

INDUSTRIAL

PALMYRA, WISCONSIN, US

CFAS® technology

Project Name:	Standard Process WWTP
Location:	Palmyra, Wisconsin
Type of Plant:	Industrial - Food Processing
Supplier:	Environmental Health and Safety Products (EHS)
Technology Used:	Biowater (IFAS) CFAS®
Biomechanics Used:	BWT-X®
Operational Since:	2009



Tank

The Challenge

The Standard Process company is a vitamin and food supplement manufacturer in business since 1929 located in an environmentally sensitive area called the Kettle Moraine basin. The basin is an area containing rare species with diverse habitats. The Standard Process company realizes this and has helped preserve this area with their organic farming techniques, waste reduction methods and now with their wastewater treatment system.

In 2006 Standard Process produced over 8.5 million bottles of product. The wastewater characteristics consist of proteins, carbohydrates and fats. Fluctuations in products and seasonal changes in source materials change the percentages of these characteristics animal/vegetable sources: Spring/Fall - 50/50%, Winter - 80/20% and Summer - 20/80%. These changes definitely presented a challenge when designing a treatment system for this location.



The Design

Many factors affected the design. As mentioned, load fluctuations as well as the cold weather were considered in the design. Environmental Health and Safety Products (EHS), who supplied the technology package looked at different technologies and in the end the IFAS (Integrated Fixed-Film Activated Sludge) process was chosen because of its small footprint and reliability.

Achievements

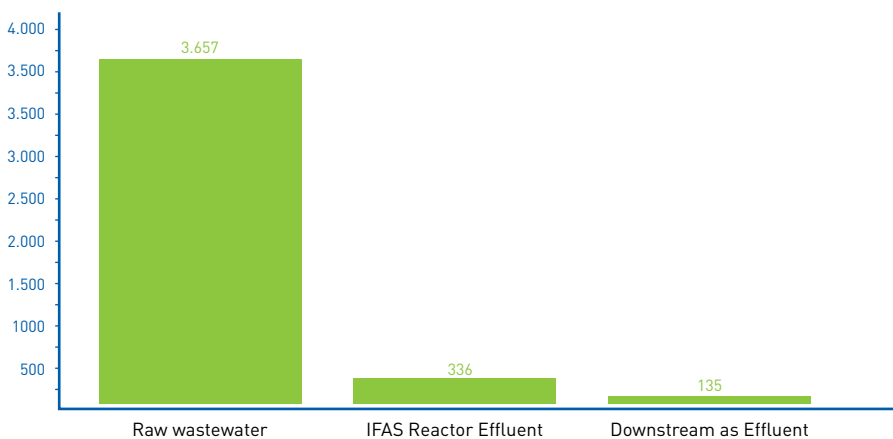
By choosing the IFAS process with the BWT-X® media Standard Process removed 90% of their COD in 10% of the basin volume!

PARAMETER	DESIGN LOAD		EFFLUENT REQUIREMENTS
	US	INTL.	
FLOW	0.2 MG/D	31,6 m³/h	
COD	5,004 lb/d	3000 mg/l	
TSS	5,940 lb/d	3000 mg/l / 2700 kg/d	
TEMPERATURE	50 - 68°F	10 - 20°C	



The basis of our CFAS® biofilm technology is the biological growth on polyethylene pieces called media or carriers. These surfaces provide a protective surface area for the biology to grow. The biofilm can handle extremely high loading conditions without any problems with clogging or shock.

COD profile



HEADQUARTERS

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Biowater Technology is an innovative company with over forty years of experience in the Biological treatment field. Our focus is on saving energy and resource recovery, with water as our major resource.