Appendix E

Pipeline Restrictive Layer Areas Crossings

KEYSTONE PIPELINE PROJECT

Pipeline Restrictive Layer Areas Crossings MP

Mainline CL based on November 17, 2006 Filing and the Cushing Extension CL based on Dec 15, 2006 Filing

REVISION 0

LINE	MP		LENGTH [ft]	SOIL NAME	RESTRICTIVE LAYER				COUNTY	STATE
	FROM	TO			KIND	HARDNESS	DEPTH TO TOP - [in]	CONSTRUCTION		
14-ML	32.97	33.17	1095.4	Kloten	Bedrock (paralithic)	---	20 to 40	RIP	Walsh	North Dakota
14-ML	35.20	35.23	159.8	Kloten	Bedrock (paralithic)	---	9 to 20	RIP	Walsh	North Dakota
14-ML	35.26	35.29	154.8	Kloten	Bedrock (paralithic)	---	9 to 20	RIP	Walsh	North Dakota
14-ML	36.33	36.41	407.0	Kloten	Bedrock (paralithic)	---	20 to 40	RIP	Walsh	North Dakota
14-ML	36.51	36.59	393.7	Kloten	Bedrock (paralithic)	---	20 to 40	RIP	Walsh	North Dakota
14-ML	37.52	37.76	1284.2	Kloten	Bedrock (paralithic)	---	20 to 40	RIP	Walsh	North Dakota
14-ML	41.13	41.33	1031.7	Kloten	Bedrock (paralithic)	---	20 to 40	RIP	Walsh	North Dakota
14-ML	41.56	41.73	893.2	Kloten	Bedrock (paralithic)	---	9 to 20	RIP	Walsh	North Dakota
14-ML	41.73	42.11	2031.4	Kloten	Bedrock (paralithic)	---	20 to 40	RIP	Walsh	North Dakota
14-ML	42.11	42.16	263.9	Kloten	Bedrock (paralithic)	---	9 to 20	RIP	Walsh	North Dakota
14-ML	42.48	42.58	553.5	Kloten	Bedrock (paralithic)	---	20 to 40	RIP	Walsh	North Dakota
14-ML	46.28	46.34	310.4	Kloten	Bedrock (paralithic)	---	9 to 20	RIP	Walsh	North Dakota
14-ML	54.15	54.19	183.1	Kloten	Bedrock (paralithic)	---	9 to 20	RIP	Walsh	North Dakota
14-ML	54.32	54.44	661.1	Kloten	Bedrock (paralithic)	---	9 to 20	RIP	Walsh	North Dakota
14-ML	54.48	54.60	643.4	Kloten	Bedrock (paralithic)	---	9 to 20	RIP	Walsh	North Dakota
14-ML	63.00	63.08	431.4	Cavour	Natric	Noncemented	7 to 17	RIP	Nelson	North Dakota
14-ML	64.36	64.51	792.3	Cavour	Natric	Noncemented	7 to 17	RIP	Nelson	North Dakota
14-ML	66.98	67.03	264.8	Divide	Strongly contrasting textural stratification	---	20 to 40	RIP	Nelson	North Dakota
14-ML	76.56	76.59	183.4	Divide	Strongly contrasting textural stratification	---	20 to 40	RIP	Nelson	North Dakota
14-ML	77.88	77.91	159.3	Cavour	Natric	Noncemented	7 to 17	RIP	Nelson	North Dakota
14-ML	84.75	84.82	376.7	Divide	Strongly contrasting textural stratification	---	20 to 40	RIP	Nelson	North Dakota
14-ML	104.15	104.41	1401.2	Divide	Strongly contrasting textural stratification	---	20 to 40	RIP	Steele	North Dakota
14-ML	104.59	104.65	267.7	Divide	Strongly contrasting textural stratification	---	20 to 40	RIP	Steele	North Dakota
14-ML	104.65	104.70	304.7	Divide	Strongly contrasting textural stratification	---	20 to 40	RIP	Steele	North Dakota
14-ML	104.70	105.01	1641.3	Divide	Strongly contrasting textural stratification	---	20 to 40	RIP	Steele	North Dakota
14-ML	105.55	105.73	940.8	Divide	Strongly contrasting textural stratification	---	20 to 40	RIP	Steele	North Dakota
14-ML	105.88	106.07	990.9	Cavour	Natric	Noncemented	7 to 17	RIP	Steele	North Dakota
14-ML	106.27	106.30	182.4	Divide	Strongly contrasting textural stratification	---	20 to 40	RIP	Steele	North Dakota
14-ML	106.30	106.74	2303.6	Divide	Strongly contrasting textural stratification	---	20 to 40	RIP	Steele	North Dakota
14-ML	106.74	107.06	1685.7	Divide	Strongly contrasting textural stratification	---	20 to 40	RIP	Steele	North Dakota
14-ML	107.23	107.29	339.7	Divide	Strongly contrasting textural stratification	---	20 to 40	RIP	Steele	North Dakota
14-ML	109.50	109.61	551.1	Divide	Strongly contrasting textural stratification	---	20 to 40	RIP	Steele	North Dakota
14-ML	439.31	439.35	213.8	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	439.70	439.72	85.2	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	439.77	439.81	191.9	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	439.81	439.83	134.9	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	439.90	439.99	501.7	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	441.22	441.26	211.7	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	441.55	441.70	828.1	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	441.78	441.87	488.1	Hord	Bedrock (paralithic)	---	40 to 60	RIP	Cedar	Nebraska
14-ML	441.87	441.95	427.8	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	441.95	442.05	492.1	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	442.05	442.11	317.8	Hord	Bedrock (paralithic)	---	40 to 60	RIP	Cedar	Nebraska
14-ML	442.11	442.17	338.7	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	442.17	442.25	429.1	Hord	Bedrock (paralithic)	---	40 to 60	RIP	Cedar	Nebraska

LINE	MP		LENGTH [ft]	SOIL NAME	RESTRICTIVE LAYER				COUNTY	STATE
	FROM	TO			KIND	HARDNESS	DEPTH TO TOP - [in]	CONSTRUCTION		
14-ML	442.25	442.30	229.2	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	442.30	442.34	211.8	Hord	Bedrock (paralithic)	---	40 to 60	RIP	Cedar	Nebraska
14-ML	442.34	442.41	387.3	Boyd	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	446.21	446.27	334.3	Gavins	Bedrock (paralithic)	Moderately cemented	10 to 20	RIP	Cedar	Nebraska
14-ML	446.42	446.50	420.1	Gavins	Bedrock (paralithic)	Moderately cemented	10 to 20	RIP	Cedar	Nebraska
14-ML	446.50	446.55	267.5	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	448.20	448.27	414.5	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	448.47	448.56	476.0	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	448.92	448.98	332.9	Redstoe	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Cedar	Nebraska
14-ML	635.36	635.39	194.3	Hedville	Bedrock (lithic)	Moderately cemented	4 to 20	BLAST	Jefferson	Nebraska
14-ML	635.47	635.56	452.1	Hedville	Bedrock (lithic)	Moderately cemented	4 to 20	BLAST	Jefferson	Nebraska
14-ML	635.56	635.56	4.0	Lancaster	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	635.59	635.65	322.8	Lancaster	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	635.77	635.88	605.3	Lancaster	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	635.88	635.95	352.4	Edalgo	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	635.95	636.07	663.5	Hedville	Bedrock (lithic)	Moderately cemented	4 to 20	BLAST	Jefferson	Nebraska
14-ML	636.07	636.13	292.7	Edalgo	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	636.13	636.13	24.2	Lancaster	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	636.13	636.22	441.1	Hedville	Bedrock (lithic)	Moderately cemented	4 to 20	BLAST	Jefferson	Nebraska
14-ML	636.22	636.33	587.1	Lancaster	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	636.33	636.43	527.7	Lancaster	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	637.49	637.56	389.1	Lancaster variant	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	637.70	638.01	1638.1	Lancaster	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	638.06	638.29	1237.4	Lancaster	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	638.29	638.34	268.7	Edalgo	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	638.62	638.62	39.1	Lancaster variant	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	638.95	639.01	285.0	Lancaster variant	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	639.18	639.24	285.8	Lancaster variant	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	639.27	639.34	391.2	Lancaster variant	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	639.39	639.45	342.4	Lancaster	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	639.67	639.78	596.2	Edalgo	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Jefferson	Nebraska
14-ML	658.22	658.33	559.2	Kipson	Bedrock (paralithic)	Moderately cemented	7 to 20	RIP	Marshall	Kansas
14-ML	658.46	658.50	212.2	Kipson	Bedrock (paralithic)	Moderately cemented	7 to 20	RIP	Marshall	Kansas
14-ML	659.19	659.29	495.6	Kipson	Bedrock (paralithic)	Moderately cemented	7 to 20	RIP	Marshall	Kansas
14-ML	659.40	659.43	165.2	Kipson	Bedrock (paralithic)	Moderately cemented	7 to 20	RIP	Marshall	Kansas
14-ML	659.60	659.69	459.0	Kipson	Bedrock (paralithic)	Moderately cemented	7 to 20	RIP	Marshall	Kansas
14-ML	662.14	662.16	100.6	Kipson	Bedrock (paralithic)	Moderately cemented	7 to 20	RIP	Marshall	Kansas
14-ML	685.37	685.40	195.0	Kipson	Bedrock (paralithic)	Weakly cemented	7 to ~~	RIP	Nemaha	Kansas
15-ML	704.09	704.15	332.6	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	704.37	704.38	13.1	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	704.38	704.47	480.8	Kipson	Bedrock (paralithic)	Noncemented	7 to 20	RIP	Brown	Kansas
15-ML	704.51	704.62	584.7	Kipson	Bedrock (paralithic)	Noncemented	7 to 20	RIP	Brown	Kansas
15-ML	704.62	704.73	550.7	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	704.82	704.88	338.0	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	704.93	705.08	776.4	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	705.08	705.10	96.4	Kipson	Bedrock (paralithic)	Noncemented	7 to 20	RIP	Brown	Kansas
15-ML	705.10	705.15	288.0	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	705.15	705.27	615.8	Kipson	Bedrock (paralithic)	Noncemented	7 to 20	RIP	Brown	Kansas
15-ML	705.27	705.37	542.1	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	705.46	705.47	47.7	Kipson	Bedrock (paralithic)	Noncemented	7 to 20	RIP	Brown	Kansas
15-ML	705.53	705.67	739.6	Kipson	Bedrock (paralithic)	Noncemented	7 to 20	RIP	Brown	Kansas
15-ML	707.51	707.58	344.0	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	710.23	710.33	495.5	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas

LINE	MP		LENGTH [ft]	SOIL NAME	RESTRICTIVE LAYER				COUNTY	STATE
	FROM	TO			KIND	HARDNESS	DEPTH TO TOP - [in]	CONSTRUCTION		
15-ML	710.65	710.81	879.4	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	714.39	714.43	211.0	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	715.28	715.35	333.0	Wamego	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	717.68	717.72	227.5	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	717.78	717.84	318.7	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	718.91	719.00	462.1	Wamego	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	720.47	720.54	354.1	Wamego	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	720.61	720.75	766.1	Wamego	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	720.78	721.01	1214.8	Wamego	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	724.02	724.12	496.1	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	724.15	724.28	694.4	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	724.50	724.62	640.5	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	724.75	724.83	426.9	Padonia	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	725.29	725.36	382.1	Wamego	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	725.38	725.56	982.3	Wamego	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	725.84	725.95	600.9	Wamego	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	727.51	727.58	347.1	Wamego	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	727.73	727.95	1174.8	Wamego	Bedrock (paralithic)	Noncemented	20 to 40	RIP	Brown	Kansas
15-ML	728.48	728.51	128.9	Vinland	Bedrock (paralithic)	Weakly cemented	10 to 20	RIP	Doniphan	Kansas
15-ML	729.50	729.55	220.4	Vinland	Bedrock (paralithic)	Weakly cemented	10 to 20	RIP	Doniphan	Kansas
15-ML	729.64	729.78	749.8	Vinland	Bedrock (paralithic)	Weakly cemented	10 to 20	RIP	Doniphan	Kansas
15-ML	740.22	740.31	504.5	Vinland	Bedrock (paralithic)	Weakly cemented	10 to 20	RIP	Doniphan	Kansas
15-ML	740.41	740.46	220.6	Vinland	Bedrock (paralithic)	Weakly cemented	10 to 20	RIP	Doniphan	Kansas
15-ML	747.02	747.13	573.5	Rock outcrop	Bedrock (lithic)	---	---	BLAST	Doniphan	Kansas
15-ML	747.62	747.77	756.0	Rock outcrop	Bedrock (lithic)	---	---	BLAST	Doniphan	Kansas
15-ML	754.26	754.32	279.2	Gosport	Bedrock (paralithic)	---	32 to 32	RIP	Buchanan	Missouri
15-ML	754.78	754.81	140.5	Gosport	Bedrock (paralithic)	---	32 to 32	RIP	Buchanan	Missouri
15-ML	754.85	754.89	175.0	Gosport	Bedrock (paralithic)	---	32 to 32	RIP	Buchanan	Missouri
15-ML	754.94	755.09	801.8	Gosport	Bedrock (paralithic)	---	32 to 32	RIP	Buchanan	Missouri
15-ML	755.21	755.24	169.9	Gosport	Bedrock (paralithic)	---	32 to 32	RIP	Buchanan	Missouri
15-ML	755.46	755.51	268.5	Gosport	Bedrock (paralithic)	---	32 to 32	RIP	Buchanan	Missouri
15-ML	757.73	757.86	660.3	Gosport	Bedrock (paralithic)	Moderately cemented	27 to 40	RIP	Buchanan	Missouri
15-ML	757.97	758.15	950.4	Gosport	Bedrock (paralithic)	Moderately cemented	27 to 40	RIP	Buchanan	Missouri
15-ML	758.84	758.96	631.3	Gosport	Bedrock (paralithic)	Moderately cemented	27 to 40	RIP	Buchanan	Missouri
15-ML	763.61	763.68	360.2	Gosport	Bedrock (paralithic)	Moderately cemented	27 to 40	RIP	Buchanan	Missouri
15-ML	764.36	764.43	384.3	Gosport	Bedrock (paralithic)	Moderately cemented	27 to 40	RIP	Buchanan	Missouri
15-ML	764.53	764.54	69.6	Gosport	Bedrock (paralithic)	Moderately cemented	27 to 40	RIP	Buchanan	Missouri
15-ML	764.57	764.66	446.4	Gosport	Bedrock (paralithic)	Moderately cemented	27 to 40	RIP	Buchanan	Missouri
15-ML	764.69	764.79	539.3	Gosport	Bedrock (paralithic)	Moderately cemented	27 to 40	RIP	Buchanan	Missouri
15-ML	766.87	766.89	132.7	Gasconade	Bedrock (lithic)	Indurated	14 to 21	BLAST	Buchanan	Missouri
15-ML	798.18	798.21	196.4	Snead	Bedrock (paralithic)	---	16 to 36	RIP	Caldwell	Missouri
15-ML	798.55	798.58	156.3	Sampsel	Bedrock (paralithic)	Moderately cemented	40 to 80	RIP	Caldwell	Missouri
15-ML	798.58	798.64	314.2	Snead	Bedrock (paralithic)	Weakly cemented	31 to 33	RIP	Caldwell	Missouri
15-ML	798.80	798.89	454.6	Sampsel	Bedrock (paralithic)	Moderately cemented	40 to 80	RIP	Caldwell	Missouri
15-ML	799.42	799.44	140.3	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	799.52	799.54	117.7	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	801.24	801.27	114.2	Snead	Bedrock (paralithic)	Weakly cemented	31 to 33	RIP	Caldwell	Missouri
15-ML	801.51	801.55	237.3	Snead	Bedrock (paralithic)	Weakly cemented	31 to 33	RIP	Caldwell	Missouri
15-ML	801.59	801.59	5.6	Snead	Bedrock (paralithic)	Weakly cemented	31 to 33	RIP	Caldwell	Missouri
15-ML	801.59	801.67	394.2	Sampsel	Bedrock (paralithic)	Moderately cemented	40 to 80	RIP	Caldwell	Missouri
15-ML	807.30	807.32	125.6	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri

LINE	MP		LENGTH [ft]	SOIL NAME	RESTRICTIVE LAYER				COUNTY	STATE
	FROM	TO			KIND	HARDNESS	DEPTH TO TOP - [in]	CONSTRUCTION		
15-ML	807.66	807.70	224.5	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	807.74	807.81	363.2	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	807.87	807.94	382.3	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	808.16	808.21	262.9	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	808.24	808.26	94.2	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	808.33	808.37	209.4	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	808.68	808.72	209.7	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	808.82	808.89	322.9	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	808.96	809.10	744.0	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	809.42	809.48	316.5	Sampsel	Bedrock (paralithic)	Moderately cemented	40 to 80	RIP	Caldwell	Missouri
15-ML	809.62	809.72	521.8	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	809.72	809.92	1057.8	Sampsel	Bedrock (paralithic)	Moderately cemented	40 to 80	RIP	Caldwell	Missouri
15-ML	809.92	810.03	578.4	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	810.12	810.16	248.0	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	810.16	810.18	71.2	Snead	Bedrock (paralithic)	Weakly cemented	31 to 33	RIP	Caldwell	Missouri
15-ML	810.18	810.24	329.3	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	810.29	810.42	676.5	Sampsel	Bedrock (paralithic)	Moderately cemented	63 to 67	RIP	Caldwell	Missouri
15-ML	810.43	810.51	422.6	Sampsel	Bedrock (paralithic)	Moderately cemented	63 to 67	RIP	Caldwell	Missouri
15-ML	810.60	810.72	628.0	Sampsel	Bedrock (paralithic)	Moderately cemented	63 to 67	RIP	Caldwell	Missouri
15-ML	812.72	812.77	253.5	Sampsel	Bedrock (paralithic)	Moderately cemented	63 to 67	RIP	Caldwell	Missouri
15-ML	812.77	812.86	497.9	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	812.86	812.87	55.7	Snead	Bedrock (paralithic)	---	16 to 36	RIP	Caldwell	Missouri
15-ML	812.87	813.03	821.1	Sampsel	Bedrock (paralithic)	Moderately cemented	63 to 67	RIP	Caldwell	Missouri
15-ML	813.03	813.06	158.9	Snead	Bedrock (paralithic)	---	16 to 36	RIP	Caldwell	Missouri
15-ML	813.44	813.48	255.8	Snead	Bedrock (paralithic)	Weakly cemented	31 to 33	RIP	Caldwell	Missouri
15-ML	813.48	813.59	576.8	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	813.73	813.74	37.1	Snead	Bedrock (paralithic)	Weakly cemented	31 to 33	RIP	Caldwell	Missouri
15-ML	813.74	813.87	700.7	Rock land	Bedrock (lithic)	---	0 to 60	BLAST	Caldwell	Missouri
15-ML	813.87	813.92	262.2	Snead	Bedrock (paralithic)	Weakly cemented	31 to 33	RIP	Caldwell	Missouri
15-ML	813.97	814.07	541.0	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Caldwell	Missouri
15-ML	814.07	814.10	181.5	Sampsel	Bedrock (paralithic)	Moderately cemented	63 to 67	RIP	Caldwell	Missouri
15-ML	814.15	814.19	225.8	Sampsel	Bedrock (paralithic)	Moderately cemented	63 to 67	RIP	Caldwell	Missouri
15-ML	814.24	814.29	262.3	Sampsel	Bedrock (paralithic)	Moderately cemented	63 to 67	RIP	Caldwell	Missouri
15-ML	814.29	814.32	170.4	Sampsel	Bedrock (paralithic)	Moderately cemented	40 to 80	RIP	Caldwell	Missouri
15-ML	814.32	814.38	296.8	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Caldwell	Missouri
15-ML	814.51	814.92	2145.2	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	815.43	815.54	607.3	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	815.63	815.67	233.4	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	815.78	815.83	269.8	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	815.87	815.93	287.1	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	816.01	816.15	766.2	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	816.16	816.17	39.4	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	816.21	816.23	102.0	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	816.28	816.43	767.3	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	816.49	816.52	160.9	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	816.56	816.72	845.9	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	816.75	816.81	339.0	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	820.50	820.58	413.6	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	820.74	821.31	3044.5	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	821.56	821.69	697.3	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	821.76	821.82	334.5	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri

LINE	MP		LENGTH [ft]	SOIL NAME	RESTRICTIVE LAYER				COUNTY	STATE
	FROM	TO			KIND	HARDNESS	DEPTH TO TOP - [in]	CONSTRUCTION		
15-ML	821.91	822.05	689.4	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	822.10	822.21	591.3	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	822.73	822.94	1114.6	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	823.13	823.20	333.7	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	823.26	823.36	513.5	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	823.38	823.58	1027.1	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	823.90	823.91	49.7	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	823.95	823.95	13.6	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	824.22	824.38	844.1	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	824.45	824.51	290.5	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	824.54	824.63	489.6	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	824.69	824.87	984.0	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	825.36	825.54	909.4	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	825.94	826.04	527.8	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	826.05	826.09	211.3	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	826.26	826.40	728.2	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	829.91	829.99	413.8	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	830.03	830.12	504.0	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	830.17	830.28	599.3	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	830.31	830.34	136.3	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	830.37	830.43	337.8	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	832.04	832.08	173.8	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	832.78	832.87	477.5	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	834.22	834.24	77.7	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	834.28	834.41	675.4	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	837.14	837.20	297.9	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Carroll	Missouri
15-ML	837.52	837.60	422.9	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	837.68	837.69	36.8	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	838.25	838.26	94.5	Gosport	Bedrock (paralithic)	---	31 to 64	RIP	Carroll	Missouri
15-ML	843.16	843.25	450.1	Triplett	Abrupt textural change	Noncemented	---	RIP	Chariton	Missouri
15-ML	843.27	843.32	281.0	Triplett	Abrupt textural change	Noncemented	---	RIP	Chariton	Missouri
15-ML	844.57	844.61	223.5	Triplett	Abrupt textural change	Noncemented	---	RIP	Chariton	Missouri
15-ML	844.78	844.89	593.0	Triplett	Abrupt textural change	Noncemented	---	RIP	Chariton	Missouri
15-ML	844.98	845.09	585.3	Triplett	Abrupt textural change	Noncemented	---	RIP	Chariton	Missouri
15-ML	848.66	848.78	639.7	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	848.78	848.85	364.9	Newcomer	Bedrock (lithic)	Indurated	---	BLAST	Chariton	Missouri
15-ML	848.85	848.96	605.2	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	849.10	849.34	1300.9	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	849.39	849.73	1792.7	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	849.82	849.85	148.9	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	850.10	850.17	330.8	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	850.89	850.93	201.2	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	851.98	852.01	176.7	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	852.11	852.18	368.7	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	852.25	852.34	481.5	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	852.38	852.41	166.2	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	852.44	852.61	913.7	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	853.03	853.09	309.4	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	853.17	853.25	419.3	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	853.31	853.43	621.5	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	854.31	854.40	440.7	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri

LINE	MP		LENGTH [ft]	SOIL NAME	RESTRICTIVE LAYER				COUNTY	STATE
	FROM	TO			KIND	HARDNESS	DEPTH TO TOP - [in]	CONSTRUCTION		
15-ML	854.46	854.55	475.6	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	854.57	854.62	250.5	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	854.70	854.76	336.4	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	854.84	854.90	298.2	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	856.82	857.00	968.3	Triplett	Abrupt textural change	Noncemented	---	RIP	Chariton	Missouri
15-ML	871.38	871.40	72.9	Newcomer	Bedrock (lithic)	Indurated	40 to 80	BLAST	Chariton	Missouri
15-ML	871.40	871.43	162.5	Newcomer	Bedrock (lithic)	Indurated	---	BLAST	Chariton	Missouri
15-ML	876.12	876.17	231.6	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Randolph	Missouri
15-ML	876.23	876.30	364.7	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Randolph	Missouri
15-ML	876.37	876.44	349.1	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Randolph	Missouri
15-ML	877.01	877.11	544.0	Reger	Bedrock (paralithic)	---	16 to 40	RIP	Randolph	Missouri
15-ML	877.18	877.41	1241.2	Reger	Bedrock (paralithic)	---	16 to 40	RIP	Randoiph	Missouri
15-ML	877.55	877.59	216.8	Reger	Bedrock (paralithic)	---	16 to 40	RIP	Randolph	Missouri
15-ML	877.62	877.84	1171.5	Reger	Bedrock (paralithic)	---	16 to 40	RIP	Randolph	Missouri
15-ML	877.85	877.87	66.6	Reger	Bedrock (paralithic)	---	16 to 40	RIP	Randolph	Missouri
15-ML	879.52	879.68	826.8	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Randolph	Missouri
15-ML	880.16	880.40	1259.7	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Randolph	Missouri
15-ML	880.44	880.72	1507.0	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Randoiph	Missouri
15-ML	881.25	881.45	1028.5	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Randolph	Missouri
15-ML	882.52	882.60	421.8	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Randolph	Missouri
15-ML	882.69	882.79	542.1	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Randolph	Missouri
15-ML	883.06	883.20	749.9	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Randolph	Missouri
15-ML	886.47	887.41	4974.6	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Randolph	Missouri
15-ML	887.86	888.05	1013.1	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Randolph	Missouri
15-ML	888.12	888.47	1869.3	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Randolph	Missouri
15-ML	889.16	889.74	3098.9	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Randolph	Missouri
15-ML	890.15	890.83	3581.0	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Randolph	Missouri
15-ML	898.63	899.18	2899.5	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	901.95	902.04	494.9	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	902.18	902.27	484.2	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	902.53	902.74	1112.2	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	904.50	904.59	493.5	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	904.67	904.95	1454.0	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	906.19	906.45	1363.3	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	906.85	907.04	1002.2	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	909.12	911.25	11211.2	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	911.90	912.11	1140.3	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	917.99	918.02	156.5	Marion	Abrupt textural change	Noncemented	5 to 18	RIP	Audrain	Missouri
15-ML	918.41	918.43	120.6	Winnegan	Bedrock (lithic)	Very strongly cemented	36 to 55	BLAST	Audrain	Missouri
15-ML	919.03	919.14	561.4	Winnegan	Bedrock (lithic)	Very strongly cemented	36 to 55	BLAST	Audrain	Missouri
15-ML	919.26	919.28	102.3	Marion	Abrupt textural change	Noncemented	5 to 18	RIP	Audrain	Missouri
15-ML	919.41	919.52	591.9	Winnegan	Bedrock (lithic)	Very strongly cemented	36 to 55	BLAST	Audrain	Missouri
15-ML	920.32	921.18	4549.4	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	924.01	924.07	324.4	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	924.31	924.42	583.8	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	925.52	925.70	933.9	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	926.46	926.53	368.3	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	927.43	927.66	1214.9	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	929.80	930.23	2239.6	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	931.82	932.13	1636.9	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri
15-ML	932.67	932.82	785.3	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Audrain	Missouri

LINE	MP		LENGTH [ft]	SOIL NAME	RESTRICTIVE LAYER				COUNTY	STATE
	FROM	TO			KIND	HARDNESS	DEPTH TO TOP - [in]	CONSTRUCTION		
15-ML	932.82	933.89	5624.2	Putnam	Abrupt textural change	Noncemented	10 to 20	RIP	Montgomery	Missouri
15-ML	934.30	934.41	553.1	Putnam	Abrupt textural change	Noncemented	---	RIP	Montgomery	Missouri
15-ML	935.98	936.45	2460.7	Putnam	Abrupt textural change	Noncemented	---	RIP	Montgomery	Missouri
15-ML	936.60	936.70	507.4	Putnam	Abrupt textural change	Noncemented	---	RIP	Montgomery	Missouri
15-ML	939.58	939.74	868.3	Auxvasse	Abrupt textural change	Noncemented	12 to ~~	RIP	Montgomery	Missouri
15-ML	941.92	941.96	235.1	Auxvasse	Abrupt textural change	Noncemented	12 to ~~	RIP	Montgomery	Missouri
15-ML	942.24	942.31	339.1	Hatton	Dense material	Noncemented	27 to ~~	RIP	Montgomery	Missouri
15-ML	942.69	942.81	629.5	Hatton	Dense material	Noncemented	27 to ~~	RIP	Montgomery	Missouri
15-ML	943.04	943.15	551.8	Hatton	Dense material	Noncemented	27 to ~~	RIP	Montgomery	Missouri
15-ML	948.51	948.54	199.8	Hatton	Dense material	Noncemented	27 to ~~	RIP	Montgomery	Missouri
15-ML	948.59	948.62	149.8	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	949.25	949.30	256.7	Sampsel	Bedrock (paralithic)	Moderately cemented	63 to ~~	RIP	Montgomery	Missouri
15-ML	949.40	949.44	227.0	Sampsel	Bedrock (paralithic)	Moderately cemented	63 to ~~	RIP	Montgomery	Missouri
15-ML	950.40	950.54	767.2	Sampsel	Bedrock (paralithic)	Moderately cemented	63 to ~~	RIP	Montgomery	Missouri
15-ML	950.54	950.57	156.2	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	950.59	950.61	85.5	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	950.61	950.85	1296.4	Sampsel	Bedrock (paralithic)	Moderately cemented	63 to ~~	RIP	Montgomery	Missouri
15-ML	950.91	950.97	322.8	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	950.97	951.00	154.1	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	951.13	951.20	406.4	Auxvasse	Abrupt textural change	Noncemented	12 to ~~	RIP	Montgomery	Missouri
15-ML	951.26	951.36	546.0	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	951.36	951.39	134.5	Snead	Bedrock (paralithic)	Weakly cemented	31 to ~~	RIP	Montgomery	Missouri
15-ML	951.50	951.52	144.2	Snead	Bedrock (paralithic)	Weakly cemented	31 to ~~	RIP	Montgomery	Missouri
15-ML	951.52	951.55	114.4	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	951.60	951.98	2012.2	Snead	Bedrock (paralithic)	Weakly cemented	31 to ~~	RIP	Montgomery	Missouri
15-ML	952.02	952.03	63.8	Snead	Bedrock (paralithic)	Weakly cemented	31 to ~~	RIP	Montgomery	Missouri
15-ML	952.29	952.51	1150.5	Snead	Bedrock (paralithic)	Weakly cemented	31 to ~~	RIP	Montgomery	Missouri
15-ML	952.51	952.56	264.4	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	952.61	952.64	153.7	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	952.64	952.64	41.8	Snead	Bedrock (paralithic)	Weakly cemented	31 to ~~	RIP	Montgomery	Missouri
15-ML	952.64	952.69	245.8	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	952.69	952.79	539.7	Snead	Bedrock (paralithic)	Weakly cemented	31 to ~~	RIP	Montgomery	Missouri
15-ML	952.79	952.89	530.3	Sampsel	Bedrock (paralithic)	Moderately cemented	63 to ~~	RIP	Montgomery	Missouri
15-ML	953.20	953.23	194.1	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	953.23	953.31	399.8	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	953.38	953.42	215.3	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	953.45	953.46	71.4	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	953.50	953.52	118.3	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	953.64	953.74	528.2	Gasconade	Bedrock (lithic)	Indurated	4 to ~~	BLAST	Montgomery	Missouri
15-ML	953.77	953.82	246.9	Hatton	Dense material	Noncemented	27 to ~~	RIP	Montgomery	Missouri
15-ML	953.82	954.01	984.1	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	954.02	954.04	121.1	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	954.04	954.10	315.6	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	954.20	954.29	454.8	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	954.94	955.09	755.7	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	955.21	955.27	315.6	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	957.22	957.29	348.1	Gasconade	Bedrock (lithic)	Indurated	4 to 20	BLAST	Lincoln	Missouri
15-ML	959.95	960.09	722.6	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	960.43	960.52	466.6	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	961.63	961.69	336.8	Gasconade	Bedrock (lithic)	Indurated	4 to 20	BLAST	Lincoln	Missouri
15-ML	961.69	961.74	270.3	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri

LINE	MP		LENGTH [ft]	SOIL NAME	RESTRICTIVE LAYER				COUNTY	STATE
	FROM	TO			KIND	HARDNESS	DEPTH TO TOP - [in]	CONSTRUCTION		
15-ML	961.74	961.83	469.5	Gasconade	Bedrock (lithic)	Indurated	4 to 20	BLAST	Lincoln	Missouri
15-ML	962.23	962.26	170.9	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	962.30	962.38	389.1	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	962.71	962.77	294.1	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	963.04	963.08	205.1	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	963.23	963.25	114.2	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	963.51	963.63	593.3	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	963.83	963.99	871.0	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	964.29	964.34	266.3	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	964.46	964.50	204.3	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	964.75	964.83	443.1	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	965.07	965.15	423.0	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	965.30	965.35	264.0	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	965.41	965.45	177.6	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	965.69	965.84	781.3	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	966.20	966.25	240.2	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	966.38	966.55	902.9	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	966.58	966.65	396.4	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	966.85	966.89	198.1	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	966.91	967.00	427.0	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	967.48	967.53	231.4	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	967.70	967.74	208.0	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	968.08	968.21	728.6	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	968.39	968.69	1582.3	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	969.02	969.05	165.8	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	969.24	969.28	223.8	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	969.34	969.38	237.8	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	969.57	969.62	227.9	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	969.83	969.94	598.8	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	969.99	970.07	447.6	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	971.95	972.11	850.8	Hatton	Dense material	Noncemented	27 to 38	RIP	Lincoln	Missouri
15-ML	976.37	976.40	150.0	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	976.46	976.54	401.3	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	976.82	976.86	213.7	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	977.03	977.09	318.6	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	977.19	977.22	138.2	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	977.30	977.35	250.1	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	977.70	977.75	292.6	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	977.89	977.91	135.4	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
15-ML	978.97	979.01	174.2	Bucklick	Bedrock (lithic)	Indurated	40 to 60	BLAST	Lincoln	Missouri
16-ML	1045.47	1045.50	116.0	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Madison	Illinois
16-ML	1045.68	1045.70	105.8	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Madison	Illinois
16-ML	1045.90	1045.93	125.0	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Madison	Illinois
16-ML	1045.93	1045.96	134.1	Gosport	Bedrock (paralithic)	---	20 to 40	RIP	Madison	Illinois

