

Total Maximum Daily Load (TMDL) Synopsis

State: Kentucky
Major River Basin: Mississippi River
HUC8: 08010201
Counties: Graves, Hickman, Carlisle
Pollutant of Concern: Pathogens
Impaired Use: Primary Contact Recreation

Impaired Waterbodies for TMDLs (2004 303(d) List):

Waterbody Name	Segment Length (miles)	County	Suspected Source
Bayou de Chien (from RM 14.0 to 25.9)	11.9	Graves/ Hickman	Agriculture
Central Creek (from RM 0.8 to 2.5)	1.7	Carlisle	Unknown
Cooley Creek (from RM 0.7 to 2.3)	1.6	Graves	Minor Industrial Point Sources

Note: Suspected sources as identified in the 2004 303(d) Report for Kentucky.

TMDL Endpoints (i.e., Water Quality Standard): 400 colonies/100ml

Fecal Coliform Allocation:

Stream	WLA (colonies/day)	LA	Margin of Safety	TMDL	Percent Reduction ³
Bayou de Chien	0.0 colonies/day ¹	2.49×10^{11} colonies/day	2.77×10^{10} colonies/day	2.77×10^{11} colonies/day	71%
Central Creek	0.0 colonies/day ¹	98.6%	See note 4	98.6%	98.6%
Cooley Creek	2.59×10^{10} colonies/day ²	99.7%	See note 4	99.7%	99.7%

Notes:

1. Any future KPDES 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.
2. WLA value based on design flow and acute permit limits and represents the maximum one-day load the facility can discharge. The average monthly load based on design flow and chronic permit limits can not exceed 1.30×10^{10} colonies/day.
3. Overall reduction to achieve the target of 360 colonies/100ml.
4. MOS is both implicit and explicit.

KPDES Discharges to surface waters addressed in TMDLs:

Facility Name	NPDES No.	Design Flow (MGD)	Facility Type	Impacted Stream	Permit Limits	
					Monthly	Maximum
Pilgrim Pride	KY0093874	1.71	Poultry Slaughtering and Processing	Cooley Creek	200 colonies/100ml	400 colonies/100ml