

8-2008

The Florida Statewide Airport Stormwater Study

Abdul Hatim

Florida Department of Transportation Aviation Office

John J. Sansalone

University of Florida, Department of Environmental Engineering Sciences, 312 Black Hall, P.O. Box 116450, Gainesville, FL

Scott T. Brady

Hanson Professional Services, 9015 Town Center Parkway, Suite 105, Lakewood Ranch, FL

Follow this and additional works at: <http://digitalcommons.unl.edu/birdstrike2008>

 Part of the [Environmental Health and Protection Commons](#)

Hatim, Abdul; Sansalone, John J.; and Brady, Scott T., "The Florida Statewide Airport Stormwater Study" (2008). *2008 Bird Strike Committee USA/Canada, 10th Annual Meeting, Orlando, Florida*. 28.

<http://digitalcommons.unl.edu/birdstrike2008/28>

This Article is brought to you for free and open access by the Bird Strike Committee Proceedings at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in 2008 Bird Strike Committee USA/Canada, 10th Annual Meeting, Orlando, Florida by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

The Florida Statewide Airport Stormwater Study

Abdul Hatim

Florida Department of Transportation Aviation Office, 605 Suwannee Street, MS 46, Tallahassee, FL 32399 USA

John J. Sansalone

University of Florida, Department of Environmental Engineering Sciences, 312 Black Hall, P.O. Box 116450, Gainesville, FL 32611-6450 USA

Scott T. Brady

Hanson Professional Services, 9015 Town Center Parkway, Suite 105, Lakewood Ranch, FL 34202 USA

Florida is one of twelve or fewer states that regulate storm water quality on a statewide basis. The most commonly used design for water quality management is a vegetated, permanently wet pond that is presumed to meet water quality standards. Also, typical designs fully convey extreme rainfall events to the same wet ponds, which must then be sized for flood attenuation. These design features can and do attract birds and other wildlife that can be hazardous to flight. The Florida Department of Transportation and the Federal Aviation Administration fund the Florida Statewide Airport Stormwater Study to develop data and approaches to meet water management requirements while eliminating or reducing design features that attract wildlife. A stakeholder group composed of the Florida Department of Environmental Protection and the Water Management Districts, along with FAA and FDOT provide guidance to the consultant and university team doing the study. Initial results, published and accepted, characterize the runoff from airport airside pavement. This includes water quality and quantity, with 5 minute rainfall data. These data indicate that a majority of airside pavement can use overland flow, without ponds, for airside water management. Copper is generally the controlling pollutant. These study results are now in the rulemaking stage. Computational fluid dynamics suggests that a linear, steep sided pond without vegetated shelves may provide water management functions for those cases where overland flow will not work. The program results to date and current status are summarized in this paper, including a discussion on implementing the results to design, permitting and construction of airport pavements.

Abstract of paper presented at Bird Strike Committee USA/Canada Meeting, Lake Mary and Sanford, Florida, August 18-21, 2008.