TOTAL BEDROCK OCCURRENCE= 227851.4 feet OR 4.03% FROM ML TOTAL LENGTH

TOTAL BLASTING= 34312.3 feet OR 0.60% FROM ML TOTAL LENGTH

TOTAL RIPPING= 193539.1 feet OR 3.43% FROM ML TOTAL LENGTH

LINE	MP		LENGTH [ft]	SOIL NAME	RESTRICTIVE LAYER				COUNTY	STATE
	FROM	TO			KIND	HARDNESS	DEPTH TO TOP - [in]	CONSTRUCTION		
14-CE	0.50	0.65	825.4	Hedville	Bedrock (lithic)	Moderately cemented	4 to 20	BLAST	Jefferson	Nebraska
14-CE	14.90	15.00	535.6	Sogn	Bedrock (lithic)	Indurated	4 to 20	BLAST	Washington	Kansas
14-CE	15.00	15.20	1085.4	Lancaster	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Washington	Kansas
14-CE	15.57	15.69	659.6	Lancaster	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Washington	Kansas
14-CE	15.82	15.87	278.8	Sogn	Bedrock (lithic)	Indurated	4 to 20	BLAST	Washington	Kansas
14-CE	15.87	15.99	656.2	Lancaster	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Washington	Kansas
14-CE	26.00	26.03	157.6	Lancaster	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Washington	Kansas
14-CE	39.77	39.85	432.0	Hedville	Bedrock (lithic)	Strongly cemented	4 to 20	BLAST	Clay	Kansas
14-CE	40.25	40.38	701.7	Hedville	Bedrock (lithic)	Strongly cemented	4 to 20	BLAST	Clay	Kansas
14-CE	41.04	41.26	1124.3	Hedville	Bedrock (lithic)	Strongly cemented	4 to 20	BLAST	Clay	Kansas
14-CE	41.38	41.72	1791.6	Hedville	Bedrock (lithic)	Strongly cemented	4 to 20	BLAST	Clay	Kansas
14-CE	41.99	42.33	1790.9	Hedville	Bedrock (lithic)	Strongly cemented	4 to 20	BLAST	Clay	Kansas
14-CE	44.12	44.20	426.3	Benfield	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Clay	Kansas
14-CE	44.21	44.28	375.5	Benfield	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Clay	Kansas
14-CE	45.20	45.24	203.2	Benfield	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Clay	Kansas
14-CE	45.36	45.45	460.2	Benfield	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Clay	Kansas
14-CE	45.53	45.67	719.9	Benfield	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Clay	Kansas
14-CE	53.38	53.59	1077.5	Kipson	Bedrock (paralithic)	---	7 to 20	RIP	Clay	Kansas
14-CE	54.39	54.46	365.9	Kipson	Bedrock (paralithic)	---	7 to 20	RIP	Clay	Kansas
14-CE	55.93	56.10	891.8	Kipson	Bedrock (paralithic)	---	7 to 20	RIP	Clay	Kansas
14-CE	56.27	56.39	613.1	Kipson	Bedrock (paralithic)	---	7 to 20	RIP	Clay	Kansas
14-CE	56.46	56.55	485.0	Kipson	Bedrock (paralithic)	---	7 to 20	RIP	Clay	Kansas
14-CE	56.64	56.71	381.2	Kipson	Bedrock (paralithic)	---	7 to 20	RIP	Clay	Kansas
14-CE	56.76	56.98	1127.6	Kipson	Bedrock (paralithic)	---	7 to 20	RIP	Clay	Kansas
14-CE	57.38	57.57	1031.8	Benfield	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Clay	Kansas
14-CE	58.39	58.49	525.5	Kipson	Bedrock (paralithic)	---	7 to 20	RIP	Clay	Kansas
14-CE	60.19	60.31	596.8	Kipson	Bedrock (paralithic)	---	7 to 20	RIP	Clay	Kansas
14-CE	60.68	60.71	179.2	Kipson	Bedrock (paralithic)	---	7 to 20	RIP	Clay	Kansas
14-CE	60.90	60.98	433.4	Kipson	Bedrock (paralithic)	---	7 to 20	RIP	Clay	Kansas
14-CE	67.71	67.80	444.5	Clime	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Dickinson	Kansas
14-CE	68.11	68.21	556.5	Clime	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Dickinson	Kansas
14-CE	80.38	80.49	550.7	Clime	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Dickinson	Kansas
14-CE	81.93	82.12	977.8	Clime	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Dickinson	Kansas
14-CE	91.34	91.43	478.2	Clime	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Dickinson	Kansas
14-CE	92.45	92.61	830.6	Clime	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Dickinson	Kansas
14-CE	96.33	96.40	371.9	Clime	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Dickinson	Kansas
14-CE	96.50	96.59	462.5	Clime	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Dickinson	Kansas
14-CE	96.73	96.76	131.0	Clime	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Dickinson	Kansas
14-CE	97.23	97.25	136.2	Clime	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Dickinson	Kansas
14-CE	98.07	98.13	328.3	Clime	Bedrock (paralithic)	Moderately cemented	20 to 40	RIP	Dickinson	Kansas
14-CE	101.88	102.12	1294.1	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	104.93	104.93	22.7	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	105.47	106.18	3747.4	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	106.40	107.22	4304.0	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	107.22	107.82	3184.4	Rosehill	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	107.82	108.09	1417.7	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	108.53	108.57	166.6	Rosehill	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	108.71	110.07	7156.6	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	111.68	111.77	480.2	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	112.23	112.29	293.9	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	112.48	112.65	919.7	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	115.97	116.06	491.0	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	116.16	116.25	436.6	Labette	Bedrock (lithic)	Indurated	20 to 40	BLAST	Marion	Kansas

LINE	MP		LENGTH [ft]	SOIL NAME	RESTRICTIVE LAYER				COUNTY	STATE
	FROM	TO			KIND	HARDNESS	DEPTH TO TOP - [in]	CONSTRUCTION		
14-CE	116.25	116.54	1556.1	Labette	Bedrock (lithic)	Indurated	20 to 40	BLAST	Marion	Kansas
14-CE	116.54	116.61	340.2	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	119.25	119.60	1857.1	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	119.90	120.00	524.5	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	120.00	120.19	1000.8	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	120.19	120.26	347.5	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	120.26	120.49	1224.4	Clime	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Marion	Kansas
14-CE	261.15	261.20	240.2	Grainola	Bedrock (paralithic)	Very weakly cemented	20 to 40	RIP	Noble	Oklahoma
14-CE	261.20	261.26	303.0	Grainola	Bedrock (paralithic)	Very weakly cemented	20 to 40	RIP	Noble	Oklahoma
14-CE	261.26	261.28	112.2	Grainola	Bedrock (paralithic)	Very weakly cemented	20 to 40	RIP	Noble	Oklahoma
14-CE	261.28	261.30	135.3	Grainola	Bedrock (paralithic)	Very weakly cemented	20 to 40	RIP	Noble	Oklahoma
14-CE	261.30	261.36	278.0	Grainola	Bedrock (paralithic)	Very weakly cemented	20 to 40	RIP	Noble	Oklahoma
14-CE	264.62	264.63	94.4	Renfrow	Bedrock (paralithic)	Very weakly cemented	61 to 80	RIP	Noble	Oklahoma
14-CE	280.49	280.58	498.3	Zaneis	Bedrock (paralithic)	Weakly cemented	40 to 60	RIP	Payne	Oklahoma
14-CE	280.58	280.63	237.9	Coyle	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Payne	Oklahoma
14-CE	280.72	280.78	324.3	Coyle	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Payne	Oklahoma
14-CE	281.04	281.20	844.0	Stephenville	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Payne	Oklahoma
14-CE	287.73	287.78	260.6	Darnell	Bedrock (paralithic)	Weakly cemented	10 to 20	RIP	Payne	Oklahoma
14-CE	287.78	287.82	208.5	Grainola	Bedrock (paralithic)	Weakly cemented	20 to 40	RIP	Payne	Oklahoma

TOTAL BEDROCK OCCURRENCE= 59503.3 feet OR 3.85% FROM CE TOTAL LENGTH
TOTAL BLASTING= 9473.0 feet OR 0.61% FROM ML TOTAL LENGTH
TOTAL RIPPING= 50030.2 feet OR 3.24% FROM ML TOTAL LENGTH

(1) This table gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

(2) A "restrictive layer" is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness of the restrictive layer, both of which significantly affect the ease of excavation.

(3) "Depth to top" is the vertical distance from the soil surface to the upper boundary of the restrictive layer measured in inches.

(4) Data Source: Natural Resources Conservation Service (NRCS) http://soils.usda.gov/survey/geography/

(5) NOTE: Absence of an entry (- - -) indicates that the feature is not a concern or that data were not estimated.

Appendix F

Soil Associations along the Keystone Pipeline Project Route

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
MAINLINE												
ND	0	1.3	1.3	**ND012**	GLYNDON-GILBY-GARDENA (ND012)	0	17	0	15	0	8	0
ND	1.3	4.1	2.8	**ND004**	HEGNE-FARGO-BEARDEN (ND004)	0	22	0	5	100	83	0
ND	4.1	6.3	2.2	**ND021**	HECLA-HAMAR-ULEN (ND021)	0	1	0	49	9	32	0
ND	6.3	7.4	1.2	**ND027**	BRANTFORD-VANG-WALSH (ND027)	2	2	98	33	0	2	0
ND	7.4	8.2	0.7	**ND066**	LA PRAIRIE-FAIRDALE-GARDENA (ND066)	1	0	12	19	0	5	0
ND	8.2	14	5.8	**ND027**	BRANTFORD-VANG-WALSH (ND027)	2	2	98	33	0	2	0
ND	14	32.5	18.5	**ND061**	KELVIN-WAUKON-OLGA (ND061)	30	0	59	8	67	0	7
ND	32.5	34.7	2.2	**ND045**	BARNES-SVEA-TONKA (ND045)	2	8	56	11	81	11	0
ND	34.7	35.4	0.7	**ND038**	EDGELEY-KLOTEN-SVEA (ND038)	27	5	67	3	56	5	60
ND	35.4	37.6	2.1	**ND045**	BARNES-SVEA-TONKA (ND045)	2	8	56	11	81	11	0
ND	37.6	38	0.5	**ND038**	EDGELEY-KLOTEN-SVEA (ND038)	27	4	66	3	56	5	60
ND	38	41.3	3.2	**ND045**	BARNES-SVEA-TONKA (ND045)	2	8	56	11	81	11	0
ND	41.3	43	1.8	**ND038**	EDGELEY-KLOTEN-SVEA (ND038)	27	5	67	3	56	5	60
ND	43	44.3	1.3	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	44.3	46	1.7	**ND051**	SVEA-CRESBARD-HAMERLY (ND051)	0	5	8	6	58	8	0
ND	46	53.7	7.7	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	53.7	55.4	1.7	**ND025**	BRANTFORD-RENSHAW-LANKIN (ND025)	8	8	31	34	35	17	0
ND	55.4	57.1	1.6	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	57.1	57.6	0.5	**ND040**	HAMERLY-TONKA-SVEA (ND040)	0	23	19	30	73	30	0
ND	57.6	58	0.4	**ND043**	SVEA-BUSE-HAMERLY (ND043)	10	10	29	21	55	21	0
ND	58	58.7	0.7	**ND040**	HAMERLY-TONKA-SVEA (ND040)	0	23	18	30	73	30	0
ND	58.7	59.9	1.2	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	59.9	61.6	1.8	**ND053**	CRESBARD-BARNES-CAVOUR (ND053)	1	7	33	7	46	7	0
ND	61.6	61.7	0	**ND043**	SVEA-BUSE-HAMERLY (ND043)	0	0	0	21	55	21	0
ND	61.7	66	4.4	**ND053**	CRESBARD-BARNES-CAVOUR (ND053)	1	7	33	7	46	7	0
ND	66	66.6	0.5	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	66.6	69.2	2.6	**ND037**	BARNES-BUSE-PARNELL (ND037)	51	11	70	16	21	11	2
ND	69.2	73.6	4.5	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	73.6	74.7	1.1	**ND040**	HAMERLY-TONKA-SVEA (ND040)	0	23	19	30	73	30	0
ND	74.7	78.7	4	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	78.7	79.5	0.8	**ND051**	SVEA-CRESBARD-HAMERLY (ND051)	0	5	7	6	58	8	0
ND	79.5	83.8	4.3	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	83.8	84.9	1.1	**ND053**	CRESBARD-BARNES-CAVOUR (ND053)	1	7	33	7	46	7	0
ND	84.9	87.1	2.2	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	87.1	87.8	0.7	**ND051**	SVEA-CRESBARD-HAMERLY (ND051)	0	5	8	6	58	8	0
ND	87.8	90.4	2.6	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	90.4	90.9	0.5	**ND040**	HAMERLY-TONKA-SVEA (ND040)	0	22	18	30	73	30	0
ND	90.9	104	13.1	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	104	104.7	0.7	**ND025**	BRANTFORD-RENSHAW-LANKIN (ND025)	7	7	31	34	35	17	0
ND	104.7	107.4	2.7	**ND051**	SVEA-CRESBARD-HAMERLY (ND051)	0	5	8	6	58	8	0
ND	107.4	109.3	2	**ND057**	HEIMDAL-EMRICK-ESMOND (ND057)	20	5	37	13	54	10	0
ND	109.3	109.4	0	**ND051**	SVEA-CRESBARD-HAMERLY (ND051)	0	0	0	6	58	8	0
ND	109.4	110.5	1.2	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	110.5	128.6	18	**ND047**	BARNES-BUSE-SVEA (ND047)	28	5	78	5	30	5	0
ND	128.6	129.6	1	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	129.6	130	0.5	**ND047**	BARNES-BUSE-SVEA (ND047)	29	4	77	5	30	5	0
ND	130	132	2	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	132	134.2	2.2	**ND047**	BARNES-BUSE-SVEA (ND047)	28	5	78	5	30	5	0
ND	134.2	134.8	0.7	**ND026**	RENSHAW-ARVILLA-DIVIDE (ND026)	2	5	30	16	31	16	0
ND	134.8	135.5	0.7	**ND011**	GARDENA-GLYNDON-BARNES (ND011)	4	22	19	33	0	13	2
ND	135.5	136.8	1.3	**ND026**	RENSHAW-ARVILLA-DIVIDE (ND026)	2	5	31	16	31	16	0
ND	136.8	137.4	0.6	**ND011**	GARDENA-GLYNDON-BARNES (ND011)	3	21	20	33	0	13	2

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
ND	137.4	140.4	2.9	**ND026**	RENSHAW-ARVILLA-DIVIDE (ND026)	2	5	31	16	31	16	0
ND	140.4	141.9	1.5	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	141.9	142.3	0.4	**ND054**	VALLERS-PARNELL-GLYNDON (ND054)	0	25	8	47	28	53	0
ND	142.3	144.6	2.3	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	144.6	144.7	0.2	**ND011**	GARDENA-GLYNDON-BARNES (ND011)	6	19	19	33	0	13	2
ND	144.7	145.4	0.7	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	145.4	148.9	3.5	**ND011**	GARDENA-GLYNDON-BARNES (ND011)	4	22	19	33	0	13	2
ND	148.9	149.4	0.5	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	149.4	150	0.5	**ND011**	GARDENA-GLYNDON-BARNES (ND011)	4	22	18	33	0	13	2
ND	150	162.5	12.5	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	162.5	164	1.5	**ND047**	BARNES-BUSE-SVEA (ND047)	28	5	78	5	30	5	0
ND	164	165.2	1.2	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	165.2	166.3	1.2	**ND039**	LA PRAIRIE-BARNES-RENSHAW (ND039)	20	2	51	6	62	2	0
ND	166.3	167.4	1	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	167.4	169.1	1.7	**ND039**	LA PRAIRIE-BARNES-RENSHAW (ND039)	20	2	51	6	62	2	0
ND	169.1	179.9	10.9	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	179.9	180.2	0.3	**ND026**	RENSHAW-ARVILLA-DIVIDE (ND026)	3	6	32	16	31	16	0
ND	180.2	183.8	3.6	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	183.8	184.1	0.3	**ND026**	RENSHAW-ARVILLA-DIVIDE (ND026)	4	4	32	16	31	16	0
ND	184.1	186.6	2.6	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	186.6	188.6	2	**ND040**	HAMERLY-TONKA-SVEA (ND040)	0	23	19	30	73	30	0
ND	188.6	192.7	4.1	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	192.7	199.5	6.8	**ND026**	RENSHAW-ARVILLA-DIVIDE (ND026)	2	5	31	16	31	16	0
ND	199.5	204.3	4.8	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	204.3	216.9	12.6	**ND021**	HECLA-HAMAR-ULEN (ND021)	0	1	0	49	9	32	0
SD	216.8	217.5	0.7	**SD142**	HECLA-HAMAR-ULEN (SD142)	0	1	0	49	9	32	0
SD	217.5	222.6	5	**SD141**	SERDEN-HAMAR-MADDOCK (SD141)	38	0	0	40	0	35	0
SD	222.6	225.9	3.3	**SD142**	HECLA-HAMAR-ULEN (SD142)	0	1	0	49	9	32	0
SD	225.9	228.9	3	**SD145**	BEARDEN-GREAT BEND-OVERLY (SD145)	0	24	32	23	88	9	0
SD	228.9	231.4	2.4	**SD144**	GARDENA-ECKMAN-GLYNDON (SD144)	0	6	2	58	77	20	0
SD	231.4	243.4	12.1	**SD145**	BEARDEN-GREAT BEND-OVERLY (SD145)	0	24	32	23	88	9	0
SD	243.4	247	3.6	**SD146**	ABERDEEN-HARMONY-BEOTIA (SD146)	0	13	21	31	79	5	0
SD	247	258.4	11.4	**SD126**	BARNES-KRANZBURG-BROOKINGS (SD126)	0	9	67	33	83	9	0
SD	258.4	259.2	0.8	**SD134**	FORMAN-BUSE-SOUTHAM (SD134)	1	20	63	30	62	24	0
SD	259.2	261.7	2.4	**SD128**	FORDVILLE-RENSHAW-SOUTHAM (SD128)	23	16	70	15	31	17	0
SD	261.7	261.9	0.2	**SD148**	FORMAN-CAVOUR-PEEVER (SD148)	0	10	54	22	42	8	0
SD	261.9	270.5	8.7	**SD128**	FORDVILLE-RENSHAW-SOUTHAM (SD128)	23	16	70	15	31	17	0
SD	270.5	289.3	18.8	**SD148**	FORMAN-CAVOUR-PEEVER (SD148)	0	11	53	22	42	8	0
SD	289.3	289.7	0.4	**SD135**	FORMAN-AASTAD-BUSE (SD135)	34	17	12	39	58	18	0
SD	289.7	290.5	0.8	**SD148**	FORMAN-CAVOUR-PEEVER (SD148)	0	11	53	22	42	8	0
SD	290.5	299.6	9.1	**SD136**	PEEVER-FORMAN-TONKA (SD136)	12	16	19	20	63	19	0
SD	299.6	316.2	16.6	**SD153**	BEADLE-DUDLEY-BON (SD153)	2	9	71	10	2	9	0
SD	316.2	329.5	13.3	**SD154**	BEADLE-DUDLEY-BON (SD154)	2	1	48	19	2	1	0
SD	329.5	337	7.5	**SD118**	HOUDEK-DUDLEY-STICKNEY (SD118)	0	12	48	18	8	11	0
SD	337	337.7	0.7	**SD083**	BON-ETHAN-DAVIS (SD083)	23	12	60	53	48	2	0
SD	337.7	339.6	1.9	**SD089**	CLARNO-CROSSPLAIN-HOUDEK (SD089)	0	23	22	13	73	24	0
SD	339.6	342.3	2.7	**SD118**	HOUDEK-DUDLEY-STICKNEY (SD118)	0	12	48	18	8	11	0
SD	342.3	342.9	0.5	**SD089**	CLARNO-CROSSPLAIN-HOUDEK (SD089)	0	23	21	13	73	24	0
SD	342.9	344.3	1.4	**SD083**	BON-ETHAN-DAVIS (SD083)	24	12	60	53	48	2	0
SD	344.3	349.9	5.6	**SD118**	HOUDEK-DUDLEY-STICKNEY (SD118)	0	12	48	18	8	11	0
SD	349.9	350.1	0.2	**SD241**	CLARNO-PROSPER-TETONKA (SD241)	0	8	59	15	27	11	0
SD	350.1	350.6	0.5	**SD118**	HOUDEK-DUDLEY-STICKNEY (SD118)	0	11	48	18	8	11	0
SD	350.6	355.1	4.6	**SD241**	CLARNO-PROSPER-TETONKA (SD241)	0	9	60	15	27	11	0

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
SD	355.1	360.7	5.6	SD118	HOUDEK-DUDLEY-STICKNEY (SD118)	0	12	48	18	8	11	0
SD	360.7	361.3	0.6	SD090	CLARNO-PROSPER-STICKNEY (SD090)	0	10	40	26	65	13	0
SD	361.3	362.8	1.5	SD083	BON-ETHAN-DAVIS (SD083)	24	12	60	53	48	2	0
SD	362.8	366.6	3.8	SD088	CLARNO-ETHAN-BONILLA (SD088)	4	10	69	19	66	12	0
SD	366.6	369.6	3	SD090	CLARNO-PROSPER-STICKNEY (SD090)	0	10	39	26	65	13	0
SD	369.6	370.4	0.8	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	370.4	371.2	0.9	SD090	CLARNO-PROSPER-STICKNEY (SD090)	0	11	39	26	65	13	0
SD	371.2	375.3	4.1	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	375.3	375.9	0.6	SD097	HAND-CLARNO-ETHAN (SD097)	0	18	71	11	63	21	0
SD	375.9	376.6	0.7	SD083	BON-ETHAN-DAVIS (SD083)	23	12	60	53	48	2	0
SD	376.6	376.9	0.3	SD097	HAND-CLARNO-ETHAN (SD097)	0	16	71	11	63	21	0
SD	376.9	378.7	1.9	SD083	BON-ETHAN-DAVIS (SD083)	24	12	60	53	48	2	0
SD	378.7	381.3	2.6	SD089	CLARNO-CROSSPLAIN-HOUDEK (SD089)	0	23	22	13	73	24	0
SD	381.3	382.1	0.8	SD095	CLAMO-ETHAN-LAMO (SD095)	26	42	42	24	16	6	0
SD	382.1	383.8	1.7	SD089	CLARNO-CROSSPLAIN-HOUDEK (SD089)	0	23	22	13	73	24	0
SD	383.8	384.5	0.7	SD095	CLAMO-ETHAN-LAMO (SD095)	27	42	42	24	16	6	0
SD	384.5	390.2	5.7	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	390.2	391.1	0.9	SD095	CLAMO-ETHAN-LAMO (SD095)	26	42	41	24	16	6	0
SD	391.1	394.2	3.1	SD090	CLARNO-PROSPER-STICKNEY (SD090)	0	10	39	26	65	13	0
SD	394.2	398.3	4.1	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	398.3	398.7	0.4	SD095	CLAMO-ETHAN-LAMO (SD095)	27	42	40	24	16	6	0
SD	398.7	406.5	7.8	SD090	CLARNO-PROSPER-STICKNEY (SD090)	0	10	39	26	65	13	0
SD	406.5	411.7	5.2	SD088	CLARNO-ETHAN-BONILLA (SD088)	4	10	69	19	66	12	0
SD	411.7	418.5	6.7	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	418.5	422.3	3.9	SD095	CLAMO-ETHAN-LAMO (SD095)	26	42	41	24	16	6	0
SD	422.3	423.2	0.9	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	423.2	424	0.8	SD095	CLAMO-ETHAN-LAMO (SD095)	25	42	41	24	16	6	0
SD	424	426	2	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	426	428.8	2.8	SD086	ETHAN-CLARNO-BETTS (SD086)	42	5	62	9	32	7	0
SD	428.8	430.7	1.9	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	430.7	431.5	0.8	SD095	CLAMO-ETHAN-LAMO (SD095)	26	42	41	24	16	6	0
SD	431.5	432.3	0.8	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	12	62	24	79	16	0
SD	432.3	435.8	3.5	SD096	EGAN-WENTWORTH-ETHAN (SD096)	3	6	39	11	63	13	0
NE	435.8	438	2.2	NE112	SARPY-ONAWA-HAYNIE (NE112)	0	9	0	16	55	12	3
NE	438	438.4	0.3	NE003	AOWA-ALCESTER-KENNEBEC (NE003)	3	0	79	21	93	0	0
NE	438.4	440.8	2.5	NE029	CROFTON-ALCESTER-NORA (NE029)	83	0	82	0	10	0	0
NE	440.8	440.9	0.1	NE092	MOODY-THURMAN-CROFTON (NE092)	35	0	24	8	35	0	0
NE	440.9	442.6	1.7	NE029	CROFTON-ALCESTER-NORA (NE029)	83	0	82	0	10	0	0
NE	442.6	446.3	3.7	NE092	MOODY-THURMAN-CROFTON (NE092)	37	0	28	8	35	0	0
NE	446.3	447.6	1.3	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	447.6	448.6	1	NE003	AOWA-ALCESTER-KENNEBEC (NE003)	2	0	79	21	93	0	0
NE	448.6	449.4	0.8	NE092	MOODY-THURMAN-CROFTON (NE092)	36	0	28	8	35	0	0
NE	449.4	450.6	1.2	NE117	SIMEON-MEADIN-BETTS (NE117)	94	0	74	5	6	0	11
NE	450.6	451.2	0.7	NE092	MOODY-THURMAN-CROFTON (NE092)	36	0	29	8	35	0	0
NE	451.2	451.7	0.5	NE003	AOWA-ALCESTER-KENNEBEC (NE003)	2	0	78	21	93	0	0
NE	451.7	453.4	1.7	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	453.4	453.8	0.3	NE003	AOWA-ALCESTER-KENNEBEC (NE003)	3	0	79	21	93	0	0
NE	453.8	453.8	0	NE092	MOODY-THURMAN-CROFTON (NE092)	53	0	53	8	35	0	0
NE	453.8	456.3	2.5	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	456.3	457.9	1.6	NE003	AOWA-ALCESTER-KENNEBEC (NE003)	2	0	79	21	93	0	0
NE	457.9	460.6	2.7	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	460.6	461	0.4	NE003	AOWA-ALCESTER-KENNEBEC (NE003)	3	0	79	21	93	0	0
NE	461	466.7	5.7	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project												
State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
NE	466.7	467.3	0.6	NE072	KENNEBEC-WABASH-ZOOK (NE072)	3	39	2	88	69	43	0
NE	467.3	470	2.7	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	470	470.7	0.7	NE072	KENNEBEC-WABASH-ZOOK (NE072)	3	39	1	88	69	43	0
NE	470.7	473.9	3.2	NE096	NORA-MOODY-JUDSON (NE096)	16	4	4	16	40	4	0
NE	473.9	474.3	0.3	NE072	KENNEBEC-WABASH-ZOOK (NE072)	3	39	3	88	69	43	0
NE	474.3	475.7	1.5	NE096	NORA-MOODY-JUDSON (NE096)	16	4	4	16	40	4	0
NE	475.7	477.5	1.8	NE072	KENNEBEC-WABASH-ZOOK (NE072)	3	39	2	88	69	43	0
NE	477.5	477.6	0.1	NE096	NORA-MOODY-JUDSON (NE096)	15	7	7	16	40	4	0
NE	477.6	478.3	0.6	NE072	KENNEBEC-WABASH-ZOOK (NE072)	3	39	2	88	69	43	0
NE	478.3	490.3	12	NE096	NORA-MOODY-JUDSON (NE096)	16	4	4	16	40	4	0
NE	490.3	492.4	2.1	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	492.4	494.1	1.7	NE122	THURMAN-BOELUS-VALENTINE (NE122)	36	0	16	4	18	0	0
NE	494.1	499.5	5.5	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	499.5	502.3	2.7	NE049	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	502.3	503.1	0.9	NE018	INAVALE-CASS-BARNEY (NE018)	12	0	3	40	42	10	0
NE	503.1	503.8	0.7	NE049	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	503.8	505.1	1.3	NE141	VALENTINE-THURMAN-DOGER (NE141)	95	0	0	5	0	0	0
NE	505.1	506.6	1.5	NE122	THURMAN-BOELUS-VALENTINE (NE122)	36	0	16	4	18	0	0
NE	506.6	516.3	9.7	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	516.3	516.8	0.5	NE006	BELFORE-MOODY-FILLMORE (NE006)	6	6	0	72	95	5	0
NE	516.8	520.4	3.6	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	520.4	521	0.6	NE006	BELFORE-MOODY-FILLMORE (NE006)	5	5	0	72	95	5	0
NE	521	521.1	0.1	NE094	NORA-CROFTON-MOODY (NE094)	44	0	55	0	35	0	0
NE	521.1	522.4	1.2	NE006	BELFORE-MOODY-FILLMORE (NE006)	5	5	0	72	95	5	0
NE	522.4	522.7	0.3	NE094	NORA-CROFTON-MOODY (NE094)	41	0	54	0	35	0	0
NE	522.7	523	0.3	NE006	BELFORE-MOODY-FILLMORE (NE006)	6	6	0	72	95	5	0
NE	523	523.4	0.4	NE094	NORA-CROFTON-MOODY (NE094)	39	0	52	0	35	0	0
NE	523.4	523.9	0.6	NE006	BELFORE-MOODY-FILLMORE (NE006)	5	5	0	72	95	5	0
NE	523.9	525.8	1.8	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	525.8	529.3	3.6	NE006	BELFORE-MOODY-FILLMORE (NE006)	5	5	0	72	95	5	0
NE	529.3	531.3	2	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	531.3	533	1.6	NE049	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	533	537	4.1	NE091	MOODY-FILLMORE-NORA (NE091)	10	10	0	12	82	10	0
NE	537	537.7	0.7	NE060	HORD-HALL-WOOD RIVER (NE060)	0	0	95	59	93	0	0
NE	537.7	538.9	1.1	NE038	GIBBON-LUTON-SALTINE (NE038)	6	42	3	91	63	27	0
NE	538.9	539.9	1	NE100	O'NEILL-BROCKSBURG-HORD (NE100)	4	0	65	39	58	0	0
NE	539.9	541.2	1.3	NE107	ALDA-PLATTE-LESHARA (NE107)	27	15	0	29	63	0	0
NE	541.2	542	0.8	NE018	INAVALE-CASS-BARNEY (NE018)	12	0	4	40	42	10	0
NE	542	542.2	0.1	NEW	WATER (NEW)	0	0	0	0	0	0	100
NE	542.2	542.7	0.5	NE018	INAVALE-CASS-BARNEY (NE018)	13	0	4	40	42	10	0
NE	542.7	543.1	0.4	NE107	ALDA-PLATTE-LESHARA (NE107)	27	16	0	29	63	0	0
NE	543.1	545.6	2.5	NE038	GIBBON-LUTON-SALTINE (NE038)	6	42	3	91	63	27	0
NE	545.6	547.1	1.5	NE058	HORD-HALL-HOBBS (NE058)	1	1	99	77	99	1	0
NE	547.1	548.5	1.5	NE023	COLY-ULY-HOBBS (NE023)	80	0	100	7	11	0	0
NE	548.5	548.7	0.2	NE051	HOLDER-FILLMORE-BUTLER (NE051)	5	5	88	7	93	5	0
NE	548.7	549.4	0.7	NE023	COLY-ULY-HOBBS (NE023)	79	0	101	7	11	0	0
NE	549.4	554.5	5.1	NE044	HASTINGS-FILLMORE-CRETE (NE044)	10	14	79	13	89	11	0
NE	554.5	555.3	0.7	NE049	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	555.3	557.5	2.3	NE044	HASTINGS-FILLMORE-CRETE (NE044)	10	14	79	13	89	11	0
NE	557.5	559.5	2	NE049	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	559.5	571.8	12.2	NE044	HASTINGS-FILLMORE-CRETE (NE044)	10	14	79	13	89	11	0
NE	571.8	572.4	0.6	NE045	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	572.4	574.4	2	NE049	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
NE	574.4	575.2	0.8	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	575.2	577.1	1.9	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	577.1	578.1	1	**NE042**	HASTINGS-CRETE-HOLDER (NE042)	12	5	87	5	88	3	0
NE	578.1	578.8	0.7	**NE044**	HASTINGS-FILLMORE-CRETE (NE044)	10	14	79	13	89	11	0
NE	578.8	579.3	0.5	**NE042**	HASTINGS-CRETE-HOLDER (NE042)	12	6	87	5	88	3	0
NE	579.3	580	0.6	**NE044**	HASTINGS-FILLMORE-CRETE (NE044)	10	14	78	13	89	11	0
NE	580	580.4	0.4	**NE042**	HASTINGS-CRETE-HOLDER (NE042)	12	5	87	5	88	3	0
NE	580.4	581.2	0.8	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	581.2	581.5	0.4	**NE042**	HASTINGS-CRETE-HOLDER (NE042)	13	5	87	5	88	3	0
NE	581.5	585.5	4	**NE044**	HASTINGS-FILLMORE-CRETE (NE044)	10	14	79	13	89	11	0
NE	585.5	586.5	0.9	**NE042**	HASTINGS-CRETE-HOLDER (NE042)	12	5	87	5	88	3	0
NE	586.5	588.5	2	**NE044**	HASTINGS-FILLMORE-CRETE (NE044)	10	14	79	13	89	11	0
NE	588.5	590	1.5	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	590	591.9	1.9	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	591.9	592.3	0.4	**NE045**	HASTINGS-GEARY-CRETE (NE045)	31	3	54	0	65	2	0
NE	592.3	593.2	0.9	**NE043**	HASTINGS-CRETE-FILLMORE (NE043)	10	21	39	19	69	12	0
NE	593.2	594.7	1.6	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	5	7	10	5	93	4	0
NE	594.7	595.1	0.4	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	3	52	0	65	2	0
NE	595.1	595.6	0.6	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	5	7	11	5	93	4	0
NE	595.6	596.9	1.3	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	596.9	597.6	0.6	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	597.6	598.2	0.7	**NE045**	HASTINGS-GEARY-CRETE (NE045)	29	1	53	0	65	2	0
NE	598.2	598.9	0.7	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	99	44	92	0	0
NE	598.9	599.4	0.5	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	52	0	65	2	0
NE	599.4	600.6	1.2	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	5	7	10	5	93	4	0
NE	600.6	603.2	2.6	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	603.2	604.2	0.9	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	5	8	10	5	93	4	0
NE	604.2	605.2	1	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	605.2	605.5	0.3	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	97	44	92	0	0
NE	605.5	605.6	0.1	**NE045**	HASTINGS-GEARY-CRETE (NE045)	33	0	50	0	65	2	0
NE	605.6	606	0.4	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	4	7	9	5	93	4	0
NE	606	607.3	1.3	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	607.3	607.4	0.1	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	0	13	13	5	93	4	0
NE	607.4	607.8	0.5	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	54	0	65	2	0
NE	607.8	608.5	0.7	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	6	7	10	5	93	4	0
NE	608.5	609.5	0.9	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	609.5	610.3	0.8	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	5	7	10	5	93	4	0
NE	610.3	612.1	1.8	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	612.1	613.6	1.5	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	613.6	614.9	1.3	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	614.9	621.4	6.5	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	5	7	10	5	93	4	0
NE	621.4	622.4	1	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	622.4	624.9	2.5	**NE093**	MORRILL-BURCHARD-HASTINGS (NE093)	46	2	11	63	23	2	0
NE	624.9	628.4	3.5	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	5	7	10	5	93	4	0
NE	628.4	635.2	6.8	**NE028**	CRETE-MAYBERRY-WYMORE (NE028)	6	0	9	12	76	0	0
NE	635.2	636	0.8	**NE077**	LANCASTER-HEDVILLE-EDALGO (NE077)	29	0	84	22	33	0	69
NE	636	636.6	0.6	**NE028**	CRETE-MAYBERRY-WYMORE (NE028)	5	0	9	12	76	0	0
NE	636.6	638.1	1.5	**NE037**	GEARY-JANSEN-MEADIN (NE037)	48	0	84	19	56	0	0
NE	638.1	638.6	0.6	**NE028**	CRETE-MAYBERRY-WYMORE (NE028)	5	0	9	12	76	0	0
NE	638.6	640.5	1.9	**NE077**	LANCASTER-HEDVILLE-EDALGO (NE077)	28	0	84	22	33	0	69
NE	640.5	649.6	9.2	**NE028**	CRETE-MAYBERRY-WYMORE (NE028)	6	0	9	12	76	0	0
KS	649.6	658.5	8.8	**KS328**	CRETE-MAYBERRY-WYMORE (KS328)	6	0	9	12	76	0	0
KS	658.5	659.4	0.9	**KS371**	EUDORA-MUIR-NODAWAY (KS371)	0	0	69	69	100	0	0

