

**New York State  
Environmental Investment Program  
Capital Project Summary  
Norampac, Niagara Falls Division**

**Project Background**

Norampac, Niagara Falls Division, is a paper mill located in Niagara Falls, NY. The mill is committed to protecting the environment through recycling, and produces a 100% recycled corrugating medium (the middle of corrugated cardboard). To remain competitive, mill personnel continually explore environmentally-sound methods for reducing production costs. Recently, Norampac began considering ways to reduce the total suspended solids in its clarified effluent to allow some of the water to be recycled as mill process water. This change would decrease the amount of municipal make-up water needed by the mill, and decrease the total volume of water going for municipal wastewater treatment.

**Project Description**

Water used in the production of paper must be treated before it can be released into the environment. Norampac, Niagara Falls Division, performs its own primary and secondary water treatment before sending the water to the Niagara Falls Wastewater Treatment Plant. Prior to this project, the total suspended solids found in the clarified effluent averaged 55 parts per million (ppm). One of the primary problems this level of solids creates for the papermaking system is the plugging of filters. In order to reuse some of this water it would be necessary to reduce the solids.

This project helped Norampac purchase and install a sand filtration system designed to reduce the total suspended solids of the mill's treated effluent from 55 ppm to 10 ppm. This reduction would allow the

treated effluent to be reused as make-up process water. The change was expected to decrease the volume of water sent to the municipal wastewater treatment facility, thereby also reducing the cost of treatment. Norampac anticipated it would recycle an additional 42 million gallons of process water annually and save an estimated \$324,241 per year.

**Project Results**

With the addition of the sand filters the mill was able to reduce the total suspended solids of the clarified effluent to 10 ppm. With lower suspended solids, the mill increased the amount of clarified effluent recycled back into the process water system, thereby reducing the amount of clean city water needed.

The addition of the sand filter system is allowing the mill to recycle an additional 59 million gallons of water per year. This increases the total recycled water usage by the mill to 187 million gallons annually. The mill has also seen a monetary savings from this project. On a yearly basis, the mill will realize savings from the reduced effluent treatment costs and avoided municipal water purchases of \$189,000. This is impressive considering that the mill also increased its paper production by nearly 9% during the project. Another \$151,000 in anticipated savings may still be realized once the State Department of Environmental Conservation approves a revised State Pollutant Discharge Elimination System (SPDES) permit.

**Contractor:** Niagara County IDA  
**County:** Niagara  
**ESD Region:** Western Region  
**ESD Contact:** 518/292-5340

**NYS EIP Investment:** \$328,805  
**Contractor Match:** \$330,308  
**Total:** \$659,113  
**Completion Date:** July, 2006