airport environs, while encouraging compatible land use around airport facilities.

DMW is located within Carroll County, just north of and adjacent to the City of Westminster's municipal boundaries. The Airport is zoned I-R (Restricted Industrial District) by Carroll County (see **Exhibit 5.2-1**). Areas immediately west and north of DMW are zoned A (Agricultural District). Two small areas that abut the Airport to the southwest are zoned R-40,000 (Residence Restricted District) and C (Conservation District). Adjacent properties to the south and east of the Airport are zoned General Industrial and Planned Industrial, respectively, by the City of Westminster.

The existing land use within DMW property boundaries consists primarily of aviation uses. Land uses surrounding the Airport are dominated by agricultural with areas of residential, industrial, commercial, and forested areas to the north, northwest, and west of the Runway 16 end. The proposed development at the Airport would affect land that is currently used for aviation and agricultural purposes.

The compatibility of existing and planned land use in the vicinity of an airport is usually associated with the extent of noise impacts related to that airport. As illustrated in **Exhibit 5.1-1**, the DNL 65 dB noise contours for the existing conditions, as well as future years 2010, 2015, and 2025, extends off-Airport to the northwest of the Runway 16 end and to the west of the runway. The area within the DNL 65 dB contour that is located off-Airport is zoned A (Agricultural District) by Carroll County. According to the Carroll County Code of Public Local Laws and Ordinances, Section 223-71, the use of land zoned A (Agricultural District) by the Airport would be considered a Conditional Use and would require authorization by the Carroll County Planning and Zoning Board.

Several parcels of land are proposed for acquisition for implementation of the proposed development. In addition, the implementation of the proposed development would require the relocation or closure of Pinch Valley Road. Should the road be relocated, additional property acquisition would be required.

5.3 SOCIOECONOMIC IMPACTS

Potential socioeconomic impacts of an airport improvement project are primarily related to the direct effects from the acquisition of land, the relocation of residences, businesses, transportation systems, utilities, and other cultural and public facilities. It also involves consideration for the potential effects upon minority and low-income populations, as well as indirect impacts such as changes in growth patterns and community disruption.

As part of the proposed development, property acquisition would be required. Any residential property acquisitions would be performed in conformance with Public Law (PL) 91-646, the *Uniform Relocation Assistance and Real Property Acquisition Policy Act of 1970* and associated FAA Guidelines (*AC 150/5100-17 Land Acquisition and Relocation Assistance for Airport Improvement Program Projects*). These regulations provide uniform and equitable treatment of persons displaced from their homes, businesses, or farms by Federally-funded or assisted programs.

The proposed realignment and extension of Runway 16-34 would require the relocation or closure of Pinch Valley Road, which borders Airport property to the north. This road is used as a shortcut to MD Route 140. It also intersects Pleasant Valley Road, which connects to MD Route 97. The relocation of Pinch Valley Road would require the acquisition of property for the actual relocation of the road, as well as rights-of-way.

5.3.1 COMMUNITY PROFILE

Executive Order 12898, entitled *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, requires Federal agencies to identify and address disproportionately high and adverse human health and environmental effects of Federal programs, policies, and activities on minority and low-income populations. The DOT issued its final order on Environmental Justice as Order 5610.2

The Airport is located within Census Block Group 5075-2, and the immediately adjacent properties are located within Census Block Groups 5075-1, 5076.01-1, and 5076.01-2. **Table 5.3-1** provides a profile of standard demographic characteristics for these Census Block Groups. This table indicates that the estimated median household income ranges from \$43,922 to \$75,000. Census Block Group 5075-2’s median income of \$75,000 is higher than the County average of \$34,117 and the statewide median household income of \$36,906. The population within this Census Block Group is predominantly Caucasian (96.2 percent), with a minority population of 3.8 percent.

The proposed improvements at the Airport are not expected to disproportionately impact minorities or low-income population groups.