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
KS	659.4	663.2	3.8	**KS344**	PAWNEE-WYMORE-KENNEBEC (KS344)	28	0	4	0	59	0	2
KS	663.2	670.1	6.9	**KS310**	WYMORE-MAYBERRY-PAWNEE (KS310)	30	0	0	11	58	0	0
KS	670.1	674.6	4.5	**KS344**	PAWNEE-WYMORE-KENNEBEC (KS344)	28	0	4	0	59	0	2
KS	674.6	679.5	4.9	**KS311**	PAWNEE-BURCHARD-WYMORE (KS311)	62	0	2	0	28	0	0
KS	679.5	679.8	0.3	**KS344**	PAWNEE-WYMORE-KENNEBEC (KS344)	26	0	4	0	59	0	2
KS	679.8	683.8	4	**KS311**	PAWNEE-BURCHARD-WYMORE (KS311)	62	0	2	0	28	0	0
KS	683.8	689.2	5.4	**KS344**	PAWNEE-WYMORE-KENNEBEC (KS344)	28	0	4	0	59	0	2
KS	689.2	690.1	0.9	**KS376**	KENNEBEC-WABASH-ZOOK (KS376)	3	39	2	88	69	43	0
KS	690.1	692	1.9	**KS311**	PAWNEE-BURCHARD-WYMORE (KS311)	62	0	2	0	28	0	0
KS	692	697.2	5.2	**KS311**	PAWNEE-BURCHARD-WYMORE (KS311)	62	0	2	0	28	0	0
KS	697.2	705.1	7.9	**KS344**	PAWNEE-WYMORE-KENNEBEC (KS344)	28	0	4	0	59	0	2
KS	705.1	705.3	0.2	**KS311**	PAWNEE-BURCHARD-WYMORE (KS311)	64	0	0	0	28	0	0
KS	705.3	706	0.7	**KS194**	WABASH-READING-KENNEBEC (KS194)	0	6	0	100	99	44	0
KS	706	706.5	0.4	**KS344**	PAWNEE-WYMORE-KENNEBEC (KS344)	27	0	5	0	59	0	2
KS	706.5	715.3	8.8	**KS104**	GRUNDY-PAWNEE-SHELBY (KS104)	0	64	0	27	50	0	0
KS	715.3	716.6	1.3	**KS105**	MARSHALL-MORRILL-SHARPSBURG (KS105)	5	2	77	90	29	1	4
KS	716.6	716.9	0.3	**KS194**	WABASH-READING-KENNEBEC (KS194)	0	7	0	100	99	44	0
KS	716.9	721.8	4.9	**KS105**	MARSHALL-MORRILL-SHARPSBURG (KS105)	5	2	77	90	29	1	4
KS	721.8	722.2	0.4	**KS104**	GRUNDY-PAWNEE-SHELBY (KS104)	0	64	0	27	50	0	0
KS	722.2	723.4	1.3	**KS105**	MARSHALL-MORRILL-SHARPSBURG (KS105)	5	2	77	90	29	1	4
KS	723.4	723.7	0.3	**KS104**	GRUNDY-PAWNEE-SHELBY (KS104)	0	64	0	27	50	0	0
KS	723.7	726	2.3	**KS105**	MARSHALL-MORRILL-SHARPSBURG (KS105)	5	2	77	90	29	1	4
KS	726	726.5	0.5	**KS104**	GRUNDY-PAWNEE-SHELBY (KS104)	0	64	0	27	50	0	0
KS	726.5	739	12.6	**KS105**	MARSHALL-MORRILL-SHARPSBURG (KS105)	5	2	77	90	29	1	4
KS	739	741.4	2.3	**KS110**	KNOX-MORRILL-ARMSTER (KS110)	61	1	32	74	31	1	14
KS	741.4	743	1.6	**KS101**	MONONA-MARSHALL-HAMBURG (KS101)	18	0	92	66	8	0	0
KS	743	747.9	4.9	**KS110**	KNOX-MORRILL-ARMSTER (KS110)	61	1	32	74	31	1	14
KS	747.9	748.3	0.4	**KS192**	HAYNIE-LETA-WALDRON (KS192)	0	9	0	38	98	12	0
KS	748.3	748.5	0.1	**KSW**	WATER (KSW)	0	0	0	0	0	0	100
MO	748.5	748.5	0.1	**MOW**	WATER (MOW)	0	0	0	0	0	0	100
MO	748.5	752.6	4.1	**MO001**	HAYNIE-LETA-WALDRON (MO001)	0	8	0	38	98	12	0
MO	752.6	754.4	1.8	**MO008**	KNOX-HIGGINSVILLE-SIBLEY (MO008)	35	24	40	73	26	0	4
MO	754.4	756.2	1.8	**MO006**	MARSHALL-EXIRA-SHELBY (MO006)	2	7	11	31	30	6	0
MO	756.2	761.2	5	**MO008**	KNOX-HIGGINSVILLE-SIBLEY (MO008)	35	24	40	73	26	0	4
MO	761.2	762.9	1.7	**MO034**	NODAWAY-COLO-ZOOK (MO034)	0	61	0	60	100	51	0
MO	762.9	766	3	**MO006**	MARSHALL-EXIRA-SHELBY (MO006)	2	7	11	31	30	6	0
MO	766	771.9	6	**MO007**	SHARPSBURG-SHELBY-COLO (MO007)	19	21	0	48	36	12	1
MO	771.9	772.4	0.5	**MO013**	GARA-ARMSTRONG-PERSHING (MO013)	48	25	0	28	16	6	2
MO	772.4	772.5	0.1	**MO007**	SHARPSBURG-SHELBY-COLO (MO007)	22	22	0	48	36	12	1
MO	772.5	774.3	1.8	**MO013**	GARA-ARMSTRONG-PERSHING (MO013)	47	24	0	28	16	6	2
MO	774.3	776	1.7	**MO007**	SHARPSBURG-SHELBY-COLO (MO007)	19	21	0	48	36	12	1
MO	776	780.3	4.3	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	780.3	782.3	2	**MO013**	GARA-ARMSTRONG-PERSHING (MO013)	47	24	0	28	16	6	2
MO	782.3	784.4	2.1	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	784.4	785.2	0.8	**MO009**	LAMONI-SHELBY-ADAIR (MO009)	10	51	0	5	6	5	0
MO	785.2	787.1	2	**MO013**	GARA-ARMSTRONG-PERSHING (MO013)	47	24	0	28	16	6	2
MO	787.1	787.4	0.2	**MO009**	LAMONI-SHELBY-ADAIR (MO009)	8	53	0	5	6	5	0
MO	787.4	787.9	0.5	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	787.9	788.4	0.5	**MO013**	GARA-ARMSTRONG-PERSHING (MO013)	47	24	0	28	16	6	2
MO	788.4	789.2	0.8	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	789.2	790	0.7	**MO013**	GARA-ARMSTRONG-PERSHING (MO013)	47	24	0	28	16	6	2
MO	790	790.8	0.8	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	90	0	7	54	3	0
MO	790.8	791.4	0.6	**MO014**	ARMSTER-SNEAD-LADOGA (MO014)	52	23	0	43	7	2	31

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
MO	791.4	792.3	0.9	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	792.3	792.7	0.4	**MO014**	ARMSTER-SNEAD-LADOGA (MO014)	51	23	0	43	7	2	31
MO	792.7	793.9	1.3	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	793.9	796.7	2.7	**MO014**	ARMSTER-SNEAD-LADOGA (MO014)	51	23	0	43	7	2	31
MO	796.7	798.3	1.6	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	798.3	800	1.7	**MO014**	ARMSTER-SNEAD-LADOGA (MO014)	51	23	0	43	7	2	31
MO	800	801.1	1.1	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	801.1	801.7	0.6	**MO014**	ARMSTER-SNEAD-LADOGA (MO014)	52	23	0	43	7	2	31
MO	801.7	807	5.3	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	807	810.8	3.8	**MO014**	ARMSTER-SNEAD-LADOGA (MO014)	51	23	0	43	7	2	31
MO	810.8	812	1.2	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	812	812.9	0.9	**MO004**	COLO-NODAWAY-ZOOK (MO004)	0	65	0	85	100	50	0
MO	812.9	813.8	0.9	**MO014**	ARMSTER-SNEAD-LADOGA (MO014)	51	23	0	43	7	2	31
MO	813.8	816.9	3.1	**MO016**	GREENTON-GOSPORT-SNEAD (MO016)	49	40	0	50	9	6	44
MO	816.9	820.1	3.2	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	820.1	826.9	6.8	**MO016**	GREENTON-GOSPORT-SNEAD (MO016)	49	40	0	50	9	6	44
MO	826.9	831.6	4.8	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	831.6	832.4	0.8	**MO034**	NODAWAY-COLO-ZOOK (MO034)	0	61	0	60	100	51	0
MO	832.4	840.5	8.2	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	840.5	846.7	6.2	**MO020**	CARLOW-DOCKERY-FATIMA (MO020)	0	25	0	65	98	77	2
MO	846.7	857.1	10.4	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	857.1	858.4	1.3	**MO020**	CARLOW-DOCKERY-FATIMA (MO020)	0	25	0	65	98	77	2
MO	858.4	860.7	2.4	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	860.7	865.5	4.8	**MO020**	CARLOW-DOCKERY-FATIMA (MO020)	0	25	0	65	98	77	2
MO	865.5	867.4	1.9	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	867.4	868.5	1.1	**MO020**	CARLOW-DOCKERY-FATIMA (MO020)	0	25	0	65	98	77	2
MO	868.5	869.1	0.6	**MO018**	LINDLEY-KESWICK-GOSS (MO018)	75	10	29	3	3	2	2
MO	869.1	871.1	2	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	871.1	871.2	0.1	**MO018**	LINDLEY-KESWICK-GOSS (MO018)	77	14	28	3	3	2	2
MO	871.2	872.7	1.5	**MO020**	CARLOW-DOCKERY-FATIMA (MO020)	0	25	0	65	98	77	2
MO	872.7	876.5	3.8	**MO082**	MACKSBURG-MARSHALL-GRUNDY (MO082)	1	70	22	67	61	13	15
MO	876.5	883.7	7.2	**MO018**	LINDLEY-KESWICK-GOSS (MO018)	75	11	29	3	3	2	2
MO	883.7	897.9	14.2	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	897.9	899.6	1.7	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	899.6	901.5	1.8	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	901.5	907.8	6.3	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	907.8	909.1	1.3	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	909.1	911.6	2.5	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	911.6	911.8	0.2	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	18	70	0	1	50	32	0
MO	911.8	912.3	0.5	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	912.3	915.6	3.3	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	915.6	918.2	2.6	**MO018**	LINDLEY-KESWICK-GOSS (MO018)	75	11	29	3	3	2	2
MO	918.2	919.1	0.9	**MO029**	FATIMA-ARBELA-VESSER (MO029)	0	51	0	53	99	67	1
MO	919.1	919.8	0.7	**MO018**	LINDLEY-KESWICK-GOSS (MO018)	75	11	30	3	3	2	2
MO	919.8	920.6	0.8	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	920.6	921.6	1	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	921.6	923.1	1.4	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	923.1	925.7	2.6	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	925.7	926.6	1	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	926.6	928.4	1.7	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	928.4	930.1	1.7	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	930.1	934.4	4.3	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	934.4	941.8	7.4	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project												
State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
MO	941.8	944	2.2	**MO025**	BARDLEY-GASCONADE-CEDARGAP (MO025)	71	10	17	4	12	1	56
MO	944	948.3	4.3	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	948.3	949.3	1	**MO025**	BARDLEY-GASCONADE-CEDARGAP (MO025)	71	10	17	4	12	1	56
MO	949.3	950.7	1.5	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	950.7	951.5	0.8	**MO025**	BARDLEY-GASCONADE-CEDARGAP (MO025)	71	10	17	4	12	1	56
MO	951.5	952.4	0.9	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	952.4	965.3	12.9	**MO025**	BARDLEY-GASCONADE-CEDARGAP (MO025)	71	10	17	4	12	1	56
MO	965.3	970.9	5.6	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	970.9	984.8	13.9	**MO021**	MENFRO-WINFIELD-WELLER (MO021)	21	0	41	58	18	0	1
MO	984.8	998.6	13.8	**MO027**	CARLOW-PORTAGE-CHEQUEST (MO027)	0	88	1	86	100	65	0
MO	998.6	1002.1	3.5	**MO026**	LOMAX-BLASE-BOOKER (MO026)	0	50	40	55	100	15	0
MO	1002.1	1021.1	19	**MO065**	HAYNIE-WALDRON-BLAKE (MO065)	0	32	2	21	94	18	0
MO	1021.1	1021.3	0.2	**MOW**	WATER (MOW)	0	0	0	0	0	0	100
IL	1021.3	1021.5	0.2	**ILW**	WATER (ILW)	0	0	0	0	0	0	100
IL	1021.5	1024.5	3	**IL029**	BEAUCOUP-LAWSON-DARWIN (IL029)	0	45	5	81	97	60	0
IL	1024.5	1027.6	3	**IL068**	WAKELAND-BIRDS-BELKNAP (IL068)	0	75	9	29	99	32	0
IL	1027.6	1027.7	0.1	**IL034**	ROZETTA-FAYETTE-HICKORY (IL034)	24	8	48	10	49	0	0
IL	1027.7	1028.1	0.4	**IL034**	ROZETTA-FAYETTE-HICKORY (IL034)	25	7	47	10	49	0	0
IL	1028.1	1030.2	2.1	**IL068**	WAKELAND-BIRDS-BELKNAP (IL068)	0	75	9	29	99	32	0
IL	1030.2	1033.6	3.4	**IL034**	ROZETTA-FAYETTE-HICKORY (IL034)	24	7	48	10	49	0	0
IL	1033.6	1034.9	1.3	**IL002**	TAMA-MUSCATINE-SABLE (IL002)	0	51	3	98	86	15	0
IL	1034.9	1035.2	0.3	**IL034**	ROZETTA-FAYETTE-HICKORY (IL034)	24	6	49	10	49	0	0
IL	1035.2	1036.6	1.4	**IL036**	ROZETTA-KEOMAH-HICKORY (IL036)	20	29	29	8	48	1	0
IL	1036.6	1037.3	0.7	**IL068**	WAKELAND-BIRDS-BELKNAP (IL068)	0	75	9	29	99	32	0
IL	1037.3	1039.5	2.2	**IL034**	ROZETTA-FAYETTE-HICKORY (IL034)	24	7	48	10	49	0	0
IL	1039.5	1040.6	1	**IL004**	HERRICK-VIRDEN-PIASA (IL004)	0	97	0	89	94	46	0
IL	1040.6	1041.7	1.1	**IL036**	ROZETTA-KEOMAH-HICKORY (IL036)	20	29	29	8	48	1	0
IL	1041.7	1042.3	0.6	**IL005**	COWDEN-OCONEE-DARMSTADT (IL005)	0	97	2	16	80	50	0
IL	1042.3	1043.4	1.1	**IL036**	ROZETTA-KEOMAH-HICKORY (IL036)	20	29	29	8	48	1	0
IL	1043.4	1045.3	1.8	**IL004**	HERRICK-VIRDEN-PIASA (IL004)	0	97	0	89	94	46	0
IL	1045.3	1046.7	1.4	**IL036**	ROZETTA-KEOMAH-HICKORY (IL036)	20	29	29	8	48	1	0
IL	1046.7	1049.2	2.6	**IL004**	HERRICK-VIRDEN-PIASA (IL004)	0	97	0	89	94	46	0
IL	1049.2	1049.5	0.3	**IL005**	COWDEN-OCONEE-DARMSTADT (IL005)	0	96	0	16	80	50	0
IL	1049.5	1050.7	1.2	**IL034**	ROZETTA-FAYETTE-HICKORY (IL034)	24	7	48	10	49	0	0
IL	1050.7	1052.2	1.5	**IL005**	COWDEN-OCONEE-DARMSTADT (IL005)	0	97	1	16	80	50	0
IL	1052.2	1054	1.8	**IL037**	HOSMER-STOY-HICKORY (IL037)	20	47	20	43	60	8	0
IL	1054	1055.7	1.7	**IL068**	WAKELAND-BIRDS-BELKNAP (IL068)	0	75	9	29	99	32	0
IL	1055.7	1056.8	1.1	**IL037**	HOSMER-STOY-HICKORY (IL037)	20	47	20	43	60	8	0
IL	1056.8	1058.6	1.8	**IL005**	COWDEN-OCONEE-DARMSTADT (IL005)	0	97	1	16	80	50	0
IL	1058.6	1062.2	3.6	**IL038**	BLUFORD-AVA-HICKORY (IL038)	17	62	13	12	55	10	0
IL	1062.2	1067.2	4.9	**IL006**	CISNE-HOYLETON-DARMSTADT (IL006)	0	100	0	3	82	62	0
IL	1067.2	1069.4	2.3	**IL038**	BLUFORD-AVA-HICKORY (IL038)	17	62	13	12	55	10	0
IL	1069.4	1070.1	0.7	**IL068**	WAKELAND-BIRDS-BELKNAP (IL068)	0	75	9	29	99	32	0
IL	1070.1	1070.1	0	**IL068**	WAKELAND-BIRDS-BELKNAP (IL068)	0	0	0	29	99	32	0
IL	1070.1	1072.3	2.2	**IL068**	WAKELAND-BIRDS-BELKNAP (IL068)	0	75	9	29	99	32	0
IL	1072.3	1073.2	0.8	**IL038**	BLUFORD-AVA-HICKORY (IL038)	17	62	13	12	55	10	0
IL	1073.2	1077.8	4.6	**IL006**	CISNE-HOYLETON-DARMSTADT (IL006)	0	100	0	3	82	62	0
IL	1077.8	1077.9	0.1	**IL038**	BLUFORD-AVA-HICKORY (IL038)	14	61	14	12	55	10	0

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
CUSHING EXTENSION												
NE	0	2.2	2.2	**NE037**	GEARY-JANSEN-MEADIN (NE037)	48	0	84	19	56	0	0
NE	2.2	2.4	0.2	**NE028**	CRETE-MAYBERRY-WYMORE (NE028)	5	0	10	12	76	0	0
KS	2.4	3.7	1.3	**KS328**	CRETE-MAYBERRY-WYMORE (KS328)	6	0	9	12	76	0	0
KS	3.7	5.5	1.8	**KS371**	EUDORA-MUIR-NODAWAY (KS371)	0	0	69	69	100	0	0
KS	5.5	8.5	3	**KS328**	CRETE-MAYBERRY-WYMORE (KS328)	6	0	9	12	76	0	0
KS	8.5	15.2	6.7	**KS371**	EUDORA-MUIR-NODAWAY (KS371)	0	0	69	69	100	0	0
KS	15.2	16.3	1.1	**KS302**	LANCASTER-HEDVILLE-EDALGO (KS302)	28	0	84	22	27	0	69
KS	16.3	19.4	3.1	**KS328**	CRETE-MAYBERRY-WYMORE (KS328)	6	0	9	12	76	0	0
KS	19.4	21.1	1.8	**KS301**	CRETE-GEARY-LONGFORD (KS301)	4	0	26	4	72	0	5
KS	21.1	23.3	2.2	**KS328**	CRETE-MAYBERRY-WYMORE (KS328)	6	0	9	12	76	0	0
KS	23.3	33.5	10.2	**KS307**	CRETE-LANCASTER-EDALGO (KS307)	5	0	46	9	71	0	29
KS	33.5	36.5	3	**KS373**	KIPSON-CRETE-PAWNEE (KS373)	13	0	30	23	43	0	40
KS	36.5	39.8	3.3	**KS301**	CRETE-GEARY-LONGFORD (KS301)	4	0	26	4	72	0	5
KS	39.8	42.4	2.6	**KS302**	LANCASTER-HEDVILLE-EDALGO (KS302)	28	0	84	22	27	0	69
KS	42.4	49.8	7.4	**KS301**	CRETE-GEARY-LONGFORD (KS301)	4	0	26	4	72	0	5
KS	49.8	51.7	1.9	**KS372**	MUIR-EUDORA-SUTPHEN (KS372)	0	0	78	56	92	2	0
KS	51.7	55.1	3.4	**KS301**	CRETE-GEARY-LONGFORD (KS301)	4	0	26	4	72	0	5
KS	55.1	57.7	2.6	**KS330**	CLIME-SOGN-MARTIN (KS330)	67	0	5	7	20	0	80
KS	57.7	58.4	0.7	**KS301**	CRETE-GEARY-LONGFORD (KS301)	4	0	26	4	72	0	5
KS	58.4	61	2.6	**KS330**	CLIME-SOGN-MARTIN (KS330)	67	0	5	7	20	0	80
KS	61	67.8	6.8	**KS301**	CRETE-GEARY-LONGFORD (KS301)	4	0	26	4	72	0	5
KS	67.8	69.1	1.3	**KS372**	MUIR-EUDORA-SUTPHEN (KS372)	0	0	78	56	92	2	0
KS	69.1	70.3	1.2	**KS301**	CRETE-GEARY-LONGFORD (KS301)	4	0	26	4	72	0	5
KS	70.3	71.1	0.8	**KS372**	MUIR-EUDORA-SUTPHEN (KS372)	0	0	78	56	92	2	0
KS	71.1	72.7	1.6	**KS338**	IRWIN-KIPSON-CLIME (KS338)	18	0	7	51	63	0	37
KS	72.7	73.1	0.4	**KS301**	CRETE-GEARY-LONGFORD (KS301)	5	0	27	4	72	0	5
KS	73.1	73.9	0.8	**KS338**	IRWIN-KIPSON-CLIME (KS338)	18	0	8	51	63	0	37
KS	73.9	74.8	0.9	**KS369**	VALENTINE-WELLS-ORTELLO (KS369)	31	0	14	30	49	10	0
KS	74.8	76.8	2.1	**KS372**	MUIR-EUDORA-SUTPHEN (KS372)	0	0	78	56	92	2	0
KS	76.8	82.2	5.4	**KS338**	IRWIN-KIPSON-CLIME (KS338)	18	0	7	51	63	0	37
KS	82.2	84.8	2.6	**KS351**	IRWIN-CLIME-ROSEHILL (KS351)	6	0	8	56	66	0	37
KS	84.8	87.8	2.9	**KS338**	IRWIN-KIPSON-CLIME (KS338)	18	0	7	51	63	0	37
KS	87.8	89.9	2.1	**KS351**	IRWIN-CLIME-ROSEHILL (KS351)	6	0	8	56	66	0	37
KS	89.9	92.2	2.4	**KS338**	IRWIN-KIPSON-CLIME (KS338)	18	0	7	51	63	0	37
KS	92.2	101.6	9.3	**KS351**	IRWIN-CLIME-ROSEHILL (KS351)	6	0	8	56	66	0	37
KS	101.6	104.3	2.7	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	104.3	112.1	7.8	**KS351**	IRWIN-CLIME-ROSEHILL (KS351)	6	0	8	56	66	0	37
KS	112.1	115.3	3.1	**KS354**	WELLS-VERDIGRIS-IRWIN (KS354)	0	5	49	48	86	3	5
KS	115.3	116.3	1.1	**KS351**	IRWIN-CLIME-ROSEHILL (KS351)	6	0	8	56	66	0	37
KS	116.3	116.9	0.6	**KS354**	WELLS-VERDIGRIS-IRWIN (KS354)	0	5	48	48	86	3	5
KS	116.9	118.3	1.4	**KS361**	READING-IVAN-CHASE (KS361)	0	18	73	96	100	1	0
KS	118.3	118.8	0.5	**KS351**	IRWIN-CLIME-ROSEHILL (KS351)	6	0	8	56	66	0	37
KS	118.8	120.7	1.9	**KS331**	FLORENCE-LABETTE-TULLY (KS331)	17	0	5	19	29	0	66
KS	120.7	126.4	5.6	**KS351**	IRWIN-CLIME-ROSEHILL (KS351)	6	0	8	56	66	0	37
KS	126.4	128.1	1.7	**KS331**	FLORENCE-LABETTE-TULLY (KS331)	17	0	5	19	29	0	66
KS	128.1	128.5	0.4	**KS354**	WELLS-VERDIGRIS-IRWIN (KS354)	0	5	50	48	86	3	5
KS	128.5	131.9	3.4	**KS350**	TULLY-SOGN-CLIME (KS350)	10	0	3	19	33	0	55
KS	131.9	142.4	10.5	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	142.4	143.5	1.2	**KS361**	READING-IVAN-CHASE (KS361)	0	18	73	96	100	1	0
KS	143.5	144.9	1.4	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	144.9	145.6	0.7	**KS361**	READING-IVAN-CHASE (KS361)	0	18	74	96	100	1	0

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
KS	145.6	149.5	3.9	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	149.5	150.3	0.7	**KS232**	DWIGHT-LABETTE-SOGN (KS232)	0	0	0	3	25	0	97
KS	150.3	151.2	0.9	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	151.2	151.7	0.5	**KS361**	READING-IVAN-CHASE (KS361)	0	17	73	96	100	1	0
KS	151.7	154.7	3.1	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	154.7	159.8	5	**KS361**	READING-IVAN-CHASE (KS361)	0	18	73	96	100	1	0
KS	159.8	160.7	1	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	160.7	161.8	1	**KS361**	READING-IVAN-CHASE (KS361)	0	18	73	96	100	1	0
KS	161.8	163.4	1.6	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	163.4	164.4	1	**KS361**	READING-IVAN-CHASE (KS361)	0	18	73	96	100	1	0
KS	164.4	167.9	3.5	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	167.9	168.6	0.6	**KS361**	READING-IVAN-CHASE (KS361)	0	19	73	96	100	1	0
KS	168.6	169.4	0.8	**KS232**	DWIGHT-LABETTE-SOGN (KS232)	0	0	0	3	25	0	97
KS	169.4	174.4	5	**KS240**	IRWIN-ROSEHILL-GOESSEL (KS240)	0	0	3	59	71	0	27
KS	174.4	174.6	0.2	**KS237**	NORGE-IRWIN-LADYSMITH (KS237)	0	18	36	66	74	0	14
KS	174.6	176.7	2.1	**KS235**	VERDIGRIS-BREWER-NORGE (KS235)	0	0	18	100	99	6	0
KS	176.7	178.6	1.9	**KS240**	IRWIN-ROSEHILL-GOESSEL (KS240)	0	0	3	59	71	0	27
KS	178.6	182.1	3.5	**KS235**	VERDIGRIS-BREWER-NORGE (KS235)	0	0	18	100	99	6	0
KS	182.1	184.4	2.3	**KS240**	IRWIN-ROSEHILL-GOESSEL (KS240)	0	0	3	59	71	0	27
KS	184.4	194.6	10.2	**KS235**	VERDIGRIS-BREWER-NORGE (KS235)	0	0	18	100	99	6	0
KS	194.6	204.8	10.2	**KS242**	VANOSS-BETHANY-TABLER (KS242)	0	0	74	32	100	0	0
KS	204.8	206.3	1.5	**KS243**	CANADIAN-DALE-LINCOLN (KS243)	0	0	33	85	85	0	0
KS	206.3	212.6	6.2	**KS241**	KIRKLAND-BETHANY-TABLER (KS241)	0	0	76	38	93	0	0
OK	212.6	233	20.8	**OK093**	KIRKLAND-BETHANY-TABLER (OK093)	0	0	76	38	93	0	0
OK	233	238.7	5.8	**OK106**	NORGE-VANOSS-VERDIGRIS (OK106)	2	0	85	63	81	0	2
OK	238.7	239.7	1	**OK114**	REINACH-ELANDCO-BREWER (OK114)	0	6	50	100	92	0	0
OK	239.7	240.3	0.6	**OK080**	GOODNIGHT-YAHOLA-GADDY (OK080)	16	0	0	0	43	0	0
OK	240.3	241.1	0.8	**OK093**	KIRKLAND-BETHANY-TABLER (OK093)	0	0	75	38	93	0	0
OK	241.1	242.5	1.4	**OK114**	REINACH-ELANDCO-BREWER (OK114)	0	6	50	100	92	0	0
OK	242.5	247.4	5	**OK093**	KIRKLAND-BETHANY-TABLER (OK093)	0	0	76	38	93	0	0
OK	247.4	247.9	0.6	**OK106**	NORGE-VANOSS-VERDIGRIS (OK106)	2	0	85	63	81	0	2
OK	247.9	249.5	1.6	**OK112**	PORT-PULASKI-ASHPORT (OK112)	0	5	49	63	82	0	0
OK	249.5	250.9	1.4	**OK117**	RENFROW-ZANEIS-GRAINOLA (OK117)	12	0	73	11	42	0	50
OK	250.9	252.2	1.3	**OK116**	RENFROW-KIRKLAND-GRAINOLA (OK116)	7	0	63	12	62	0	27
OK	252.2	253.8	1.6	**OK117**	RENFROW-ZANEIS-GRAINOLA (OK117)	12	0	73	11	42	0	50
OK	253.8	254.2	0.3	**OKW**	WATER (OKW)	0	0	0	0	0	0	100
OK	254.2	257	2.9	**OK117**	RENFROW-ZANEIS-GRAINOLA (OK117)	12	0	73	11	42	0	50
OK	257	257.4	0.4	**OK116**	RENFROW-KIRKLAND-GRAINOLA (OK116)	8	0	62	12	62	0	27
OK	257.4	260	2.7	**OK106**	NORGE-VANOSS-VERDIGRIS (OK106)	2	0	85	63	81	0	2
OK	260	261.6	1.6	**OK112**	PORT-PULASKI-ASHPORT (OK112)	0	5	49	63	82	0	0
OK	261.6	262.7	1.1	**OK117**	RENFROW-ZANEIS-GRAINOLA (OK117)	12	0	73	11	42	0	50
OK	262.7	263.7	1	**OK116**	RENFROW-KIRKLAND-GRAINOLA (OK116)	7	0	63	12	62	0	27
OK	263.7	264.9	1.3	**OK112**	PORT-PULASKI-ASHPORT (OK112)	0	5	49	63	82	0	0
OK	264.9	266.1	1.2	**OK117**	RENFROW-ZANEIS-GRAINOLA (OK117)	12	0	73	11	42	0	50
OK	266.1	267.3	1.2	**OK116**	RENFROW-KIRKLAND-GRAINOLA (OK116)	7	0	63	12	62	0	27
OK	267.3	268.9	1.6	**OK117**	RENFROW-ZANEIS-GRAINOLA (OK117)	12	0	73	11	42	0	50
OK	268.9	269.5	0.6	**OK116**	RENFROW-KIRKLAND-GRAINOLA (OK116)	7	0	63	12	62	0	27
OK	269.5	282.6	13.4	**OK117**	RENFROW-ZANEIS-GRAINOLA (OK117)	12	0	73	11	42	0	50
OK	282.6	284.5	1.9	**OK146**	KONAWA-EUFAULA-DOUGHERTY (OK146)	1	0	5	54	32	0	5
OK	284.5	285.6	1.1	**OK079**	GRACEMORE-GADDY-GOODNIGHT (OK079)	16	1	0	30	30	1	0
OK	285.6	291.1	5.6	**OK119**	SEMINOLE-CHICKASHA-GOWTON (OK119)	17	0	17	22	26	0	33
OK	291.1	292.2	1.2	**OK131**	AGRA-STEEDMAN-COYLE (OK131)	0	0	16	5	36	0	37

Appendix F

Soil Associations along the Keystone Pipeline Project Route

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
MAINLINE												
ND	0	1.3	1.3	**ND012**	GLYNDON-GILBY-GARDENA (ND012)	0	17	0	15	0	8	0
ND	1.3	4.1	2.8	**ND004**	HEGNE-FARGO-BEARDEN (ND004)	0	22	0	5	100	83	0
ND	4.1	6.3	2.2	**ND021**	HECLA-HAMAR-ULEN (ND021)	0	1	0	49	9	32	0
ND	6.3	7.4	1.2	**ND027**	BRANTFORD-VANG-WALSH (ND027)	2	2	98	33	0	2	0
ND	7.4	8.2	0.7	**ND066**	LA PRAIRIE-FAIRDALE-GARDENA (ND066)	1	0	12	19	0	5	0
ND	8.2	14	5.8	**ND027**	BRANTFORD-VANG-WALSH (ND027)	2	2	98	33	0	2	0
ND	14	32.5	18.5	**ND061**	KELVIN-WAUKON-OLGA (ND061)	30	0	59	8	67	0	7
ND	32.5	34.7	2.2	**ND045**	BARNES-SVEA-TONKA (ND045)	2	8	56	11	81	11	0
ND	34.7	35.4	0.7	**ND038**	EDGELEY-KLOTEN-SVEA (ND038)	27	5	67	3	56	5	60
ND	35.4	37.6	2.1	**ND045**	BARNES-SVEA-TONKA (ND045)	2	8	56	11	81	11	0
ND	37.6	38	0.5	**ND038**	EDGELEY-KLOTEN-SVEA (ND038)	27	4	66	3	56	5	60
ND	38	41.3	3.2	**ND045**	BARNES-SVEA-TONKA (ND045)	2	8	56	11	81	11	0
ND	41.3	43	1.8	**ND038**	EDGELEY-KLOTEN-SVEA (ND038)	27	5	67	3	56	5	60
ND	43	44.3	1.3	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	44.3	46	1.7	**ND051**	SVEA-CRESBARD-HAMERLY (ND051)	0	5	8	6	58	8	0
ND	46	53.7	7.7	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	53.7	55.4	1.7	**ND025**	BRANTFORD-RENSHAW-LANKIN (ND025)	8	8	31	34	35	17	0
ND	55.4	57.1	1.6	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	57.1	57.6	0.5	**ND040**	HAMERLY-TONKA-SVEA (ND040)	0	23	19	30	73	30	0
ND	57.6	58	0.4	**ND043**	SVEA-BUSE-HAMERLY (ND043)	10	10	29	21	55	21	0
ND	58	58.7	0.7	**ND040**	HAMERLY-TONKA-SVEA (ND040)	0	23	18	30	73	30	0
ND	58.7	59.9	1.2	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	59.9	61.6	1.8	**ND053**	CRESBARD-BARNES-CAVOUR (ND053)	1	7	33	7	46	7	0
ND	61.6	61.7	0	**ND043**	SVEA-BUSE-HAMERLY (ND043)	0	0	0	21	55	21	0
ND	61.7	66	4.4	**ND053**	CRESBARD-BARNES-CAVOUR (ND053)	1	7	33	7	46	7	0
ND	66	66.6	0.5	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	66.6	69.2	2.6	**ND037**	BARNES-BUSE-PARNELL (ND037)	51	11	70	16	21	11	2
ND	69.2	73.6	4.5	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	73.6	74.7	1.1	**ND040**	HAMERLY-TONKA-SVEA (ND040)	0	23	19	30	73	30	0
ND	74.7	78.7	4	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	78.7	79.5	0.8	**ND051**	SVEA-CRESBARD-HAMERLY (ND051)	0	5	7	6	58	8	0
ND	79.5	83.8	4.3	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	83.8	84.9	1.1	**ND053**	CRESBARD-BARNES-CAVOUR (ND053)	1	7	33	7	46	7	0
ND	84.9	87.1	2.2	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	87.1	87.8	0.7	**ND051**	SVEA-CRESBARD-HAMERLY (ND051)	0	5	8	6	58	8	0
ND	87.8	90.4	2.6	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	90.4	90.9	0.5	**ND040**	HAMERLY-TONKA-SVEA (ND040)	0	22	18	30	73	30	0
ND	90.9	104	13.1	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	104	104.7	0.7	**ND025**	BRANTFORD-RENSHAW-LANKIN (ND025)	7	7	31	34	35	17	0
ND	104.7	107.4	2.7	**ND051**	SVEA-CRESBARD-HAMERLY (ND051)	0	5	8	6	58	8	0
ND	107.4	109.3	2	**ND057**	HEIMDAL-EMRICK-ESMOND (ND057)	20	5	37	13	54	10	0
ND	109.3	109.4	0	**ND051**	SVEA-CRESBARD-HAMERLY (ND051)	0	0	0	6	58	8	0
ND	109.4	110.5	1.2	**ND043**	SVEA-BUSE-HAMERLY (ND043)	9	10	30	21	55	21	0
ND	110.5	128.6	18	**ND047**	BARNES-BUSE-SVEA (ND047)	28	5	78	5	30	5	0
ND	128.6	129.6	1	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	129.6	130	0.5	**ND047**	BARNES-BUSE-SVEA (ND047)	29	4	77	5	30	5	0
ND	130	132	2	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	132	134.2	2.2	**ND047**	BARNES-BUSE-SVEA (ND047)	28	5	78	5	30	5	0
ND	134.2	134.8	0.7	**ND026**	RENSHAW-ARVILLA-DIVIDE (ND026)	2	5	30	16	31	16	0
ND	134.8	135.5	0.7	**ND011**	GARDENA-GLYNDON-BARNES (ND011)	4	22	19	33	0	13	2
ND	135.5	136.8	1.3	**ND026**	RENSHAW-ARVILLA-DIVIDE (ND026)	2	5	31	16	31	16	0
ND	136.8	137.4	0.6	**ND011**	GARDENA-GLYNDON-BARNES (ND011)	3	21	20	33	0	13	2

