

39th & Fontanelle Sediment Control Case Study



The Midwest's Most Trusted Site Solutions Provider

Project: 39th & Fontanelle Sewer Separation

Location: Omaha, Nebraska

Application/Solution: Utilizing Flocculants in a Dewatering Application

Market Sector: Municipal

Salesperson: Lynn Ewoldt

Owner: City of Omaha

Engineer: City of Omaha

Contractor: Valley Corporation

Installed: October 2015

case study



cases

Challenge

The City of Omaha and the NDEQ had stringent dewatering discharge regulations on the 39th & Fontanelle Blvd. CSO project. The project consisted of installing 3,800 LF of sanitary sewer pipe. The permit requires that the total suspended solids (TSS) of the effluent has a daily maximum limitation of 90 mg/L. After Valley Corporation's first dewatering test results came back with a value of 888 mg/L, Jeff Grady, Project Manager, called Lynn Ewoldt with ASP Enterprises. After an onsite meeting, it was determined that the best solution was the use of flocculants to lower the Total Suspended Solids of the discharge water.

Solutions

With limited space to work with, the decision was made to install a treatment train. The discharge pit held ground water seepage and other pollutants and would fill up with 5,000 CF of water every night. The goal was to be able to keep the pit dry by continuously pumping and to treat all the discharge water. A large storage tank was set up off the street with pipes discharging into a series of 275 gallon totes. A 6" plastic pipe ran from the last tote to near the discharge point before it was all filtered with an excelsior wattle. Floc 20 granules, by Innovative Turf Solutions, were introduced into the first storage tank and agitated. Floc bags were also installed in points along the pipe line for extra clarification. ITS's flocculants are based on natural products that bind to contaminants in the discharge site or wastewater. This causes the contaminants to not only flocculate, but also become encapsulated in the flocculant. The result is clean water.

Results

After the first flush of the flocculant through the treatment train, a visual result was immediately witnessed. Laboratory test results of the TSS of the discharge water went from 888 to an average of 21. Valley Corporation is extremely pleased with the performance of the product. "We will continue to use the product throughout the duration of the project", which is expected to finish in the spring, states Jeff. "It has done a tremendous job lowering our TSS levels and has kept us from getting shut down." Thanks also goes out to Melissa Schrand with ITS for spending a couple days on the site to assist.



1 Pumping from the collection pit.



2 From the collection pit to the treatment train.



Products

Manufacturers included in solutions and product:

Product: Flocc 20
Manufacturer: Innovative Turf Solutions

Product: 6" PE Pipe
Manufacturer: Advanced Drainage Systems

Product: Excelsior Wattles
Manufacturer: Western Excelsior



3 Gravity moves the water through the treatment train.



4 Floc bags tied off into the pipe.



5 Excelsior Log used for final filtering.



6 Limited jobsite space for other alternatives.

Company Information

ASP Enterprises, Inc. and Quick Supply Co. For more than three decades, A.S.P. Enterprises and Quick Supply Co. has served the erosion control industry with integrity and expertise. We provide engineers and landscape contractors the exceptional value for their money and have grown to become the Midwest's full-line distributor of erosion-control, geosynthetics, storm water management products, wall block, landscape pavers, and drainage products.

ASP Enterprises, Inc.
Corporate
Headquarters
www.aspent.com
info@aspent.com

St. Louis, MO
636.343.4357
800.869.9600

Quick Supply Co.
Corporate
Headquarters
www.quicksupplydm.com
info@quicksupplydm.com

Des Moines, IA
515.289.1271
800.362.2245

Kansas City, MO
816.554.1191
800.519.2304

Omaha, NE
402.861.8579
877.678.8027

Wichita, KS
316.393.1554