Matrix for Total Phosphorus (µg/L)

RTAG		Dodds & Oakes, 2004	EPA, 2000-2001	Smith et al, 2003		EPA, 2000-2001		USGS (25%)		USGS (75% of reference streams)		
EPA Region 7 – IA, KS, MO, NE	Aggregate Eco-Regions				Level III Eco-Regions		EDU	Kaplan-Meier	Regression on Order Statistics	Kaplan-Meier	Regression on Order Statistics	Biological Response
75	VI – Corn Belt and Northern Great Plains	23	76	54	Western Corn Belt Plains	118	Blackwater/Lamine	140	140	150	150	
							Nishnabotna/Platte	120	120	250	250	
	IX – Southeastern temperate forested plains and hills	31	37	48	Central Irregular Plains	93	Blackwater/Lamine	140	140	150	150	
							Grand/Chariton	60	60	220	220	
							Osage/South Grand	70	71	110	110	
							Cuivre/Salt	70	70	120	120	
					Interior River Lowland	83	Cuivre/Salt	70	70	120	120	
							Apple Joachim	70	70	40	40	
							Moreau/Loutre	43	43	110	110	
	X – Texas-Louisiana coastal and Mississippi alluvial plains	112	128	48	Mississippi Alluvial Plain	125	Black/Cache	54	54			
							St. Francis/Little;	130	130			
							St. Johns Bayou;	92	92	150	150	
	XI – Central and Eastern forested uplands	43	10	20	Ozark Highland	7	Black/Current	6	4	10	14	35
							Neosho	40	40	120	120	
							Gasconade	5	8	20	17	
							Apple/Joachim	70	70	40	40	
							Meramec	10	13			
							Moreau/Loutre	43	43	110	110	
							Osage	20	20	50	50	
							Upper St. Francis/Castor	10	5	20	20	
							White	24	25	70	70	

Matrix for Total Nitrogen (µg/L)

RTAG		Dodds & Oakes, 2004	EPA, 2000-2001	Smith et al, 2003		EPA, 2000-2001		USGS (25%)		USGS (75% of reference streams)		
EPA Region 7 – IA, KS, MO, NE	Aggregate Eco-Regions				Level III Eco-Regions		EDU	Kaplan-Meier	Regression on Order Statistics	Kaplan-Meier	Regression on Order Statistics	Biological Response (Algae)
900	VI – Corn Belt and Northern Great Plains	215	2180	355	Western Corn Belt Plains	3260	Blackwater/Lamine	1100	1100	100	100	
							Nishnabotna/Platte	980	980	4550	4550	
	IX – Southeastern temperate forested plains and hills	370	690	150	Central Irregular Plains	712	Blackwater/Lamine	1100	1100	100	100	
							Grand/Chariton	470	481	1700	1600	
							Osage/South Grand	580	568	1150	1150	
							Cuivre/Salt	720	714	1200	1200	
					Interior River Lowland	1669	Cuivre/Salt	720	714	1200	1200	
							Apple Joachim	680	660	580	570	
							Moreau/Loutre	420	420	920	880	
	X – Texas-Louisiana coastal and Mississippi alluvial plains	745	760	439	Mississippi Alluvial Plain	710	Black/Cache	421	421			
							St. Francis/Little;	500	492			
							St. Johns Bayou;	408	412			
	XI – Central and Eastern forested uplands	1102	305	156	Ozark Highland	379	Black/Current	200	190	250	250	680
							Neosho	1380	1330	4600	4600	
							Gasconade	280	285	610	570	
							Apple/Joachim	680	660	580	570	
							Meramec	210	218	160	160	
							Moreau/Loutre	420	420	920	880	
							Osage	300	313	1200	1200	
							Upper St. Francis/Castor	150	140	310	310	
							White	1000	1000	530	500	

Sources

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- US-EPA, 2000-2001. Ambient Water Quality Criteria Recommendations. Rivers and Streams in Nutrient Ecoregion [VI, IX, X XI]. EPA 822-B-00-016, 017, 019, 020
- Biological Responses: Femmer (Ozarks), Osborn (Plains)