**TABLE 5.3-1
CENSUS DATA**

Census Block Group	Population Total	Median Household Income	Minority Population	Percent of Minority Population
5075-1	1,064	\$57,639	0	0
5075-2	1,165	\$75,000	44	3.8
5076.01-1	957	\$73,750	18	1.9
5076.01-2	1,322	\$43,922	136	10.3

Source: US Census Bureau (2000).

5.4 SECONDARY (INDUCED) SOCIOECONOMIC IMPACTS

Induced socioeconomic impacts occur when proposed improvements result in changes in population movement and growth, property values, local tax base, public service demands, employment, and business and economic activity to the extent influenced by the development of an airport.

The proposed developments at DMW would only serve to increase business and economic activity by attracting increased aviation-related services and business to the Westminster area. This would likely increase revenue for both the Airport and the County.

No adverse socioeconomic impacts are anticipated with the proposed development at the Airport.

5.5 AIR QUALITY

Under the 1990 Clean Air Act Amendments, all areas within the State of Maryland are designated with respect to compliance, or degree of noncompliance, with the National Ambient Air Quality Standards (NAAQS), as established by the EPA. NAAQS have been established for criteria pollutants [carbon monoxide (CO); nitrogen dioxide (NO₂); sulfur oxides (SO_x); lead (Pb); ozone (O₃); particulate matter with a diameter of 10 microns or less (PM₁₀), and particulate matter with a diameter of 2.5 microns or less (PM_{2.5})]. Both volatile organic compounds (VOCs) and nitrogen oxides (NO_x) play important roles in the formation of O₃.

The NAAQS are comprised of “primary” standards, designed to protect the health of the public, and “secondary” standards that have been established to protect public welfare (i.e., effects on soil, water, visibility, and vegetation). An area with air quality better than the NAAQS is designated as “attainment.” When levels of these criteria pollutants exceed the annual average standards for short-term (1-, 3-, 8-, and 24-hour) periods (as stipulated in the NAAQS) more than once per year, they are considered to be in “non-attainment.” Non-attainment areas are further classified as extreme, severe, serious, moderate, and marginal.

According to the EPA, Maryland is divided into six air quality control regions (AQCR). Carroll County is located within the Metropolitan Baltimore Intrastate AQCR and is currently designated as “Severe-15” non-attainment for 1-hour O₃. This designation indicates that the Metropolitan Baltimore Intrastate AQCR should reach attainment status for 1-hour O₃ by the year 2020. In addition, this area is in moderate non-attainment for 8-hour O₃ and non-attainment for PM_{2.5}.

According to FAA Order 5050.4A, an air quality analysis is required if the projected levels of general aviation activity are above 180,000 operations. The forecast level of GA operations at DMW is expected to exceed this level by 2025. Due to Carroll County’s “non-attainment” status for criteria pollutants, and given the forecasted number of operations expected at DMW, an air quality analysis or conformity determination would be required in order to comply with the State Implementation Plan.

5.6 DEPARTMENT OF TRANSPORTATION SECTION 4(f) LANDS

Section 4(f) of the DOT Act of 1966 [recodified in 1983 as Title 49, Section 303(c) of the United States Code (USC)] provides for the protection of publicly owned recreational resources and requires the analysis of potential impacts to these resources arising from DOT actions. A Section 4(f) evaluation must be prepared for any DOT-funded project that uses such property, including parks and recreation areas, wildlife and waterfowl refuges or management areas of national, state, and local significance. Specifically, Section 4(f) precludes the “use” of these resources unless (1), there is no

feasible or prudent alternative to the use of these resources, and (2), all possible planning to avoid or minimize harm to such land has been undertaken during the development of the project.

A Phase I Cultural Resources Survey was conducted in November 2002 by Coastal Carolina Research, Inc. as part of the Five-Year CIP Environmental Assessment (EA) (2003) that was conducted for DMW. The results of this survey indicated that there is one historic property that is potentially eligible for listing on the National Register of Historic Places (NRHP) and 17 archaeological resources located within the Area of Potential Effects (APE) established for the EA. The results for the Phase I Cultural Resources Survey are discussed in further detail in **Section 5.7**.

