



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
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ATLANTA, GEORGIA 30303-8960

JUL 09 2018

COPY

Ms. Linda Culpepper
Division of Water Quality
Modeling and Assessment Branch
North Carolina Division of Water Resources
North Carolina Department of Environmental Quality
1601 Mail Service Center
Raleigh, North Carolina 27699-1601

Dear Ms. Culpepper:

The Environmental Protection Agency has concluded a review of the "Addendum to the Haw River Total Maximum Daily Load for Reedy Fork Fecal Coliform Impairment in the Haw River Watershed" as submitted by email on June 11, 2018, by North Carolina Division of Water Resources. Based upon our review, we have determined that the statutory requirements of the Clean Water Act section 303(d) have been met and hereby approve this total maximum daily load (TMDL) addendum for fecal coliform.

The enclosed decision document summarizes the elements of the review which were found to support EPA's approval of the TMDL addendum. If you have any comments or questions relating to the approval of this action or the enclosed decision document, please contact Ms. Marion Hopkins of my staff at (404) 562-9481.

Sincerely,

Jeaneanne Gettle, Director
Water Protection Division

Enclosure



Addendum to the Haw River Total Maximum Daily Load (TMDL) for Reedy Fork Fecal Coliform Impairment in the Haw River Watershed

Guilford County, North Carolina
TMDL ID# NC 10965-Addendum

A. Purpose of Revision

Reedy Fork, located in the Haw River watershed, was placed on the North Carolina (NC) 303(d) list for fecal coliform in 2006, after completion of the 2005 Haw River Total Maximum Daily Load (TMDL). The purpose of this TMDL addendum is to link the fecal coliform allocations in the 2005 TMDL to Reedy Fork.

B. TMDL Background

The NC Division of Water Resources (NCDWR) developed a TMDL for three segments of the Haw River in January 2005 to address fecal coliform and turbidity impairments. The TMDL (TMDL ID# 10965), which also addressed the same impairments in nearby Deep River, Dan River and Third Fork Creek, was approved by the EPA Region 4 on January 11, 2005.

The Haw River was identified as impaired for fecal coliform bacteria in the 1990s. This waterbody is classified as a Class C water and according to the 2005 TMDL is “protected for secondary recreation, fishing, wildlife, fish and aquatic life propagation and survival, agriculture and other uses suitable for Class C.” Several point and non-point sources were identified as contributors to the bacteria impairment. Because bacteria levels in a waterbody correspond with flow condition, a load duration approach was adopted for the TMDL.

The TMDL analysis determined that an overall 77% reduction in fecal coliform would be required to meet water quality standards. This was expected to be achieved by the allocations listed below.

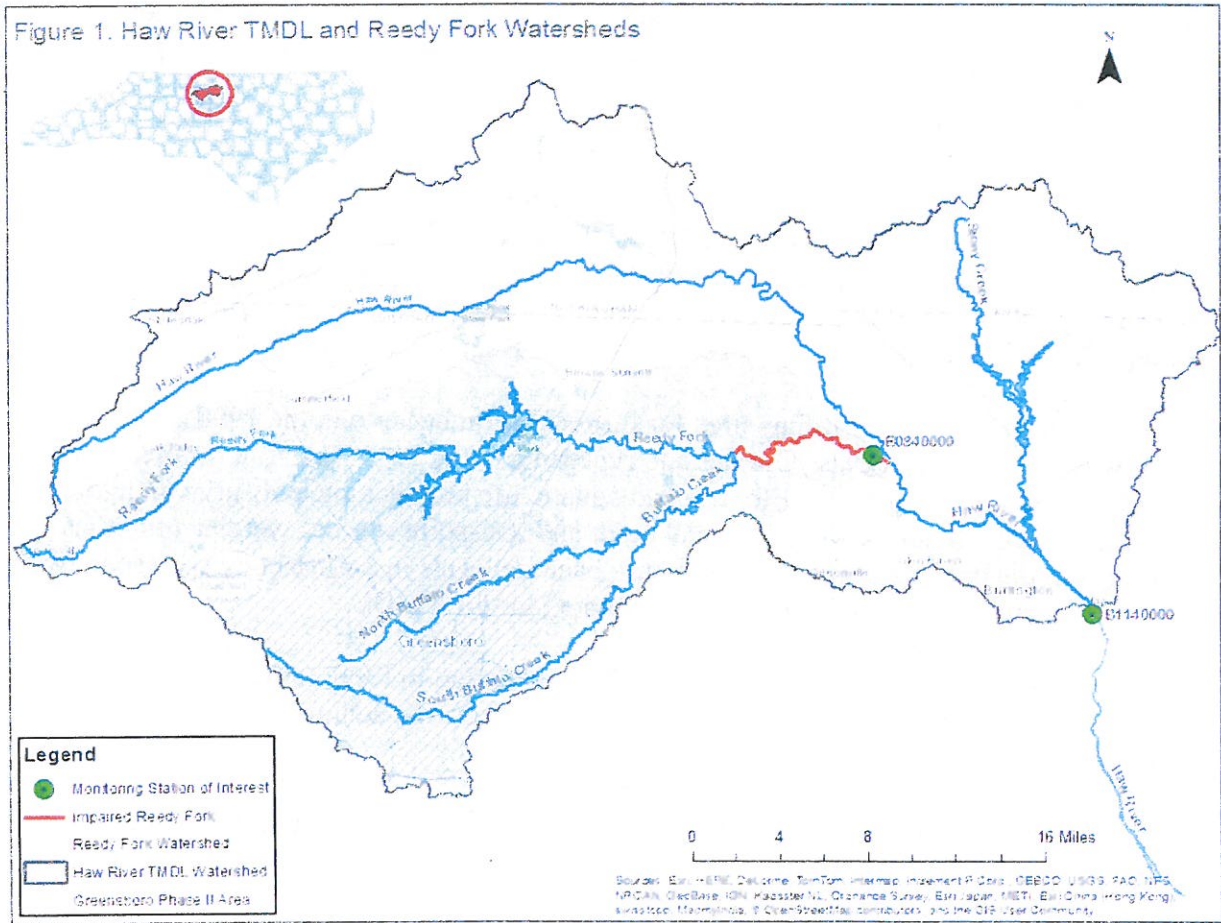
Wasteload Allocation (WLA)	Load Allocation (LA)
1.79E+12 fecal coliform counts/day	1.56E+12 fecal coliform counts/day