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
ND	137.4	140.4	2.9	**ND026**	RENSHAW-ARVILLA-DIVIDE (ND026)	2	5	31	16	31	16	0
ND	140.4	141.9	1.5	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	141.9	142.3	0.4	**ND054**	VALLERS-PARNELL-GLYNDON (ND054)	0	25	8	47	28	53	0
ND	142.3	144.6	2.3	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	144.6	144.7	0.2	**ND011**	GARDENA-GLYNDON-BARNES (ND011)	6	19	19	33	0	13	2
ND	144.7	145.4	0.7	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	145.4	148.9	3.5	**ND011**	GARDENA-GLYNDON-BARNES (ND011)	4	22	19	33	0	13	2
ND	148.9	149.4	0.5	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	149.4	150	0.5	**ND011**	GARDENA-GLYNDON-BARNES (ND011)	4	22	18	33	0	13	2
ND	150	162.5	12.5	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	162.5	164	1.5	**ND047**	BARNES-BUSE-SVEA (ND047)	28	5	78	5	30	5	0
ND	164	165.2	1.2	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	165.2	166.3	1.2	**ND039**	LA PRAIRIE-BARNES-RENSHAW (ND039)	20	2	51	6	62	2	0
ND	166.3	167.4	1	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	167.4	169.1	1.7	**ND039**	LA PRAIRIE-BARNES-RENSHAW (ND039)	20	2	51	6	62	2	0
ND	169.1	179.9	10.9	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	179.9	180.2	0.3	**ND026**	RENSHAW-ARVILLA-DIVIDE (ND026)	3	6	32	16	31	16	0
ND	180.2	183.8	3.6	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	183.8	184.1	0.3	**ND026**	RENSHAW-ARVILLA-DIVIDE (ND026)	4	4	32	16	31	16	0
ND	184.1	186.6	2.6	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	186.6	188.6	2	**ND040**	HAMERLY-TONKA-SVEA (ND040)	0	23	19	30	73	30	0
ND	188.6	192.7	4.1	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	192.7	199.5	6.8	**ND026**	RENSHAW-ARVILLA-DIVIDE (ND026)	2	5	31	16	31	16	0
ND	199.5	204.3	4.8	**ND046**	BARNES-SVEA-HAMERLY (ND046)	0	6	43	9	80	9	0
ND	204.3	216.9	12.6	**ND021**	HECLA-HAMAR-ULEN (ND021)	0	1	0	49	9	32	0
SD	216.8	217.5	0.7	**SD142**	HECLA-HAMAR-ULEN (SD142)	0	1	0	49	9	32	0
SD	217.5	222.6	5	**SD141**	SERDEN-HAMAR-MADDOCK (SD141)	38	0	0	40	0	35	0
SD	222.6	225.9	3.3	**SD142**	HECLA-HAMAR-ULEN (SD142)	0	1	0	49	9	32	0
SD	225.9	228.9	3	**SD145**	BEARDEN-GREAT BEND-OVERLY (SD145)	0	24	32	23	88	9	0
SD	228.9	231.4	2.4	**SD144**	GARDENA-ECKMAN-GLYNDON (SD144)	0	6	2	58	77	20	0
SD	231.4	243.4	12.1	**SD145**	BEARDEN-GREAT BEND-OVERLY (SD145)	0	24	32	23	88	9	0
SD	243.4	247	3.6	**SD146**	ABERDEEN-HARMONY-BEOTIA (SD146)	0	13	21	31	79	5	0
SD	247	258.4	11.4	**SD126**	BARNES-KRANZBURG-BROOKINGS (SD126)	0	9	67	33	83	9	0
SD	258.4	259.2	0.8	**SD134**	FORMAN-BUSE-SOUTHAM (SD134)	1	20	63	30	62	24	0
SD	259.2	261.7	2.4	**SD128**	FORDVILLE-RENSHAW-SOUTHAM (SD128)	23	16	70	15	31	17	0
SD	261.7	261.9	0.2	**SD148**	FORMAN-CAVOUR-PEEVER (SD148)	0	10	54	22	42	8	0
SD	261.9	270.5	8.7	**SD128**	FORDVILLE-RENSHAW-SOUTHAM (SD128)	23	16	70	15	31	17	0
SD	270.5	289.3	18.8	**SD148**	FORMAN-CAVOUR-PEEVER (SD148)	0	11	53	22	42	8	0
SD	289.3	289.7	0.4	**SD135**	FORMAN-AASTAD-BUSE (SD135)	34	17	12	39	58	18	0
SD	289.7	290.5	0.8	**SD148**	FORMAN-CAVOUR-PEEVER (SD148)	0	11	53	22	42	8	0
SD	290.5	299.6	9.1	**SD136**	PEEVER-FORMAN-TONKA (SD136)	12	16	19	20	63	19	0
SD	299.6	316.2	16.6	**SD153**	BEADLE-DUDLEY-BON (SD153)	2	9	71	10	2	9	0
SD	316.2	329.5	13.3	**SD154**	BEADLE-DUDLEY-BON (SD154)	2	1	48	19	2	1	0
SD	329.5	337	7.5	**SD118**	HOUDEK-DUDLEY-STICKNEY (SD118)	0	12	48	18	8	11	0
SD	337	337.7	0.7	**SD083**	BON-ETHAN-DAVIS (SD083)	23	12	60	53	48	2	0
SD	337.7	339.6	1.9	**SD089**	CLARNO-CROSSPLAIN-HOUDEK (SD089)	0	23	22	13	73	24	0
SD	339.6	342.3	2.7	**SD118**	HOUDEK-DUDLEY-STICKNEY (SD118)	0	12	48	18	8	11	0
SD	342.3	342.9	0.5	**SD089**	CLARNO-CROSSPLAIN-HOUDEK (SD089)	0	23	21	13	73	24	0
SD	342.9	344.3	1.4	**SD083**	BON-ETHAN-DAVIS (SD083)	24	12	60	53	48	2	0
SD	344.3	349.9	5.6	**SD118**	HOUDEK-DUDLEY-STICKNEY (SD118)	0	12	48	18	8	11	0
SD	349.9	350.1	0.2	**SD241**	CLARNO-PROSPER-TETONKA (SD241)	0	8	59	15	27	11	0
SD	350.1	350.6	0.5	**SD118**	HOUDEK-DUDLEY-STICKNEY (SD118)	0	11	48	18	8	11	0
SD	350.6	355.1	4.6	**SD241**	CLARNO-PROSPER-TETONKA (SD241)	0	9	60	15	27	11	0

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
SD	355.1	360.7	5.6	SD118	HOUDEK-DUDLEY-STICKNEY (SD118)	0	12	48	18	8	11	0
SD	360.7	361.3	0.6	SD090	CLARNO-PROSPER-STICKNEY (SD090)	0	10	40	26	65	13	0
SD	361.3	362.8	1.5	SD083	BON-ETHAN-DAVIS (SD083)	24	12	60	53	48	2	0
SD	362.8	366.6	3.8	SD088	CLARNO-ETHAN-BONILLA (SD088)	4	10	69	19	66	12	0
SD	366.6	369.6	3	SD090	CLARNO-PROSPER-STICKNEY (SD090)	0	10	39	26	65	13	0
SD	369.6	370.4	0.8	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	370.4	371.2	0.9	SD090	CLARNO-PROSPER-STICKNEY (SD090)	0	11	39	26	65	13	0
SD	371.2	375.3	4.1	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	375.3	375.9	0.6	SD097	HAND-CLARNO-ETHAN (SD097)	0	18	71	11	63	21	0
SD	375.9	376.6	0.7	SD083	BON-ETHAN-DAVIS (SD083)	23	12	60	53	48	2	0
SD	376.6	376.9	0.3	SD097	HAND-CLARNO-ETHAN (SD097)	0	16	71	11	63	21	0
SD	376.9	378.7	1.9	SD083	BON-ETHAN-DAVIS (SD083)	24	12	60	53	48	2	0
SD	378.7	381.3	2.6	SD089	CLARNO-CROSSPLAIN-HOUDEK (SD089)	0	23	22	13	73	24	0
SD	381.3	382.1	0.8	SD095	CLAMO-ETHAN-LAMO (SD095)	26	42	42	24	16	6	0
SD	382.1	383.8	1.7	SD089	CLARNO-CROSSPLAIN-HOUDEK (SD089)	0	23	22	13	73	24	0
SD	383.8	384.5	0.7	SD095	CLAMO-ETHAN-LAMO (SD095)	27	42	42	24	16	6	0
SD	384.5	390.2	5.7	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	390.2	391.1	0.9	SD095	CLAMO-ETHAN-LAMO (SD095)	26	42	41	24	16	6	0
SD	391.1	394.2	3.1	SD090	CLARNO-PROSPER-STICKNEY (SD090)	0	10	39	26	65	13	0
SD	394.2	398.3	4.1	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	398.3	398.7	0.4	SD095	CLAMO-ETHAN-LAMO (SD095)	27	42	40	24	16	6	0
SD	398.7	406.5	7.8	SD090	CLARNO-PROSPER-STICKNEY (SD090)	0	10	39	26	65	13	0
SD	406.5	411.7	5.2	SD088	CLARNO-ETHAN-BONILLA (SD088)	4	10	69	19	66	12	0
SD	411.7	418.5	6.7	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	418.5	422.3	3.9	SD095	CLAMO-ETHAN-LAMO (SD095)	26	42	41	24	16	6	0
SD	422.3	423.2	0.9	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	423.2	424	0.8	SD095	CLAMO-ETHAN-LAMO (SD095)	25	42	41	24	16	6	0
SD	424	426	2	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	426	428.8	2.8	SD086	ETHAN-CLARNO-BETTS (SD086)	42	5	62	9	32	7	0
SD	428.8	430.7	1.9	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	13	62	24	79	16	0
SD	430.7	431.5	0.8	SD095	CLAMO-ETHAN-LAMO (SD095)	26	42	41	24	16	6	0
SD	431.5	432.3	0.8	SD087	CLARNO-BONILLA-TETONKA (SD087)	0	12	62	24	79	16	0
SD	432.3	435.8	3.5	SD096	EGAN-WENTWORTH-ETHAN (SD096)	3	6	39	11	63	13	0
NE	435.8	438	2.2	NE112	SARPY-ONAWA-HAYNIE (NE112)	0	9	0	16	55	12	3
NE	438	438.4	0.3	NE003	AOWA-ALCESTER-KENNEBEC (NE003)	3	0	79	21	93	0	0
NE	438.4	440.8	2.5	NE029	CROFTON-ALCESTER-NORA (NE029)	83	0	82	0	10	0	0
NE	440.8	440.9	0.1	NE092	MOODY-THURMAN-CROFTON (NE092)	35	0	24	8	35	0	0
NE	440.9	442.6	1.7	NE029	CROFTON-ALCESTER-NORA (NE029)	83	0	82	0	10	0	0
NE	442.6	446.3	3.7	NE092	MOODY-THURMAN-CROFTON (NE092)	37	0	28	8	35	0	0
NE	446.3	447.6	1.3	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	447.6	448.6	1	NE003	AOWA-ALCESTER-KENNEBEC (NE003)	2	0	79	21	93	0	0
NE	448.6	449.4	0.8	NE092	MOODY-THURMAN-CROFTON (NE092)	36	0	28	8	35	0	0
NE	449.4	450.6	1.2	NE117	SIMEON-MEADIN-BETTS (NE117)	94	0	74	5	6	0	11
NE	450.6	451.2	0.7	NE092	MOODY-THURMAN-CROFTON (NE092)	36	0	29	8	35	0	0
NE	451.2	451.7	0.5	NE003	AOWA-ALCESTER-KENNEBEC (NE003)	2	0	78	21	93	0	0
NE	451.7	453.4	1.7	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	453.4	453.8	0.3	NE003	AOWA-ALCESTER-KENNEBEC (NE003)	3	0	79	21	93	0	0
NE	453.8	453.8	0	NE092	MOODY-THURMAN-CROFTON (NE092)	53	0	53	8	35	0	0
NE	453.8	456.3	2.5	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	456.3	457.9	1.6	NE003	AOWA-ALCESTER-KENNEBEC (NE003)	2	0	79	21	93	0	0
NE	457.9	460.6	2.7	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	460.6	461	0.4	NE003	AOWA-ALCESTER-KENNEBEC (NE003)	3	0	79	21	93	0	0
NE	461	466.7	5.7	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project												
State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
NE	466.7	467.3	0.6	NE072	KENNEBEC-WABASH-ZOOK (NE072)	3	39	2	88	69	43	0
NE	467.3	470	2.7	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	470	470.7	0.7	NE072	KENNEBEC-WABASH-ZOOK (NE072)	3	39	1	88	69	43	0
NE	470.7	473.9	3.2	NE096	NORA-MOODY-JUDSON (NE096)	16	4	4	16	40	4	0
NE	473.9	474.3	0.3	NE072	KENNEBEC-WABASH-ZOOK (NE072)	3	39	3	88	69	43	0
NE	474.3	475.7	1.5	NE096	NORA-MOODY-JUDSON (NE096)	16	4	4	16	40	4	0
NE	475.7	477.5	1.8	NE072	KENNEBEC-WABASH-ZOOK (NE072)	3	39	2	88	69	43	0
NE	477.5	477.6	0.1	NE096	NORA-MOODY-JUDSON (NE096)	15	7	7	16	40	4	0
NE	477.6	478.3	0.6	NE072	KENNEBEC-WABASH-ZOOK (NE072)	3	39	2	88	69	43	0
NE	478.3	490.3	12	NE096	NORA-MOODY-JUDSON (NE096)	16	4	4	16	40	4	0
NE	490.3	492.4	2.1	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	492.4	494.1	1.7	NE122	THURMAN-BOELUS-VALENTINE (NE122)	36	0	16	4	18	0	0
NE	494.1	499.5	5.5	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	499.5	502.3	2.7	NE049	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	502.3	503.1	0.9	NE018	INAVALE-CASS-BARNEY (NE018)	12	0	3	40	42	10	0
NE	503.1	503.8	0.7	NE049	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	503.8	505.1	1.3	NE141	VALENTINE-THURMAN-DOGER (NE141)	95	0	0	5	0	0	0
NE	505.1	506.6	1.5	NE122	THURMAN-BOELUS-VALENTINE (NE122)	36	0	16	4	18	0	0
NE	506.6	516.3	9.7	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	516.3	516.8	0.5	NE006	BELFORE-MOODY-FILLMORE (NE006)	6	6	0	72	95	5	0
NE	516.8	520.4	3.6	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	520.4	521	0.6	NE006	BELFORE-MOODY-FILLMORE (NE006)	5	5	0	72	95	5	0
NE	521	521.1	0.1	NE094	NORA-CROFTON-MOODY (NE094)	44	0	55	0	35	0	0
NE	521.1	522.4	1.2	NE006	BELFORE-MOODY-FILLMORE (NE006)	5	5	0	72	95	5	0
NE	522.4	522.7	0.3	NE094	NORA-CROFTON-MOODY (NE094)	41	0	54	0	35	0	0
NE	522.7	523	0.3	NE006	BELFORE-MOODY-FILLMORE (NE006)	6	6	0	72	95	5	0
NE	523	523.4	0.4	NE094	NORA-CROFTON-MOODY (NE094)	39	0	52	0	35	0	0
NE	523.4	523.9	0.6	NE006	BELFORE-MOODY-FILLMORE (NE006)	5	5	0	72	95	5	0
NE	523.9	525.8	1.8	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	525.8	529.3	3.6	NE006	BELFORE-MOODY-FILLMORE (NE006)	5	5	0	72	95	5	0
NE	529.3	531.3	2	NE094	NORA-CROFTON-MOODY (NE094)	39	0	53	0	35	0	0
NE	531.3	533	1.6	NE049	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	533	537	4.1	NE091	MOODY-FILLMORE-NORA (NE091)	10	10	0	12	82	10	0
NE	537	537.7	0.7	NE060	HORD-HALL-WOOD RIVER (NE060)	0	0	95	59	93	0	0
NE	537.7	538.9	1.1	NE038	GIBBON-LUTON-SALTINE (NE038)	6	42	3	91	63	27	0
NE	538.9	539.9	1	NE100	O'NEILL-BROCKSBURG-HORD (NE100)	4	0	65	39	58	0	0
NE	539.9	541.2	1.3	NE107	ALDA-PLATTE-LESHARA (NE107)	27	15	0	29	63	0	0
NE	541.2	542	0.8	NE018	INAVALE-CASS-BARNEY (NE018)	12	0	4	40	42	10	0
NE	542	542.2	0.1	NEW	WATER (NEW)	0	0	0	0	0	0	100
NE	542.2	542.7	0.5	NE018	INAVALE-CASS-BARNEY (NE018)	13	0	4	40	42	10	0
NE	542.7	543.1	0.4	NE107	ALDA-PLATTE-LESHARA (NE107)	27	16	0	29	63	0	0
NE	543.1	545.6	2.5	NE038	GIBBON-LUTON-SALTINE (NE038)	6	42	3	91	63	27	0
NE	545.6	547.1	1.5	NE058	HORD-HALL-HOBBS (NE058)	1	1	99	77	99	1	0
NE	547.1	548.5	1.5	NE023	COLY-ULY-HOBBS (NE023)	80	0	100	7	11	0	0
NE	548.5	548.7	0.2	NE051	HOLDER-FILLMORE-BUTLER (NE051)	5	5	88	7	93	5	0
NE	548.7	549.4	0.7	NE023	COLY-ULY-HOBBS (NE023)	79	0	101	7	11	0	0
NE	549.4	554.5	5.1	NE044	HASTINGS-FILLMORE-CRETE (NE044)	10	14	79	13	89	11	0
NE	554.5	555.3	0.7	NE049	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	555.3	557.5	2.3	NE044	HASTINGS-FILLMORE-CRETE (NE044)	10	14	79	13	89	11	0
NE	557.5	559.5	2	NE049	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	559.5	571.8	12.2	NE044	HASTINGS-FILLMORE-CRETE (NE044)	10	14	79	13	89	11	0
NE	571.8	572.4	0.6	NE045	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	572.4	574.4	2	NE049	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
NE	574.4	575.2	0.8	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	575.2	577.1	1.9	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	577.1	578.1	1	**NE042**	HASTINGS-CRETE-HOLDER (NE042)	12	5	87	5	88	3	0
NE	578.1	578.8	0.7	**NE044**	HASTINGS-FILLMORE-CRETE (NE044)	10	14	79	13	89	11	0
NE	578.8	579.3	0.5	**NE042**	HASTINGS-CRETE-HOLDER (NE042)	12	6	87	5	88	3	0
NE	579.3	580	0.6	**NE044**	HASTINGS-FILLMORE-CRETE (NE044)	10	14	78	13	89	11	0
NE	580	580.4	0.4	**NE042**	HASTINGS-CRETE-HOLDER (NE042)	12	5	87	5	88	3	0
NE	580.4	581.2	0.8	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	581.2	581.5	0.4	**NE042**	HASTINGS-CRETE-HOLDER (NE042)	13	5	87	5	88	3	0
NE	581.5	585.5	4	**NE044**	HASTINGS-FILLMORE-CRETE (NE044)	10	14	79	13	89	11	0
NE	585.5	586.5	0.9	**NE042**	HASTINGS-CRETE-HOLDER (NE042)	12	5	87	5	88	3	0
NE	586.5	588.5	2	**NE044**	HASTINGS-FILLMORE-CRETE (NE044)	10	14	79	13	89	11	0
NE	588.5	590	1.5	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	590	591.9	1.9	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	591.9	592.3	0.4	**NE045**	HASTINGS-GEARY-CRETE (NE045)	31	3	54	0	65	2	0
NE	592.3	593.2	0.9	**NE043**	HASTINGS-CRETE-FILLMORE (NE043)	10	21	39	19	69	12	0
NE	593.2	594.7	1.6	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	5	7	10	5	93	4	0
NE	594.7	595.1	0.4	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	3	52	0	65	2	0
NE	595.1	595.6	0.6	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	5	7	11	5	93	4	0
NE	595.6	596.9	1.3	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	596.9	597.6	0.6	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	597.6	598.2	0.7	**NE045**	HASTINGS-GEARY-CRETE (NE045)	29	1	53	0	65	2	0
NE	598.2	598.9	0.7	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	99	44	92	0	0
NE	598.9	599.4	0.5	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	52	0	65	2	0
NE	599.4	600.6	1.2	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	5	7	10	5	93	4	0
NE	600.6	603.2	2.6	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	603.2	604.2	0.9	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	5	8	10	5	93	4	0
NE	604.2	605.2	1	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	605.2	605.5	0.3	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	97	44	92	0	0
NE	605.5	605.6	0.1	**NE045**	HASTINGS-GEARY-CRETE (NE045)	33	0	50	0	65	2	0
NE	605.6	606	0.4	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	4	7	9	5	93	4	0
NE	606	607.3	1.3	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	607.3	607.4	0.1	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	0	13	13	5	93	4	0
NE	607.4	607.8	0.5	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	54	0	65	2	0
NE	607.8	608.5	0.7	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	6	7	10	5	93	4	0
NE	608.5	609.5	0.9	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	609.5	610.3	0.8	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	5	7	10	5	93	4	0
NE	610.3	612.1	1.8	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	612.1	613.6	1.5	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	613.6	614.9	1.3	**NE045**	HASTINGS-GEARY-CRETE (NE045)	30	2	53	0	65	2	0
NE	614.9	621.4	6.5	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	5	7	10	5	93	4	0
NE	621.4	622.4	1	**NE049**	HOBBS-HORD-HALL (NE049)	0	0	98	44	92	0	0
NE	622.4	624.9	2.5	**NE093**	MORRILL-BURCHARD-HASTINGS (NE093)	46	2	11	63	23	2	0
NE	624.9	628.4	3.5	**NE027**	CRETE-HASTINGS-BUTLER (NE027)	5	7	10	5	93	4	0
NE	628.4	635.2	6.8	**NE028**	CRETE-MAYBERRY-WYMORE (NE028)	6	0	9	12	76	0	0
NE	635.2	636	0.8	**NE077**	LANCASTER-HEDVILLE-EDALGO (NE077)	29	0	84	22	33	0	69
NE	636	636.6	0.6	**NE028**	CRETE-MAYBERRY-WYMORE (NE028)	5	0	9	12	76	0	0
NE	636.6	638.1	1.5	**NE037**	GEARY-JANSEN-MEADIN (NE037)	48	0	84	19	56	0	0
NE	638.1	638.6	0.6	**NE028**	CRETE-MAYBERRY-WYMORE (NE028)	5	0	9	12	76	0	0
NE	638.6	640.5	1.9	**NE077**	LANCASTER-HEDVILLE-EDALGO (NE077)	28	0	84	22	33	0	69
NE	640.5	649.6	9.2	**NE028**	CRETE-MAYBERRY-WYMORE (NE028)	6	0	9	12	76	0	0
KS	649.6	658.5	8.8	**KS328**	CRETE-MAYBERRY-WYMORE (KS328)	6	0	9	12	76	0	0
KS	658.5	659.4	0.9	**KS371**	EUDORA-MUIR-NODAWAY (KS371)	0	0	69	69	100	0	0

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
KS	659.4	663.2	3.8	**KS344**	PAWNEE-WYMORE-KENNEBEC (KS344)	28	0	4	0	59	0	2
KS	663.2	670.1	6.9	**KS310**	WYMORE-MAYBERRY-PAWNEE (KS310)	30	0	0	11	58	0	0
KS	670.1	674.6	4.5	**KS344**	PAWNEE-WYMORE-KENNEBEC (KS344)	28	0	4	0	59	0	2
KS	674.6	679.5	4.9	**KS311**	PAWNEE-BURCHARD-WYMORE (KS311)	62	0	2	0	28	0	0
KS	679.5	679.8	0.3	**KS344**	PAWNEE-WYMORE-KENNEBEC (KS344)	26	0	4	0	59	0	2
KS	679.8	683.8	4	**KS311**	PAWNEE-BURCHARD-WYMORE (KS311)	62	0	2	0	28	0	0
KS	683.8	689.2	5.4	**KS344**	PAWNEE-WYMORE-KENNEBEC (KS344)	28	0	4	0	59	0	2
KS	689.2	690.1	0.9	**KS376**	KENNEBEC-WABASH-ZOOK (KS376)	3	39	2	88	69	43	0
KS	690.1	692	1.9	**KS311**	PAWNEE-BURCHARD-WYMORE (KS311)	62	0	2	0	28	0	0
KS	692	697.2	5.2	**KS311**	PAWNEE-BURCHARD-WYMORE (KS311)	62	0	2	0	28	0	0
KS	697.2	705.1	7.9	**KS344**	PAWNEE-WYMORE-KENNEBEC (KS344)	28	0	4	0	59	0	2
KS	705.1	705.3	0.2	**KS311**	PAWNEE-BURCHARD-WYMORE (KS311)	64	0	0	0	28	0	0
KS	705.3	706	0.7	**KS194**	WABASH-READING-KENNEBEC (KS194)	0	6	0	100	99	44	0
KS	706	706.5	0.4	**KS344**	PAWNEE-WYMORE-KENNEBEC (KS344)	27	0	5	0	59	0	2
KS	706.5	715.3	8.8	**KS104**	GRUNDY-PAWNEE-SHELBY (KS104)	0	64	0	27	50	0	0
KS	715.3	716.6	1.3	**KS105**	MARSHALL-MORRILL-SHARPSBURG (KS105)	5	2	77	90	29	1	4
KS	716.6	716.9	0.3	**KS194**	WABASH-READING-KENNEBEC (KS194)	0	7	0	100	99	44	0
KS	716.9	721.8	4.9	**KS105**	MARSHALL-MORRILL-SHARPSBURG (KS105)	5	2	77	90	29	1	4
KS	721.8	722.2	0.4	**KS104**	GRUNDY-PAWNEE-SHELBY (KS104)	0	64	0	27	50	0	0
KS	722.2	723.4	1.3	**KS105**	MARSHALL-MORRILL-SHARPSBURG (KS105)	5	2	77	90	29	1	4
KS	723.4	723.7	0.3	**KS104**	GRUNDY-PAWNEE-SHELBY (KS104)	0	64	0	27	50	0	0
KS	723.7	726	2.3	**KS105**	MARSHALL-MORRILL-SHARPSBURG (KS105)	5	2	77	90	29	1	4
KS	726	726.5	0.5	**KS104**	GRUNDY-PAWNEE-SHELBY (KS104)	0	64	0	27	50	0	0
KS	726.5	739	12.6	**KS105**	MARSHALL-MORRILL-SHARPSBURG (KS105)	5	2	77	90	29	1	4
KS	739	741.4	2.3	**KS110**	KNOX-MORRILL-ARMSTER (KS110)	61	1	32	74	31	1	14
KS	741.4	743	1.6	**KS101**	MONONA-MARSHALL-HAMBURG (KS101)	18	0	92	66	8	0	0
KS	743	747.9	4.9	**KS110**	KNOX-MORRILL-ARMSTER (KS110)	61	1	32	74	31	1	14
KS	747.9	748.3	0.4	**KS192**	HAYNIE-LETA-WALDRON (KS192)	0	9	0	38	98	12	0
KS	748.3	748.5	0.1	**KSW**	WATER (KSW)	0	0	0	0	0	0	100
MO	748.5	748.5	0.1	**MOW**	WATER (MOW)	0	0	0	0	0	0	100
MO	748.5	752.6	4.1	**MO001**	HAYNIE-LETA-WALDRON (MO001)	0	8	0	38	98	12	0
MO	752.6	754.4	1.8	**MO008**	KNOX-HIGGINSVILLE-SIBLEY (MO008)	35	24	40	73	26	0	4
MO	754.4	756.2	1.8	**MO006**	MARSHALL-EXIRA-SHELBY (MO006)	2	7	11	31	30	6	0
MO	756.2	761.2	5	**MO008**	KNOX-HIGGINSVILLE-SIBLEY (MO008)	35	24	40	73	26	0	4
MO	761.2	762.9	1.7	**MO034**	NODAWAY-COLO-ZOOK (MO034)	0	61	0	60	100	51	0
MO	762.9	766	3	**MO006**	MARSHALL-EXIRA-SHELBY (MO006)	2	7	11	31	30	6	0
MO	766	771.9	6	**MO007**	SHARPSBURG-SHELBY-COLO (MO007)	19	21	0	48	36	12	1
MO	771.9	772.4	0.5	**MO013**	GARA-ARMSTRONG-PERSHING (MO013)	48	25	0	28	16	6	2
MO	772.4	772.5	0.1	**MO007**	SHARPSBURG-SHELBY-COLO (MO007)	22	22	0	48	36	12	1
MO	772.5	774.3	1.8	**MO013**	GARA-ARMSTRONG-PERSHING (MO013)	47	24	0	28	16	6	2
MO	774.3	776	1.7	**MO007**	SHARPSBURG-SHELBY-COLO (MO007)	19	21	0	48	36	12	1
MO	776	780.3	4.3	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	780.3	782.3	2	**MO013**	GARA-ARMSTRONG-PERSHING (MO013)	47	24	0	28	16	6	2
MO	782.3	784.4	2.1	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	784.4	785.2	0.8	**MO009**	LAMONI-SHELBY-ADAIR (MO009)	10	51	0	5	6	5	0
MO	785.2	787.1	2	**MO013**	GARA-ARMSTRONG-PERSHING (MO013)	47	24	0	28	16	6	2
MO	787.1	787.4	0.2	**MO009**	LAMONI-SHELBY-ADAIR (MO009)	8	53	0	5	6	5	0
MO	787.4	787.9	0.5	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	787.9	788.4	0.5	**MO013**	GARA-ARMSTRONG-PERSHING (MO013)	47	24	0	28	16	6	2
MO	788.4	789.2	0.8	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	789.2	790	0.7	**MO013**	GARA-ARMSTRONG-PERSHING (MO013)	47	24	0	28	16	6	2
MO	790	790.8	0.8	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	90	0	7	54	3	0
MO	790.8	791.4	0.6	**MO014**	ARMSTER-SNEAD-LADOGA (MO014)	52	23	0	43	7	2	31

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
MO	791.4	792.3	0.9	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	792.3	792.7	0.4	**MO014**	ARMSTER-SNEAD-LADOGA (MO014)	51	23	0	43	7	2	31
MO	792.7	793.9	1.3	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	793.9	796.7	2.7	**MO014**	ARMSTER-SNEAD-LADOGA (MO014)	51	23	0	43	7	2	31
MO	796.7	798.3	1.6	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	798.3	800	1.7	**MO014**	ARMSTER-SNEAD-LADOGA (MO014)	51	23	0	43	7	2	31
MO	800	801.1	1.1	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	801.1	801.7	0.6	**MO014**	ARMSTER-SNEAD-LADOGA (MO014)	52	23	0	43	7	2	31
MO	801.7	807	5.3	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	807	810.8	3.8	**MO014**	ARMSTER-SNEAD-LADOGA (MO014)	51	23	0	43	7	2	31
MO	810.8	812	1.2	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	812	812.9	0.9	**MO004**	COLO-NODAWAY-ZOOK (MO004)	0	65	0	85	100	50	0
MO	812.9	813.8	0.9	**MO014**	ARMSTER-SNEAD-LADOGA (MO014)	51	23	0	43	7	2	31
MO	813.8	816.9	3.1	**MO016**	GREENTON-GOSPORT-SNEAD (MO016)	49	40	0	50	9	6	44
MO	816.9	820.1	3.2	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	820.1	826.9	6.8	**MO016**	GREENTON-GOSPORT-SNEAD (MO016)	49	40	0	50	9	6	44
MO	826.9	831.6	4.8	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	831.6	832.4	0.8	**MO034**	NODAWAY-COLO-ZOOK (MO034)	0	61	0	60	100	51	0
MO	832.4	840.5	8.2	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	840.5	846.7	6.2	**MO020**	CARLOW-DOCKERY-FATIMA (MO020)	0	25	0	65	98	77	2
MO	846.7	857.1	10.4	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	857.1	858.4	1.3	**MO020**	CARLOW-DOCKERY-FATIMA (MO020)	0	25	0	65	98	77	2
MO	858.4	860.7	2.4	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	860.7	865.5	4.8	**MO020**	CARLOW-DOCKERY-FATIMA (MO020)	0	25	0	65	98	77	2
MO	865.5	867.4	1.9	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	867.4	868.5	1.1	**MO020**	CARLOW-DOCKERY-FATIMA (MO020)	0	25	0	65	98	77	2
MO	868.5	869.1	0.6	**MO018**	LINDLEY-KESWICK-GOSS (MO018)	75	10	29	3	3	2	2
MO	869.1	871.1	2	**MO012**	GRUNDY-LAGONDA-LAMONI (MO012)	0	91	0	7	54	3	0
MO	871.1	871.2	0.1	**MO018**	LINDLEY-KESWICK-GOSS (MO018)	77	14	28	3	3	2	2
MO	871.2	872.7	1.5	**MO020**	CARLOW-DOCKERY-FATIMA (MO020)	0	25	0	65	98	77	2
MO	872.7	876.5	3.8	**MO082**	MACKSBURG-MARSHALL-GRUNDY (MO082)	1	70	22	67	61	13	15
MO	876.5	883.7	7.2	**MO018**	LINDLEY-KESWICK-GOSS (MO018)	75	11	29	3	3	2	2
MO	883.7	897.9	14.2	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	897.9	899.6	1.7	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	899.6	901.5	1.8	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	901.5	907.8	6.3	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	907.8	909.1	1.3	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	909.1	911.6	2.5	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	911.6	911.8	0.2	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	18	70	0	1	50	32	0
MO	911.8	912.3	0.5	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	912.3	915.6	3.3	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	915.6	918.2	2.6	**MO018**	LINDLEY-KESWICK-GOSS (MO018)	75	11	29	3	3	2	2
MO	918.2	919.1	0.9	**MO029**	FATIMA-ARBELA-VESSER (MO029)	0	51	0	53	99	67	1
MO	919.1	919.8	0.7	**MO018**	LINDLEY-KESWICK-GOSS (MO018)	75	11	30	3	3	2	2
MO	919.8	920.6	0.8	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	920.6	921.6	1	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	921.6	923.1	1.4	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	923.1	925.7	2.6	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	925.7	926.6	1	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	926.6	928.4	1.7	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	928.4	930.1	1.7	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	930.1	934.4	4.3	**MO022**	MEXICO-PUTNAM-LEONARD (MO022)	0	98	0	0	98	48	0
MO	934.4	941.8	7.4	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project												
State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
MO	941.8	944	2.2	**MO025**	BARDLEY-GASCONADE-CEDARGAP (MO025)	71	10	17	4	12	1	56
MO	944	948.3	4.3	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	948.3	949.3	1	**MO025**	BARDLEY-GASCONADE-CEDARGAP (MO025)	71	10	17	4	12	1	56
MO	949.3	950.7	1.5	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	950.7	951.5	0.8	**MO025**	BARDLEY-GASCONADE-CEDARGAP (MO025)	71	10	17	4	12	1	56
MO	951.5	952.4	0.9	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	952.4	965.3	12.9	**MO025**	BARDLEY-GASCONADE-CEDARGAP (MO025)	71	10	17	4	12	1	56
MO	965.3	970.9	5.6	**MO023**	MEXICO-LEONARD-ARMSTRONG (MO023)	17	68	1	1	50	32	0
MO	970.9	984.8	13.9	**MO021**	MENFRO-WINFIELD-WELLER (MO021)	21	0	41	58	18	0	1
MO	984.8	998.6	13.8	**MO027**	CARLOW-PORTAGE-CHEQUEST (MO027)	0	88	1	86	100	65	0
MO	998.6	1002.1	3.5	**MO026**	LOMAX-BLASE-BOOKER (MO026)	0	50	40	55	100	15	0
MO	1002.1	1021.1	19	**MO065**	HAYNIE-WALDRON-BLAKE (MO065)	0	32	2	21	94	18	0
MO	1021.1	1021.3	0.2	**MOW**	WATER (MOW)	0	0	0	0	0	0	100
IL	1021.3	1021.5	0.2	**ILW**	WATER (ILW)	0	0	0	0	0	0	100
IL	1021.5	1024.5	3	**IL029**	BEAUCOUP-LAWSON-DARWIN (IL029)	0	45	5	81	97	60	0
IL	1024.5	1027.6	3	**IL068**	WAKELAND-BIRDS-BELKNAP (IL068)	0	75	9	29	99	32	0
IL	1027.6	1027.7	0.1	**IL034**	ROZETTA-FAYETTE-HICKORY (IL034)	24	8	48	10	49	0	0
IL	1027.7	1028.1	0.4	**IL034**	ROZETTA-FAYETTE-HICKORY (IL034)	25	7	47	10	49	0	0
IL	1028.1	1030.2	2.1	**IL068**	WAKELAND-BIRDS-BELKNAP (IL068)	0	75	9	29	99	32	0
IL	1030.2	1033.6	3.4	**IL034**	ROZETTA-FAYETTE-HICKORY (IL034)	24	7	48	10	49	0	0
IL	1033.6	1034.9	1.3	**IL002**	TAMA-MUSCATINE-SABLE (IL002)	0	51	3	98	86	15	0
IL	1034.9	1035.2	0.3	**IL034**	ROZETTA-FAYETTE-HICKORY (IL034)	24	6	49	10	49	0	0
IL	1035.2	1036.6	1.4	**IL036**	ROZETTA-KEOMAH-HICKORY (IL036)	20	29	29	8	48	1	0
IL	1036.6	1037.3	0.7	**IL068**	WAKELAND-BIRDS-BELKNAP (IL068)	0	75	9	29	99	32	0
IL	1037.3	1039.5	2.2	**IL034**	ROZETTA-FAYETTE-HICKORY (IL034)	24	7	48	10	49	0	0
IL	1039.5	1040.6	1	**IL004**	HERRICK-VIRDEN-PIASA (IL004)	0	97	0	89	94	46	0
IL	1040.6	1041.7	1.1	**IL036**	ROZETTA-KEOMAH-HICKORY (IL036)	20	29	29	8	48	1	0
IL	1041.7	1042.3	0.6	**IL005**	COWDEN-OCONEE-DARMSTADT (IL005)	0	97	2	16	80	50	0
IL	1042.3	1043.4	1.1	**IL036**	ROZETTA-KEOMAH-HICKORY (IL036)	20	29	29	8	48	1	0
IL	1043.4	1045.3	1.8	**IL004**	HERRICK-VIRDEN-PIASA (IL004)	0	97	0	89	94	46	0
IL	1045.3	1046.7	1.4	**IL036**	ROZETTA-KEOMAH-HICKORY (IL036)	20	29	29	8	48	1	0
IL	1046.7	1049.2	2.6	**IL004**	HERRICK-VIRDEN-PIASA (IL004)	0	97	0	89	94	46	0
IL	1049.2	1049.5	0.3	**IL005**	COWDEN-OCONEE-DARMSTADT (IL005)	0	96	0	16	80	50	0
IL	1049.5	1050.7	1.2	**IL034**	ROZETTA-FAYETTE-HICKORY (IL034)	24	7	48	10	49	0	0
IL	1050.7	1052.2	1.5	**IL005**	COWDEN-OCONEE-DARMSTADT (IL005)	0	97	1	16	80	50	0
IL	1052.2	1054	1.8	**IL037**	HOSMER-STOY-HICKORY (IL037)	20	47	20	43	60	8	0
IL	1054	1055.7	1.7	**IL068**	WAKELAND-BIRDS-BELKNAP (IL068)	0	75	9	29	99	32	0
IL	1055.7	1056.8	1.1	**IL037**	HOSMER-STOY-HICKORY (IL037)	20	47	20	43	60	8	0
IL	1056.8	1058.6	1.8	**IL005**	COWDEN-OCONEE-DARMSTADT (IL005)	0	97	1	16	80	50	0
IL	1058.6	1062.2	3.6	**IL038**	BLUFORD-AVA-HICKORY (IL038)	17	62	13	12	55	10	0
IL	1062.2	1067.2	4.9	**IL006**	CISNE-HOYLETON-DARMSTADT (IL006)	0	100	0	3	82	62	0
IL	1067.2	1069.4	2.3	**IL038**	BLUFORD-AVA-HICKORY (IL038)	17	62	13	12	55	10	0
IL	1069.4	1070.1	0.7	**IL068**	WAKELAND-BIRDS-BELKNAP (IL068)	0	75	9	29	99	32	0
IL	1070.1	1070.1	0	**IL068**	WAKELAND-BIRDS-BELKNAP (IL068)	0	0	0	29	99	32	0
IL	1070.1	1072.3	2.2	**IL068**	WAKELAND-BIRDS-BELKNAP (IL068)	0	75	9	29	99	32	0
IL	1072.3	1073.2	0.8	**IL038**	BLUFORD-AVA-HICKORY (IL038)	17	62	13	12	55	10	0
IL	1073.2	1077.8	4.6	**IL006**	CISNE-HOYLETON-DARMSTADT (IL006)	0	100	0	3	82	62	0
IL	1077.8	1077.9	0.1	**IL038**	BLUFORD-AVA-HICKORY (IL038)	14	61	14	12	55	10	0