The Carroll County Department of Recreation and Parks stated in correspondence that the only recreational facility that is proposed near DMW is a dog park (see **Appendix B**). If the park were constructed, it would be located in a field on Old Meadow Branch Road near the entrance to the Carroll County Maintenance Facility.

Currently, there are no publicly owned parks, recreation areas, wildlife and waterfowl refuges or management areas of national, state, or local significance located or planned in close proximity to the Airport. Coordination with the Maryland Historical Trust (MHT) will be required to determine what, if any, impacts the proposed Airport development will have on architectural and archaeological resources.

5.7 HISTORICAL, ARCHITECTURAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

Section 106 of the National Historic Preservation Act of 1966 (NHPA), *Protection of Historic and Cultural Resources*, and the Archaeological and Historical Preservation Act of 1974 require the identification of historic, architectural, archaeological, and cultural resources within or in the vicinity of a proposed Federal project and an assessment of the potential impacts to those resources. Impacts to these resources may be direct, such as through property acquisition, or indirect, such as through noise intrusion. Early and continued coordination with local authorities are a necessary part of the process.

As mentioned previously, a Phase I Cultural Resources Survey was conducted in November 2002 as part of the Five-Year CIP EA for DMW. The purpose of the survey was to determine the presence of archaeological or architectural resources that are listed or eligible for listing on the NRHP located within the APE established for the EA (2003). The APE associated with architectural resources included buildings and structures on or immediately adjacent to Airport property, property proposed for acquisition, and land within the DNL 65 db noise contour. The APE for archaeological resources included several parcels off-Airport property that were proposed for land release and easements.

The APEs established for archaeological and architectural resources for the EA (2003) would most likely vary from the APEs that would be established for any future projects at DMW. As such, future coordination with MHT will be required.

According to the EA (2003), two architectural resources have been listed as potentially eligible for listing on the NRHP. Coastal Carolina Research, Inc. surveyed these dwellings and their results were reviewed by the MHT. The property identified as CARR 1661 has since been demolished; therefore, the only potentially eligible architectural resource within the vicinity of DMW is the CARR 1663 property, known as the Hare House. Further evaluation and review by MHT is required to determine potential effects Airport development would have on this resource, as well as any additional resources, if any, within the future APE associated with the proposed development.

Table 5.7-1 lists the archaeological sites identified within the APE established for the EA. Due to the large amount of archaeological resources previously identified in the vicinity of DMW, an archaeological survey is recommended to determine the extent of any potential impacts that the proposed development might have on the identified resources.

**TABLE 5.7-1
ARCHAEOLOGICAL SITES WITHIN THE APE ESTABLISHED FOR THE EA (2003)**

Site	Miles from DMW	Site Type and/or Material Recovered	Source/Reference
18CR163	2.3	19 th - and 20 th -century lime kiln and quarry	Frye 1998
18CR175	0.0	Native American lithic scatter, late 19 th century farm complex	Gyrisco and Getty 1986
18CR176	0.0	Native American lithic scatter	Gyrisco and Getty 1986
18CR177	0.0	Late 19 th - and 20 th -century domestic site	Gyrisco and Getty 1986
18CR185	1.1	19 th - century historic site	Coastal Carolina Research, Inc. 2002
18CR205	1.4	Late 18 th - to 20 th -century farm complex	Walker et al. 1994
18CR206	1.5	Late 18 th - to 20 th -century mill complex	Walker et al. 1994
18CR207	0.1	19 th - to 20 th -century farm complex	Walker et al. 1994
18CR208	1.6	19 th - to 20 th -century domestic	Walker et al. 1994
18CR210	1.8	19 th - to 20 th -century farm complex	Walker et al. 1994
18CR211	1.1	Native American lithic scatter	Walker et al. 1994
18CR226	1.5	19 th - to 20 th century domestic	Walker et al. 1994, Catts et al. 1998
18CR227	2.3	19 th century school	Walker et al. 1994
18CR228	0.1	Early 19 th -century cemetery	Walker et al. 1994
18CR242	0.9	Historic domestic	Coastal Carolina Research, Inc. 2002
18CR244	0.2	19 th -century domestic	Gardner et al. 1998
18CR245	0.6	Late 19 th - to early 20 th -century domestic	Gardner et al. 1998

Source: *Phase I Cultural Resources Survey, Proposed Improvements at Carroll County Regional Airport, Westminster, Maryland*, Coastal Carolina Research, Inc., November 2002.

