Stream Walk & Assessment: Hopkins Creek

May 3, 2013

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City of Dacula
Georgia

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ACRONYMS/DEFINITIONS

RCP	Reinforced Concrete Pipe
HDPE	High Density Polyethylene Pipe
CMP	Corrugated Metal Pipe
NPDES	National Pollutant Discharge Elimination System
EPD	Environmental Protection Division
EPA	Environmental Protection Agency
MS4	Municipal Separate Storm Sewer System
MNGWPD	Metropolitan North Georgia Water Planning District
TMDL	Total Maximum Daily Load
ISE	Integrated Science & Engineering

1. PURPOSE OF ASSESSMENT

The purpose of this document is to summarize the findings of a Stream Walk performed along Hopkins Creek by Joey Murphy Director of Planning & Development with TMDL monitoring compliance requirements for the City's Stormwater Management Plan for 2012/2013. The requirements of the TMDL plan state that the City is to conduct a stream walk of Hopkins Creek within the City's jurisdiction to identify potential pollution sources of bacteria and sediment as well as illicit discharges.

The 2012 Georgia 303(d) list of impaired waterways identifies one stream segments of Hopkins Creek that is partially within the City as not supporting its designated use.

Reach Name	Reach Location	Criterion Violated	Potential Causes	Extent	Notes
Hopkins Creek	State Hwy 29 to Hwy 316	Fecal Coliform	Wildlife / Aging Septic Systems	0.5 miles	All samples have been within EPD's allotted fecal coliform levels

The City is required to perform water quality monitoring and identify potential pollution sources within TMDL streams as a NPDES Phase I MS4 Permittee and by requirements established by the Metro North Georgia Water Planning District's Watershed Management Plan.

