

The following serves as the outline for mussel ammonia water quality criteria implementation. The criteria will be implemented in a 3-phased approach and the dates throughout this document are established assuming the amended water quality standards rule is approved by EPA in CY 2018. Each phase of the criteria implementation will be based on the design flow of the facility and is regardless of facility type (i.e. POTW, Private Domestic, Industrial, Stormwater). Facilities with the ability to comply with permit limits based upon the mussel ammonia criteria are not subject to this implementation plan given a schedule of compliance is not allowable for a facility that can comply. The phases are defined below.

**Phase I – Facilities with design flow greater than or equal to 1 MGD:** Permit renewals for this facility type ( $\geq 1$ MGD) that occur after the date which EPA approves the new criteria and will contain schedules of compliance if necessary to comply with final mussel ammonia limits. Implementation of the requirements in renewals for this type of facility would start during CY 2018\*. During the renewal process, final ammonia limits will be calculated utilizing mixing authorized by 10 CSR 20-7.031, with schedules of compliance consistent with current department procedures.

**Phase II – Facilities with design flow of less than 1 MGD but greater than or equal to 50,000 GPD:** Permit renewals for this facility type ( $<1$ MGD -  $\geq 50,000$  GPD) that occur three (3) years after the time EPA approves the new criteria will contain schedules of compliance if necessary to comply with final mussel ammonia limits. Implementation of the requirements in renewals for this type of facility would start during CY 2021\*. During the renewal process, final ammonia limits will be calculated utilizing mixing authorized by 10 CSR 20-7.031, with schedules of compliance consistent with current department procedures.

**Phase III – Facilities with a design flow less than 50,000 GPD:** Permit renewals for this facility type ( $<50,000$  GPD) that occur six (6) years after EPA approves the new criteria will contain schedules of compliance if necessary to comply with final mussel ammonia limits. Implementation of the requirements in renewals for this type of facility would start during CY 2024\*. During the renewal process, final ammonia limits will be calculated utilizing mixing authorized by 10 CSR 20-7.031, with schedules of compliance consistent with current department procedures.

**De minimis sources  $\leq 500$  GPD:** For the purpose of implementation of the new mussel ammonia criteria the Department will consider those discharges  $\leq 500$  GPD to be De minimis regarding the mussel ammonia criteria. These facilities will still be required to meet the current ammonia criteria for fish species.

\*The year for mussel ammonia permit requirement implementation is based upon an EPA approval occurring in CY2018. If approval occurs sooner or later the implementation schedule will be shifted accordingly. Additionally, permit renewals will be occurring based upon the Final Permit Synchronization as established in the following tables as determined by the watershed of the discharge:

	2012		2013		2014		2015		2016		2017		2018		2019		2020		2021		2022							
	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q						
Group 1	FY13								FY18																			
Group 2					FY14								FY19															
Group 3									FY15								FY20											
Group 4													FY16								FY21							
Group 5																	FY17								FY22			
Initial Permit Synchronization Year												Final Permit Synchronization Year																
Group 1												Group 2																
HUC-8	HUC-8 Name			Square Miles	Region			HUC-8	HUC-8 Name			Square Miles	Region															
07140104	Big (OMW)			970.4	SERO			10300101	Lower Missouri-Crooked			2697.6	KCRO															
10280103	Lower Grand (OMW)			2358.8	NERO			10270104	Lower Kansas, Kansas*			1655.6	KCRO															
11070207	Spring (OMW)			2588.8	SWRO			07110008	Cuivre			1261.5	SLRO															
07140102	Meramec			2149.6	SERO			10290106	Sac			1969.3	SWRO															
10240011	Independence-Sugar			1042.1	KCRO			07110004	The Sny			1986.8	NERO															
07110001	Wyaconda - Fox Rivers			1725.5	NERO			07140105	Upper Mississippi-Cape Girardeau			1729.3	SERO															
07140107	Whitewater			1193.5	SERO			08020203	Lower St. Francis*			3581.3	SERO															
11010010	Spring			1214.5	SERO			10290203	Lower Gasconade			1032.5	SERO															
07110005	North Fork Salt			893	NERO			11010008	Current			2618.3	SERO															
07110003	South Fabius			619.4	NERO			11010009	Lower Black*			818.5	SERO															
10290102	Lower Marais Des Cygnes			1575.9	KCRO			10280102	Thompson			2199.6	NERO															
10290103	Little Osage			580.7	SWRO			10290110	Niangua			1028.5	SWRO															
10240013	One Hundred and two			776.4	KCRO			11010001	Beaver Reservoir			2552.8	SWRO															
Group 3												Group 4																
HUC-8	HUC-8 Name			Square Miles	Region			HUC-8	HUC-8 Name			Square Miles	Region															
10300102	Lower Missouri-Moreau			3398.3	NERO			10300200	Lower Missouri			1590.4	SLRO															
07140103	Bourbeuse			843.4	SLRO			08020204	Little River Diches			2608.1	SERO															
07110009	Peruque-Piasa			669.2	SLRO			10290108	South Grand			2046	KCRO															
10240012	Platte			1663.6	KCRO			07110007	Salt			793.7	NERO															
11010007	Upper Black			1925	SERO			10280203	Little Chariton			698	NERO															
10290107	Pomme De Terre			845.2	SWRO			11010002	James			1455.5	SWRO															
10290201	Upper Gasconade			1786.4	SWRO			10300103	Lamine			1110.9	KCRO															
11010003	Bull Shoals Lake			2604.5	SWRO			10290111	Lower Osage**			1077	SERO															
11010011	Eleven Point			1202.3	SERO			10280201	Upper Chariton			1351.1	NERO															
08020302	Cache*			2007.5	SERO			11070206	Lake O Cherokees*			909.2	SWRO															
8010100	Lower Mississippi-Memphis*			1098.9	SERO								* Small portions of these watersheds are in Missouri.															
10240010	Nowaway			999.2	KCRO								** The Regional Office with the majority of land mass needs further examination.															
10240005	Tarkio-Wolf			1701.1	KCRO																							
10240004	Nishnabotna*			175.1	KCRO																							
10240001	Keg-Weeping Water*			838.5	KCRO																							
07100009	Lower Des Moines*			2140.1	NERO																							
11070208	Elk			1025	SWRO																							
Group 5																												
HUC-8	HUC-8 Name			Square Miles	Region																							
07140101	Cahokia-Joachim			1647	SLRO																							
10290109	Lake of the Ozarks			1385.5	SERO																							
10280101	Upper Grand			3324.1	KCRO																							
10300104	Blackwater			1543.1	KCRO																							
07110006	South Fork Salt			1213	NERO																							
10280202	Lower Chariton			1018.7	NERO																							
08020201	New Madrid-St. Johns			689.5	SERO																							
08020202	Upper St. Francis			1298.5	SERO																							
11010006	North Fork White			1830.1	SWRO																							
10290104	Marmaton			1140.9	SWRO																							
10290202	Big Piney			754.7	SERO																							
07110002	North Fabius			915.2	NERO																							
10290105	Harry S			1202.8	SWRO																							