5.8

FARMLANDS

The Farmland Protection Policy Act (FPPA) (7 USC 4201-4209) was implemented to protect and preserve farmland for farming use. This policy, however, does not apply if the land under consideration is not prime farmland. The US Department of Agriculture (USDA) has defined prime farmland as land that has chemical and physical characteristics, which support the production of food, feed, forage, fiber, and oilseed crops.

The *Soil Survey of Carroll County, Maryland* (October 1969), was reviewed and the USDA Natural Resource Conservation Service (NRCS) was contacted to identify any prime farmland soils, soils of statewide importance, unique soils or locally important and active farmland in the vicinity of DMW. There are 19 soil types located within the proposed project area (see **Table 5.8-1**). According to the *Soil Survey of Carroll County, Maryland*, seven of the identified soil types are considered prime farmland soils (CeA, CeB2, EIB2, GIB2, GvA, GvB, and MgB2) and seven of the soil types are considered farmland of statewide importance (CeC2, EIC2, Ht, LnB2, MIB3, MtB2, and MtC2).

As currently designated, the preferred alternative includes a proposed runway extension and realignment, which is located within Airport property, an area currently committed to urban development. As such, the provisions of the FPPA would not apply. Any land impacted by the proposed development that is zoned A (Agricultural District) by Carroll County and is located outside of the Airport property boundaries would be subject to the provisions of the FPPA and coordination with the NRCS would be required.

**TABLE 5.8-1
PRIME FARMLAND AND FARMLAND OF STATEWIDE IMPORTANCE AT DMW**

Map Unit	Map Unit Name	Soil Designation
CeA	Chester silt loam, 0 to 3 percent slopes	Prime Farmland
CeB2	Chester silt loam, 3 to 8 percent slopes, moderately eroded	Prime Farmland
CeC2	Chester silt loam, 8 to 15 percent slopes, moderately eroded	Statewide Importance
EIB2	Elioak silt loam, 3 to 8 percent slopes, moderately eroded	Prime Farmland
EIC2	Elioak silt loam, 8 to 15 percent slopes, moderately eroded	Statewide Importance
GIB2	Glennelg channery loam, 3 - 8 percent slopes, moderately eroded	Prime Farmland
GvA	Glenville silt loam, 0 to 3 percent slopes	Prime Farmland
GvB	Glenville silt loam, 3 to 8 percent slopes	Prime Farmland
Ht	Hatboro silt loam	Statewide Importance
LnB2	Linganore channery silt loam, 3 to 8 percent slopes, moderately eroded	Statewide Importance
MgB2	Manor gravelly loam, 3 - 8 percent slopes, moderate eroded	Prime Farmland
MIB3	Manor loam, 3 to 8 percent slopes, severely eroded	Statewide Importance
MtB2	Mt. Airy channery loam, 3 to 8 percent slopes, moderately eroded	Statewide Importance
MtC2	Mt. Airy channery loam, 8 to 15 percent slopes, moderately eroded	Statewide Importance

Source: *Soil Survey of Carroll County, Maryland* (October 1969).

5.9 WATER QUALITY

The Federal Water Pollution Control Act and its many amendments, including the Clean Water Act of 1977, provide the EPA and individual states with the authority to establish water quality standards, control discharges into surface and subsurface waters (Section 401), develop wastewater treatment management plans and practices, and issue permits for discharges (Section 402) and for dredged and fill material (Section 404).

Applicable permits issued by the state of Maryland pursuant to the Clean Water Act include Water Quality Certification (Section 401), National Pollutant Discharge Elimination System (NPDES) permit (Section 402), and Joint Federal/State Application for the Alteration of Any Floodplain, Waterway, Tidal or Nontidal Wetland in Maryland (Section 404).

