



ENVIRONETICS, INC.

DIRECTOR I™ FLOATING BAFFLE SYSTEM

DIRECTOR I Features

- Increases Lagoon Efficiency
- Prevents Short Circuiting
- Cost Effective Upgrade
- Increases Retention Time
- Creates Treatment Cells
- Increases Treatment Area
- Available for Lined and Unlined Lagoons
- Industrial Thermoplastics
- Marine Grade Hardware
- Bottom Anchored Design
- Easy Installation
- Proven Reliability

Floating Baffle System Improves Lagoon Efficiency by 90%

Industries and municipalities that deal with wastewater treatment are concerned with improving the efficiency of their wastewater treatment facilities. Lagoon efficiency, cost effective treatment, and low maintenance are important factors when purchasing treatment upgrades. Environetics, Inc. took these factors into consideration when they designed the Director floating baffle system.

Environetics discussed wastewater treatment improvements with Citizens Utilities Company, a private utility involved in supplying water and treating wastewater for various municipal and private clients in six states. At their Morris, Illinois facility, Citizens Utilities operates a series of wastewater treatment lagoons. Approximately nine to ten times per year, they had been experiencing times when they were close to their discharge limitations for biochemical oxygen demand (BOD) and suspended solids (SS). Their typical standards were lower than normal limits (10 mg/l BOD and 12mg/l SS).

An investigation by company personnel, headed by Dave English, operations supervisor, revealed that short circuiting was taking place in the final polishing lagoon. Not only were they experiencing short circuiting in the lagoon, but the levels of BOD and SS were higher at the discharge than at the inlet. In the winter they noticed that ice formed around the edges of the lagoon and they could see a straight path of flowing water from the inlet to the outlet. The ice was able to form because of slower or stagnant flow velocities in the greater part of the lagoon. The majority of the wastewater was traveling quickly straight from the inlet to the outlet, without allowing enough retention time needed for the biological process necessary for the reduction of BOD and SS work.



300' Floating Baffle

Environetics has dealt with many industries and municipalities struggling with the same short circuiting problem in their lagoons. The solution is to install a floating baffle system to prevent short circuiting, improve mixing, increase retention time, and improve the overall efficiency of the lagoon. The Director floating baffle system guides the wastewater through a serpentine pattern in the lagoon, utilizing the entire lagoon area and increasing retention time. This provides extended time for the natural biological treatment process to take place. Citizens Utilities installed one 300' baffle and one 100' baffle in their existing lagoon. Since the installation of the Director floating baffle system, they have reduced their BOD and SS excursions by 90%. An added (and unexpected) benefit of installing this system was the elimination of a beaver problem. Prior to installation, beavers had been building dams in the area and causing debris to get trapped in the outlet.