The TMDL also included an explicit margin of safety equivalent to ten percent of the target concentration for fecal coliform. The originally impaired Haw River segments are now meeting water quality standards for fecal coliform.

C. Justification for Revision

Reedy Fork was not included in the 2005 TMDL because it was not identified as impaired until the 2006 303(d) listing cycle. The Assessment Unit Identification Numbers (AUID#) addressed by this addendum are listed below. (Please note that the Haw River AUID#s were renamed in the 2014 303(d) listing cycle.) A map of the watershed is also provided below.

AUID#	Previous AUID#	Name and Description	Length, in miles
16-(10.5)b	16-(1)d1	Haw River, from NC Highway 87 to Reedy Fork	1.3
16-(10.5)c	16-(1)d2	Haw River, from Reedy Fork to Service Creek	10.1
16-(10.5)d	16-(1)d3	Haw River, from Service Creek to NC Highway 49	2.1
16-11-(9)b	-	Reedy Fork, from Buffalo Creek to Haw River	8.6



The required watershed reductions specified in the 2005 TMDL are expected to achieve water quality standards in Reedy Fork. The 2005 WLAs and LAs, which apply to all point and nonpoint sources in the Haw River watershed, were based on average flow conditions and are considered dynamic allocations such that the allocations cannot cause a violation of the water quality standard.

D. Revised TMDL Allocations

As stated above, the WLAs and LAs specified in the 2005 TMDL are expected to achieve water quality standards in Reedy Fork, therefore there are no revisions to the TMDL allocations.

E. Other Considerations

The 2005 Haw River TMDL determined that an approximate 77% reduction in fecal coliform was needed to meet water quality standards. The WLA at that time included the City of Greensboro stormwater general permit as well as 24 National Pollutant Discharge Elimination System (NPDES) dischargers. Some changes in NPDES wastewater permits have occurred in the Haw River watershed since the TMDL was approved. The City of Greensboro North Buffalo Creek Wastewater Treatment Plant (WWTP) closed on October 6, 2017, and all wastewater flow for the city is now being received and treated at the T.Z. Osborne WWTP (NC0047384) which discharges to the South Buffalo Creek. Overall, of the 24 dischargers, only 16 facilities remain active dischargers and there are no new wastewater dischargers in the watershed. Also, the City of Greensboro continues to implement multiple projects to limit or treat stormwater runoff, thus limiting the amount of fecal coliform entering North and South Buffalo Creeks, upstream of Reedy Fork (see map, above).

F. Public Participation:

A draft of this addendum to the Haw River TMDL was publicly noticed through the NCDWR TMDL listserv, Water Resources Research Institute listserv, and the NCDWR Public Events Calendar from May 1, 2018 through June 5, 2018. The addendum was also available on NCDWR's TMDL website during the comment period. No comments were received.