

Stormceptor® and Jellyfish® Selected For Maximum Stormwater Protection at Bigfork Bay/Flathead Lake, Montana



When the residents of Flathead Lake in northwest Montana sought solutions to untreated stormwater entering the Lake at Bigfork Bay, they turned to Imbrium™ Systems’ treatment technologies to provide engineered Stormwater solutions. Unfortunately, water quality at Flathead Lake has gradually declined over recent decades as the human footprint within the basin region increased. Since Montana listed Flathead Lake as an impaired water body, local residents were determined to improve Flathead Lake’s water quality in order to preserve its fishing, boating and recreational opportunities in addition to protecting the aquatic life and ecosystem from harmful sediment and nutrients. The Montana Department of Environmental Quality (DEQ) plan to restore Flathead Lake sets water quality targets, including a 15% reduction in nitrogen and phosphorus loads.

Imbrium Systems’ Regional Manager, Corky Lambert, worked with civil engineer, Brett Walcheck, P.E., from 48 North P.C. - an engineering firm in Kalispell, Montana - to design a workable stormwater treatment solution. “It was terribly important that the water quality of Flathead Lake be improved for generations to come”, noted Corky Lambert. “That’s why we designed a treatment train approach for Stormwater runoff that included a Stormceptor STC 900, Imbrium System’s premier hydrodynamic oil and sediment separator, ahead of the Jellyfish Filter which captures fine sediment down to 2 microns along with nutrients like phosphorus, nitrogen as well as heavy metals. This engineered approach allowed the locality to provide maximum Stormwater treatment for the roadway improvements along Grand Drive”, stated Lambert.

In addition, Lambert noted that much credit for navigating the bureaucratic shoals and securing project funding from the Montana Departments of Commerce, Environmental Quality and Natural Resources and Conservation should be given to Debbie Pierson from Flathead County and the Bigfork Stormwater Advisory Committee, chaired by Sue Hanson.

As part of the Flathead Lake Stormwater treatment train, the Stormceptor STC 900 was installed to capture floatable trash, sediment and hydrocarbons before they entered the Lake. With nearly 40,000 Stormceptor installations world wide, it has earned a well-deserved reputation as the most effective and easily maintained hydrodynamic Stormwater treatment device.

Brett Walcheck of civil engineering firm 48 North P.C. noted that “During our evaluation process of Stormwater treatment devices, we felt that the products offered by Imbrium would be the most effective at helping us to obtain our stormwater treatment goals. Both, the superior pollutant capturing capabilities and the realistic maintenance aspect, were crucial in our decision process. We believe that our stringent requirements will be far exceeded by the implementation of both the Stormceptor and Jellyfish Filter system.”

We believe that our stringent requirements will be far exceeded by the implementation of both the Stormceptor and Jellyfish Filter system.” The water quality of Flathead Lake continues to be threatened by nutrient pollution from Stormwater runoff. The Jellyfish Filter, however, has undergone a rigorous TARP (Technical Acceptance and Reciprocity Partnership) field testing that has clearly demonstrated that the Jellyfish Filter removes 85% TSS (Total Suspended Solids), 60% Total Phosphorus (TP) and 50% Total Nitrogen (TN).

“Since the Jellyfish Filter requires only 18-inches of “head” or drop to fully operate the system, it works like a charm. It is an innovative, membrane filter system that is both compact, easily maintained and allows for a high treatment flow rate. Its lightweight cartridges weigh only 20 lbs. dry and 50 lbs. wet. They are back-washable, reusable and easily replaceable. Conventional granular media cartridges in Stormwater filter systems can easily weigh well over 250 lbs. when wet and require heavy lifting equipment. The Jellyfish Filter is “maintenance friendly” and truly a superior performing Stormwater filtration technology” noted Imbrium Systems’ Corky Lambert.

The Jellyfish Filter has been successfully installed throughout much of North America, including Canada.