The Maryland Department of the Environment (MDE) administers the stormwater management (SWM) program in Maryland to ensure compliance with federal and state regulations. Most recent MDE guidance is set forth in *Maryland Stormwater Management Guidelines for State and Federal Projects* (July 2001) and *Maryland Stormwater Design Manual* (2000). Landowners are required to address SWM, in terms of water quality and water quantity, when either new development or redevelopment activities are undertaken. Development is classified as new development when a net increase in impervious surface results for the project. Water quality shall be provided for 20% of the project's predevelopment impervious area. Any reconstruction of, or new construction on, existing impervious area, exceeding 5,000 square feet, is considered redevelopment. In addition, redevelopment projects should reduce existing impervious areas impacted within the project limits by 20%.

5.9.1 SURFACE WATER AND GROUNDWATER

DMW is situated on the drainage basin divide between the Double Pipe Creek drainage basin, which is part of the Monocacy River watershed, and the Liberty Reservoir drainage basin, which is part of the Patapsco River watershed. The Double Pipe Creek drainage basin consist of two sub-basins – the Little Pipe Creek and Big Pipe Creek drainage basins – and drains to the west into the Monocacy River, which supplies water to the City of Frederick. The Monocacy River, in turn, flows into the Potomac River, which supplies water to Washington, D.C. The Liberty Reservoir provides water to a large portion of Carroll County.

Stormwater runoff from DMW's airfield is currently controlled by an extensive culvert system. Runoff from the airfield drains to the northeast, into a tributary of Bear Branch Creek, which is located directly south of and runs parallel to Pinch Valley Road. Bear Creek flows into Big Pipe Creek, located northwest of the Airport.

It is anticipated that the proposed runway realignment and extension would require a Water Quality Certification and Joint Federal/State Application for the Alteration of Any Floodplain, Waterway, Tidal

or Nontidal Wetland in Maryland as these planned improvements would impact jurisdictional wetlands. Additionally, the proposed improvements at the Airport would require sediment and erosion control for construction activities as well as potentially long-term stormwater management facilities to compensate for the increase in impervious surface. Coordination with MDE, as well as Carroll County Bureau of Resource Management, would be required.

Groundwater resources in Carroll County are obtained primarily from crystalline-rock aquifers within the Piedmont Province. Most of the groundwater in this type of aquifer is stored in the regolith reservoir. Impacts to groundwater are not anticipated as a result of the implementation of any of the proposed development.

5.10 COASTAL ZONE MANAGEMENT

The FAA is required to comply with the regulations set forth in the Coastal Zone Management Act of 1972 (CZMA), as amended through PL 104-105, the Coastal Zone Protection Act of 1996. The CZMA requires that each state with coastal boundaries establish a Coastal Zone Management Program (CZMP).

According to the Maryland CZMP's Coastal Management Program website (July 2005), Carroll County is not located within Maryland's coastal zone. In addition, correspondence received by Delta Airport Consultants, Inc. from the MDE Wetlands and Waterways Program indicates that the proposed activities would not affect the state's coastal zone, and therefore, are not subject to the provisions of Section 307 of the CZMA, as amended.

5.11 WILD AND SCENIC RIVERS

The Wild and Scenic Rivers Act (PL 90-542, as amended) was implemented to facilitate the protection of rivers possessing outstanding scenic, recreational, geological, fish, and wildlife, historical, cultural, or any other similar values. The Maryland Scenic and Wild Rivers Program website (July 2005) indicates that there are no state protected scenic and wild rivers near the Airport.

A review of the National Park Service's *National Rivers Inventory* website (July 2005) indicates that the only two Federally-listed Wild and Scenic Rivers located within Carroll County are the Monocacy River and the Patapsco River. DMW is located on the drainage basin divide between Double Pipe Creek Drainage Basin and the Liberty Reservoir Drainage Basin, as previously described. No significant impacts or degradation to the water quality of either the Monocacy River or Patapsco River is expected with the implementation of the proposed development.