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
CUSHING EXTENSION												
NE	0	2.2	2.2	**NE037**	GEARY-JANSEN-MEADIN (NE037)	48	0	84	19	56	0	0
NE	2.2	2.4	0.2	**NE028**	CRETE-MAYBERRY-WYMORE (NE028)	5	0	10	12	76	0	0
KS	2.4	3.7	1.3	**KS328**	CRETE-MAYBERRY-WYMORE (KS328)	6	0	9	12	76	0	0
KS	3.7	5.5	1.8	**KS371**	EUDORA-MUIR-NODAWAY (KS371)	0	0	69	69	100	0	0
KS	5.5	8.5	3	**KS328**	CRETE-MAYBERRY-WYMORE (KS328)	6	0	9	12	76	0	0
KS	8.5	15.2	6.7	**KS371**	EUDORA-MUIR-NODAWAY (KS371)	0	0	69	69	100	0	0
KS	15.2	16.3	1.1	**KS302**	LANCASTER-HEDVILLE-EDALGO (KS302)	28	0	84	22	27	0	69
KS	16.3	19.4	3.1	**KS328**	CRETE-MAYBERRY-WYMORE (KS328)	6	0	9	12	76	0	0
KS	19.4	21.1	1.8	**KS301**	CRETE-GEARY-LONGFORD (KS301)	4	0	26	4	72	0	5
KS	21.1	23.3	2.2	**KS328**	CRETE-MAYBERRY-WYMORE (KS328)	6	0	9	12	76	0	0
KS	23.3	33.5	10.2	**KS307**	CRETE-LANCASTER-EDALGO (KS307)	5	0	46	9	71	0	29
KS	33.5	36.5	3	**KS373**	KIPSON-CRETE-PAWNEE (KS373)	13	0	30	23	43	0	40
KS	36.5	39.8	3.3	**KS301**	CRETE-GEARY-LONGFORD (KS301)	4	0	26	4	72	0	5
KS	39.8	42.4	2.6	**KS302**	LANCASTER-HEDVILLE-EDALGO (KS302)	28	0	84	22	27	0	69
KS	42.4	49.8	7.4	**KS301**	CRETE-GEARY-LONGFORD (KS301)	4	0	26	4	72	0	5
KS	49.8	51.7	1.9	**KS372**	MUIR-EUDORA-SUTPHEN (KS372)	0	0	78	56	92	2	0
KS	51.7	55.1	3.4	**KS301**	CRETE-GEARY-LONGFORD (KS301)	4	0	26	4	72	0	5
KS	55.1	57.7	2.6	**KS330**	CLIME-SOGN-MARTIN (KS330)	67	0	5	7	20	0	80
KS	57.7	58.4	0.7	**KS301**	CRETE-GEARY-LONGFORD (KS301)	4	0	26	4	72	0	5
KS	58.4	61	2.6	**KS330**	CLIME-SOGN-MARTIN (KS330)	67	0	5	7	20	0	80
KS	61	67.8	6.8	**KS301**	CRETE-GEARY-LONGFORD (KS301)	4	0	26	4	72	0	5
KS	67.8	69.1	1.3	**KS372**	MUIR-EUDORA-SUTPHEN (KS372)	0	0	78	56	92	2	0
KS	69.1	70.3	1.2	**KS301**	CRETE-GEARY-LONGFORD (KS301)	4	0	26	4	72	0	5
KS	70.3	71.1	0.8	**KS372**	MUIR-EUDORA-SUTPHEN (KS372)	0	0	78	56	92	2	0
KS	71.1	72.7	1.6	**KS338**	IRWIN-KIPSON-CLIME (KS338)	18	0	7	51	63	0	37
KS	72.7	73.1	0.4	**KS301**	CRETE-GEARY-LONGFORD (KS301)	5	0	27	4	72	0	5
KS	73.1	73.9	0.8	**KS338**	IRWIN-KIPSON-CLIME (KS338)	18	0	8	51	63	0	37
KS	73.9	74.8	0.9	**KS369**	VALENTINE-WELLS-ORTELLO (KS369)	31	0	14	30	49	10	0
KS	74.8	76.8	2.1	**KS372**	MUIR-EUDORA-SUTPHEN (KS372)	0	0	78	56	92	2	0
KS	76.8	82.2	5.4	**KS338**	IRWIN-KIPSON-CLIME (KS338)	18	0	7	51	63	0	37
KS	82.2	84.8	2.6	**KS351**	IRWIN-CLIME-ROSEHILL (KS351)	6	0	8	56	66	0	37
KS	84.8	87.8	2.9	**KS338**	IRWIN-KIPSON-CLIME (KS338)	18	0	7	51	63	0	37
KS	87.8	89.9	2.1	**KS351**	IRWIN-CLIME-ROSEHILL (KS351)	6	0	8	56	66	0	37
KS	89.9	92.2	2.4	**KS338**	IRWIN-KIPSON-CLIME (KS338)	18	0	7	51	63	0	37
KS	92.2	101.6	9.3	**KS351**	IRWIN-CLIME-ROSEHILL (KS351)	6	0	8	56	66	0	37
KS	101.6	104.3	2.7	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	104.3	112.1	7.8	**KS351**	IRWIN-CLIME-ROSEHILL (KS351)	6	0	8	56	66	0	37
KS	112.1	115.3	3.1	**KS354**	WELLS-VERDIGRIS-IRWIN (KS354)	0	5	49	48	86	3	5
KS	115.3	116.3	1.1	**KS351**	IRWIN-CLIME-ROSEHILL (KS351)	6	0	8	56	66	0	37
KS	116.3	116.9	0.6	**KS354**	WELLS-VERDIGRIS-IRWIN (KS354)	0	5	48	48	86	3	5
KS	116.9	118.3	1.4	**KS361**	READING-IVAN-CHASE (KS361)	0	18	73	96	100	1	0
KS	118.3	118.8	0.5	**KS351**	IRWIN-CLIME-ROSEHILL (KS351)	6	0	8	56	66	0	37
KS	118.8	120.7	1.9	**KS331**	FLORENCE-LABETTE-TULLY (KS331)	17	0	5	19	29	0	66
KS	120.7	126.4	5.6	**KS351**	IRWIN-CLIME-ROSEHILL (KS351)	6	0	8	56	66	0	37
KS	126.4	128.1	1.7	**KS331**	FLORENCE-LABETTE-TULLY (KS331)	17	0	5	19	29	0	66
KS	128.1	128.5	0.4	**KS354**	WELLS-VERDIGRIS-IRWIN (KS354)	0	5	50	48	86	3	5
KS	128.5	131.9	3.4	**KS350**	TULLY-SOGN-CLIME (KS350)	10	0	3	19	33	0	55
KS	131.9	142.4	10.5	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	142.4	143.5	1.2	**KS361**	READING-IVAN-CHASE (KS361)	0	18	73	96	100	1	0
KS	143.5	144.9	1.4	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	144.9	145.6	0.7	**KS361**	READING-IVAN-CHASE (KS361)	0	18	74	96	100	1	0

Appendix F: Soil Associations Along the Propsed Keystone Pipeline Project

State	Approx. Start MP	Approx. End MP	Approx. Miles	MUID	Name	Highly Erodible %	Compaction Prone %	Low Revegetation Potential %	A-Horizon >12" Deep %	Prime Farmland %	Hydric %	Shallow (<60") Bedrock %
KS	145.6	149.5	3.9	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	149.5	150.3	0.7	**KS232**	DWIGHT-LABETTE-SOGN (KS232)	0	0	0	3	25	0	97
KS	150.3	151.2	0.9	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	151.2	151.7	0.5	**KS361**	READING-IVAN-CHASE (KS361)	0	17	73	96	100	1	0
KS	151.7	154.7	3.1	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	154.7	159.8	5	**KS361**	READING-IVAN-CHASE (KS361)	0	18	73	96	100	1	0
KS	159.8	160.7	1	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	160.7	161.8	1	**KS361**	READING-IVAN-CHASE (KS361)	0	18	73	96	100	1	0
KS	161.8	163.4	1.6	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	163.4	164.4	1	**KS361**	READING-IVAN-CHASE (KS361)	0	18	73	96	100	1	0
KS	164.4	167.9	3.5	**KS349**	IRWIN-LADYSMITH-LABETTE (KS349)	2	30	4	47	78	0	20
KS	167.9	168.6	0.6	**KS361**	READING-IVAN-CHASE (KS361)	0	19	73	96	100	1	0
KS	168.6	169.4	0.8	**KS232**	DWIGHT-LABETTE-SOGN (KS232)	0	0	0	3	25	0	97
KS	169.4	174.4	5	**KS240**	IRWIN-ROSEHILL-GOESSEL (KS240)	0	0	3	59	71	0	27
KS	174.4	174.6	0.2	**KS237**	NORGE-IRWIN-LADYSMITH (KS237)	0	18	36	66	74	0	14
KS	174.6	176.7	2.1	**KS235**	VERDIGRIS-BREWER-NORGE (KS235)	0	0	18	100	99	6	0
KS	176.7	178.6	1.9	**KS240**	IRWIN-ROSEHILL-GOESSEL (KS240)	0	0	3	59	71	0	27
KS	178.6	182.1	3.5	**KS235**	VERDIGRIS-BREWER-NORGE (KS235)	0	0	18	100	99	6	0
KS	182.1	184.4	2.3	**KS240**	IRWIN-ROSEHILL-GOESSEL (KS240)	0	0	3	59	71	0	27
KS	184.4	194.6	10.2	**KS235**	VERDIGRIS-BREWER-NORGE (KS235)	0	0	18	100	99	6	0
KS	194.6	204.8	10.2	**KS242**	VANOSS-BETHANY-TABLER (KS242)	0	0	74	32	100	0	0
KS	204.8	206.3	1.5	**KS243**	CANADIAN-DALE-LINCOLN (KS243)	0	0	33	85	85	0	0
KS	206.3	212.6	6.2	**KS241**	KIRKLAND-BETHANY-TABLER (KS241)	0	0	76	38	93	0	0
OK	212.6	233	20.8	**OK093**	KIRKLAND-BETHANY-TABLER (OK093)	0	0	76	38	93	0	0
OK	233	238.7	5.8	**OK106**	NORGE-VANOSS-VERDIGRIS (OK106)	2	0	85	63	81	0	2
OK	238.7	239.7	1	**OK114**	REINACH-ELANDCO-BREWER (OK114)	0	6	50	100	92	0	0
OK	239.7	240.3	0.6	**OK080**	GOODNIGHT-YAHOLA-GADDY (OK080)	16	0	0	0	43	0	0
OK	240.3	241.1	0.8	**OK093**	KIRKLAND-BETHANY-TABLER (OK093)	0	0	75	38	93	0	0
OK	241.1	242.5	1.4	**OK114**	REINACH-ELANDCO-BREWER (OK114)	0	6	50	100	92	0	0
OK	242.5	247.4	5	**OK093**	KIRKLAND-BETHANY-TABLER (OK093)	0	0	76	38	93	0	0
OK	247.4	247.9	0.6	**OK106**	NORGE-VANOSS-VERDIGRIS (OK106)	2	0	85	63	81	0	2
OK	247.9	249.5	1.6	**OK112**	PORT-PULASKI-ASHPORT (OK112)	0	5	49	63	82	0	0
OK	249.5	250.9	1.4	**OK117**	RENFROW-ZANEIS-GRAINOLA (OK117)	12	0	73	11	42	0	50
OK	250.9	252.2	1.3	**OK116**	RENFROW-KIRKLAND-GRAINOLA (OK116)	7	0	63	12	62	0	27
OK	252.2	253.8	1.6	**OK117**	RENFROW-ZANEIS-GRAINOLA (OK117)	12	0	73	11	42	0	50
OK	253.8	254.2	0.3	**OKW**	WATER (OKW)	0	0	0	0	0	0	100
OK	254.2	257	2.9	**OK117**	RENFROW-ZANEIS-GRAINOLA (OK117)	12	0	73	11	42	0	50
OK	257	257.4	0.4	**OK116**	RENFROW-KIRKLAND-GRAINOLA (OK116)	8	0	62	12	62	0	27
OK	257.4	260	2.7	**OK106**	NORGE-VANOSS-VERDIGRIS (OK106)	2	0	85	63	81	0	2
OK	260	261.6	1.6	**OK112**	PORT-PULASKI-ASHPORT (OK112)	0	5	49	63	82	0	0
OK	261.6	262.7	1.1	**OK117**	RENFROW-ZANEIS-GRAINOLA (OK117)	12	0	73	11	42	0	50
OK	262.7	263.7	1	**OK116**	RENFROW-KIRKLAND-GRAINOLA (OK116)	7	0	63	12	62	0	27
OK	263.7	264.9	1.3	**OK112**	PORT-PULASKI-ASHPORT (OK112)	0	5	49	63	82	0	0
OK	264.9	266.1	1.2	**OK117**	RENFROW-ZANEIS-GRAINOLA (OK117)	12	0	73	11	42	0	50
OK	266.1	267.3	1.2	**OK116**	RENFROW-KIRKLAND-GRAINOLA (OK116)	7	0	63	12	62	0	27
OK	267.3	268.9	1.6	**OK117**	RENFROW-ZANEIS-GRAINOLA (OK117)	12	0	73	11	42	0	50
OK	268.9	269.5	0.6	**OK116**	RENFROW-KIRKLAND-GRAINOLA (OK116)	7	0	63	12	62	0	27
OK	269.5	282.6	13.4	**OK117**	RENFROW-ZANEIS-GRAINOLA (OK117)	12	0	73	11	42	0	50
OK	282.6	284.5	1.9	**OK146**	KONAWA-EUFAULA-DOUGHERTY (OK146)	1	0	5	54	32	0	5
OK	284.5	285.6	1.1	**OK079**	GRACEMORE-GADDY-GOODNIGHT (OK079)	16	1	0	30	30	1	0
OK	285.6	291.1	5.6	**OK119**	SEMINOLE-CHICKASHA-GOWTON (OK119)	17	0	17	22	26	0	33
OK	291.1	292.2	1.2	**OK131**	AGRA-STEEDMAN-COYLE (OK131)	0	0	16	5	36	0	37

Appendix G

Public Water Supply Wells Within One Mile of the Proposed Keystone Pipeline Project Centerline

(Note: This appendix is Table 3.5-6, taken directly from the Environmental Report for the Keystone Pipeline Project [TransCanada 2007d])

Public Water Supplies (PWS Wells and Wellhead Protection Areas) within 1 mile of the Proposed Keystone Centerline

State	County	Approximate Mile Post Marker (mi)	Distance From CL (mi)		PWS Name	Well ID
KEYSTONE MAINLINE						
North Dakota	Pembina	20.2	0.5 – 1.0		Cavalier	ND5000201
	Pembina	30.7	0.5 - 1.0		North Val	ND3401129
	Pembina	30.7	0.2 - 0.5		North Val	ND3401129
	Pembina	30.7	0.2 - 0.5		North Val	ND3401129
	Pembina	30.7	0.2 - 0.5		North Val	ND3401129
	Walsh	30.7	0.2 - 0.5		North Val	ND3401129
South Dakota Protection Areas	Marshall	235.8-236.2	< 0.04		Marshal County Source Water Area	unk
	Kingsbury	326.7	< 0.2		Zone B Aquifer Protection Area	none
Nebraska Wellhead Protection Areas	Wayne	488.1	< 1.0		Hoskins, Village of	NE3118101
	Colfax	518	< 1.0		Leigh, Village of	NE3103705
	Colfax	521.7	0.5 - 1.0		Lower Elkhorn Natural Resources District	169536
	Colfax	521.7	0.5 - 1.0		Lower Elkhorn Natural Resources District	169537
	Colfax	540.3	0.5 - 1.0		Village of Richland	108659
	Seward	577.1	< 0.2		Seward Co. SID #2	NE3115904
	Seward	577.6	< 0.2		Seward, City of	NE3115905
	Seward	580.6	< 0.2		Glenhaven Village Subdivision	NE3110929
	Seward	584.2	< 0.2		Milford, City of	NE3115907
	Seward	585.9	< 0.2		Milford, City of	NE3115907
	Saline	596.8	0.5 - 1.0		Village of Dorchester	175594
	Jefferson	618.9	< 0.2		Plymouth, Village of	NE3109503
	Jefferson	636.3	< 1.0		Steele City, Village of	NE3109502
Kansas	Doniphan	736.7	< 1.0		Bendena	unk
Missouri	Chariton	859.0	0.5 - 1.0		Keytesville	14616

Public Water Supplies (PWS Wells and Wellhead Protection Areas) within 1 mile of the Proposed Keystone Centerline

State	County	Approximate Mile Post Marker (mi)	Distance From CL (mi)		PWS Name	Well ID
	Chariton	859.0	0.5 - 1.0		Keytesville	14615
	Chariton	862.6	< 0.2		Salisbury	14630
	Chariton	862.6	< 0.2		Salisbury	14629
	Chariton	862.9	0.2 - 0.5		Salisbury	14628
	Audrain	919.7	0.5 - 1.0		National Refractories & Mineral	12790
	Audrain	931.6	0.5 - 1.0		Community R-VI School	12791
	Lincoln	961.3	0.2 - 0.5		Lincoln Co. Egg Farm	13014
	Lincoln	961.3	0.2 - 0..5		Lincoln Co. Egg Farm	10124
	Lincoln	961.4	0.2 - 0.5		Lincoln Co. Egg Farm	10123
	Lincoln	970.6	0.5 - 1.0		Glenmeadows Subd.	16726
	Lincoln	972.8	0.5 - 1.0		Lincoln Co. PWSD #1	12706
	Lincoln	975.0	0.5 - 1.0		Moscow Mills	10131
	Lincoln	975.3	0.2 - 0.5		Lincoln Co. PWSD #1	16983
	Lincoln	976.8	0.5 - 1.0		Majestic Lakes	16955
	Lincoln	980.3	0.2 - 0.5		Autumn Hills MHP	12875
	Lincoln	980.3	0.2 - 0.5		Autumn Hills MHP	12874
	Lincoln	981.2	0.2 - 0.5		Joan's Chain of Events	11866
	St Charles	1001.4	0.5 - 1.0		Trinity Lutheran	13538
	St Charles	1014.4	0.5 - 1.0		West Alton Elem. School	10932
Illinois	Madison	1025.6	0.2 - 0.5		Hartford	60106
	Madison	1025.6	0.2 - 0.5		Hartford	60105
	Madison	1025.6	0.2 - 0.5		Hartford	60103
	Madison	1025.6	0.5 - 1.0		Hartford	60104
	Madison	1028.2	0.5 - 1.0		Roxana	60168
	Madison	1028.2	0.5 - 1.0		Roxana	60169
	Madison	1028.2	0.5 - 1.0		Roxana	60170
	Madison	1040.6	0.2 - 0.5		Oakbrook Golf Club	11900040
	Madison	1042.6	< 0.2		Marine	60130

Public Water Supplies (PWS Wells and Wellhead Protection Areas) within 1 mile of the Proposed Keystone Centerline

State	County	Approximate Mile Post Marker (mi)	Distance From CL (mi)		PWS Name	Well ID
	Madison	1059.2	0.2 - 0.5		Pocahontas	60146
	Madison	1059.2	0.2 - 0.5		Pocahontas	60147
CUSHING EXTENSION						
Nebraska	Jefferson	N/A	N/A		NONE	NONE
Kansas	Washington	3.8	0.2 - 0.5		Hollenberg	unk
	Washington	20.8	< 0.2		Greenleaf Well #7	unk
	Washington	21.1	0.2 - 0.5		Greenleaf Well #8	unk
	Washington	21.7	0.5 - 1.0		Greenleaf	unk
	Washington	21.7	0.5 - 1.0		Standby Well #5	unk
	Washington	21.8	0.5 - 1.0		Greenleaf	unk
	Washington	21.8	0.5 - 1.0		Greenleaf	unk
	Washington	21.8	0.5 - 1.0		Standby Well #6	unk
	Dickinson	73.8	0.2 - 0.5		Chapman	unk
	Dickinson	73.8	0.2 - 0.5		Chapman	unk
	Dickinson	73.8	0.2 - 0.5		Chapman	unk
	Butler	146.1	0.2 - 0.5		Potwin	unk
	Butler	146.2	0.2 - 0.5		Potwin	unk
	Butler	146.2	0.2 - 0.5		Potwin	unk
	Butler	146.2	0.2 - 0.5		Potwin	unk
	Butler	146.4	< 0.2		Potwin	unk
	Butler	146.4	< 0.2		Potwin	unk
	Butler	155.3	0.2 - 0.5		Towanda	unk
	Butler	155.5	0.5 - 1.0		Towanda	unk
	Butler	155.6	0.5 - 1.0		Towanda	unk
	Butler	155.8	< 0.2		Towanda	unk
	Butler	155.8	< 0.2		Towanda	unk
	Butler	155.9	< 0.2		Towanda	unk

Public Water Supplies (PWS Wells and Wellhead Protection Areas) within 1 mile of the Proposed Keystone Centerline

State	County	Approximate Mile Post Marker (mi)	Distance From CL (mi)		PWS Name	Well ID
	Butler	155.9	< 0.2		Towanda	unk
	Cowley	194.8	< 0.2		Winifield	unk
	Cowley	207.3	1		Arkansas City, Well #4	unk
	Cowley	207.4	1		Arkansas City, Well #3	unk
	Cowley	207.5	1		Arkansas City, Well #2	unk
	Cowley	207.6	0.5 - 1.0		Arkansas City, Well #1	unk
	Cowley	207.6	0.5 - 1.0		Arkansas City, Well #9	unk
Oklahoma	Kay	240.0	0.2 - 0.5		Marland	OK2005204
	Kay	240.0	0.2 - 0.5		Marland	OK2005204
	Kay	240.0	0.2 - 0.5		Marland	OK2005204
	Payne	290.2	< 0.2		Lincoln Co RW & Sewer Dist	OK2004105

Source: GIS coverages

Appendix H

Water Bodies within 10 Miles Downstream of Proposed Crossings for the Keystone Pipeline Project

(Note: This appendix is Table 3.5-1, taken directly from the Environmental Report for the Keystone Pipeline Project [TransCanada 2007d])

Waterbodies Within 10 Miles Downstream of Proposed Crossings					
State	**County**	**Stream Crossing Point**	**Approx. Milepost**	**Downstream Reservoir/Fishery/Wildlife Area**	**Other Description**
KEYSTONE MAINLINE					
North Dakota	Pembina	Smith Coulee Tribs	10.5, 10.9	Weiler Dam/Reservoir	Immediately downstream of tributary crossings, also downstream Jay V Wessels Wildlife Management Area (WMA)
	Pembina	Busee Coulee	13.2	Unnamed reservoir	Downstream of crossing
	Pembina	Tribs to Tounge River	16.2, 17, 17.4	Herzog Dam/ two reservoirs	Two reservoirs just downstream of crossing of tributaries into reservoir
	Pembina	Crossing of Tongue River	18.4	Renwick Dam at Icelandic State Park	Two additional small dams and state wildlife areas immediately downstream of river crossing
	Pembina	Crossing of Willow Creek	20.62	Unnamed reservoir	at 134th Ave.
	Walsh	Crossing of unnamed trib	34.8, 35.3	Charles C Cook State Game Management Area and wetlands	
	Walsh	South Branch Park River	41.5	Homme Lake	Homme Lake and Homme Lake Project
	Nelson	South Branch Forest River Tribs	57.1, 57.65, 58.37	Reservoir/Dam	Large reservoir downstream; Forest River Biology Area below reservoir
	Nelson	Pickart Lake	74.26	Pickart Lake	Within 2,000 feet of the centerline, however, no stream crossings connected to reservoir
	Barnes	Tribs to Sheyenne River	168.8	Lake Ashtabula	Valley City National Fish Hatchery downstream of lake
	Ransom	Trib to Lone Tree Lake	181.0	Lone Tree Lake	Pipeline crosses trib that leads into Lone Tree Lake and Englevale Slough WMA
	Sargent	Trib to Lake Taayer	184.1	Lake Taayer	Lake Taayer, wetlands area

Waterbodies Within 10 Miles Downstream of Proposed Crossings					
State	**County**	**Stream Crossing Point**	**Approx. Milepost**	**Downstream Reservoir/Fishery/Wildlife Area**	**Other Description**
South Dakota	Day	Trib	258.5	Amsden Lake	Unclear if trib is upstream or downstream
	Clark	Logan Dam/Reservoir	295.0	Logan Dam/Reservoir	Pipeline crosses directly upstream of reservoir
	Clark	Tribs to Fordham Reservoir	300.0	Fordham Reservoir	Area also includes Fordham GPA/Water Access (WA)
	Beadle	Crossing of Pearl Creek	327.4	Reservoir/Dam	Reservoir and LeClaire Waterfowl Production Area (WPA) dowstream of crossing
	Kingsbury	Lake Iroquois	330.25	Lake Iroquois	Crosses very close to or through Lake Iroquois
	Miner	Tribs to Twin lakes	356.0	Twin Lakes, National Wildlife Production Area (NWPA)	Downstream is Twin Lakes, NWPA, and associated GPA
	Hanson	Trib to Lake Eli	374.5	Lake Eli	NWPA, fishing, and hunting area
Nebraska	Colfax	Crossing of Tribs from Lake McCallister	542.0	Whitetail State Wildlife Management Area (SWMA), 3612 Fishing Spot	Feeds into the Platte River
	Colfax	Platte River	541.0	Whitetail SWMA, 3612 Fishing Spot	
	Butler	Crossing of Deer Creek	546.2, 550.0	Whitetail SWMA, 3612 Fishing Spot	Downstream of river crossing, also feeds into the Platte River
	Seward	Crossing of Lone Tree Creek	580.2	Three small reservoirs	Immediately downstream of crossing
	Jefferson	Crossing through Tribs of Big Indian Creek	628.9, 629.2	Unnamed Reservoir	
	Jefferson	Tribs to Big Indian Creek	635.5	Reservoir	Reservoir southwest of Diller
Kansas	No waterbodies located within 10 miles downstream of proposed crossing.				

