



**S T R A U G H A N**  
**E N V I R O N M E N T A L**  
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# **Wetland Mitigation Design and Site Monitoring BWI Airport, Site 3**

**Location:** Anne Arundel County, Maryland

**Client:** Maryland Department of Transportation, Maryland Aviation Administration

**Description:** In 1997, the Maryland Department of the Environment (MDE) issued a permit to the Maryland Aviation Administration (MAA) for construction of the Midfield Cargo Complex at Baltimore/Washington International Thurgood Marshall (BWI) Airport. According to the permit, MAA was authorized to disturb up to 44,298 square feet of palustrine, forested wetlands and provide appropriate mitigation as compensation for unavoidable impacts. Straughan Environmental Services, Inc. (SES) designed a forested wetland in Hanover, Maryland known as BWI Site 3 as partial mitigation for these impacts. Responsibilities included:

- Identifying mitigation site goals to replace the functions and values of the impacted wetland systems;
- Selecting the mitigation site based on review of historic aerial photographs and topographic maps, as well as field investigations;
- Preparing a water budget for the site;
- Installing groundwater observation wells and recording observations;
- Determining the appropriate hydrology for the wetland creation area;
- Preparing grading plans, cross-sections, erosion/sediment control plans, specifications, landscaping plans, cost estimates, and designs;
- Developing a five-year monitoring plan;
- Obtaining agency approvals;
- Preparing a Forest Stand Delineation and Forest Conservation Plan for the mitigation site;
- Assisting MAA with bid packages and reviews; and
- Monitoring site construction for conformance with design.

The site is located in the vicinity of BWI Airport; therefore, SES prepared a design for this mitigation site that replaced lost forested wetlands in the watershed, but did not include either large areas of open water that would attract wading birds, or vegetation that would provide attractive food sources for waterfowl.

MAA constructed the restoration project in 2005 and SES is in the process of completing its first year of mitigation monitoring. Initial monitoring results indicate that BWI Site 3 will develop into a healthy and diverse wetland over time.