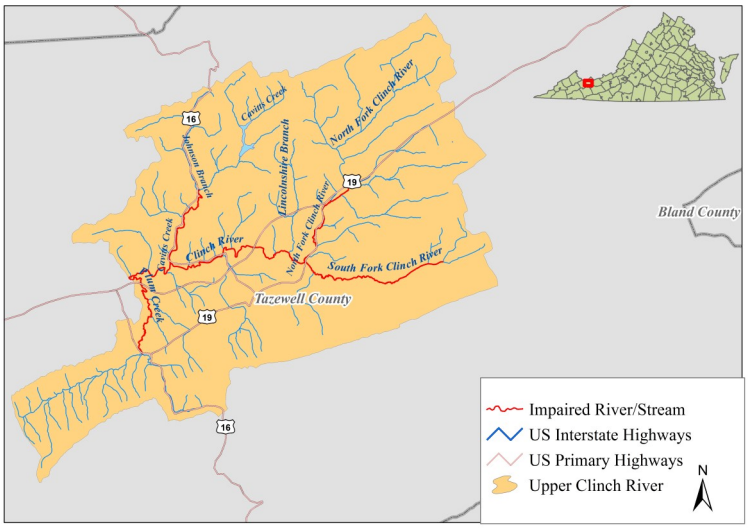
Project Location and Background

The Upper Clinch River watershed is located in the Tennessee/Big Sandy River Basins in Tazewell County, Virginia. The watershed is approximately 31,600 acres in size, and land use is predominantly forested (52%) and agricultural (44%). The Upper Clinch River was listed as impaired on Virginia's 1998 *Section 303(d) Total Maximum Daily Load (TMDL) Priority List and Reports* due to violations of the state's General Standard (benthic). The Upper Clinch River TMDL was completed in March 2004; a stressor analysis performed during TMDL development identified sediment as the primary stressor causing the aquatic life use impairment. A TMDL implementation plan was completed October 2007 and approved in January 2008. The Section 319 implementation project started in July 2016; however, state agricultural cost-share funding was provided as early as January 2008.



Implementation Highlights

The current Upper Clinch River TMDL implementation project that started in 2016 is administered by the Upper Tennessee River Roundtable (UTRR) in partnership with the Tazewell Soil and Water Conservation District (TSWCD) and U.S. Fish and Wildlife Service Partners Program. Table 1 shows BMPs implemented since implementation began in 2008 and overall implementation goals for the project area. TSWCD leveraged VA Agricultural Cost-Share Program and Natural Resource Conservation Service funds to complete the agricultural projects shown in Table 1. This has resulted in 15.4 miles of streambank fencing, creating over 400 acres of riparian buffers.

A total of 3,000 linear feet of urban streambank stabilization was completed at the Dunford Park , Youth-Only Stocked Trout Waters in Tazewell, Virginia. This is also the site of the State Endangered Tennessee Heelsplitter Mussel. A second site was addressed at the Tazewell Waste Water Treatment Plant where 650 linear feet of streambank was stabilized.

(*continued on Page 2*)

Table 1: Upper Clinch River BMP Summary : January 2008 — June 2019

Control Measure	Units	Goal	Installed	%
Agricultural				
Stream Exclusion Fencing	F	559,680	81,418	15
Stream Exclusion Fencing	S	130	44	34
Riparian Buffer Installed	A	450	423	94
Perm. Veg. Cover.	A	288	0	0
Reforestation of Pasture	A	387	0	0
Residential/Urban				
Streambank Stabilization	F	5,000	3,650	73
Vegetated Buffers	F	5,000	0	0
Bioretention	A-T	155	0	0
Infiltration Trench	A-T	67	0	0
Porous Pavement	A	11	0	0
Street Sweeping	L-M	34	0	0
Increased Erosion and Sediment Control	A-T	200	0	0
Retention Pond	A-T	47	0	0

A = Acres, F = Linear Feet, S = System, A-T = Acres Treated, L-M = Lane Miles; Note: BMP counts only include 319-funded and state VACS. NRCS EQIP-funded practices are not included.

The Virginia Nonpoint Source Management Program: The Virginia NPS Management Program is managed by the Virginia Department of Environmental Quality (DEQ) and is funded, in part, through grants from the U.S. Environmental Protection Agency, under the Clean Water Act Section 319(h). For more information regarding Virginia's Nonpoint Source Management Program, please visit us on the web at: http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/NonpointSourcePollutionManagement.aspx . An electronic copy of this report can be found here: http://www.deq.virginia.gov/Programs/Water/WaterQualityInformationTMDLs/TMDL/TMDLImplementation/TMDLImplementationProjects.aspx General NPS Program questions? email: npsgrants@deq.virginia.gov

Implementation Highlights— Continued

A total of five outreach events have been completed by the TSWCD to educate over 370 local farmers and contractors on agricultural best practices. Farm tours took participants to several local farms to learn about various practices and learn from farmers' experiences. Another unique event focused on informing local contractors of project opportunities while exposing them to streambank stabilization BMPs. This type of work has not been done by many of the local contractors, and the TSWCD and U.S. Fish and Wildlife Service Partners Program are working with them to increase their skills/expertise, so that more of this work can be done in the future. Pollutant reductions resulting from agricultural and urban BMP installations are not available at this time but will be provided in 2020.

Photos (left): Before (top) and after (bottom) photos of Dunford Park, Tazewell streambank stabilization project

Photos (right): Before (top) and after (bottom) photos of LE-1T BMP installed in 2018.

Water Quality Monitoring Results

Biological water quality data will be collected in the Upper Clinch watershed starting in 2020. Thenceforth, the biological water quality samples collected will be analyzed for Virginia Stream Condition Index (VSCI) scores to determine the impact of BMPs implemented in the project area on benthic populations and associated long-term trends, if any, in water quality. The VSCI is used to designate biological impairment of a stream: streams with VSCI scores greater than 60 are considered non-impaired; whereas, streams scoring less than 60 are considered impaired.

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