

Stream Water Group Gets Good Flow Data with Hach DDS

In January 2013, the professional engineering firm Birkhoff, Hendricks & Carter LLP (BHCLLP), was contracted by the City of McKinney, Texas to update their sanitary sewer master plan. In conjunction with this effort, Stream Water Group was retained by BHCLLP as a sub-contractor to perform the flow monitoring studies of the City's wastewater collection system. The collected flow data would be used to update the City's sanitary sewer model.

Stream Water Group, founded in 2002, is a consulting engineering firm that specializes in civil engineering and construction management. Their team of highly experienced professionals performs work in many engineering disciplines including sanitary sewer flow monitoring and Inflow & Infiltration (I&I) analysis.



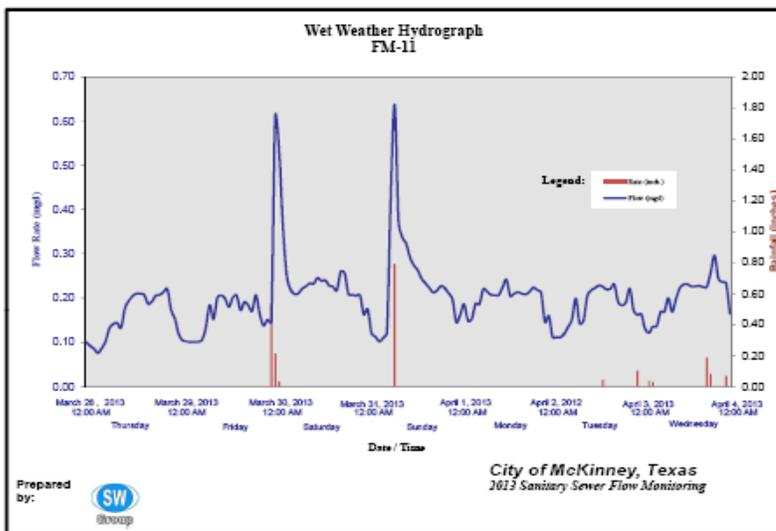
One of 24 Hach DDS Flow Monitoring Sites in McKinney, TX
2013 Sanitary Sewer Flow Monitoring Project
(Hach FL904 Flow Logger and FLO-DAR AV Sensor pictured)

According to Shamsul Arefin, P.E., CFM and owner of Stream Water Services, "The City wanted to see what had changed from their previous (flow) study that had some issues. They need to make decisions on system modifications due to population growth in the area." Since this would be a short-term, 60-day study and the meters would not be needed after its completion, alternatives to meter purchase were investigated. Arefin stated, "We were introduced to Hach's Data Delivery Services (DDS) by Hach's local flow rep, Macaulay Controls. In the past we have used rental meters for short studies, but DDS looked like something that would work great for us and it proved to be more cost effective for this project."

DDS is a highly efficient flow monitoring service where, for a fixed monthly fee, Hach Flow provides all of the equipment, data transmission, and technical support companies need to acquire flow data—delivered in real-time so they can immediately

perform flow data analysis. Hach even manages all equipment installations and maintenance, and they monitor the status of all wirelessly-networked flow meters 24/7, guaranteeing a 95% uptime. Plus, with DDS, customers can choose from several programs to best fit their needs—'DDS Preferred' if they need outside resources like knowledgeable labor and installation tools, or 'DDS Select' if they already have those resources.

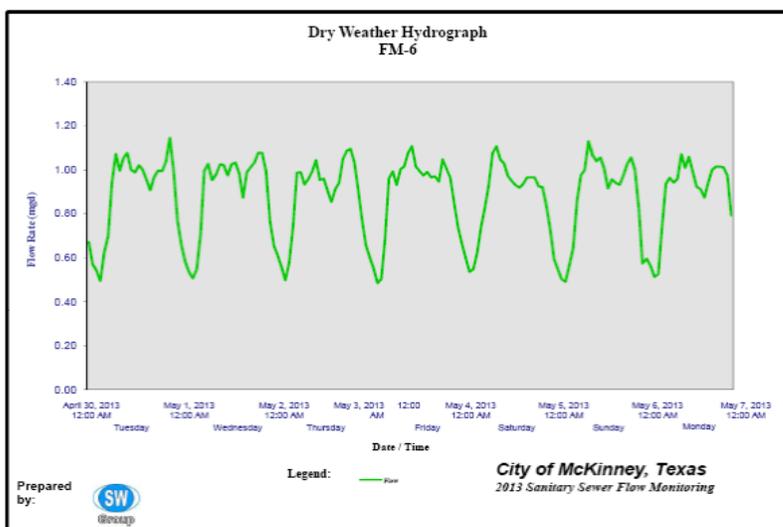
For the McKinney project, with limited resources including lack of personnel and flow meters to perform the study, DDS was an ideal alternative for the City and the DDS Preferred Program was chosen. True to the DDS guarantee, the project achieved a 98% meter uptime.



Dry Weather and Wet Weather Hydrographs
City of McKinney, Texas -
2013 Flow Studies using
Hach DDS



Web-Enabled DDS FLO-DAR AV Sensor in 18" Sewer Line in McKinney, TX

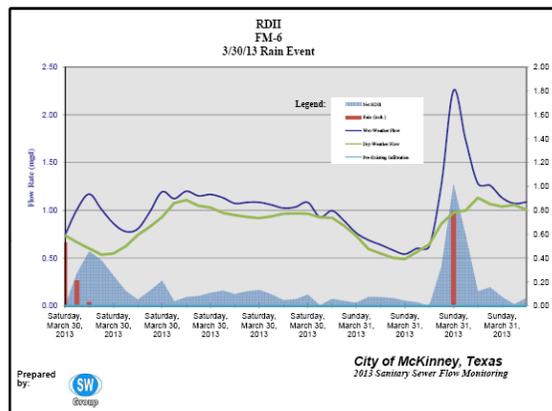


For the studies, the City's wastewater collection system was divided into 27 sewer drainage basins. As part of the project, Hach DDS personnel helped identify optimum meter sites in the best hydraulic locations throughout the basin. Out of the

27 basins, 24 Hach DDS flow monitoring systems were installed in temporary flow

monitoring locations. These systems included non-contact FLO-DAR AV Sensors and wireless Hach FL904 Flow Loggers, along with four rain gauges. Although Arefin is very familiar with many types of flow monitoring devices, this was his first experience with the FLO-DAR. He commented, "The FLO-DAR's accuracy was great and the sensors worked wonderful in the sites that we metered."

Additionally, four permanent flow meters were installed and monitored by the North Texas Municipal Water District. Data from all of the meters was analyzed to determine the amount of flow entering the City sewer system from outside City limits.



Rain Event Data – City of McKinney 3/30-31/2013

Hach DDS also includes access to FSDATA Online Data Manager, a cloud-based software that allows customers to view their collection systems' response to weather events or improvement projects in real-time from any computer with a web browser. The ability to check meter operation 24/7 with FSDATA was a big plus for Stream Water Group. Arefin comments, "It was much easier to make sure that the meters were working fine with FSDATA. It was good that we could look at the real time data and make sure that we know what the monitoring condition is like and that we're getting the right quality of data. It was a big time saver! Without DDS and FSDATA we would have to send somebody out in the field anytime anything goes wrong and would lose important data waiting to find out the problem."

In the end, both Stream Water Group and the City of McKinney received the good flow data they were looking for, without all of the hassles, risks, potential errors and expenses associated with many flow monitoring projects. All thanks to Data Delivery Services.