5.12 FLOODPLAINS AND FLOODWAYS

Executive Order 11988 defines floodplains as the "lowland and relatively flat areas adjoining inland and coastal waters including flood prone areas of offshore islands, including at a minimum, the area

subject to a one percent or greater chance of flooding in any given year.” The Order directs Federal agencies to take action to reduce the risk of flood loss, minimize the impacts on human safety, health, and welfare, and restore and preserve the natural and beneficial values served by floodplains. Under DOT Order 5620.2, the FAA must make a finding that there is no practicable alternative before taking action that would encroach on a floodplain based on a 100-year flood. Encroachment is defined as any action that would cause the 100-year water surface profile to rise by one profile

A review of the FEMA FIRMs for the unincorporated areas of Carroll County, Maryland [Community Panel Numbers 2400150100B and 24001500050B (August 7, 1981)] was conducted to identify the boundaries of the 100-year floodplain in the vicinity of DMW. The 100-year floodplain of the Big Pipe Creek is located to the west of the Airport, just west of Meadow Branch Road. None of the proposed development is anticipated to affect the floodplain.

5.13 WETLANDS

Wetlands have been defined in Executive Order 11990, *Protection of Wetlands*, as “those areas that are inundated by surface or groundwater with a frequency sufficient to support, and under normal circumstances, does or would support a prevalence of vegetation or aquatic life that requires saturated or seasonally saturated soil conditions for growth or production.”

Federal, state, and local programs regulate activities conducted in wetlands in order to minimize the continuing reduction and degradation of these resources and strive to achieve a “no net loss” policy. The Federal program is based on Section 404 of the CWA and the US Army Corps of Engineer’s (COE) implementation regulations (33 CFR, Parts 320-330). These regulations define those lands that are considered wetlands and other “waters of the United States,” including lakes, ponds, rivers, and streams.

In February 2002, an Airport-wide wetland delineation was conducted supporting the Five-Year CIP EA (2003). The purpose of the wetland delineation was to identify and delineate the location and extent of wetlands within the Airport’s property boundaries based on the *Army Corp of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987) in conjunction with the 1992 Regulatory Guidance Letter. The delineation revealed five wetland areas, including one large palustrine emergent/forested wetland complex, two palustrine emergent wetlands, one palustrine forested fringe wetland, and a mosaic of palustrine emergent/scrub-shrub wetlands (see **Exhibit 5.13-1**). All of the identified wetlands were located to the north and northwest of the Runway 16 end. The COE verified the boundaries of the wetlands in June 2002 and issued a jurisdictional determination (JD) in November 2002, which will expire in November 2007.

As currently designed, the proposed runway extension and realignment would impact these previously identified wetlands located to the north of the Runway 16 end. Coordination with the MDE and COE is required.

5.14 BIOTIC COMMUNITIES

According to a July 2005 field reconnaissance, a variety of vegetative land cover and habitat dominates the Airport and immediately surrounding land. The airfield is dominated by grass, which is maintained regularly. Woody shrub vegetation is found on the side slopes adjacent to the runway, especially near the Runway 16 end. Mature upland deciduous forests are found to the north of the Runway 16 end and areas to the west of the runway. Several actively cultivated fields are located to the north and west of the Runway 16 end.

The dominant tree species include White oak (*Quercus alba*), Scarlet oak (*Quercus coccinea*), Red oak (*Quercus rubra*), Chestnut oak (*Quercus prinus*), Black oak (*Quercus velutina*), American elm (*Ulmus americana*), Bitternut hickory (*Carya cordiformis*), Pignut hickory (*Carya glabra*), Shagbark hickory (*Carya ovata*), White ash (*Fraxinus americana*), Green ash (*Fraxinus pennsylvanica*), Yellow poplar (*Liriodendron tulipifera*), Black walnut (*Juglans nigra*), Black cherry (*Prunus serotina*), and Eastern red cedar (*Juniperus virginiana*).