Waterbodies Within 10 Miles Downstream of Proposed Crossings					
State	**County**	**Stream Crossing Point**	**Approx. Milepost**	**Downstream Reservoir/Fishery/Wildlife Area**	**Other Description**
Kansas/ Missouri	Buchanan	Tribs to New Mud Lake/Old Mud Lake	752.2	New Mud Lake/Old Mud Lake	May not be connected to reservoirs but located close to centerline
	Buchanan	Crossing Platte River	764.5	3112, 3120 Fishing Spot	
	Clinton	Crossing of Horse Fork, Little Platte River	781.0, 783.2	Smithville Reservoir, 2668 Fishing area	Large reservoir just south of Plattesburg
	Caldwell	Crossing of Brush Creek	803.8	2696 Fishing Spot	
	Chariton	Crossing of Grand River	843.2	2472 Fishing Spot	
	Chariton	Crossing Tribs of Palmer Creek	854, 854.8	Cut-Off Lake	Palmer Creek feeds into Cut-Off Lake then connects to Missouri River
	Montogomery	Crossing of Trib. to Middletown Lake	946.5	Middletown Lake	
	St. Charles	Tribs to Horseshoe and Mud Lake	988, 989.5	Horseshoe Lake and Mud Lake	Pipeline crosses through streams between the two waterbodies
	St. Charles	Crossing of Trib to Graus Lake	1005.8	Graus Lake	Pipeline crosses through streams that lead between the two areas
Illinois	Bond	Mooney Creek	1035.5	Holiday Lake	
	Bond	Crosses Highland Silver Lake	1049.9	Highland Silver Lake	Very large reservoir
	Bond	Crosses Spring Branch	1070.0	Carlyle Lake and Carlyle Lake SWMA	

Waterbodies Within 10 Miles Downstream of Proposed Crossings					
State	**County**	**Stream Crossing Point**	**Approx. Milepost**	**Downstream Reservoir/Fishery/Wildlife Area**	**Other Description**
	Bond/Fayette	Carlyle Lake State Wildlife Management Area	1072.5-1076.5		Pipeline crosses through northern section and various streams and reservoirs
	Fayette/Marion	Tribs to Maggot Creek, North Fork	1078	Carlyle Lake and Carlyle Lake SWMA	
CUSHING EXTENSION					
Kansas	Clay	W. Fancy Creek	36.68	Turtle Creek Wildlife Area, Turtle Creek Lake	More than 10 miles downstream, approximately 15 to 20, very large reservoir
	Clay	Lincoln Creek	44, 45.5	Milford Wildlife Area, Milford Lake	Lincoln Creek feeds into the Republican River which leads directly downstream to the Milford Wildlife Area and Milford Lake
	Clay	Republican River	50	Milford Wildlife Area, Milford Lake	Pipeline crossed directly through the Milford Wildlife Area at this crossing. Feeds directly into Milford Wildlife Area and Milford Lake
	Clay	Cane Creek	54	Milford Wildlife Area, Milford Lake	Pipeline crossed directly through the Milford Wildlife Area at this crossing. Feeds directly into Milford Wildlife Area and Milford Lake
	Clay	Trib to Milford Lake	58	Milford Wildlife Area, Milford Lake	
	Clay	Quinnby Creek	61, 62	Milford Wildlife Area, Milford Lake, Milford Lake Project	
	Dickinson	Lyon Creek	98.5, 100, 101.5	Herington Reservoir	Immediately downstream
	Marion	Cottonwood River	117.2	Marion Lake Reservoir, Marion Lake State Wildlife Area	River crossing is downstream, but passes very closely to lake and WA
	Cowley	Arkansas River	206	Kaw WMA, Kaw Lake	
Oklahoma	Kay	Cholocco Creek	212, 213	Kaw WMA, Kaw Lake	
	Noble	Trib to Sooner	258	Sooner Lake	

Waterbodies Within 10 Miles Downstream of Proposed Crossings					
State	**County**	**Stream Crossing Point**	**Approx. Milepost**	**Downstream Reservoir/Fishery/Wildlife Area**	**Other Description**
		Lake			

Appendix I

Levees and Water Control Structures in the Vicinity of the Keystone Pipeline Project

(Note: This appendix is Table 3.5-2, taken directly from the Environmental Report for the Keystone Pipeline Project [ENSR 2006a])

Levees and Water Control Structures

State	County	Milepost	Type of Flood Protection Structure	Waterbody
KEYSTONE MAINLINE				
North Dakota	N/A	N/A	None	N/A
South Dakota	Marshall	225.5	Spoil bank/ditch	Crow Creek Ditch/Crow Creek
Nebraska	Cedar	436.6	Ditch	Kaiser Ditch
	Cedar	438.2	Ditch/canal	Antelope Creek
	Colfax	537.9	Ditch	Barnholdt Ditch
	Colfax	544.0	Canal	Deer Creek Canal
Kansas	Doniphan	743.3	Embankment/levee	Missouri River
Missouri	Buchanan	743.7	Embankment/levee	Missouri River
	Buchanan	752.7	Embankment/levee	
	Buchanan	752.8	Embankment/levee	
	Chariton	840.5	Levee at or nearby	Grand River area
	Chariton	856.9, 857.1, 857.2	(3) levees	Mussel Fork
	Chariton	857.5	Levee	
	Chariton	867.0	Embankment/levee	Middle Fork Little Chariton River
	Lincoln	971.1	Levee	Cuivre River
	St. Charles	985.4	Ditch	Horseshoe/Mud Lake
	St. Charles	985.7, 985.8	(2) levees	Horseshoe/Mud Lake
	St. Charles	986.0	Ditch	Horseshoe/Mud Lake
	St. Charles	986.4	Levee	Horseshoe/Mud Lake
	St. Charles	987.0	Levee	Fish Slough
	St. Charles	987.4, 987.5	(2) levees	Fish Slough
	St. Charles	987.7	Levee	None
	St. Charles	988.3	(2) levees	None
	St. Charles	988.7	Levee	None
	St. Charles	989.8-990.2	(3) levees	Dardenne Lake Area
	St. Charles	991.8	Levee	None

Levees and Water Control Structures

State	County	Milepost	Type of Flood Protection Structure	Waterbody
	St. Charles	1008.9	Levee	Mississippi River Area
	St. Charles	1018.9	Levee	Mississippi River Area
	St. Charles	1021.0	Levee	Mississippi River Area
Illinois	Fayette	1069.8-1070.2	Levee	Carlyle WMA
	Fayette	1070.4	Levee	Carlyle WMA
	Fayette	1071.4	Levee	Carlyle WMA
CUSHING EXTENSION				
Nebraska	None	None	None	None
Kansas	None	None	None	None
Oklahoma	None	None	None	None

Appendix J

Major and Sensitive Water Body Crossings for the Keystone Pipeline Project

(Note: This appendix is Table F-1, taken directly from the Environmental Report for the Keystone Pipeline Project [TransCanada 2007d])

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
KEYSTONE MAINLINE					
NORTH DAKOTA					
Cavalier	0.5	Unnamed	Intermittent		
Cavalier	1.7	Unnamed	Manmade Ditch		
Cavalier	2.6	Unnamed	Manmade Ditch		
Cavalier	3.6	Unnamed	Manmade Ditch		
Cavalier	5.1	Unnamed	Perennial		
Pembina	7.1	Pembina River	Perennial	Fish and Other Aquatic Biota, Recreation, Class 1A	Fully Supporting but Threatened
Pembina	10.5	Smith Coulee	Intermittent		
Pembina	10.8	S Fork Smith Coulee	Intermittent		
Pembina	13.1	Busse Coulee	Intermittent		
Pembina	16.1	Unnamed	Intermittent		
Pembina	16.6	Unnamed	Manmade Body		
Pembina	16.6	Unnamed	Manmade Body		
Pembina	17	Unnamed	Intermittent		
Pembina	17.4	Unnamed	Intermittent		
Pembina	17.7	Unnamed	Intermittent		
Pembina	18.4	Tongue River	Perennial	Fish and other Aquatic Biota, Class II	Fully Supporting but Threatened
Pembina	20.4	Trib. To Willow Creek	Intermittent		
Pembina	20.5	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Pembina	21.5	Unnamed	Intermittent		
Pembina	22.7	Unnamed	Intermittent		
Pembina	23.7	Cart Creek	Intermittent	Class III	
Pembina	24.7	Unnamed	Intermittent		
Pembina	26.1	Unnamed	Intermittent		
Pembina	26.7	Unnamed	Intermittent		
Pembina	27.8	Unnamed	Intermittent		
Pembina	29.4	North Branch Park River	Intermittent	Fish and Other Aquatic Biota, Class III	Fully Supporting but Threatened
Pembina	31	Unnamed	Intermittent		
Pembina	31.8	Unnamed	Intermittent		
Walsh	33.3	Middle Branch Park River	Intermittent	Class III	
Walsh	33.3	Trib of Park River	Intermittent		
Walsh	35.3	Unnamed	Intermittent		
Walsh	35.3	Unnamed	Intermittent		
Walsh	35.3	Unnamed	Intermittent		
Walsh	36.3	Unnamed	Intermittent		
Walsh	37.1	Unnamed	Perennial		
Walsh	37.4	Unnamed	Intermittent		
Walsh	38.1	Unnamed	Intermittent		
Walsh	38.7	Unnamed	Intermittent		
Walsh	39.1	Unnamed	Intermittent		
Walsh	41.6	S Branch Park River	Intermittent	Class II	

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Walsh	42.2	Unnamed	Intermittent		
Walsh	42.3	Unnamed	Intermittent		
Walsh	42.7	Unnamed	Intermittent		
Walsh	43.1	Unnamed	Intermittent		
Walsh	43.3	Unnamed	Intermittent		
Walsh	43.7	Unnamed	Intermittent		
Walsh	43.9	Unnamed	Intermittent		
Walsh	44.1	Unnamed	Intermittent		
Walsh	44.3	Unnamed	Intermittent		
Walsh	44.4	Unnamed	Intermittent		
Walsh	44.8	Unnamed	Intermittent		
Walsh	45.1	Unnamed	Intermittent		
Walsh	45.3	Unnamed	Intermittent		
Walsh	46.1	Unnamed	Intermittent		
Walsh	46.3	North Branch Forest River	Intermittent	Class III	
Walsh	46.9	Trib. To N. Branch Forest River	Intermittent		
Walsh	47.3	Trib. To N. Branch Forest River	Intermittent		
Walsh	47.8	Trib. To N. Branch Forest River	Intermittent		
Walsh	48	Unnamed	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Walsh	48.5	Unnamed	Intermittent		
Walsh	49.2	Unnamed	Intermittent		
Walsh	49.5	Unnamed	Intermittent		
Walsh	50.0	Unnamed	Intermittent		
Walsh	50.3	Unnamed	Intermittent		
Walsh	50.5	Unnamed	Intermittent		
Walsh	50.8	Unnamed	Intermittent		
Walsh	50.9	Unnamed	Intermittent		
Walsh	51.0	Unnamed	Intermittent		
Walsh	51.2	Unnamed	Intermittent		
Walsh	51.3	Unnamed	Intermittent		
Walsh	51.8	Unnamed	Intermittent		
Walsh	52.1	Unnamed	Intermittent		
Walsh	52.2	Unnamed	Intermittent		
Walsh	52.8	Unnamed	Intermittent		
Walsh	53.4	Unnamed	Intermittent		
Walsh	54.2	Unnamed	Intermittent		
Walsh	54.4	Unnamed	Intermittent		
Walsh	54.7	Middle Branch Forest River	Perennial	Fish and Other Aquatic Biota	Not Supporting
Walsh	55.6	Unnamed	Intermittent		
Walsh	55.8	Unnamed	Intermittent		
Walsh	56.5	Unnamed	Intermittent		
Nelson	57.2	Unnamed	Intermittent		
Nelson	57.7	Unnamed	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Nelson	58.3	Unnamed	Intermittent		
Nelson	59.1	Unnamed	Intermittent		
Nelson	59.4	Unnamed	Intermittent		
Nelson	59.7	Unnamed	Intermittent		
Nelson	60.4	Unnamed	Intermittent		
Nelson	60.5	Unnamed	Intermittent		
Nelson	60.7	Unnamed	Intermittent		
Nelson	61.4	Unnamed	Intermittent		
Nelson	62.0	Unnamed	Intermittent		
Nelson	62.0	Unnamed	Intermittent		
Nelson	62.4	Unnamed	Intermittent		
Nelson	62.7	Unnamed	Intermittent		
Nelson	62.7	Unnamed	Intermittent		
Nelson	63.1	Unnamed	Intermittent		
Nelson	64.0	Unnamed	Intermittent		
Nelson	64.3	Unnamed	Intermittent		
Nelson	64.8	Unnamed	Intermittent		
Nelson	65.3	Unnamed	Intermittent		
Nelson	66.2	Unnamed	Intermittent		
Nelson	67.2	N Branch Turtle River	Intermittent	Class II (Turtle river)	Not Supporting
Nelson	69.2	Unnamed	Intermittent		
Nelson	69.6	Unnamed	Intermittent		
Nelson	69.8	Unnamed	Intermittent		
Nelson	69.9	Unnamed	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Nelson	76.1	Unnamed	Intermittent		
Nelson	76.9	Goose River	Perennial	Fish and Other Aquatic Biota; Recreation, Class IA	Not Supporting; Fully Supporting but Threatened
Nelson	78	Unnamed	Intermittent		
Nelson	79.3	Unnamed	Intermittent		
Nelson	80.2	Unnamed	Intermittent		
Nelson	84.7	Unnamed	Intermittent		
Nelson	84.9	Goose Creek	Intermittent		
Nelson	85.1	Trib of Goose Creek	Intermittent		
Nelson	87.5	Unnamed	Intermittent		
Nelson	91.4	Unnamed	Intermittent		
Nelson	91.8	Unnamed	Intermittent		
Nelson	93.2	Unnamed	Intermittent		
Steele	96.2	Unnamed	Intermittent		
Steele	96.3	Unnamed	Intermittent		
Steele	101.5	Unnamed	Intermittent		
Steele	104.9	Unnamed	Intermittent		
Steele	106	Unnamed	Intermittent		
Steele	107.1	Unnamed	Intermittent		
Steele	107.5	Unnamed	Intermittent		
Steele	109.3	Unnamed	Intermittent		
Steele	109.7	Unnamed	Intermittent		
Steele	109.7	Unnamed	Intermittent		
Steele	111	Unnamed	Intermittent		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Steele	112.8	Unnamed	Intermittent		
Steele	113.3	Unnamed	Intermittent		
Steele	116.7	Unnamed	Intermittent		
Steele	118.1	Unnamed	Intermittent		
Steele	120	Unnamed	Intermittent		
Steele	120.2	Unnamed	Intermittent		
Barnes	127.5	Unnamed	Intermittent		
Barnes	128	Unnamed	Intermittent		
Barnes	132.3	Unnamed	Intermittent		
Barnes	134.4	Unnamed	Intermittent		
Barnes	143.6	Unnamed	Manmade Body		
Barnes	144	Unnamed	Manmade Ditch		
Barnes	144.7	Unnamed	Intermittent		
Barnes	145.9	Unnamed	Intermittent		
Barnes	148	Unnamed	Intermittent		
Barnes	150.9	Unnamed	Intermittent		
Barnes	151.4	Unnamed	Intermittent		
Barnes	151.8	Unnamed	Intermittent		
Barnes	152	Unnamed	Intermittent		
Barnes	154.2	Unnamed	Intermittent		
Barnes	154.5	Unnamed	Intermittent		
Barnes	159.1	Unnamed	Manmade Ditch		
Barnes	162.6	Unnamed	Manmade Ditch		
Barnes	162.8	Unnamed	Manmade Ditch		
Ransom	169.1	Sheyenne	Perennial	Fish and Other Aquatic Biota,	Fully Supporting but

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
		River		Recreation, Class 1A	Threatened; Fully Supporting but Threatened/Not Supporting
Ransom	169.3	Trib. To Sheyenne River	Intermittent		
Ransom	170.3	Unnamed	Intermittent		
Ransom	170.4	Unnamed	Intermittent		
Ransom	172.2	Unnamed	Intermittent		
Ransom	173.1	Unnamed	Intermittent		
Ransom	173.9	Unnamed	Intermittent		
	174	Unnamed	Intermittent		
Ransom	176.4	Unnamed	Intermittent		
Ransom	177.5	Unnamed	Manmade Ditch		
Ransom	180.7	Unnamed	Intermittent		
Ransom	181	Unnamed	Intermittent		
Ransom	184	Unnamed	Intermittent		
SOUTH DAKOTA					
Day	249.3	Unnamed	Intermittent		
Day	250.6	Unnamed	Intermittent		
Day	252.1	Unnamed	Intermittent		
Day	252.8	Unnamed	Intermittent		
Day	253.7	Unnamed	Intermittent		
Day	254.5	Unnamed	Intermittent		
Day	256.5	Unnamed	Intermittent		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Day	257.2	Unnamed	Intermittent		
Day	258.5	Amsden Lake Trib.	Intermittent		
Day	259.7	Mud Creek	Perennial		
Day	261.1	Unnamed	Intermittent		
Day	261.4	Unnamed	Perennial		
Day	262.3	Unnamed	Intermittent		
Day	265.6	Unnamed	Intermittent		
Day	266.8	Unnamed	Intermittent		
Day	266.9	Unnamed	Intermittent		
Day	268.6	Unnamed	Intermittent		
Day	269.2	Unnamed	Intermittent		
Day	270.1	Unnamed	Intermittent		
Day	270.8	Unnamed	Intermittent		
Day	271.7	Unnamed	Intermittent		
Day	272.3	Unnamed	Intermittent		
Day	272.5	Unnamed	Intermittent		
Day	273.2	Unnamed	Intermittent		
Day	273.3	Unnamed	Intermittent		
Clark	274.9	Unnamed	Intermittent		
Clark	280	Unnamed	Intermittent		
Clark	280.1	Unnamed	Intermittent		
Clark	280.8	Unnamed	Intermittent		
Clark	281.3	Unnamed	Intermittent		
Clark	281.5	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Clark	282.5	Unnamed	Intermittent		
Clark	283.3	Unnamed	Intermittent		
Clark	284.7	Unnamed	Intermittent		
Clark	285.8	Unnamed	Intermittent		
Clark	286.6	Unnamed	Intermittent		
Clark	288.6	Unnamed	Intermittent		
Clark	289.9	Unnamed	Intermittent		
Clark	291.2	Unnamed	Intermittent		
Clark	293.5	Unnamed	Intermittent		
Clark	300.0	N Fork Of Foster Creek	Intermittent		
Clark	300.2	S Fork Of Foster Creek	Intermittent		
Clark	305.2	Unnamed	Intermittent		
Clark	305.4	Unnamed	Intermittent		
Clark	307.3	Unnamed	Intermittent		
Beadle	310.7	Unnamed	Intermittent		
Beadle	312.3	Unnamed	Intermittent		
Beadle	314.3	Shue Creek	Intermittent		
Beadle	315	Unnamed	Intermittent		
Beadle	316.3	Unnamed	Intermittent		
Beadle	316.8	Pearl Creek	Intermittent	WW marginal fish life propagation waters, limited-contact recreation waters	
Beadle	317.9	Unnamed	Manmade Ditch		
Beadle	318.3	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Beadle	319	Middle Pearl Creek	Intermittent		
Kingsbury	336.4	Unnamed	Intermittent		
Kingsbury	338.7	West Redstone Creek	Intermittent		
Miner	341.4	Unnamed	Manmade Ditch		
Miner	344.4	Unnamed	Intermittent		
Miner	344.5	Redstone Creek	Intermittent	WW marginal fish life propagation waters, limited-contact recreation waters (classification for segment in Sanborn county)	
Miner	346.4	Unnamed	Intermittent		
Miner	360.5	Unnamed	Intermittent		
Miner	360.5	Unnamed	Intermittent		
Miner	360.6	Unnamed	Intermittent		
Miner	360.7	Unnamed	Intermittent		
Miner	362.9	Rock Creek Trib.	Intermittent	WW marginal fish life propagation waters, limited-contact recreation waters (classification for segment in Hanson county)	
Miner	363.6	Rock Creek	Intermittent	WW marginal fish life propagation waters, limited-contact recreation waters (classification for segment in Hanson county)	
Hanson	374.3	Lake Eli Trib.	Manmade Ditch		
Hanson	377.3	Wolf Creek	Perennial	WW marginal fish life propagation	No Data

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
				waters, limited-contact recreation waters	
Hanson	379.2	Wolf Creek Trib.	Intermittent		
McCook	381.3	Unnamed	Intermittent		
McCook	385.7	Wolf Creek	Perennial	WW marginal fish life propagation waters, limited-contact recreation waters	No Data
McCook	388.2	Wolf Creek Trib.	Intermittent		
McCook	388.4	Wolf Creek Trib.	Intermittent		
McCook	389.3	Wolf Creek Trib	Intermittent		
Hutchinson	392.8	Wolf Creek	Perennial	WW marginal fish life propagation waters, limited-contact recreation waters	No Data
Hutchinson	396.5	Unnamed	Intermittent		
Hutchinson	397.7	Unnamed	Intermittent		
Hutchinson	400.5	Unnamed	Intermittent		
Hutchinson	401.8	Unnamed	Intermittent		
Hutchinson	402.8	Unnamed	Intermittent		
Hutchinson	403.5	Unnamed	Intermittent		
Hutchinson	408	Unnamed	Intermittent		
Hutchinson	408.4	Unnamed	Intermittent		
Hutchinson	408.6	Unnamed	Intermittent		
Yankton	416	Unnamed	Intermittent		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Yankton	419.9	Unnamed	Intermittent		
Yankton	420.8	Unnamed	Manmade Ditch		
Yankton	421	Unnamed	Manmade Ditch		
Yankton	422.6	Unnamed	Manmade Body		
Yankton	423.9	James River	Perennial	WW semiperm fish life propagation waters, limited contact recreation waters	No Data
Yankton	425.7	Unnamed	Intermittent		
Yankton	430.1	Beaver Creek	Perennial	WW marginal fish life propagation waters, limited-contact recreation waters	
NEBRASKA					
Cedar	437.6	Missouri River	Perennial		
Cedar	438.7	Unnamed	Manmade Ditch		
Cedar	440	Antelope Creek	Perennial		
Cedar	441.7	Unnamed	Intermittent		
Cedar	442.2	Unnamed	Intermittent		
Cedar	442.4	Unnamed	Intermittent		
Cedar	443.7	Unnamed	Intermittent		
Cedar	444	Unnamed	Manmade Ditch		
Cedar	444.6	Unnamed	Intermittent		
Cedar	445.1	Unnamed	Intermittent		
Cedar	445.4	Unnamed	Intermittent		
Cedar	447.9	Unnamed	Manmade Ditch		
Cedar	448.1	Unnamed	Intermittent		
Cedar	448.6	Unnamed	Intermittent		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Cedar	449.3	Unnamed	Intermittent		
Cedar	449.8	West Bow Creek	Perennial		
Cedar	450.9	West Bow Creek Trib.	Intermittent		
Cedar	452.1	Unnamed	Manmade Ditch		
Cedar	452.7	Norwegian Bow Creek Trib.	Intermittent		
Cedar	453	Norwegian Bow Creek Trib.	Intermittent		
Cedar	453.3	Norwegian Bow Creek	Perennial		
Cedar	454.1	Norwegian Bow Creek Trib.	Intermittent		
Cedar	454.8	Unnamed	Intermittent		
Cedar	455.6	Unnamed	Intermittent		
Cedar	457	Unnamed	Intermittent		
Cedar	457.3	Unnamed	Manmade Ditch		
Cedar	458.7	N Fork Of Bow Creek	Perennial	No Data	No Data
Cedar	459.5	S Fork Of Bow Creek	Perennial	No Data	No Data
Cedar	461.8	Trib. To Pearl Creek	Intermittent		
Cedar	462.74	Pearl Creek	Intermittent		
Cedar	462.3	Unnamed	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Cedar	462.7	Unnamed	Intermittent		
Cedar	463.5	Trib. To Pearl Creek	Intermittent		
Cedar	463.9	Unnamed	Intermittent		
Cedar	464.2	Unnamed	Intermittent		
Cedar	464.6	Unnamed	Intermittent		
Cedar	465.9	Unnamed	Manmade Ditch		
Cedar	466	Unnamed	Intermittent		
Cedar	466.4	Unnamed	Intermittent		
Cedar	467.2	Unnamed	Intermittent		
Cedar	467.7	Unnamed	Intermittent		
Cedar	468.2	Unnamed	Intermittent		
Cedar	468.9	Unnamed	Intermittent		
Cedar	469.5	Unnamed	Intermittent		
Cedar	469.7	Unnamed	Manmade Ditch		
Cedar	470.5	Unnamed	Manmade Ditch		
Cedar	471.5	Unnamed	Intermittent		
Cedar	472.3	Middle Logan Creek	Perennial		
Cedar	473.2	Unnamed	Manmade Ditch		
Wayne	476.0	Dog Creek	Intermittent		
Wayne	477.3	Trib. To Deer Creek	Intermittent		
Wayne	477.4	Trib. To Deer Creek	Intermittent		
Wayne	478.4	Deer Creek	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Wayne	479.1	Trib. To Deer Creek	Intermittent		
Wayne	479.4	Unnamed	Intermittent		
Wayne	480.1	Trib. To Deer Creek	Intermittent		
Wayne	482.1	Unnamed	Intermittent		
Wayne	483.3	S Branch Of Deer Creek	Intermittent		
Wayne	483.7	Unnamed	Manmade Ditch		
Wayne	487.3	Unnamed	Manmade Ditch		
Wayne	488.3	Intermittent	Intermittent		
Wayne	489.1	Spring Branch	Intermittent		
Wayne	490.9	Unnamed	Manmade Ditch		
Wayne	491.4	S Fork To Spring Branch	Intermittent		
Wayne	493.2	Unnamed	Intermittent		
Stanton	496.6	Trib. To Pleasant Run	Intermittent		
Stanton	498.5	Trib. To Pleasant Run	Intermittent		
Stanton	499.2	Pleasant Run	Intermittent		
Stanton	499.8	Unnamed	Manmade Ditch		
Stanton	501.9	Unnamed	Manmade Ditch		
Stanton	504.4	Unnamed	Manmade Ditch		
Stanton	505	Elkhorn River	Perennial	Primary contact recreation; aquatic life use	Inhibited; Supported

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Stanton	505.7	Union Creek	Perennial		
Stanton	508.5	Unnamed	Manmade Ditch		
Stanton	509.4	Unnamed	Manmade Ditch		
Stanton	509.7	Unnamed	Manmade Ditch		
Stanton	510.9	Unnamed	Manmade Ditch		
Stanton	511	Unnamed	Manmade Ditch		
Stanton	511.2	Unnamed	Manmade Ditch		
Stanton	512.7	Unnamed	Manmade Ditch		
Stanton	512.7	Trib To Butterfly Creek	Intermittent		
Stanton	514.8	Unnamed	Manmade Ditch		
Stanton	515.5	Unnamed	Intermittent		
Stanton	517.3	Unnamed	Intermittent		
Platte	519.5	Trib. To West Fork Maple Creek	Intermittent		
Platte	520.1	Trib. To West Fork Maple Creek	Intermittent		
Platte	521.6	Unnamed	Intermittent		
Colfax	524.5	Unnamed	Intermittent		
Colfax	524.5	Unnamed	Manmade Ditch		
Colfax	527.1	Unnamed	Intermittent		
Colfax	528.1	Unnamed	Manmade Ditch		
Colfax	528.1	Unnamed	Manmade Ditch		
Colfax	528.5	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Colfax	531.4	Unnamed	Manmade Ditch		
Colfax	532.2	Unnamed	Manmade Ditch		
Colfax	532.2	Unnamed	Manmade Ditch		
Colfax	533.5	Unnamed	Manmade Ditch		
Colfax	534.6	Shell Creek	Perennial		
Colfax	536.8	Unnamed	Manmade Ditch		
Colfax	539.3	Unnamed	Manmade Ditch		
Colfax	540.4	Barnholdt Ditch	Manmade Ditch		
Colfax	541	Unnamed	Intermittent		
Colfax	541.9	Lost Creek	Intermittent	No Data	No Data
Colfax	543.5	Trib. To Platte River	Intermittent		
Colfax	544.2	Platte River	Artificial Path	Primary contact recreation; Aquatic Life Use; Agriculture Water Supply	Inhibited; Inhibited; Supported
Colfax	544.6	Platte River	Artificial Path		
Bulter	544.8	Trib. To Platte River	Intermittent		
Bulter	544.8	Unnamed	Intermittent		
Bulter	546.8	Deer Creek	Intermittent	No Data	No Data
Bulter	549.5	Unnamed	Intermittent		
Bulter	553.2	Unnamed	Intermittent		
Bulter	556.9	Unnamed	Intermittent		
Bulter	557.3	Unnamed	Intermittent		
Bulter	559.4	Unnamed	Manmade Ditch		
Bulter	561.9	Trib. To Little Blue River	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Bulter	562.8	Unnamed	Intermittent		
Bulter	563.5	Unnamed	Intermittent		
Bulter	566	Unnamed	Manmade Ditch		
Bulter	568	Unnamed	Manmade Ditch		
Seward	568.9	Unnamed	Intermittent		
Seward	575.4	Unnamed	Intermittent		
Seward	575.5	Big Blue River	Perennial	Aquatic Life Use; Agriculture water supply	Inhibited; Supported
Seward	578	Lincoln Creek	Perennial		
Seward	578.5	Unnamed	Manmade Ditch		
Seward	580.3	Unnamed	Manmade Ditch		
Seward	580.4	Unnamed	Intermittent		
Seward	581.6	Lone Tree Creek	Intermittent		
Seward	583	Crooked Creek	Intermittent		
Seward	585.9	Unnamed	Manmade Ditch		
Seward	586	Pond	Manmade Body		
Seward	588.1	Coon Creek	Intermittent		
Seward	588.4	Trib. To Coon Creek	Intermittent		
Seward	589	Trib. To Coon Creek	Intermittent		
Seward	589.1	Unnamed	Manmade Ditch		
Seward	589.5	Trib. To Coon Creek	Intermittent		
Seward	590.6	Unnamed	Intermittent		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Seward	591.2	Unnamed	Intermittent		
Seward	591.7	Unnamed	Intermittent		
Seward	592.2	Unnamed	Intermittent		
Seward	592.5	Unnamed	Manmade Ditch		
Saline	593.4	West Fork Big Blue River	Perennial	Primary contact recreation; Aquatic life use; Ag water supply	Inhibited; Inhibited; Supported
Saline	594.1	Unnamed	Manmade Ditch		
Saline	595.5	Unnamed	Manmade Ditch		
Saline	597.4	Squaw Creek	Intermittent		
Saline	597.6	Unnamed	Intermittent		
Saline	598.7	Trib to Turkey Creek	Manmade Body		
Saline	599.6	Turkey Creek	Perennial	No Data	No Data
Saline	601.0	Spring Creek	Intermittent		
Saline	602.1	Trib. To Spring Creek	Intermittent		
Saline	602.5	Trib. To Spring Creek	Intermittent		
Saline	605.6	Brush Creek	Intermittent		
Saline	606.6	Trib. To Brush Creek	Intermittent		
Saline	607.2	Unnamed	Manmade Ditch		
Saline	607.9	Dry Creek	Perennial		
Saline	608.2	Trib to Dry Creek	Perennial		
Saline	608.9	Plummers	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
		Branch			
Saline	610.4	Plummers Branch	Intermittent		
Saline	611.8	Plummers Branch	Intermittent		
Saline	612	Trib. To Plummers Branch	Intermittent		
Saline	613.1	Unnamed	Ephemeral		
Saline	613.1	Unnamed	Ephemeral		
Saline	613.3	Unnamed	Ephemeral		
Saline	615.1	Swan Creek	Perennial		
Saline	616.9	Unnamed	Intermittent		
Jefferson	618.4	Unnamed	Intermittent		
Jefferson	618.8	Unnamed	Intermittent		
Jefferson	619.5	Unnamed	Intermittent		
Jefferson	623.6	Trib. To Cub Creek	Intermittent		
Jefferson	624.4	Cub Creek	Perennial	No Data	No Data
Jefferson	625.4	Trib. To Cub Creek	Intermittent		
Jefferson	629.1	Unnamed	Intermittent		
Jefferson	631.3	Big Indian Creek	Perennial		
Jefferson	632.7	Unnamed	Intermittent		
	632.7	Unnamed	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Jefferson	633.1	Unnamed	Manmade Ditch		
Jefferson	635.4	Unnamed	Perennial		
Jefferson	635.4	Unnamed	Perennial		
Jefferson	635.9	Unnamed	Intermittent		
NEBRASKA REX Parallel					
Jefferson	636.4	Unnamed	Intermittent		
Jefferson	636.7	Unnamed	Intermittent		
Jefferson	637	Unnamed	Intermittent		
Jefferson	637.9	Unnamed	Manmade Ditch		
Jefferson	638.3	Unnamed	Intermittent		
Jefferson	638.5	Unnamed	Intermittent		
Jefferson	639.4	Unnamed	Intermittent		
Jefferson	640	Unnamed	Intermittent		
Jefferson	640.2	Unnamed	Manmade Ditch		
Jefferson	640.2	Unnamed	Manmade Body		
Jefferson	640.4	Unnamed	Manmade Body		
Jefferson	640.5	Unnamed	Intermittent		
Jefferson	641	Unnamed	Intermittent		
Jefferson	641.4	Unnamed	Intermittent		
Jefferson	641.8	Unnamed	Intermittent		
Jefferson	641.8	Unnamed	Intermittent		
Jefferson	641.8	Unnamed	Intermittent		
Jefferson	642.3	Unnamed	Manmade Ditch		
Jefferson	643.3	Unnamed	Intermittent		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Jefferson	644.2	Unnamed	Intermittent		
Jefferson	644.3	Unnamed	Intermittent		
Gage	644.4	Unnamed	Manmade Ditch		
Gage	646.3	Horseshoe Creek	Perennial		
Gage	647.6	Horseshoe Creek	Perennial		
Gage	648.9	Unnamed	Manmade Ditch		
Gage	649	Unnamed	Manmade Ditch		
Gage	649	Unnamed	Manmade Ditch		
Gage	650.6	Trib. To Little Indian Creek	Intermittent		
Gage	651.2	Little Indian Creek	Intermittent		
Gage	651.5	Trib. To Little Indian Creek	Intermittent		
KANSAS					
Marshall	653.8	Meadow Creek	Intermittent Stream/River	No Data	No Data
Marshall	654.4	Unnamed	Canal/Ditch		
Marshall	654.9	Trib. To Indian Creek	Perennial Stream/River		
Marshall	655.5	Indian Creek	Perennial Stream/River	No Data	No Data
Marshall	656.4	Unnamed	Canal/Ditch		
Marshall	656.4	Unnamed	Canal/Ditch		
Marshall	656.7	Trib. To Indian	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
		Creek	Stream/River		
Marshall	657.3	Unnamed	Canal/Ditch		
Marshall	657.7	Trib. To Deer Creek	Intermittent Stream/River		
Marshall	658.1	Trib. To Deer Creek	Intermittent Stream/River		
Marshall	658.4	Unnamed	Canal/Ditch		
Marshall	658.4	Unnamed	Canal/Ditch		
Marshall	658.7	Deer Creek	Perennial Stream/River	General Purpose; Aquatic Life; Recreational Use (contact use, not open to public)	No Data
Marshall	658.8	Unnamed	Canal/Ditch		
Marshall	659.9	Trib. To Big Blue River	Intermittent Stream/River		
Marshall	660.9	Big Blue River	Perennial Stream/River	No Data	No Data
Marshall	661.2	North Elm Creek	Perennial Stream/River	General Purpose; Aquatic Life; Recreational Use (contact use, not open to public)	No Data
Marshall	661.9	Trib. To North Elm Creek	Perennial Stream/River	General Purpose; Aquatic Life; Recreational Use (contact use, not open to public)	No Data
Marshall	662	Trib. To North Elm Creek	Perennial Stream/River	General Purpose; Aquatic Life; Recreational Use (contact use, not open to public)	No Data
Marshall	664.6	North Elm Creek	Perennial Stream/River	General Purpose; Aquatic Life; Recreational Use (contact use, not open to public)	No Data

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Marshall	664.6	North Elm Creek	Perennial Stream/River	General Purpose; Aquatic Life; Recreational Use (contact use, not open to public)	No Data
Marshall	665	Trib. To North Elm Creek	Intermittent Stream/River		
Marshall	667.1	Trib. To North Elm Creek	Intermittent Stream/River		
Marshall	670.3	Unnamed	Intermittent Stream/River		
Marshall	670.9	Trib To Robidoux Creek	Perennial Stream/River		
Marshall	670.9	Unnamed	Manmade Ditch		
Marshall	671.3	Unnamed	Intermittent Stream/River		
Marshall	672	Unnamed	Manmade Ditch		
Marshall	672	Unnamed	Manmade Ditch		
Marshall	672.6	Trib To Robidoux Creek	Perennial Stream/River		
Marshall	672.7	Unnamed	Intermittent Stream/River		
Marshall	673.7	Unnamed	Manmade Ditch		
Marshall	674	Trib. To Robidoux Creek	Intermittent Stream/River		
Marshall	674.1	Robidoux	Perennial Stream/River	General Purpose; Aquatic Life;	No Data

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
		Creek		Recreational Use (contact use, not open to public)	
Marshall	675.1	Unnamed	Manmade Ditch		
Marshall	675.1	Unnamed	Manmade Ditch		
Marshall	678.1	Unnamed	Manmade Ditch		
Marshall	678.1	Unnamed	Manmade Ditch		
Nemaha	683.4	Trib. To Negro Creek	Intermittent Stream/River		
Nemaha	683.5	Negro Creek	Intermittent Stream/River	No Data	No Data
Nemaha	683.6	Negro Creek	Intermittent Stream/River	No Data	No Data
Nemaha	683.7	Unnamed	Manmade Ditch		
Nemaha	684.9	Trib. To North Fork Wildcat Cr	Intermittent Stream/River		
Nemaha	685.3	Trib. To North Fork Wildcat Cr	Manmade Ditch		
Nemaha	685.6	Trib. To North Fork Wildcat Cr	Intermittent Stream/River		
Nemaha	685.9	Trib. To North Fork Wildcat Cr	Intermittent Stream/River		
Nemaha	686	Unnamed	Manmade Ditch		
Nemaha	686	Unnamed	Manmade Ditch		
Nemaha	686.2	Unnamed	Manmade Ditch		
Nemaha	686.4	Unnamed	Manmade Ditch		
Nemaha	686.7	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Nemaha	686.7	Unnamed	Manmade Ditch		
Nemaha	686.9	North Fork Wildcat Creek	Intermittent Stream/River	No Data	No Data
Nemaha	687	Unnamed	Manmade Ditch		
Nemaha	687.4	Unnamed	Manmade Ditch		
Nemaha	687.6	Unnamed	Manmade Ditch		
Nemaha	688.1	Wildcat Creek	Perennial Stream/River	General Purpose; Special Aquatic Life (contact use, not open to public); Domestic Water Supply; Food Procurement Use; Ground Water Recharge; Irrigation Use	No Data
Nemaha	688.5	Unnamed	Manmade Ditch		
Nemaha	688.5	Unnamed	Manmade Ditch		
Nemaha	688.9	Unnamed	Manmade Ditch		
Nemaha	690.8	Trib. To Wildcat Creek	Intermittent Stream/River		
Nemaha	691.9	South Fork Big Nemaha River	Perennial Stream/River	General Purpose; Special Aquatic Life (contact use, not open to public); Domestic Water Supply; Food Procurement Use; Ground Water Recharge; Irrigation Use	No Data
Nemaha	692.6	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Nemaha	692.6	Unnamed	Manmade Ditch		
Nemaha	693.6	Harris Creek	Perennial Stream/River	General Purpose; Expected Aquatic Life Use	No Data
Nemaha	694.3	Unnamed	Manmade Ditch		
Nemaha	694.3	Unnamed	Manmade Ditch		
Nemaha	694.5	Unnamed	Manmade Ditch		
Nemaha	695.3	Unnamed	Manmade Body		
Nemaha	695.7	Unnamed	Manmade Ditch		
Nemaha	695.7	Unnamed	Manmade Ditch		
Nemaha	696	Trib. To Harris Creek	Intermittent Stream/River		
Nemaha	696.3	Harris Creek	Perennial Stream/River	General Purposes;Expected Aquatic Life Use	No Data
Nemaha	696.9	Unnamed	Manmade Ditch		
Nemaha	696.9	Trib. To Harris Creek	Perennial Stream/River		
Nemaha	698.9	Unnamed	Manmade Ditch		
Nemaha	699	Unnamed	Intermittent Stream/River		
Nemaha	699	Unnamed	Intermittent Stream/River		
Nemaha	699.1	Unnamed	Intermittent Stream/River		
Nemaha	699.4	Unnamed	Manmade Ditch		
Nemaha	699.5	Unnamed	Manmade Ditch		
Nemaha	699.8	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Nemaha	700.7	Unnamed	Manmade Ditch		
Nemaha	702.7	Unnamed	Manmade Body		
Nemaha	702.9	Craig Creek	Perennial Stream/River	No Data	No Data
Nemaha	703	Unnamed	Manmade Ditch		
Nemaha	703.1	Unnamed	Manmade Ditch		
Nemaha	703.5	Unnamed	Manmade Ditch		
Nemaha	704.8	Unnamed	Intermittent Stream/River		
Nemaha	705.3	Unnamed	Intermittent Stream/River		
Nemaha	705.4	Unnamed	Intermittent Stream/River		
Nemaha	705.4	Unnamed	Intermittent Stream/River		
Nemaha	705.5	Unnamed	Intermittent Stream/River		
Brown	706.1	Unnamed	Intermittent Stream/River		
Brown	706.5	Unnamed	Manmade Ditch		
Brown	706.9	Unnamed	Intermittent Stream/River		
Brown	707.1	Unnamed	Manmade Ditch		
Brown	707.2	Unnamed	Manmade Ditch		
Brown	707.6	Unnamed	Intermittent Stream/River		
Brown	707.6	Unnamed	Intermittent		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
			Stream/River		
Brown	707.6	Unnamed	Intermittent Stream/River		
Brown	707.6	Unnamed	Intermittent Stream/River		
Brown	707.7	Unnamed	Manmade Ditch		
Brown	708.1	Delaware River	Perennial Stream/River	No Data	No Data
Brown	708.2	Unnamed	Intermittent Stream/River		
Brown	708.3	Unnamed	Intermittent Stream/River		
Brown	708.3	Unnamed	Manmade Ditch		
Brown	708.4	Unnamed	Intermittent Stream/River		
Brown	709.1	Trib. To Delaware River	Perennial Stream/River		
Brown	709.3	Unnamed	Manmade Ditch		
Brown	710	Trib. To Delaware River	Perennial Stream/River		
Brown	710.1	Unnamed	Manmade Ditch		
Brown	710.8	Unnamed	Manmade Body		
Brown	710.9	Unnamed	Manmade Body		
Brown	710.9	Unnamed	Manmade Body		
Brown	711.6	East Branch Walnut Creek	Perennial Stream/River	General Purposes; Expected Aquatic Life Use	No Data
Brown	712.6	Walnut Creek	Perennial Stream/River	General Purposes; Expected Aquatic	No Data

