

## **GHS Environmental, LLC**

PO Box 55802 St. Petersburg, FL 33732-5802 727-667-6786

July 25, 2016

Mr. Todd Mathes Benderson Corporation 8441 Cooper Creek Blvd. University Park, FL 34201

Re.: University Town Center: 2016 Surface Water Quality Monitoring June SW Quarterly Sampling Event

Dear Mr. Matthews,

In accordance with Exhibit G of the Development of Regional Impact for Sarasota County, GHS Environmental (GHS) was contracted to conduct the ongoing surface water and groundwater quality monitoring programs for the University Town Center. The quarterly surface water samples were collected on June 16, 2016.

The University Town Center is located to the southwest of the intersection of I-75 and University Parkway (SR610) between the cities of Sarasota and Bradenton. The property currently includes a major commercial shopping center that parallels I-75 on the western side of the property, and the first phase that includes the commercial shopping mall located on the northwestern corner of the development was completed in 2008. The regional mall, major hotels, additional outparcel shops, and housing are currently being added.

The methodology for the 2011 surface water monitoring is based on the approved water quality monitoring plan Exhibit G. At each station, grab samples are collected at mid-depth and approximately mid-stream, when the sampling site is inundated with surface water that is at least one inch (1") in depth. In situ measurements of dissolved oxygen, pH, air temperature, water temperature, and specific conductance are performed in the field using a YSI Pro Plus Multi-Parameter Water Quality Meter that is calibrated according to the manufacturer's specifications prior to deployment in the field. Instantaneous flow measurements are determined at each surface water monitoring location at times of apparent flow. Flow is determined using a Marsh McBirney Flowmate 2000 flow meter with measurements reported in units of cubic feet per second (cfs).

As per the monitoring plan, the surface water samples were analyzed for the shortened parameter list, which includes nutrients, bacteriologicals, and suspended solids. The summary of the results is listed in Table 1, and the laboratory reports and chain of custody copies are attached. The laboratory results showed that there were no exceedances of the maximum standards as outlined in Ch. 62-302, F.A.C. The next sampling event is scheduled for September 2016 and will be a Semi-Annual event with the entire list of parameters.

We thank you for allowing GHS Environmental, LLC to provide our services. Please do not hesitate to call us at (727) 667-6786 with any questions.

Sincerely yours,

**GHS Environmental, LLC** 

Dana J. Gaydos

Principal

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Table 1. UTC Surface Water Quality Summary Table - June 16, 2016.

Parameter	FAC 62-302 Criteria	SW-1	SW-2
Average Water Depth (ft)		0.84	1.30
Maximum Water Depth (ft)		1.35	1.95
Approximate Cross Section (ft)		18	22
Maximum Measured Flow Rate (ft/s)		1.397	0.88
Stream Flow (cfs)		17.81	16.51
Air Temperature (°C)		28.20	31.3
Water Temperature (°C)		31.7	31.9
pH (pH Units)	6.0 - 8.5	8.38	8.25
Specific Conductivity (µmhos/cm)	<50% increase; <1275 µmhos/cm	476	476
Dissolved Oxygen (mg/L)	≥ 5.0 mg/L	5.57	4.5
Dissolved Oxygen (%)		88.9	61.3
Turbidity (NTU)	<29 NTU above background	1.73	1.59
Total Suspended Solids (mg/L)		2.2	U
Ammonia Nitrogen (mg/L)		0.14	0.10
Nitrate as N (mg/L)		U	U
Nitrite as N (mg/L)		U	U
Total Kjeldahl Nitrogen (mg/L)		1.1	0.7
Total Nitrogen (mg/L)		1.24	0.84
Orthophosphate (mg/L)		U	U
Total Phosphorus (mg/L)		U	U
Arsenic (mg/L)		NA	NA
Cadmium (mg/L)		NA	NA
Chromium (mg/L)		NA	NA
Copper (mg/L)		NA	NA
Lead (µg/L)	≤ 5.3 µg/L	NA	NA
Mercury (µg/L)		NA	NA
Nickel (mg/L)		NA	NA
Zinc (mg/L)		NA	NA
HEM - Oil & Grease (mg/L)		NA	NA
Biochemical Oxygen Demand (mg/L)		39	37
Fecal Coliform (CFU/100 mL)		10	60
Total Coliform (CFU/100 mL)	< 2,400	150	800
Chlorinated Hydrocarbon Pesticides		NA	NA

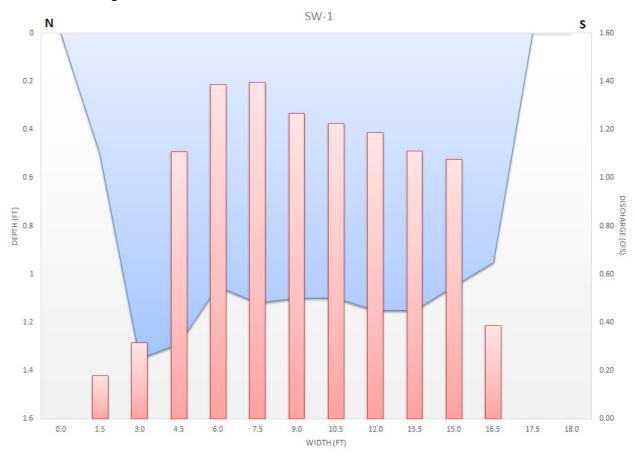
I - The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.

U - Indicates that the compound was analyzed for but not detected.

NA - Not analyzed per monitoring plan requirements.



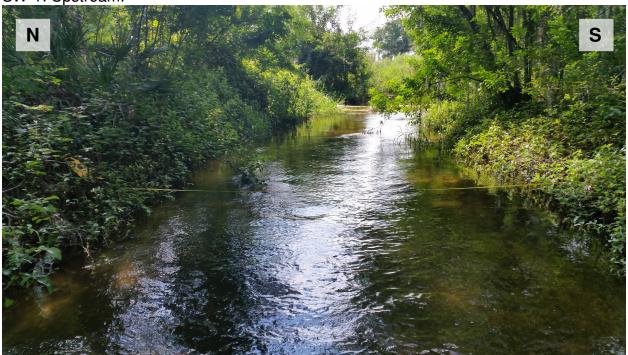
## SW-1: Discharge.



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SW-1: Upstream.

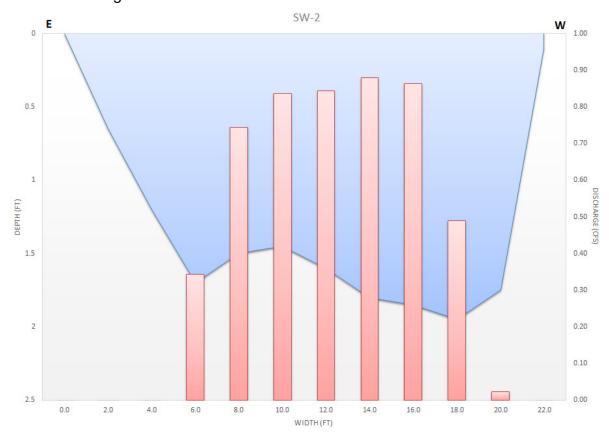


SW-1: Downstream.





## SW-2: Discharge.



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SW-2: Upstream.



SW-2: Downstream.

