



Case Study

May 2013 - February 2014

Disney World Orlando Florida and Reedy Creek Improvement District

Efficiency and performance of the Floc Hog and Water Matrix Systems by InterfaceH2O

Theisen Development was hired by Reedy Creek Improvement District to refurbish water control structures located throughout the Disney property. Work was contained to private areas of the property and was complicated by the limited access to trucks and equipment. In total 3 water control structures were refurbished over the span of 10 months.

To accomplish the task, the water control structure had to be sheet piled off and pumped dry. Any seepage from ground water or leakage from the sheet pile had to be pumped out, treated and released within Florida standards (29 NTU_i + background). In addition any water from rain events were also pumped out, treated and released as well as overflows from the upstream side.

Pumping was done almost on a 24/7 basis utilizing 4 and 6 inch pumps. Daily monitoring was done by the contractor with regular interval monitoring being done by RCID.

Theisen Development utilized two (2) Floc Hogs with a dispersion field on the first structure and two (2) Floc Hogs with a Water Matrix container system on the remaining structures. The Floc Hogs used polymers from APS in Woodstock Georgia that best suited the turbidity reduction needs. These were models 708X and 703d#3.

Throughout the work process water samples ranged up to 100 NTU_i (some greater based on weather conditions). The background NTU_i was 5 making the discharge standard 34 NTU_i.

Regular monitoring from RCID showed levels within the standard through the term of the project once the Floc Hogs and Water Matrix were in place. Theisen Development estimated 40 million gallons of water was pumped and treated throughout the project with the water quality standards being met.

Typical discharge NTU_i was between 8 and 14 from the Water Matrix/Floc Hog systems.

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