

Categories	Descriptions
Project No.	
Project Title:	Assessment and Reduction of Dissolved Organic Matter Loads in Surface Runoff Water from Agricultural Fields in the Indian River Area
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Funding Agency	SFWMD
Time Frame of Project	2008-2010
Study Area	Indian River area, South Florida
Time Frame of Project	
Project URL	
Brief Project Description	<p>This three-year project will quantify the concentrations and loads of dissolved organic matter (DOM) in storm runoff waters from major production systems in the St. Lucie watershed. Autosamplers will be installed in field to collect surface runoff water samples. The collected water samples will be analyzed for water quality, including DOM and related physical and chemical properties such as pH, EC, nitrogen, phosphorus, Cu, and Zn, <i>etc.</i> The concentrations and loads of DOM in runoff water will be correlated with soil properties (pH, EC texture, base saturation, cation exchange capacity, Ca and/or Na adsorption saturation, and organic matter, <i>etc.</i>) and agricultural practices such as fertilization, inputs of organic matter, irrigation, and cropping systems, <i>etc.</i> The contribution of DOM to the transport of nutrients (N and P) and heavy metals (Cu and Zn) will be also evaluated. Laboratory analysis, column leaching, and incubation studies will be conducted to understand the mechanisms of DOM release in soils and to develop technologies to reduce DOM export from agricultural</p>

	<p>production systems. Field trials will be implemented to test the newly developed technologies with respect to effectiveness and feasibility of implementation in the St. Lucie watershed.</p>
Objectives	<p>The primary purpose of this project is to evaluate and reduce dissolved organic matter (DOM) in surface runoff water from agricultural production systems. This project will develop technologies to reduce transport of DOM from land to water and generate information useful for surface water restoration and address the water quality objective and associated strategies suggested in the Indian River Lagoon Surface Water Improvement and Management (SWIM) Plan (SFWMD and SJRWMD, 1994).</p> <p>The specific objectives include:</p> <ol style="list-style-type: none"> 1) To determine the concentrations and loads of dissolved organic matter (DOM) in surface runoff water from citrus groves and vegetable fields. 2) To correlate DOM losses with soil properties and agricultural practices. 3) To identify soil amendments or agricultural practices that can reduce DOM losses from soils. 4) To evaluate the effectiveness of identified soil amendments or agricultural practices in reducing DOM losses from agricultural fields. 5) To disseminate information and technology to relevant state agencies, industry representatives, environmental organizations, and growers.
Data Generic	
Data Specific	
Publications	On-going project