TMDL Synopsis

1. 303(d) Listed Waterbody Information:

State: Kentucky — 8-Digit HUC: 05130205
Major River Basin: Lower Cumberland — GNIS #: 496838, 499555, 503934

Waterbody	River Miles (RM)	Listing Year	County	Use Impairment(s)/ Status	Priority	Pollutant
Little River	30.0 – 31.4	1998	Trigg	Primary Contact Recreation (Partial Support)	First Priority	Pathogens
Little River	31.4 – 45.5	1998	Trigg / Christian	Primary Contact Recreation (Partial Support)	Second Priority	Pathogens
Little River	45.5 – 57.7	1998	Christian	Primary Contact Recreation (Nonsupport)	First Priority	Pathogens
North Fork Little River	0.0 – 0.3	2002	Christian	Primary Contact Recreation (Partial Support)	First Priority	Pathogens
North Fork Little River	0.3 – 7.0	2002	Christian	Primary Contact Recreation (Partial Support)	Second Priority	Pathogens
North Fork Little River	7.0 – 10.9	2002	Christian	Primary Contact Recreation (Nonsupport)	First Priority	Pathogens
North Fork Little River	10.9 – 16.1	2002	Christian	Primary Contact Recreation (Nonsupport)	First Priority	Pathogens
South Fork Little River	0.0 – 10.3	2002	Christian	Primary Contact Recreation (Nonsupport)	First Priority	Pathogens
South Fork Little River	10.3 – 20.3	2002	Christian	Primary Contact Recreation (Nonsupport)	First Priority	Pathogens

2. Pollutant Allocations for Each Impaired Segment Addressed in this TMDL:

Waterbody, Impaired River Miles (RM) [1]	Monitoring Station	WLA[1, 2, 6]		LA (Percent Reduction)[6]	Margin of Safety	TMDL[5] (Percent Reduction)
		Wastewater Treatment Plants (colonies/day)	MS4 (Percent Reduction) [7]			
Little River RM 30.0 – 31.4	LR004	1.34E+11[3]	0	69.7%	10%	69.7%
Little River RM 31.4 – 45.5	LR003	1.34E+11[3]	0	59.0%	10%	59.0%
Little River RM 45.5 – 57.7	LR001	1.34E+11[3]	0	63.4%	10%	63.4%
North Fork Little River RM 0.0 - 0.3	LCTMDL02	1.34E+11[3]	78.0%	78.0%	10%	78.0%
North Fork Little River RM 0.3 – 7.0	LCTMDL02	4.36E+10[4]	78.0%	78.0%	10%	78.0%
North Fork Little River RM 7.0– 10.9	NFLR001	4.36E+10[4]	0	96.0%	10%	96.0%
North Fork Little River RM 10.9 – 16.1	NFLR001	0	0	96.0%	10%	96.0%
South Fork Little River RM 0.0 – 10.3	LCTMDL01	0	83.3%	83.3%	10%	83.3%
South Fork Little River RM 10.3 – 20.3	SFLR001	0	0	96.4%	10%	96.4%

1. Although Concentrated Animal Feeding Operations (CAFOs) receive their allocations within the WLA, there are no permitted CAFOs present in the watershed. Any future CAFO cannot legally discharge to surface water, and therefore receives a WLA of zero. The only exception is holders of a CAFO Individual Permit can discharge during a 25-year or greater storm event.
2. Any future permitted point source must meet permit limits based on the Water Quality Standards in 401 KAR 5:031, and must not cause or contribute to an existing impairment.
3. Daily allocations for the Wastewater Treatment Plants (WWTPs) discharging to these listed segments (i.e., both the Hammond Woods and Northside plants, at River Mile 0.3 and 10.9, respectively, of the North Fork Little River) are equal to their permit limit times their design flow. Therefore the Wasteload Allocation (WLA) for these segments (which are downstream of the discharge points from both WWTPs) is 1.34E+11 colonies/day. The future allocation for the planned expansion of Hammond Woods WWTP will also be its design flow multiplied by its permit limit, or 3.03E+11 colonies/day. These values were derived using the instantaneous Water Quality Criterion (WQC) of 400 colonies/100ml. The monthly average allocations for the existing WWTPs will be 50% of their daily allocations calculated as a geometric mean, based on the WQC of 200 colonies/100ml (as opposed to 400 colonies/100ml). Individual allocations for the WWTPs are presented in the next section of the TMDL Synopsis.
4. The WLA for these listed segments is equal to the permit limit times the design flow of the Northside WWTP only, or 4.36E+10 colonies/day.
5. Calculations expressing the TMDL as a daily load can be found in Appendix B.
6. In the event that compliance with the WQC is determined using E. Coli concentrations as opposed to fecal coliform concentrations, the final fecal coliform allocations can be converted to E. Coli by multiplying by the figure (240/400).
7. The Hopkinsville MS4, Permit Number KYG200009.

3. Individual WLAs for WWTPs

KPDES Wastewater Treatment Plant Discharges to Surface Water

Facility Name[1]	KPDES No.	Design Flow (MGD)	Facility Type	Permit Limits (colonies/100ml)		WLA (colonies/day)
				Monthly Average	Weekly Average	
Hopkinsville Hammond Woods	KY0066532	6.0	WWTP	200	400	9.04E+10
Hopkinsville Northside	KY0023388	2.88	WWTP	200	400	4.36E+10

[1] See *Section S.2: Pollutant Allocations for Each Impaired Segment Addressed in this TMDL* for the WLA for the Hopkinsville MS4 (KYG200009).