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
				Life Use	
Brown	713.1	Unnamed	Manmade Ditch		
Brown	713.2	Unnamed	Manmade Ditch		
Brown	713.9	Unnamed	Intermittent Stream/River		
Brown	714	Unnamed	Intermittent Stream/River		
Brown	714.7	Unnamed	Intermittent Stream/River		
Brown	715	Unnamed	Manmade Ditch		
Brown	715.3	Wolf River	Perennial Stream/River	General Purposes; Expected Aquatic Life Use; Domestic Water Supply; Food Procurement Use; Ground Water Recharge; Irrigation Use; Industrial Water Use; Livestock Water Use	No Data
Brown	716.2	Unnamed	Manmade Ditch		
Brown	716.8	Unnamed	Intermittent Stream/River		
Brown	716.8	Unnamed	Manmade Body		
Brown	717.3	Unnamed	Intermittent Stream/River		
Brown	717.7	Unnamed	Intermittent Stream/River		
Brown	718.9	Trib. To Wolf River	Intermittent Stream/River		
Brown	718.9	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Brown	718.9	Unnamed	Manmade Ditch		
Brown	718.9	Trib. To Wolf River	Intermittent Stream/River		
Brown	719.1	Unnamed	Manmade Ditch		
Brown	719.2	Channel	Manmade Ditch		
Brown	719.2	Unnamed	Manmade Ditch		
Brown	719.4	Trib. To Wolf River	Intermittent Stream/River		
Brown	719.4	Unnamed	Manmade Ditch		
Brown	719.5	Unnamed	Manmade Ditch		
Brown	720.2	Trib.To Wolf River	Intermittent Stream/River		
Brown	720.3	Unnamed	Manmade Ditch		
Brown	720.6	Unnnamed	Intermittent Stream/River		
Brown	720.8	Unnamed	Manmade Ditch		
Brown	721.2	Trib. To Wolf River	Intermittent Stream/River		
Brown	721.3	Unnamed	Manmade Ditch		
Brown	721.5	Unnamed	Manmade Ditch		
Brown	722.2	Unnamed	Manmade Ditch		
Brown	722.3	Unnamed	Manmade Ditch		
Brown	722.8	Middle Fork Wolf River	Perennial Stream/River	General Purposes; Expected Aquatic Life Use; Domestic Water Supply; Food Procurement Use; Ground Water Recharge; Irrigation Use;	No Data

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
				Industrial Water Use; Livestock Water Use	
Brown	723.7	Unnamed	Intermittent Stream/River		
Brown	725	Buttermilk Creek	Perennial Stream/River	General Purpose; Expected Aquatic Life Use	
Brown	726.4	Trib. To South Fork Wolf River	Intermittent Stream/River		
Brown	727.31	South Fork Wolf River	Perennial Stream/River	General Purposes;Expected Aquatic Life Use; Domestic Water Supply; Food Procurement Use; Ground Water Recharge; Irrigation Use; Industrial Water Use; Livestock Water Use	No Data
Brown	730.1	Squaw Creek	Perennial Stream/River	General Purposes; Expected Aquatic Life Use; Primary Contact Recreation is by Law or Written Permission of the Landowner	No Data
Brown	730.1	Unnamed	Manmade Ditch		
Brown	730.3	Unnamed	Manmade Ditch		
Brown	730.3	Unnamed	Manmade Ditch		
Brown	730.5	Unnamed	Manmade Ditch		
Doniphan	730.9	Trib. To Squaw Creek	Perennial Stream/River		
Doniphan	730.9	Unnamed	Manmade Ditch		
Doniphan	731.2	Unnamed	Manmade Body		
Doniphan	731.6	Unnamed	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
			Stream/River		
Doniphan	732	Trib. To Halling Creek	Perennial Stream/River		
Doniphan	732.2	Halling Creek	Perennial Stream/River	General Purpose; Aquatic Life Use	No Data
Doniphan	734.9	Unnamed	Intermittent Stream/River		
Doniphan	736.5	Unnamed	Manmade Ditch		
Doniphan	737.3	Unnamed	Intermittent Stream/River		
Doniphan	738.5	Trib.To North Branch Independence Creek	Perennial Stream/River		
Doniphan	739.2	Trib. To North Branch Independence Creek	Intermittent Stream/River		
Doniphan	740.8	Jordan Creek	Intermittent Stream/River	General Purpose; Expected Aquatic Life Use	No Data
Doniphan	742.4	Unnamed	Manmade Ditch		
Doniphan	742.4	Unnamed	Manmade Ditch		
Doniphan	742.6	Unnamed	Manmade Ditch		
Doniphan	743	Rock Creek	Perennial Stream/River	General Purpose; Expected Aquatic Life Use	No Data
Doniphan	743.5	Unnamed	Manmade Ditch		
Doniphan	744.1	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Doniphan	744.3	Unnamed	Manmade Ditch		
Doniphan	744.3	Unnamed	Manmade Ditch		
Doniphan	744.5	Unnamed	Manmade Ditch		
Doniphan	744.9	Trib.To Brush Creek	Intermittent Stream/River		
Doniphan	745	Unnamed	Manmade Ditch		
Doniphan	745.2	Unnamed	Manmade Ditch		
Doniphan	745.3	Unnamed	Manmade Ditch		
Doniphan	745.4	Unnamed	Manmade Ditch		
Doniphan	745.4	Unnamed	Manmade Ditch		
Doniphan	745.5	Unnamed	Manmade Ditch		
Doniphan	745.6	Brush Creek	Intermittent Stream/River	General Purpose; Aquatic Life Use	No Data
Doniphan	746.0	Trib. To Brush Creek	Intermittent Stream/River		
Doniphan	746.2	Unnamed	Manmade Ditch		
Doniphan	746.4	Unnamed	Manmade Ditch		
Doniphan	746.4	Trib. To Brush Creek	Intermittent Stream/River		
Doniphan	746.8	Trib. To Brush Creek	Perennial Stream/River		
Doniphan	747.5	Trib. To Missouri River	Perennial Stream/River		
Doniphan	747.7	Unnamed	Intermittent Stream/River		
Doniphan	748	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Doniphan	748	Unnamed	Manmade Ditch		
Doniphan	748.4	Trib. To Missouri River	Intermittent Stream/River		
Doniphan	748.7	Trib. To Missouri River	Perennial Stream/River		
Doniphan	749.3	Unnamed	Manmade Ditch		
Doniphan	749.5	Trib. To Missouri River	Perennial Stream/River		
Doniphan	750.2	Unnamed	Manmade Ditch		
Doniphan	750.4	Unnamed	Manmade Ditch		
Doniphan	750.9	Missouri River	Perennial Stream/River		
MISSOURI REX Parallel					
Buchanan	750.9	Missouri River	Artificial Path		
Buchanan	754.4	Unnamed	Canal/Ditch		
Buchanan	754.5	Unnamed	Manmade Ditch		
Buchanan	754.9	Unnamed	Manmade Ditch		
Buchanan	755.3	Unnamed	Intermittent Stream/River		
Buchanan	755.5	Unnamed	Intermittent Stream/River		
Buchanan	755.7	Unnamed	Manmade Ditch		
Buchanan	756.4	Contrary Creek	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact	No Data

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
				Recreation	
Buchanan	756.6	Unnamed	Canal/Ditch		
Buchanan	756.6	Unnamed	Manmade Ditch		
Buchanan	759.2	Unnamed	Open Water		
Buchanan	759.4	Unnamed	Manmade Ditch		
Buchanan	759.4	Unnamed	Manmade Ditch		
Buchanan	759.4	Unnamed	Manmade Ditch		
Buchanan	759.5	Unnamed	Manmade Ditch		
Buchanan	759.5	Unnamed	Manmade Ditch		
Buchanan	759.5	Unnamed	Manmade Ditch		
Buchanan	759.5	Unnamed	Manmade Ditch		
Buchanan	759.7	Unnamed	Manmade Ditch		
Buchanan	759.8	Unnamed	Manmade Ditch		
Buchanan	759.8	Unnamed	Manmade Ditch		
Buchanan	760.1	Unnamed	Manmade Ditch		
Buchanan	760.1	Unnamed	Manmade Ditch		
Buchanan	760.2	Unnamed	Manmade Ditch		
Buchanan	760.2	Unnamed	Manmade Ditch		
Buchanan	760.3	Trib. To Pigeon Creek	Perennial Stream/River		
Buchanan	760.4	Unnamed	Manmade Ditch		
Buchanan	760.6	Unnamed	Manmade Body		
Buchanan	760.6	Unnamed	Manmade Ditch		
Buchanan	760.7	Bee Creek	Intermittent Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Buchanan	760.9	Unnamed	Manmade Ditch		
Buchanan	760.9	Unnamed	Manmade Ditch		
Buchanan	760.9	Unnamed	Manmade Ditch		
Buchanan	760.9	Unnamed	Manmade Ditch		
Buchanan	761	Unnamed	Manmade Ditch		
Buchanan	761.5	Trib. To Pigeon Creek	Perennial Stream/River		
Buchanan	761.6	Unnamed	Canal/Ditch		
Buchanan	761.8	Trib. To Pigeon Creek	Intermittent Stream/River		
Buchanan	761.9	Unnamed	Intermittent Stream/River		
Buchanan	762.1	Trib. To Pigeon Creek	Intermittent Stream/River		
Buchanan	762.7	Unnamed	Intermittent Stream/River		
Buchanan	762.9	Unnamed	Manmade Ditch		
Buchanan	763	Pigeon Creek	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact Recreation	No Data
Buchanan	763.3	Pigeon Creek	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact Recreation	No Data

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Buchanan	764.1	Unnamed	Canal/Ditch		
Buchanan	764.6	Platte River	Perennial Stream/River	Irrigation Use; Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact Recreation; Secondary Contact Recreation; Drinking Water Supply	No Data
Buchanan	764.8	Unnamed	Manmade Ditch		
Buchanan	765	Unnamed	Intermittent Stream/River		
Buchanan	765.1	Unnamed	Manmade Ditch		
Buchanan	765.4	Trib To Platte River	Perennial Stream/River		
Buchanan	765.9	Unnamed	Manmade Ditch		
Buchanan	765.9	Unnamed	Manmade Ditch		
Buchanan	766.1	Trib To Platte River	Intermittent Stream/River		
Buchanan	766.3	Unnamed	Manmade Ditch		
Buchanan	766.5	Unnamed	Manmade Ditch		
Buchanan	766.7	Unnamed	Manmade Ditch		
Buchanan	766.8	Unnamed	Manmade Ditch		
Buchanan	767.1	Unnamed	Manmade Ditch		
Buchanan	767.2	Unnamed	Manmade Ditch		
Buchanan	768.3	Unnamed	Manmade Ditch		
Buchanan	768.4	Unnamed	Manmade Ditch		
Buchanan	768.4	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Buchanan	768.4	Unnamed	Intermittent Stream/River		
Buchanan	769.2	Malden Creek	Perennial Stream/River	No Data	No Data
Buchanan	771.1	Wolfpen Creek	Perennial Stream/River	No Data	No Data
Buchanan	771.3	Unnamed	Manmade Ditch		
Clinton	771.7	Jenkins Branch	Perennial Stream/River	No Data	No Data
Clinton	773.7	Unnamed	Manmade Ditch		
Clinton	775.3	Castile Creek	Perennial Stream/River	Class C, Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact Recreation; Secondary Contact Recreation; Drinking Water Supply	No Data
Clinton	776.1	Unnamed	Manmade Ditch		
Clinton	779.7	Unnamed	Manmade Ditch		
Clinton	779.7	Unnamed	Manmade Body		
Clinton	779.9	Unnamed	Intermittent Stream/River		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Clinton	780.2	Unnamed	Manmade Ditch		
Clinton	780.6	Unnamed	Intermittent Stream/River		
Clinton	780.7	Unnamed	Manmade Ditch		
Clinton	780.9	Unnamed	Intermittent Stream/River		
Clinton	781.1	Horse Fork	Perennial Stream/River		
Clinton	781.3	Trib. To Horse Fork	Intermittent Stream/River		
Clinton	781.7	Unnamed	Manmade Pond		
Clinton	782.5	Unnamed	Perennial Stream/River		
Clinton	782.7	Unnamed	Intermittent Stream/River		
Clinton	783	Unnamed	Intermittent Stream/River		
Clinton	783	Unnamed	Manmade Ditch		
Clinton	783.3	Little Platte River	Perennial Stream/River	Class C, Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact Recreation; Secondary Contact Recreation; Class C	State Spawning Water (3/15-6/15)
Clinton	784.2	Trib To Little Platte River	Perennial Stream/River		
Clinton	784.3	Unnamed	Perennial Stream/River		
Clinton	784.4	Unnamed	Perennial Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Clinton	787.2	Unnamed	Intermittent Stream/River		
Clinton	788.2	Shoal Creek	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact Recreation; Secondary Contact Recreation	No Data
Clinton	788.9	Little Shoal Creek	Perennial Stream/River	No Data	No Data
Clinton	789.2	Unnamed	Manmade Ditch		
Clinton	789.4	Unnamed	Manmade Ditch		
Clinton	789.4	Unnamed	Manmade Ditch		
Clinton	789.5	Unnamed	Manmade Ditch		
Clinton	789.7	Unnamed	Intermittent Stream/River		
Clinton	790	Unnamed	Intermittent Stream/River		
Clinton	790.7	Unnamed	Intermittent Stream/River		
Clinton	790.8	Deer Creek	Perennial Stream/River	No Data	No Data
Clinton	792.2	Plum Creek	Intermittent Stream/River	No Data	No Data
Clinton	792.5	Unnamed	Intermittent Stream/River		
Clinton	792.5	Unnamed	Manmade Ditch		
Clinton	792.6	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Clinton	792.6	Unnamed	Manmade Ditch		
Caldwell	792.9	Unnamed	Manmade Ditch		
Caldwell	792.9	Unnamed	Manmade Ditch		
Caldwell	793.5	Unnamed	Perennial Stream/River		
Caldwell	793.9	Trib To Plum Creek	Perennial Stream/River		
Caldwell	793.9	Unnamed	Intermittent Stream/River		
Caldwell	794.5	Unnamed	Manmade Ditch		
Caldwell	795.1	Unnamed	Intermittent Stream/River		
Caldwell	795.1	Unnamed	Intermittent Stream/River		
Caldwell	795.3	Unnamed	Manmade Ditch		
Caldwell	796.6	Trib. To Log Creek	Intermittent Stream/River		
Caldwell	797	Log Creek	Perennial Stream/River	No Data	No Data
Caldwell	797.3	Unnamed	Manmade Body		
Caldwell	797.6	Unnamed	Intermittent Stream/River		
Caldwell	798.1	Unnamed	Manmade Ditch		
Caldwell	798.1	Unnamed	Manmade Ditch		
Caldwell	798.1	Unnamed	Manmade Ditch		
Caldwell	798.1	Unnamed	Manmade Ditch		
Caldwell	798.5	Unnamed	Manmade Body		
Caldwell	798.9	Log Creek	Perennial Stream/River	No Data	No Data

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Caldwell	798.9	Trib. To Log Creek	Perennial Stream/River	No Data	No Data
Caldwell	798.9	Unnamed	Manmade Ditch		
Caldwell	799.1	Unnamed	Manmade Ditch		
Caldwell	799.1	Unnamed	Manmade Ditch		
Caldwell	799.2	Unnamed	Manmade Ditch		
Caldwell	799.2	Unnamed	Manmade Ditch		
Caldwell	799.2	Unnamed	Manmade Ditch		
Caldwell	799.2	Unnamed	Manmade Ditch		
Caldwell	799.2	Unnamed	Manmade Ditch		
Caldwell	799.2	Unnamed	Manmade Ditch		
Caldwell	799.2	Unnamed	Manmade Ditch		
Caldwell	799.6	Unnamed	Manmade Ditch		
Caldwell	800	Unnamed	Manmade Ditch		
Caldwell	800	Unnamed	Intermittent Stream/River		
Caldwell	800.5	Unnamed	Manmade Ditch		
Caldwell	801.1	Long Creek	Perennial Stream/River		
Caldwell	801.5	Unnamed	Manmade Ditch		
Caldwell	801.7	Unnamed	Manmade Ditch		
Caldwell	801.9	Unnamed	Manmade Ditch		
Caldwell	802	Unnamed	Manmade Ditch		
Caldwell	802.1	Unnamed	Perennial Stream/River		
Caldwell	803	Unnamed	Intermittent Stream/River		
Caldwell	803.2	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Caldwell	803.8	Brush Creek	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption	State Spawning Water (3/15-6/15)
Caldwell	804.2	Unnamed	Manmade Ditch		
Caldwell	804.3	Unnamed	Manmade Ditch		
Caldwell	804.3	Trib. To Brush Creek	Perennial Stream/River		
Caldwell	804.6	Unnamed	Manmade Ditch		
Caldwell	805	Unnamed	Manmade Ditch		
Caldwell	805.2	Unnamed	Manmade Ditch		
Caldwell	805.8	Unnamed	Manmade Ditch		
Caldwell	805.9	Unnamed	Manmade Ditch		
Caldwell	805.9	Unnamed	Manmade Ditch		
Caldwell	806.3	Unnamed	Manmade Ditch		
Caldwell	807.1	Crabapple Creek	Perennial Stream/River	Class C, Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact Recreation	State Spawning Water (3/15-6/15)
Caldwell	807.3	Trib. To Crabapple Creek	Perennial Stream/River		
Caldwell	807.4	Trib. To Crabapple Creek	Perennial Stream/River		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Caldwell	807.4	Trib. To Crabapple Creek	Perennial Stream/River		
Caldwell	810	Unnamed	Perennial Stream/River		
Caldwell	810.4	Trib. To North Mud Creek	Perennial Stream/River		
Caldwell	810.6	Unnamed	Manmade Ditch		
Caldwell	810.8	Unnamed	Manmade Ditch		
Caldwell	810.9	Unnamed	Manmade Ditch		
Caldwell	811	Trib. To North Mud Creek	Perennial Stream/River		
Caldwell	811	Unnamed	Intermittent Stream/River		
Caldwell	811.2	Unnamed	Intermittent Stream/River		
Caldwell	811.3	Unnamed	Manmade Ditch		
Caldwell	811.4	Trib. To North Mud Creek	Perennial Stream/River		
Caldwell	811.6	Unnamed	Manmade Ditch		
Caldwell	811.7	Trib. To North Mud Creek	Perennial Stream/River		
Caldwell	812.2	Unnamed	Manmade Ditch		
Caldwell	812.3	Unnamed	Manmade Ditch		
Caldwell	812.4	Unnamed	Manmade Ditch		
Caldwell	812.5	Unnamed	Manmade Ditch		
Caldwell	812.6	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Caldwell	812.7	Trib. To North Mud Creek	Perennial Stream/River		
Caldwell	813.1	Unnamed	Manmade Ditch		
Caldwell	813.1	Unnamed	Manmade Ditch		
Caldwell	813.9	Trib.To Mud Creek	Manmade Ditch		
Caldwell	814	Unnamed	Manmade Ditch		
Caldwell	814.9	Mud Creek	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption;Whole Body Contact Recreation	No Data
Caldwell	815.2	Unnamed	Manmade Ditch		
Caldwell	815.2	Jimmy Bond	Canal/Ditch		
Caldwell	815.3	Willow Creek	Perennial Stream/River		
Caldwell	816.6	Unnamed	Manmade Ditch		
Caldwell	816.8	Trib. To Mud Creek	Perennial Stream/River		
Caldwell	817.1	Trib. To Mud Creek	Perennial Stream/River		
Carroll	817.4	Unnamed	Manmade Ditch		
Carroll	817.6	Unnamed	Manmade Ditch		
Carroll	817.6	Unnamed	Manmade Ditch		
Carroll	818.2	Unnamed	Manmade Ditch		
Carroll	818.6	Turkey Creek	Perennial Stream/River		
Carroll	818.7	Trib. To Turkey	Perennial Stream/River		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
		Creek			
Carroll	819.1	Trib. To Turkey Creek	Intermittent Stream/River		
Carroll	819.3	Unnamed	Intermittent Stream/River		
Carroll	819.3	Unnamed	Manmade Ditch		
Carroll	820.3	Unnamed	Manmade Ditch		
Carroll	820.3	Unnamed	Manmade Ditch		
Carroll	820.7	Unnamed	Intermittent Stream/River		
Carroll	820.7	Unnamed	Manmade Ditch		
Carroll	821.2	Unnamed	Intermittent Stream/River		
Carroll	821.6	Unnamed	Intermittent Stream/River		
Carroll	822.5	Unnamed	Manmade Ditch		
Carroll	822.6	Unnamed	Manmade Ditch		
Carroll	823.2	Unnamed	Manmade Ditch		
Carroll	823.3	Trib To Turkey Creek	Perennial Stream/River		
Carroll	823.6	Trib To Turkey Creek	Perennial Stream/River		
Carroll	824.4	Unnamed	Manmade Ditch		
Carroll	824.4	Unnamed	Manmade Ditch		
Carroll	824.5	Unnamed	Intermittent Stream/River		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Carroll	824.7	Unnamed	Manmade Ditch		
Carroll	824.7	Unnamed	Manmade Ditch		
Carroll	824.8	Trib To Turkey Creek	Perennial Stream/River		
Carroll	824.8	Unnamed	Manmade Ditch		
Carroll	825.6	Trib To Big Creek	Perennial Stream/River		
Carroll	825.8	Unnamed	Intermittent Stream/River		
Carroll	825.8	Unnamed	Intermittent Stream/River		
Carroll	825.8	Unnamed	Intermittent Stream/River		
Carroll	826.1	Trib To Big Creek	Perennial Stream/River		
Carroll	826.2	Unnamed	Manmade Ditch		
Carroll	826.9	Unnamed	Manmade Body		
Carroll	827.6	Unnamed	Manmade Ditch		
Carroll	827.8	Unnamed	Manmade Ditch		
Carroll	828	Unnamed	Intermittent Stream/River		
Carroll	828	Unnamed	Manmade Ditch		
Carroll	828.1	Unnamed	Manmade Ditch		
Carroll	828.1	Unnamed	Manmade Ditch		
Carroll	828.1	Unnamed	Manmade Ditch		
Carroll	828.5	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Carroll	828.7	Unnamed	Intermittent Stream/River		
Carroll	829.8	Trib To Big Creek	Perennial Stream/River		
Carroll	830.0	Unnamed	Manmade Ditch		
Carroll	830.0	Unnamed	Manmade Ditch		
Carroll	830.3	Unnamed	Manmade Ditch		
Carroll	832.2	Big Creek	Perennial Stream/River		
Carroll	832.5	Trib. To Big Creek	Intermittent Stream/River		
Carroll	832.6	Unnamed	Manmade Ditch		
Carroll	832.9	Trib. To Big Creek	Perennial Stream/River		
Carroll	833.1	Unnamed	Manmade Ditch		
Carroll	833.1	Unnamed	Manmade Ditch		
Carroll	833.9	Unnamed	Manmade Ditch		
Carroll	834.4	Big Creek	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact Recreation	No Data
Carroll	834.5	Unnamed	Manmade Ditch		
Carroll	834.5	Unnamed	Manmade Ditch		
Carroll	834.8	Trib. To Big Creek	Perennial Stream/River		
Carroll	835	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Carroll	835.2	Trib. To Big Creek	Intermittent Stream/River		
Carroll	836.4	Trib. To Wolf Branch	Intermittent Stream/River		
Carroll	836.8	Wolf Branch	Perennial Stream/River		
Carroll	836.8	Trib. To Wolf Creek	Intermittent Stream/River		
Carroll	837.6	Unnamed	Manmade Ditch		
Carroll	837.8	Unnamed	Intermittent Stream/River		
Carroll	838.1	Unnamed	Manmade Ditch		
Carroll	838.2	Unnamed	Manmade Ditch		
Carroll	838.3	Little Hurricane Creek	Intermittent Stream/River		
Carroll	838.6	Unnamed	Manmade Ditch		
Carroll	838.6	Unnamed	Manmade Ditch		
Carroll	838.6	Unnamed	Manmade Ditch		
Carroll	839.6	Unnamed	Manmade Ditch		
Carroll	839.9	Little Hurricane Creek	Intermittent Stream/River		
Carroll	840.3	Unnamed	Intermittent Stream/River		
Carroll	840.6	Unnamed	Manmade Ditch		
Carroll	840.6	Unnamed	Manmade Ditch		
Carroll	841	Unnamed	Intermittent Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Carroll	841.2	Unnamed	Manmade Ditch		
Carroll	841.2	Unnamed	Manmade Ditch		
Carroll	841.3	Unnamed	Manmade Ditch		
Carroll	841.3	Unnamed	Manmade Ditch		
Carroll	841.6	Unnamed	Manmade Ditch		
Carroll	842.3	Unnamed	Manmade Ditch		
Carroll	842.3	Unnamed	Manmade Ditch		
Carroll	842.6	Trib. To Grand River	Intermittent Stream/River		
Carroll	843.1	Unnamed	Manmade Ditch		
Carroll	843.2	Unnamed	Manmade Ditch		
Carroll	843.4	Grand River	Perennial Stream/River	Irrigation Use; Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact Recreation; Secondary Contact Recreation; Drinking Water Supply	No Data
Chariton	843.9	Grand River Slough	Perennial Stream/River		
Chariton	844.9	Unnamed	Manmade Ditch		
Chariton	845.3	Unnamed	Manmade Ditch		
Chariton	845.5	Unnamed	Manmade Ditch		
Chariton	845.6	Potter Slough	Intermittent Stream/River		
Chariton	846	Unnamed	Manmade Ditch		
Chariton	846.4	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Chariton	846.4	Unnamed	Manmade Ditch		
Chariton	846.5	Unnamed	Manmade Ditch		
Chariton	846.7	Unnamed	Intermittent Stream/River		
Chariton	846.9	Unnamed	Manmade Ditch		
Chariton	847	Unnamed	Manmade Ditch		
Chariton	847.1	Unnamed	Manmade Ditch		
Chariton	847.1	Unnamed	Manmade Ditch		
Chariton	847.2	Unnamed	Manmade Ditch		
Chariton	847.2	Unnamed	Manmade Ditch		
Chariton	847.7	Unnamed	Manmade Ditch		
Chariton	847.8	Unnamed	Manmade Ditch		
Chariton	847.9	Unnamed	Manmade Ditch		
Chariton	847.9	Unnamed	Manmade Ditch		
Chariton	847.9	Unnamed	Manmade Ditch		
Chariton	848.7	Salt Creek	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic life and Human Health-Fish Consumption; Whole Body Contact Recreation	No Data
Chariton	848.8	Trib. To Salt Creek	Intermittent Stream/River		
Chariton	849.4	Trib. To Salt Creek	Intermittent Stream/River		
Chariton	849.7	Unnamed	Intermittent Stream/River		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Chariton	850.5	Trib. To Brush Creek	Intermittent Stream/River		
Chariton	851.1	Brush Creek	Intermittent Stream/River		
Chariton	851.4	Trib. To Brush Creek	Intermittent Stream/River		
Chariton	853.5	Unnamed	Manmade Ditch		
Chariton	853.8	Unnamed	Intermittent Stream/River		
Chariton	853.8	Unnamed	Manmade Ditch		
Chariton	853.9	Trib. To Lake Creek	Intermittent Stream/River		
Chariton	854.5	Unnamed	Manmade Ditch		
Chariton	854.5	Trib. To Lake Creek	Intermittent Stream/River		
Chariton	854.7	Lake Creek	Perennial Stream/River	Irrigation Use; Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact Recreation	No Data
Chariton	854.9	Unnamed	Manmade Ditch		
Chariton	856.9	Unnamed	Manmade Ditch		
Chariton	857.1	Palmer Creek	Perennial Stream/River		
Chariton	857.5	Unnamed	Manmade Ditch		
Chariton	857.5	Trib. To Palmer Creek	Intermittent Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Chariton	858.4	Unnamed	Manmade Ditch		
Chariton	858.5	Unnamed	Manmade Ditch		
Chariton	858.8	Unnamed	Manmade Ditch		
Chariton	859.2	Unnamed	Manmade Ditch		
Chariton	859.6	Unnamed	Manmade Ditch		
Chariton	859.6	Unnamed	Manmade Ditch		
Chariton	860.4	Mussel Fork	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic life and Human Health-Fish Consumption; Whole Body Contact Recreation	No Data
Chariton	860.5	Unnamed	Manmade Ditch		
Chariton	861.1	Trib. To Mussel Fork	Intermittent Stream/River		
Chariton	861.9	Unnamed	Intermittent Stream/River		
Chariton	861.9	Unnamed	Pond		
Chariton	863.6	Unnamed	Manmade Ditch		
Chariton	863.6	Unnamed	Manmade Ditch		
Chariton	863.7	Long Creek	Perennial Stream/River		
Chariton	864.5	Unnamed	Manmade Ditch		
Chariton	864.8	Unnamed	Manmade Ditch		
Chariton	865.3	Chariton River	Perennial Stream/River	Irrigation Use; Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact	No Data

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
				Recreation; Secondary Contact Recreation	
Chariton	865.5	Unnamed	Manmade Ditch		
Chariton	865.5	Unnamed	Manmade Ditch		
Chariton	866	Unnamed	Manmade Ditch		
Chariton	866	Unnamed	Manmade Ditch		
Chariton	866.3	Unnamed	Intermittent Stream/River		
Chariton	866.3	Unnamed	Intermittent Stream/River		
Chariton	866.4	Unnamed	Manmade Ditch		
Chariton	866.4	Unnamed	Manmade Ditch		
Chariton	866.6	Unnamed	Intermittent Stream/River		
Chariton	866.8	Unnamed	Intermittent Stream/River		
Chariton	866.9	Unnamed	Intermittent Stream/River		
Chariton	867.1	Unnamed	Manmade Ditch		
Chariton	867.9	Puzzle Creek	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic life and Human Health-Fish Consumption; Whole Body Contact Recreation	No Data
Chariton	870.9	Unnamed	Manmade Ditch		
Chariton	870.9	Middle Fork	Perennial Stream/River	Livestock and Wildlife Watering;	No Data

