



# The Specialty Membrane Company



## RIVER WATER FILTRATION



### PRODUCT HIGHLIGHTS

- + iSep™ 500-PVDF UF Elements
- + Avg. Feed Turbidity: 5-20 NTU
- + Turbidity Spikes: >300 NTU
- + Operating Flux: 30-40 gfd
- + Effluent Turbidity: <0.1 NTU
- + Enhanced coagulation capability
- + Pre-treatment: None

### UF Features & Benefits

- + No air scour requirement
- + Open flow channel design
- + Frequent Draining
- + Backwashing Capabilities
- + High TSS handling
- + Durable construction
- + High effluent quality
- + Vacuum operation



RIVER DURING TURBIDITY  
SPIKE



iSep 500 UF SYSTEM



iSep UF ELEMENT

**Rivers and surface waters** provide a convenient and reliable water source for both municipal and industrial uses. A challenge with rivers in particular is the seasonal changes in water quality and turbidity spikes due to storm related events. Rainfall can easily spike river turbidities well above 300 NTU, posing a problem for any type of treatment technology.

iSep 500 ultrafiltration membranes provide an ideal solution for providing high quality effluent on any river water source. The innovative low fouling design is able to withstand peak turbidity events without compromising performance (i.e. permeate flux) or effluent quality. The ability to withstand peak solids loading helps minimize costs for plant owners as the need for implementing system redundancy is eliminated.

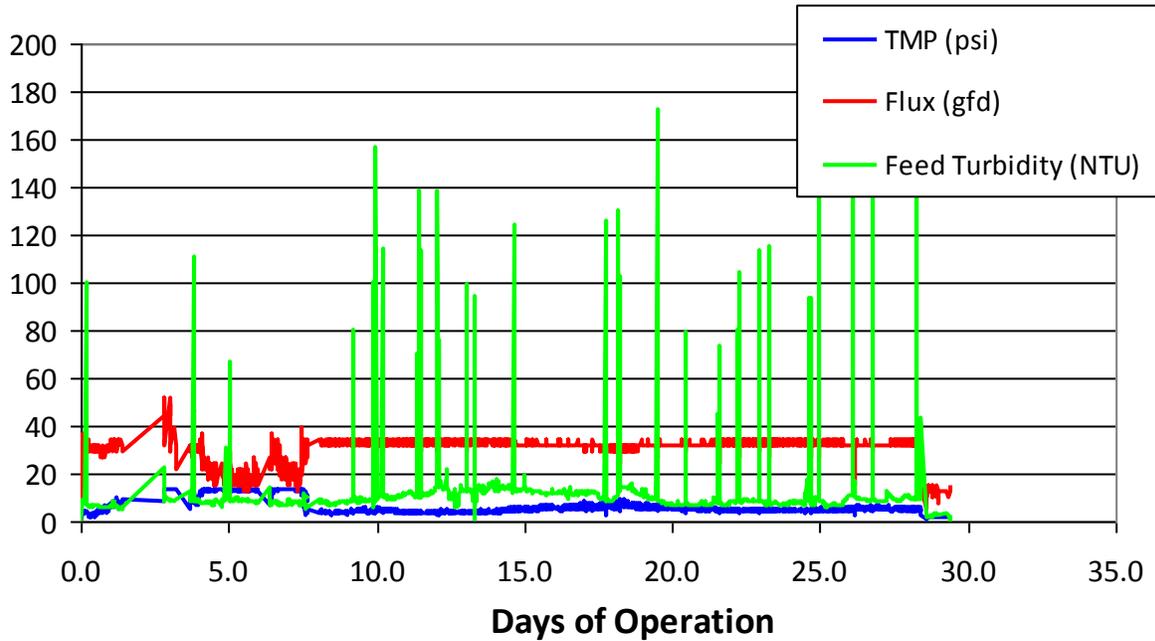
In addition to turbidity spikes, river waters experience seasonal changes in water quality as microbial activity and organic loading can vary significantly. On rivers with high organic loading, the iSep UF process can be used in conjunction with an enhanced coagulation process that improves both filterability and permeate quality. In an enhanced coagulation process, a small amount of coagulant is injected directly into the iSep UF feed without the use of inline mixers or mixing tanks.

**Delivering Customized Products to Solve Unmet Customer Needs**



# The Specialty Membrane Company

## Case Study 1: RO pre-treatment for boiler make-up pilot study



## Case Study 2: Drinking water pilot study