5.14.1 RARE, THREATENED, AND ENDANGERED SPECIES

Under Section 7(c) of the Endangered Species Act of 1973 (16 USC 1531 et seq.) and FAA Order 5050.4A, Federal agencies are required to consult with all Federal and State agencies regarding the presences of any fish, wildlife, or plant species that are listed, or proposed to be listed as threatened or endangered, that may be affected by the proposed development.

In support of the 2003 EA, the MDNR-Wildlife and Heritage Division and FWS were consulted regarding the presence of rare, threatened or endangered species and associated habitat within the vicinity of the Airport. The MDNR-Wildlife and Heritage Division stated that there are no records for State-listed rare, threatened, or endangered species within the proposed project area. MDNR also indicated that any palustrine emergent or scrub-shrub wetlands could present habitat for bog turtles (*Clemmys muhlenbergii*), a Federally- and State-listed threatened species. A subsequent site visit by MDNR for the EA in 2003 indicated that no suitable bog turtle habitat was found within the vicinity of the proposed projects. Specifically, the survey was only conducted for one of the wetland areas; the only wetland to be impacted by the projects proposed in the Five-Year CIP; therefore, additional surveys of the other wetland areas for the bog turtle is recommended. The FWS indicated that with the exception of occasional transient individuals, no Federally-listed or proposed endangered or threatened species have been documented in the vicinity of the Airport.

Coordination with both the MDNR and FWS would be necessary to ensure that the proposed development would not impact any rare, threatened, or endangered species or associated habitat.

5.14.2 MARYLAND FOREST CONSERVATION ACT

In accordance with the Annotated Code of Maryland (Natural Resources Article, Title 5, Subtitle 16) and the COMAR Title 08, Subtitle 19, Forest Conservation, the Forest Conservation Act (FCA) of 1991 and the Carroll County Forest Conservation Ordinance require that prior to the approval of any public or private subdivision, project plan, grading permit, or sediment control permit on a unit of land 40,000 square feet or greater, applicants must submit a Forest Stand Delineation (FSD) and a Forest Conservation Plan (FCP) to the County. The County must approve these plans before development can proceed.

Therefore, the implementation of the proposed projects would require the preparation of an FSD and coordination with Carroll County Bureau of Resource Management.

5.15 NATURAL RESOURCES AND ENERGY SUPPLY

The consideration of energy requirements associated with the operation and improvement of an airport normally fall under two categories: those relating to increased consumption from stationary facilities (i.e. additional buildings requiring heating, cooling, and other energy consuming systems) and those involving substantial increases in aircraft and ground vehicle movement and their related fuel consumption.

Expansion of facilities at the Airport will require electrical energy for such things as lighting, heating, and cooling. The degree to which energy efficient systems are included in the plans will determine the significance of the demand. The Airport currently receives power from Baltimore Gas and Electric (BGE).

Increased electrical demands of the Airport cannot be determined at this time; however, increases in energy consumption directly and indirectly caused by the proposed improvements are not anticipated to adversely affect the energy supply. Coordination with BGE would be necessary to verify their ability to meet the Airport's future needs. In addition, the increases in energy consumption are not expected to significantly impact natural resources because the proposed projects would not involve the use of scarce or unusual materials.

Considerations regarding non-fuel natural resources are generally of concern if the proposed improvements will affect the ability to mine or collect natural resource materials or if construction of the proposed improvements would require the use of materials which are in short supply. There are no known deposits of valuable natural resources located on or in the vicinity of the Airport that would be affected by the proposed improvements.

The proposed development is not anticipated to require the use of any construction materials that are unusual in nature or short in supply. Estimates of the type and quantity of materials necessary for the

proposed improvements will be determined in later phases of development and their availability determined through coordination with local suppliers.

5.16 LIGHT EMISSIONS AND VISUAL IMPACTS

Currently, light emissions arise from a number of sources, including airfield and terminal lighting, obstruction marking, navigational aids, and vehicular traffic. Specifically, existing airfield lighting consists of an airport rotating beacon, REILs, MIRL, MITL, PAPI, all as described in Section 1 of this Master Plan and common lighting from administration buildings. Each of these lighting sources can vary in terms of beam angle, location of light, color and intensity, and if applicable, flashing sequence. Future lighting sources proposed at the Airport include HIRL, an Instrument Landing System (ILS), REILs, MITL, PAPI, and common lighting for various aircraft hangars and administration buildings.

