

BioHaven® Floating Treatment Wetlands Improving Waste Water Treatment

Project Location: [Harrisonburg, Louisiana](#)

Overview

The Village of Harrisonburg has struggled to meet Louisiana discharge permit regulations for several years due to the ineffective design of their waste water oxidation pond. The design of the system limits their ability to treat their waste water by confining treatment to two-thirds of an acre when their pond is actually 5 acres in size. The entire pond is not being used efficiently and effectively. The discharge parameters of concern have been Total Suspended Solids (TSS), Ammonia, and Carbonaceous Biochemical Oxygen Demand (CBOD). Due to limited budgets, the Village of Harrisonburg has been unable to correct the system problems.



Installation Data

BioHaven Floating Treatment Wetlands
installed March 12, 2014

Location	Harrisonburg, Louisiana
System Type	BioHaven Floating Treatment Wetlands
Total FTW Size	1050 ft2 (5'x15'x8")
Water Source	Municipal Wastewater
Installation Date	March 12, 2014
Water Body Area	Two-thirds of an acre
Vegetation	Vetiver Grass

Project Cost

Martin Ecosystems assisted the Village of Harrisonburg in applying for and securing \$50,000 of Strategic Economic Development Program (SEDAP) funding through the Delta Regional Authority for this project.

System Design

Martin Ecosystems strategically installed BioHaven Floating Treatment Wetlands in front of the influent pipe and against the existing curtains in order to have maximum water flow through the BFTWs. This increases retention time and provides maximum treatment.



Village of Harrisonburg WWTP

Typical configuration of BioHaven® Floating Island	DATE: December 2013	DWG No. 1 of 1
	Martin Ecosystems 5819 McCann Dr. Baton Rouge, LA. 70809 (225) 292-6750	
	PROPRIETARY AND CONFIDENTIAL	

Photo taken April 10, 2014



Challenges

In May, Martin Ecosystems discovered that nutria were climbing onto the Islands and eating the recently planted Vetiver grass. It appears that the damage is minimal as not all BFTWs have been effected.

Martin Ecosystems has plans to install fencing around the perimeter of the islands in order to keep nutria, turtles, and other wildlife off of the islands until the vegetation has had enough time to establish itself.

(Photo taken May 6, 2014)



Results

April discharge reports have shown reductions of 30%-50% in all three parameters of concern with two achieving compliance. This is only one month, but is very encouraging.

Please check back for updates on nutrient removal rates and discharge compliance. We should continue to see improvement as the vegetation establishes itself.

(Photo taken May 6, 2014)

12,600



The number of 16.9 ounce plastic bottles recycled because of this project.

Martin Ecosystems products are manufactured using non-toxic recycled PET plastic called matrix. The source of the matrix material is recycled plastic drinking bottles.

Our environmentally friendly products prevent millions of plastic bottles from entering landfills each year!

5819 McCann Drive Baton Rouge, LA 70809 (225)292-6750 phone

www.martinecosystems.com

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