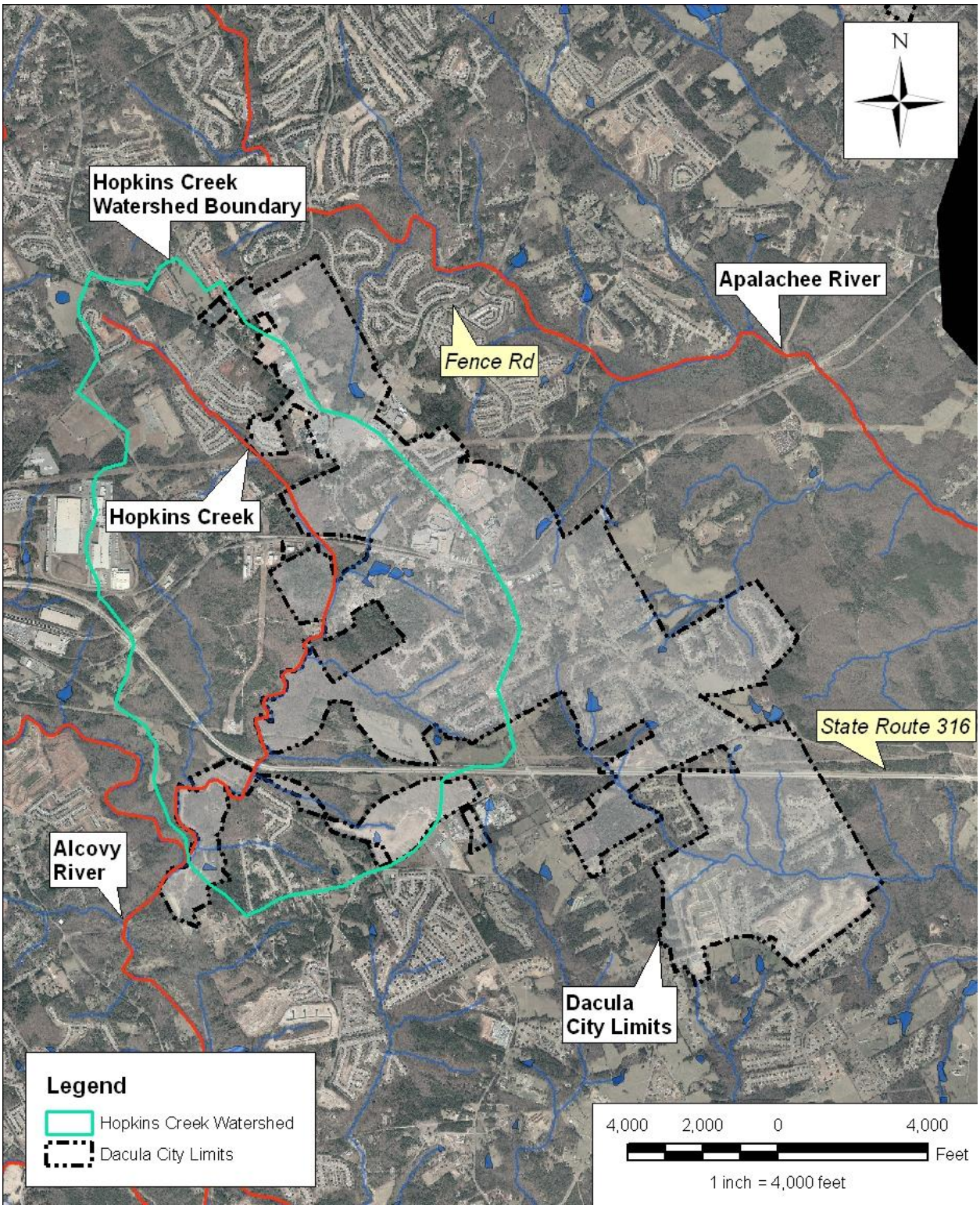
2. LIMITS OF ASSESSMENT

Hopkins Creek flows through the City over a distance of approximately 0.5 miles (see attached map).

A City employee performed the required stream walk on April 11, 2013. As shown below, photos were taken at multiple locations during the stream walk to document observed conditions. The photos of Hopkins Creek represent the north end, midpoint, and the south end of the creek. No tributaries enter Hopkins Creek during the subject stream segment.

This portion of Hopkins Creek, from US 29 to Highway 316 was found to consist of wadeable depths. As such the length was traversed by foot.

Subject Stream Segment


N
Hopkins Creek Watershed Boundary
Apalachee River
Fence Rd
Hopkins Creek
State Route 316
Alcovy River
Dacula City Limits
Legend
Hopkins Creek Watershed
Dacula City Limits
4,000 2,000 0 4,000
Feet
1 inch = 4,000 feet

3. METHODS OF ASSESSMENT & GENERAL FINDINGS

Observations and findings for Hopkins Creek are discussed below. Photos are provided representing typical conditions for the stream discussed.

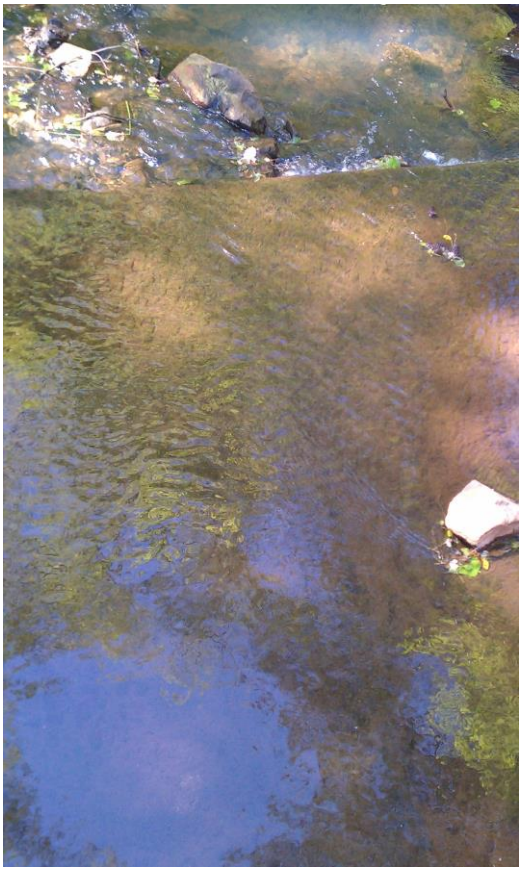
Hopkins Creek

The width of Hopkins Creek was typically 12 - 15 feet with primarily wadeable depths. The stream substrate consisted of a mixture of un-fractured slate, silt, and sand. Stream buffers were well maintained with vegetation along the stream banks and were heavily wooded in most cases. Stream banks averaged about 5 - 8 feet with vertical slopes and only minor instances of erosion / undercutting encountered. Steam velocities were slight throughout the creek.

No discharges were found along Hopkins Creek, although some trash was observed mostly around the Highway 29 road crossing. Water clarity was clear throughout the designated length.

Facing upstream from southern terminus of the stream segment.

Midpoint through the segment facing downstream.



4. AREAS OF CONCERN / ISSUES IDENTIFIED

The only area of concern would be the possibility of pollution from litter or vehicle traffic where State Highway 29 and Highway 316 bridge over Hopkins Creek. No signs or evidence of a discharge of any pollutants was discovered.

Stanley Road Bridge Crossing

5. RECOMMENDATIONS

No illicit discharges or potential pollution sources were found within or immediately adjacent to Hopkins Creek within the City limits of Dacula, therefore enhanced / more frequent monitoring should not be necessary at this time based on the conditions noted.