The proposed lighting improvements at the Airport are not anticipated to create adverse visual impacts to surrounding areas.

5.17 HAZARDOUS MATERIALS AND SOLID WASTE

5.17.1 HAZARDOUS MATERIALS

The Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA or Superfund) and the Resource Conservation and Recovery Act (RCRA) are the Federal statutes that regulate hazardous materials. CERCLA regulates abandoned or inactive hazardous waste sites in need of remediation, while RCRA regulates handling and disposal practices at active hazardous waste sites. A hazardous substance is defined as any substance that, when released into the environment, may present danger to public health, welfare, or the environment. Due to its quantity, concentration, physical, chemical, or toxic characteristics, a hazardous material may cause death or serious illness or pose a substantial hazard to human health or the environment when improperly handled.

According to the EPA's RCRA website (last updated June 13, 2005), there are several sites located within one mile of the Airport that are listed as Hazardous Waste Handlers. All of the locations that were listed were identified as hazardous waste handling facilities as a result of the small generators used by each business. All of the identified facilities were in compliance with permitting requirements. According to the EPA's *Superfund Information Systems* website (last updated July 1, 2005), there are no sites being assessed under the Superfund program, hazardous waste sites, or potential hazardous waste sites located at or near the Airport.

5.17.2 SOLID WASTE

Impacts to solid waste management relate to the increase in solid waste generated at an airport as a result of the construction of planned improvements and overall operation of the airport. It also

addresses the location of existing and proposed solid waste disposal facilities relative to the airport. The solid waste generated from the operation of the airport may increase slightly due to the possibility of future growth in air traffic. However, levels of additional daily refuse generated at the Airport are not expected to be significant. Although there is likely to be an incremental increase in the number of employees at the Airport, improvements that relate only to airfield development, such as runways, taxiways, and related development, do not have a direct significant effect on solid waste collection or disposal.

Solid waste will be generated from construction at the Airport, including such activities as obstruction removal, pavement removal, and tree clearing for new pavement. Other wastes will be transported and disposed of as directed by appropriate airport officials in accordance with local laws and regulations. Significant debris accumulation may result from the possible demolition of existing buildings and paved areas.

5.18 CONSTRUCTION IMPACTS

Construction activities required for the proposed airport improvements would have temporary construction impacts. These would include temporary impacts to noise, air quality, and water quality associated with heavy equipment operation and the demolition of existing buildings and pavement. Mitigation will be addressed by incorporating the provisions of FAA AC 150/5370, Change 10, *Standards for Specifying Construction of Airports, Item P-156 Temporary Air and Water Pollution, Soil Erosion and Siltation Control*, onto the project plans. Best Management Practices (BMPs) would be implemented to limit the extent of impacts.

Temporary erosion control measures including, but not limited to, temporary dikes, basins, and ditches, mulch, plastic, or other coverings must be employed during construction. Any necessary clearing and grubbing of construction areas should be conducted in sections, or sequenced to reduce the amount of exposed soil at any one time. Vehicular traffic should be restricted to the construction site and established roadways. During construction of planned improvements, mitigation measures for fugitive dust control will need to be taken and areas that have been cleared of vegetation will need to be reseeded immediately upon completion of construction activities.

The proposed improvements at the Airport will involve mostly earthwork, grading, and paving. Increased noise from construction activity may be noticeable at businesses and residences located closest to DMW, but not of sufficient magnitude to create sustained adverse effects.

5.19 SUMMARY

This Environmental Overview has been completed to provide Carroll County and the FAA with information regarding environmental concerns that may need to be addressed prior to completing the proposed improvements at DMW. Based upon the review of the preliminary environmental issues and planned improvements, an EA will need to be conducted for the future development.