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
		Chariton River		Protection of Warm Water Aquatic life and Human Health-Fish Consumption; Whole Body Contact Recreation	
Chariton	871.1	Unnamed	Pond		
Chariton	871.3	Lake Branch	Intermittent Stream/River		
Chariton	871.6	Lake Branch	Intermittent Stream/River		
Chariton	872	Trib. To Lake Branch	Intermittent Stream/River		
Chariton	872.1	Trib. to Lake Branch	Intermittent Stream/River		
Chariton	872.1	Trib. to Lake Branch	Intermittent Stream/River		
Chariton	873.1	Unnamed	Manmade Ditch		
Chariton	873.2	Unnamed	Manmade Ditch		
Chariton	873.3	Unnamed	Ephemeral		
Chariton	873.5	Unnamed	Intermittent Stream/River		
Chariton	874.8	East Fork Little Chariton River	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic life and Human Health-Fish Consumption; Whole Body Contact Recreation	No Data
Chariton	875.2	Unnamed	Intermittent Stream/River		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Randolph	876.2	Unnamed	Manmade Ditch		
Randolph	876.6	Unnamed	Intermittent Stream/River		
Randolph	877.4	Unnamed	Intermittent Stream/River		
Randolph	877.7	Unnamed	Manmade Ditch		
Randolph	877.7	Unnamed	Manmade Ditch		
Randolph	878.9	Unnamed	Manmade Ditch		
Randolph	878.9	Unnamed	Manmade Ditch		
Randolph	879.2	Unnamed	Intermittent Stream/River		
Randolph	880.1	Unnamed	Intermittent Stream/River		
Randolph	881.1	Unnamed	Manmade Ditch		
Randolph	881.1	Unnamed	Manmade Ditch		
Randolph	881.4	Unnamed	Manmade Ditch		
Randolph	881.7	Unnamed	Intermittent Stream/River		
Randolph	881.7	Unnamed	Intermittent Stream/River		
Randolph	881.8	Unnamed	Manmade Ditch		
Randolph	881.9	Unnamed	Manmade Ditch		
Randolph	882.5	Unnamed	Manmade Ditch		
Randolph	882.5	Unnamed	Manmade Ditch		
Randolph	882.7	Unnamed	Intermittent Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Randolph	882.7	Unnamed	Intermittent Stream/River		
Randolph	883	Unnamed	Manmade Ditch		
Randolph	883.1	Unnamed	Manmade Ditch		
Randolph	883.3	Unnamed	Intermittent Stream/River		
Randolph	883.5	Unnamed	Manmade Ditch		
Randolph	884.4	Unnamed	Intermittent Stream/River		
Randolph	884.5	Unnamed	Intermittent Stream/River		
Randolph	884.5	Unnamed	Intermittent Stream/River		
Randolph	884.5	Unnamed	Intermittent Stream/River		
Randolph	884.5	Unnamed	Intermittent Stream/River		
Randolph	885.1	Unnamed	Manmade Ditch		
Randolph	885.4	Unnamed	Intermittent Stream/River		
Randolph	885.6	Moniteau Creek	Intermittent Stream/River		
Randolph	885.6	Unnamed	Intermittent Stream/River		
Randolph	885.8	Unnamed	Manmade Ditch		
Randolph	885.9	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Randolph	886.2	Unnamed	Intermittent Stream/River		
Randolph	886.3	Unnamed	Manmade Ditch		
Randolph	886.8	Unnamed	Intermittent Stream/River		
Randolph	888.6	Unnamed	Intermittent Stream/River		
Randolph	888.6	Unnamed	Intermittent Stream/River		
Randolph	894.1	Unnamed	Manmade Ditch		
Randolph	894.5	Unnamed	Intermittent Stream/River		
Randolph	895.2	Unnamed	Intermittent Stream/River		
Randolph	895.8	Trib. To Big Creek	Intermittent Stream/River		
Randolph	895.9	Trib. To Big Creek	Intermittent Stream/River		
Randolph	895.9	Unnamed	Manmade Ditch		
Randolph	896.1	Unnamed	Manmade Ditch		
Randolph	896.5	Unnamed	Manmade Body		
Randolph	896.5	Unnamed	Manmade Ditch		
Randolph	896.6	Unnamed	Manmade Ditch		
Randolph	896.6	Unnamed	Manmade Ditch		
Randolph	897.1	Unnamed	Manmade Ditch		
Randolph	897.2	Big Creek	Perennial Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Audrain	898.5	Boat Branch	Intermittent Stream/River	No Data	No Data
Audrain	899.8	Unnamed	Manmade Ditch		
Audrain	900.3	Saling Creek	Perennial Stream/River	No Data	No Data
Audrain	900.4	Unnamed	Manmade Ditch		
Audrain	900.7	Unnamed	Manmade Body		
Audrain	900.7	Unnamed	Intermittent Stream/River		
Audrain	900.7	Unnamed	Intermittent Stream/River		
Audrain	900.8	Unnamed	Intermittent Stream/River		
Audrain	904	Long Branch	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic life and Human Health-Fish Consumption; Whole Body Contact Recreation	No Data
Audrain	904	Unnamed	Manmade Ditch		
Audrain	904.9	Unnamed	Intermittent Stream/River		
Audrain	905.5	Unnamed	Intermittent Stream/River		
Audrain	906.3	Unnamed	Intermittent Stream/River		
Audrain	906.8	Trib. To Goodwater Creek	Intermittent Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Audrain	907.1	Goodwater Creek	Perennial Stream/River	No Data	No Data
Audrain	907.2	Unnamed	Manmade Ditch		
Audrain	908.9	Unnamed	Intermittent Stream/River		
Audrain	910.7	Unnamed	Perennial Stream/River		
Audrain	910.7	Unnamed	Manmade Ditch		
Audrain	911.4	Youngs Creek	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic life and Human Health-Fish Consumption; Whole Body Contact Recreation	No Data
Audrain	916	Unnamed	Manmade Ditch		
Audrain	916.5	Unnamed	Manmade Ditch		
Audrain	916.5	Unnamed	Manmade Body		
Audrain	916.7	Unnamed	Manmade Ditch		
Audrain	916.8	Unnamed	Manmade Body		
Audrain	917	Unnamed	Manmade Ditch		
Audrain	917.3	Unnamed	Manmade Ditch		
Audrain	917.5	Unnamed	Manmade Ditch		
Audrain	917.9	Unnamed	Intermittent Stream/River		
Audrain	918.2	Trib. To Lick Creek	Intermittent Stream/River		
Audrain	918.2	Unnamed	Manmade Ditch		
Audrain	918.3	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Audrain	919.1	Unnamed	Manmade Ditch		
Audrain	919.7	Skull Lick Creek	Perennial Stream/River	No Data	No Data
Audrain	919.9	Unnamed	Manmade Ditch		
Audrain	919.9	Unnamed	Manmade Ditch		
Audrain	920.8	Trib. To South Fork Salt River	Intermittent Stream/River		
Audrain	921.6	South Fork Salt Creek	Perennial Stream/River		
Audrain	922.2	Unnamed	Manmade Ditch		
Audrain	922.6	Unnamed	Manmade Ditch		
MISSOURI					
Audrain	924.8	Trib To Bean Branch	Perennial Stream/River		
Audrain	924.8	Unnamed	Perennial Stream/River		
Audrain	924.9	Unnamed	Perennial Stream/River		
Audrain	925	Trib To Bean Branch	Perennial Stream/River		
Audrain	925	Unnamed	Intermittent Stream/River		
Audrain	925.5	Bean Branch	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic life and Human Health-Fish Consumption; Whole Body Contact Recreation	No Data
Audrain	926.8	Unnamed	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
			Stream/River		
Audrain	927.9	Unnamed	Intermittent Stream/River		
Audrain	928	Unnamed	Intermittent Stream/River		
Audrain	928.2	Unnamed	Intermittent Stream/River		
Audrain	928.4	Unnamed	Manmade Ditch		
Audrain	929.1	Trib. Of Littleby Creek	Intermittent Stream/River		
Audrain	929.3	Littleby Creek	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic life and Human Health-Fish Consumption; Whole Body Contact Recreation	No Data
Audrain	931.8	West Fork Cuivre River	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic life and Human Health-Fish Consumption; Whole Body Contact Recreation	No Data
Audrain	932.6	Trib To West Fork Cuivre River	Perennial Stream/River		
Audrain	934	Mams Slough	Perennial Stream/River		
Audrain	934.2	Unnamed	Intermittent Stream/River		
Audrain	934.8	Unnamed	Intermittent		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
			Stream/River		
Audrain	935.6	Johns Branch	Perennial Stream/River		
Montgomery	937.7	Unnamed	Intermittent Stream/River		
Montgomery	938.1	Unnamed	Intermittent Stream/River		
Montgomery	940.1	Unnamed	Intermittent Stream/River		
Montgomery	940.6	Unnamed	Intermittent Stream/River		
Montgomery	941.7	Unnamed	Intermittent Stream/River		
Montgomery	942.3	Unnamed	Intermittent Stream/River		
Montgomery	942.9	Coon Creek	Perennial Stream/River		
Montgomery	943.6	Trib. To Coon Creek	Intermittent Stream/River		
Montgomery	944.2	Unnamed	Channel Intermittent Stream/River		
Montgomery	945.2	Unnamed	Intermittent Stream/River		
Montgomery	945.7	Unnamed	Channel Intermittent Stream/River		
Montgomery	946.1	Unnamed	Channel Intermittent Stream/River		
Montgomery	946.4	Unnamed	Channel Intermittent Stream/River		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Montgomery	946.5	Unnamed	Channel Intermittent Stream/River		
Montgomery	946.6	Unnamed	Channel Intermittent Stream/River		
Montgomery	946.6	Unnamed	Channel Intermittent Stream/River		
Montgomery	948.9	Unnamed	Intermittent Stream/River		
Montgomery	949.7	Unnamed	Intermittent Stream/River		
Montgomery	950.4	Long Branch Creek	Intermittent Stream/River		
Montgomery	950.6	Long Branch Creek	Intermittent Stream/River		
Montgomery	950.8	Unnamed	Manmade Body		
Montgomery	951.2	Unnamed	Manmade Ditch		
Montgomery	951.6	Ephemeral Channel	Ephemeral		
Montgomery	951.8	Elkhorn Creek	Perennial Stream/River		
Montgomery	951.9	Unnamed	Intermittent Stream/River		
Montgomery	952.6	Unnamed	Manmade Ditch		
Montgomery	953.7	Channel Cow Pasture	Ephemeral		
Montgomery	954.1	Channel	Intermittent Stream/River		
Montgomery	954.2	Brush Creek	Perennial Stream/River	Livestock and Wildlife Watering;	No Data

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
				Protection of Warm Water Aquatic life and Human Health-Fish Consumption; Whole Body Contact Recreation	
Montgomery	954.7	Unnamed	Intermittent Stream/River		
Montgomery	955.2	Unnamed	Lake/Pond		
Montgomery	955.8	Trib. To Brush Creek	Intermittent Stream/River		
Montgomery	955.9	Unnamed	Manmade Ditch		
Montgomery	955.9	Unnamed	Manmade Ditch		
Montgomery	956.5	Trib. To Brush Creek	Intermittent Stream/River		
Montgomery	956.7	Unnamed	Manmade Ditch		
Lincoln	958.6	Bear Creek	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic life and Human Health-Fish Consumption; Whole Body Contact Recreation;Class C	No Data
Lincoln	958.8	Camp Creek	Perennial Stream/River	No Data	No Data
Lincoln	961.6	Trib. To West Fork Cuivre River	Intermittent Stream/River		
Lincoln	961.8	Trib. To West Fork Cuivre River	Intermittent Stream/River		
Lincoln	962.4	Trib. To West	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
		Fork Cuivre River	Stream/River		
Lincoln	964	Trib. To West Fork Cuivre River	Intermittent Stream/River		
Lincoln	964.8	Trib. To Turkey Creek	Intermittent Stream/River		
Lincoln	965	Turkey Creek	Perennial Stream/River		
Lincoln	965.6	Trib. To West Fork Cuivre River	Intermittent Stream/River		
Lincoln	966	Trib. To West Fork Cuivre River	Intermittent Stream/River		
Lincoln	966.9	Unnamed	Lake/Pond		
Lincoln	967.4	Cottonwood Branch	Intermittent Stream/River		
Lincoln	968.1	Unnamed	Intermittent Stream/River		
Lincoln	968.8	Unnamed	Intermittent Stream/River		
Lincoln	969.1	Unnamed	Intermittent Stream/River		
Lincoln	969.5	Unnamed	Manmade Body		
Lincoln	970.8	Spring Creek	Intermittent Stream/River		
Lincoln	973.5	Trib. To Town	Intermittent		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
		Branch	Stream/River		
Lincoln	973.7	Trib. To Town Branch	Intermittent Stream/River		
Lincoln	974.3	Cuivre River	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact Recreation; Secondary Contact Recreation	No Data
Lincoln		Sugar Creek	Intermittent Stream/River		
Lincoln	976.8	Unnamed	Manmade Ditch		
Lincoln	978.5	Unnamed	Manmade Ditch		
Lincoln	979.1	Unnamed	Lake/Pond		
Lincoln	979.7	Trib. To Cuivre River	Intermittent Stream/River		
Lincoln	980.2	Keelstone Branch	Intermittent Stream/River		
Lincoln	981.2	Unnamed	Intermittent Stream/River		
Lincoln	981.6	Goshong Branch	Intermittent Stream/River		
Lincoln	982.1	Unnamed	Open Water		
Lincoln	982.7	Campbell Branch	Intermittent Stream/River		
Lincoln	985.6	Jordan Branch River	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic	No Data

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
				Life and Human Health-Fish Consumption; Whole Body Contact Recreation	
St. Charles	985.7	Cuivre River	Perennial Stream/River		
St. Charles	987.7	Unnamed	Manmade Ditch		
St. Charles	989.5	Unnamed	Intermittent Stream/River		
St. Charles	992.7	Peruque Creek	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact Recreation; Secondary Contact Recreation	No Data
St. Charles	993.4	Unnamed	Open Water		
St. Charles	993.6	Unnamed	Manmade Ditch		
St. Charles	994.8	Trib. To Peruque River	Perennial Stream/River		
St. Charles	995.1	Unnamed	Manmade Body		
St. Charles	999.2	Dardenne Creek	Perennial Stream/River	Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact Recreation	No Data
St. Charles	999.7	Unnamed	Manmade Ditch		
St. Charles	1001.4	Unnamed	Manmade Ditch		
St. Charles	1001.9	Unnamed	Manmade Ditch		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
St. Charles	1003.3	Unnamed	Manmade Ditch		
St. Charles	1003.4	Unnamed	Manmade Ditch		
St. Charles	1004.4	Unnamed	Manmade Ditch		
St. Charles	1005.1	Unnamed	Manmade Ditch		
St. Charles	1013.1	Unnamed	Lake/Pond		
St. Charles	1013.1	Unnamed	Lake/Pond		
St. Charles	1013.2	Unnamed	Manmade Body		
ILLINOIS					
Madison	1024.7	Mississippi River	Perennial Stream/River	Irrigation; Livestock and Wildlife Watering; Protection of Warm Water Aquatic Life and Human Health-Fish Consumption; Whole Body Contact Recreation; Secondary Contact Recreation; Drinking Water Supply; Industrial Process Water and Cooling Water	Not Assessed
Madison	1024.9	Mississippi River	Perennial Stream/River		
Madison	1028.8	Unnamed	Lake/Pond		
Madison	1030	Indian Creek	Perennial Stream/River	Aquatic Life; Fish Consumption; Primary Contact; Secondary Contact; Aesthetic Quality	Not Supporting; Fully Supporting; Not Assessed; Not Assessed; Not Assessed
Madison	1031.1	Cahokia Canal	Perennial Stream/River	Aquatic Life; Fish Consumption; Primary Contact; Secondary Contact; Aesthetic Quality	Fully Supporting; Fully Supporting; Not Supporting; Not Assessed; Not

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
					Assessed
Madison	1032.3	Trib. To Cahokia Creek	Intermittent Stream/River		
Madison	1033.1	Unnamed	Intermittent Stream/River		
Madison	1034	Unnamed	Intermittent Stream/River		
Madison	1035.1	Mooney Creek	Perennial Stream/River	Aquatic Life; Fish Consumption; Primary Contact; Secondary Contact; Aesthetic Quality	Not Assessed
Madison	1035.2	Sugar Creek	Perennial Stream/River		
Madison	1035.5	Sugar Creek	Perennial Stream/River		
Madison	1035.5	Sugar Creek	Perennial Stream/River		
Madison	1035.6	Unnamed	Intermittent Stream/River		
Madison	1035.6	Sugar Creek	Perennial Stream/River		
Madison	1035.8	Sugar Creek	Perennial Stream/River		
Madison	1035.8	Trib. To Sugar Creek	Perennial Stream/River		
Madison	1038.6	Unnamed	Perennial Stream/River		
Madison	1038.8	Unnamed	Intermittent Stream/River		
Madison	1038.9	Unnamed	Intermittent Stream/River		
Madison	1040.6	Trib. To Silver Creek	Perennial Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Madison	1040.7	Trib. To Silver Creek	Perennial Stream/River		
Madison	1040.7	Trib. To Silver Creek	Perennial Stream/River		
Madison	1040.7	Trib. To Silver Creek	Perennial Stream/River		
Madison	1040.9	Silver Creek	Perennial Stream/River	Aquatic Life; Fish Consumption; Primary Contact; Secondary Contact; Aesthetic Quality	Not Supporting; Fully Supporting; Not Assessed; Not Assessed; Not Assessed
Madison	1041.7	Trib. To Silver Creek	Perennial Stream/River		
Madison	1042.5	Unnamed	Perennial Stream/River		
Madison	1044.5	Trib. To Sugar Fork Creek	Perennial Stream/River		
Madison	1044.8	Sugar Fork Creek	Perennial Stream/River	Aquatic Life; Fish Consumption; Primary Contact; Secondary Contact; Aesthetic Quality	Not Assessed
Madison	1044.9	Crop Drainage	Channel Intermitten Stream/River		
Madison	1044.9	Crop Drainage	Intermittent Stream/River		
Madison	1044.9	Crop Drainage	Intermittent Stream/River		
Madison	1046.6	Sand Creek	Perennial Stream/River	Aquatic Life; Fish Consumption; Primary Contact; Secondary Contact; Aesthetic Quality	Not Assessed

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Madison	1047	Trib. Of Sand Creek	Perennial Stream/River		
Madison	1049.9	Silver Lake	Lake	Aquatic Life; Fish Consumption; Public Food and Processing Water Supplies; Primary Contact; Secondary Contact; Aesthetic Quality	Not Supporting; Not Supporting; Not Supporting; Not Assessed; Not Assessed; Not Supporting
Madison	1049.9	Silver Lake	Open Water		
Madison	1051.6	Unnamed	Manmade Ditch		
Madison	1051.9	Unnamed	Intermittent Stream/River		
Madison	1052.9	Unnamed	Intermittent Stream/River		
Bond	1054.8	Unnamed	Intermittent Stream/River		
Bond	1057.3	Trib Of Shoal Creek	Intermittent Stream/River		
Bond	1058.1	Unnamed	Intermittent Stream/River		
Bond	1058.1	Unnamed	Intermittent Stream/River		
Bond	1058.4	Trib. To Shoal Creek	Intermittent Stream/River		
Bond	1058.9	Unnamed	Manmade Ditch		
Bond	1059.2	Shoal Creek	Perennial Stream/River	Aquatic Life; Fish Consumption; Public Food and Processing Water Supplies; Primary Contact; Secondary Contact; Aesthetic Quality	Not Supporting/Fully Supporting; Fully Supporting/Not Assessed; Not Supporting; Not

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
					Supporting/Not Assessed; Not Assessed
Bond	1059.9	Unnamed	Perennial Stream/River		
Bond	1060.4	Unnamed	Manmade Ditch		
Bond	1060.7	Unnamed	Manmade Ditch		
Bond	1060.8	Unnamed	Intermittent Stream/River		
Bond	1060.8	Unnamed	Intermittent Stream/River		
Bond	1062.5	Pond	Pond Side		
Bond	1062.6	Unnamed	Intermittent Stream/River		
Bond	1063.2	Beaver Creek	Perennial Stream/River		
Bond	1064.9	Pond	Lake/Pond		
Bond	1065.4	Little Beaver Creek	Perennial Stream/River	Aquatic Life; Fish Consumption; Primary Contact; Secondary Contact; Aesthetic Quality	Not Assessed
Bond	1065.7	Trib Of Little Beaver Creek	Perennial Stream/River		
Bond	1065.8	Pond	Lake/Pond		
Bond	1066.1	Trib Of Little Beaver Creek	Intermittent Stream/River		
Bond	1066.3	Unnamed	Intermittent Stream/River		
Bond	1067	Unnamed	Intermittent Stream/River		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
Bond	1067.2	Unnamed	Intermittent Stream/River		
Bond	1068.1	Flat Branch	Manmade Ditch		
Bond	1069.8	Unnamed	Intermittent Stream/River		
Bond	1070.3	Unnamed	Manmade Ditch		
Bond	1070.9	Spring Branch Creek	Perennial Stream/River		
Bond	1071.3	Trib. Of Spring Branch	Perennial Stream/River		
Bond	1072.2	Unnamed	Manmade Body		
Fayette	1073.9	Unnamed	Open Water		
Fayette	1074.1	Hurricane Creek	Perennial Stream/River		
Fayette	1074.2	Hurricane Creek	Perennial Stream/River		
Fayette	1074.5	Unnamed	Manmade Body		
Fayette	1074.6	Unnamed	Manmade Body		
Fayette	1074.7	Unnamed	Manmade Ditch		
Fayette	1075.8	Unnamed	Manmade Body		
Fayette	1075.9	Kaskaskia River	Perennial Stream/River	Aquatic Life; Fish Consumption; Public Food and Processing Water Supplies; Primary Contact; Secondary Contact; Aesthetic Quality	Not Supporting/Not Assessed; Fully Supporting; Not Supporting; Not Supporting/Fully Supporting/Not Assessed; Not Assessed

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Fayette	1076.5	Unnamed	Perennial Stream/River		
Fayette	1078	Unnamed	Manmade Ditch		
Fayette	1078.3	Unnamed	Manmade Ditch		
Fayette	1078.6	Unnamed	Manmade Ditch		
Marion	1079.4	Unnamed	Manmade Ditch		
Marion	1080.2	Unnamed	Intermittent Stream/River		
Marion	1080.8	Unnamed	Manmade Ditch		
Marion	1080.9	Defined Channel	Intermittent Artificial Path		
Marion	1080.9	Willet Rd Creek	Perennial Stream/River		
Marion	1081.6	Unnamed	Intermittent Stream/River		
CUSHING EXTENSION					
NEBRASKA					
Jefferson	0.7	Unnamed	Perennial		
Jefferson	0.7	Unnamed	Intermittent Stream/River		
Jefferson	1.3	Pond	Pond		
Jefferson	1.8	Unnamed	Intermittent Stream/River		
Jefferson	2.0	Unnamed	Intermittent Stream/River		
Jefferson	2.7	Unnamed	Ephemeral		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Kansas					
Washington	2.7	Unnamed	Ephemeral		
Washington	2.7	Unnamed	Ephemeral		
Washington	2.9	Unnamed	Intermittent Stream/River		
Washington	3.7	Unnamed	Intermittent Stream/River		
Washington	4.2	Little Blue River	Perennial	General Purpose Waters; Expected Aquatic Life Use; Primary Contact Recreation Not Open to Public; Domestic Water Supply; Food Procurement Use; Groundwater Recharge; Industrial Water Supply; Irrigation; Livestock Watering	Supporting
Washington	4.7	Unnamed	Intermittent Stream/River		
Washington	4.7	Unnamed	Intermittent Stream/River		
Washington	4.9	Unnamed	Intermittent Stream/River		
Washington	5.4	Unnamed	Intermittent Stream/River		
Washington	5.4	Unnamed	Intermittent Stream/River		
Washington	5.7	Unnamed	Intermittent Stream/River		
Washington	6.9	Unnamed	Perennial		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Washington	9.2	Unnamed	Connector		
Washington	9.7	Mill Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use; Secondary Contact Recreation Not Open to Public; Food Procurement Use	Supporting
Washington	11	Unnamed	Intermittent Stream/River		
Washington	11.8	Unnamed	Intermittent Stream/River		
Washington	12.1	Mill Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use; Secondary Contact Recreation Not Open to Public; Food Procurement Use	Supporting
Washington	13.6	Mill Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use; Secondary Contact Recreation Not Open to Public; Food Procurement Use	Supporting
Washington	15.9	Unnamed	Intermittent Stream/River		
Washington	21.8	Unnamed	Intermittent Stream/River		
Washington	21.8	Unnamed	Intermittent Stream/River		
Washington	21.8	Unnamed	Intermittent Stream/River		
Washington	22	Unnamed	Intermittent Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Washington	22.1	Unnamed	Intermittent Stream/River		
Washington	22.7	Coon Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use; Primary Contact Recreation Not Open to Public; Food Procurement Use	Supporting
Washington	23.9	Trib Of Coon Creek	Perennial		
Washington	24.2	Unnamed	Intermittent Stream/River		
Washington	26.1	Trib Of Coon Creek	Intermittent Stream/River		
Washington	26.1	Unnamed	Intermittent Stream/River		
Washington	26.5	Unnamed	Connector		
Washington	29.7	Unnamed	Intermittent Stream/River		
Washington	30.4	Unnamed	Intermittent Stream/River		
Washington	30.6	Unnamed	Intermittent Stream/River		
Washington	30.9	Unnamed	Intermittent Stream/River		
Washington	30.9	Unnamed	Intermittent Stream/River		
Washington	31.4	Unnamed	Intermittent Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Washington	32.2	Unnamed	Intermittent Stream/River		
Washington	33.3	Unnamed	Intermittent Stream/River		
Clay	33.4	Unnamed	Intermittent Stream/River		
Clay	34.8	Carter Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use; Secondary Contact Recreation Not Open to Public	Supporting
Clay	36.4	West Fancy Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use; Primary Contact Recreation Not Open to Public	Supporting
Clay	43.9	Unnamed	Intermittent Stream/River		
Clay	43.9	Unnamed	Intermittent Stream/River		
Clay	43.9	Unnamed	Intermittent Stream/River		
Clay	44	Lincoln Creek	Intermittent Stream/River	General Purpose Waters; Expected Aquatic Life Use; Secondary Contact Recreation Not Open to Public	Supporting
Clay	45.6	Trib Of Lincoln Creek	Intermittent Stream/River		
Clay	51.2	Republican River	Artifical Path	General Purpose Waters; Special Aquatic Life Use; Primary Contact Recreation Not Open to Public; Domestic Water Supply; Food	Supporting

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
				Procurement Use; Groundwater Recharge; Industrial Water Supply; Irrigation; Livestock Watering	
Clay	52.6	Unnamed	Intermittent Stream/River		
Clay	54.1	Cane Creek	Perennial		
Clay	58	Unnamed	Intermittent Stream/River		
Clay	58.2	Unnamed	Intermittent Stream/River		
Clay	59.4	Unnamed	Intermittent Stream/River		
Clay	59.4	Unnamed	Intermittent Stream/River		
Clay	59.5	Unnamed	Open Water		
Clay	60.2	Unnamed	Intermittent Stream/River		
Clay	60.3	Unnamed	Intermittent Stream/River		
Clay	68.9	Chapman Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use; Primary Contact Recreation Not Open to Public; Domestic Water Supply; Food Procurement Use; Groundwater Recharge; Industrial Water Supply; Irrigation; Livestock Watering	Supporting
Dickinson	69.5	Unnamed	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
			Stream/River		
Dickinson	70.3	Unnamed	Perennial		
Dickinson	70.7	Unnamed	Intermittent Stream/River		
Dickinson	72	Unnamed	Intermittent Stream/River		
Dickinson	72.1	Unnamed	Perennial		
Dickinson	72.1	Unnamed	Intermittent Stream/River		
Dickinson	72.2	Unnamed	Intermittent Stream/River		
Dickinson	76.6	Smokey Hill River	Artifical Path	General Purpose Waters; Expected Aquatic Life Use; Primary Contact Recreation Not Open to Public; Domestic Water Supply; Food Procurement Use; Groundwater Recharge; Industrial Water Supply; Irrigation; Livestock Watering	Supporting
Dickinson	81.5	Unnamed	Intermittent Stream/River		
Dickinson	85.2	Unnamed	Intermittent Stream/River		
Dickinson	86.3	Unnamed	Intermittent Stream/River		
Dickinson	87.1	Carry Creek	Perennial	General Purpose Waters; Special Aquatic Life Use; Food Procurement Use	Supporting

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Dickinson	87.7	Unnamed	Pond		
Dickinson	89.7	Unnamed	Channel Intermittent Stream/River		
Dickinson	91.1	Unnamed	Intermittent Stream/River		
Dickinson	91.7	Unnamed	Drainage Intermittent Stream/River		
Dickinson	92.1	West Branch Lyon Creek	Perennial	General Purpose Waters; Special Aquatic Life Use; Food Procurement Use	Supporting
Dickinson	95.3	Unnamed	Channel Intermittent Stream/River		
Dickinson	96.4	Unnamed	Channel Intermittent Stream/River		
Dickinson	96.9	Unnamed	Intermittent Stream/River		
Dickinson	97.2	Unnamed	Perennial		
Dickinson	98.8	Unnamed	Perennial		
Dickinson	100.1	Unnamed	Intermittent Stream/River		
Marion	105.3	Unnamed	Intermittent Stream/River		
Marion	106.4	Unnamed	Intermittent Stream/River		
Marion	106.4	Unnamed	Intermittent Stream/River		
Marion	108.8	Unnamed	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
			Stream/River		
Marion	109.5	Unnamed	Intermittent Stream/River		
Marion	111.7	Unnamed	Intermittent Stream/River		
Marion	111.7	Unnamed	Intermittent Stream/River		
Marion	112	Unnamed	Intermittent Stream/River		
Marion	112.7	Unnamed	Intermittent Stream/River		
Marion	114.2	Mud Creek	Perennial	General Purpose Waters; Special Aquatic Life Use; Domestic Water Supply; Food Procurement Use	Supporting
Marion	114.9	Unnamed	Intermittent Stream/River		
Marion	115.3	Unnamed	Intermittent Stream/River		
Marion	117.2	Cottonwood River	Perennial	General Purpose Waters; Expected Aquatic Life Use; Primary Contact Recreation Not Open to Public; Domestic Water Supply; Food Procurement Use; Groundwater Recharge; Industrial Water Supply; Irrigation; Livestock Watering	Supporting
Marion	119.0	Spring Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use	Supporting

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Marion	119.9	Unnamed	Intermittent Stream/River		
Marion	120.0	Unnamed	Intermittent Stream/River		
Marion	120.0	Unnamed	Intermittent Stream/River		
Marion	120.0	Unnamed	Intermittent Stream/River		
Marion	120.0	Unnamed	Intermittent Stream/River		
Marion	120.0	Unnamed	Intermittent Stream/River		
Marion	120.7	Unnamed	Intermittent Stream/River		
Marion	122.7	Unnamed	Intermittent Stream/River		
Marion	123.6	Unnamed	Intermittent Stream/River		
Marion	123.6	Caitlin Creek	Perennial	General Purpose Waters; Special Aquatic Life Use; Food Procurement Use	Supporting
Marion	124.0	Unnamed	Intermittent Stream/River		
Marion	124.3	Unnamed	Intermittent Stream/River		
Marion	124.4	Unnamed	Intermittent Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Marion	126.7	Unnamed	Intermittent Stream/River		
Marion	128.3	Doyle Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use; Domestic Water Supply; Food Procurement Use; Groundwater Recharge; Industrial Water Supply; Irrigation; Livestock Watering	Supporting
Marion	129.0	Unnamed	Intermittent Stream/River		
Marion	129.6	Unnamed	Intermittent Stream/River		
Marion	130.3	Unnamed	Intermittent Stream/River		
Marion	130.4	Unnamed	Intermittent Stream/River		
Marion	130.4	Unnamed	Intermittent Stream/River		
Marion	133.1	Unnamed	Intermittent Stream/River		
Marion	133.1	Unnamed	Intermittent Stream/River		
Marion	133.2	Unnamed	Intermittent Stream/River		
Marion	133.5	Unnamed	Intermittent Stream/River		
Marion	136.3	Unnamed	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
			Stream/River		
Butler	136.4	Unnamed	Intermittent Stream/River		
Butler	136.4	Unnamed	Intermittent Stream/River		
Butler	136.4	Unnamed	Intermittent Stream/River		
Butler	137.7	Unnamed	Intermittent Stream/River		
Butler	140.3	May Branch	Intermittent Stream/River	No Data	No Data
Butler	142.6	East Branch Whitewater River	Perennial	General Purpose Waters; Expected Aquatic Life Use; Domestic Water Supply; Food Procurement Use; Groundwater Recharge; Industrial Water Supply; Irrigation; Livestock Watering	Supporting
Butler	145.1	Diamond Creek	Perennial	No Data	No Data
Butler	145.7	Brush Creek	Intermittent Stream/River	No Data	No Data
Butler	148.8	Four Mile Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use; Food Procurement Use	Supporting
Butler	148.9	Four Mile Creek Meander	Perennial		
Butler	148.9	Four Mile Creek Meander	Perennial		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Butler	149.0	Unnamed	Intermittent Stream/River		
Butler	149.0	Unnamed	Intermittent Stream/River		
Butler	149.1	Unnamed	Intermittent Stream/River		
Butler	151.0	Rock Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use	Supporting
Butler	153.6	Unnamed	Intermittent Stream/River		
Butler	155.0	Spring Branch Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use	Supporting
Butler	156.1	Unnamed	Intermittent Stream/River		
Butler	156.4	Unnamed	Intermittent Stream/River		
Butler	156.8	Unnamed	Open Water		
Butler	158.3	Whitewater River	Perennial	General Purpose Waters; Expected Aquatic Life Use; Domestic Water Supply; Food Procurement Use; Groundwater Recharge; Industrial Water Supply; Irrigation; Livestock Watering	Supporting
Butler	159.2	Badger Creek	Intermittent Stream/River	General Purpose Waters; Expected Aquatic Life Use; Domestic Water Supply	Supporting
Butler	160.0	Unnamed	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
			Stream/River		
Butler	160.7	Unnamed	Intermittent Stream/River		
Butler	161.3	Unnamed	Intermittent Stream/River		
Butler	164.2	Dry Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use	Supporting
Butler	167.7	Unnamed	Intermittent Stream/River		
Butler	168.1	Fourmile Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use; Primary Contact Recreation Not Open to Public; Domestic Water Supply; Food Procurement Use; Groundwater Recharge; Industrial Water Supply; Irrigation; Livestock Watering	Supporting
Butler	169.7	Unnamed	Intermittent Stream/River		
Butler	172.6	Unnamed	Intermittent Stream/River		
Butler	174.9	Eight Mile Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use; Domestic Water Supply; Food Procurement Use; Groundwater Recharge; Industrial Water Supply; Irrigation; Livestock Watering	Supporting
Butler	175.8	Unnamed	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
			Stream/River		
Butler	177.6	Unnamed	Intermittent Stream/River		
Butler	178.2	Unnamed	Intermittent Stream/River		
Butler	178.9	Unnamed	Intermittent Stream/River		
Cowley	179.0	Trib Of Polecat Creek	Perennial		
Cowley	181.0	Polecat Creek	Intermittent Stream/River	General Purpose Waters; Expected Aquatic Life Use; Food Procurement Use	Supporting
Cowley	182.5	Unnamed	Intermittent Stream/River		
Cowley	185.5	Stewart Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use	Supporting
Cowley	185.6	Stewart Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use	Supporting
Cowley	185.6	Stewart Creek	Perennial	General Purpose Waters; Expected Aquatic Life Use	Supporting
Cowley	187.1	Unnamed	Intermittent Stream/River		
Cowley	187.1	Unnamed	Intermittent Stream/River		
Cowley	187.1	Unnamed	Intermittent Stream/River		
Cowley	187.1	Unnamed	Intermittent		

Major and Sensitive Waterbodies

State / County	Approx. MP	Waterbody Name	Intermittent, Perennial, Reservoir, or Lake	State Water Quality Classification[1]	Supports Use Designation[1]
			Stream/River		
Cowley	187.1	Unnamed	Intermittent Stream/River		
Cowley	188.2	Unnamed	Intermittent Stream/River		
Cowley	188.4	Crooked Creek	Intermittent Stream/River	General Purpose Waters; Expected Aquatic Life Use	Supporting
Cowley	188.5	Unnamed	Intermittent Stream/River		
Cowley	193.4	Unnamed	Intermittent Stream/River		
Cowley	201.5	Spring Creek	Intermittent Stream/River	General Purpose Waters; Expected Aquatic Life Use	Supporting
Cowley	205.7	Arkansas River	Artifical Path	General Purpose Waters; Special Aquatic Life Use; Primary Contact Recreation by Law or Written Permission; Domestic Water Supply; Food Procurement Use; Groundwater Recharge; Industrial Water Supply; Irrigation; Livestock Watering	Supporting
Cowley	206.3	Spring Creek	Perennial		
Cowley					
Kay	212.9	Chilocco Creek	Intermittent Stream/River		
Kay	215.6	Bois D' Arc	Perennial	Agriculture; WW Aquatic Community; Hydropower; Primary Contact Recreation; Public and Private Water	Fully Supporting; Insufficient Information; Insufficient Information; Not Supporting;

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
				Supply; Fish Consumption; Aesthetics	Fully Supporting; Not Assessed; Fully Supporting
Kay	220.4	Bois D' Arc	Perennial	Agriculture; WW Aquatic Community; Hydropower; Primary Contact Recreation; Public and Private Water Supply; Fish Consumption; Aesthetics	Fully Supporting; Insufficient Information; Insufficient Information; Not Supporting; Fully Supporting; Not Assessed; Fully Supporting
Kay	221.6	Unnamed	Pond		
Kay	221.8	Unnamed	Intermittent Stream/River		
Kay	225.1	Bois D' Arc	Intermittent Stream/River	Agriculture; WW Aquatic Community; Hydropower; Primary Contact Recreation; Public and Private Water Supply; Fish Consumption; Aesthetics	Fully Supporting; Insufficient Information; Insufficient Information; Not Supporting; Fully Supporting; Not Assessed; Fully Supporting
Kay	225.6	Unnamed	Intermittent Stream/River		
Kay	226.0	Unnamed	Intermittent Stream/River		
Kay	231.0	Bois D' Arc	Perennial	Agriculture; WW Aquatic Community; Hydropower; Primary Contact Recreation; Public and Private Water Supply; Fish Consumption; Aesthetics	Fully Supporting; Insufficient Information; Insufficient Information; Not Supporting; Fully Supporting; Not Assessed; Fully Supporting
Kay	231.2	Bois D' Arc	Perennial	Agriculture; WW Aquatic Community; Hydropower; Primary Contact Recreation; Public and Private Water	Fully Supporting; Insufficient Information; Insufficient Information; Not Supporting;

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
				Supply; Fish Consumption; Aesthetics	Fully Supporting; Not Assessed; Fully Supporting
Kay	232.9	Unnamed	Intermittent Stream/River		
Kay	233.0	Unnamed	Intermittent Stream/River		
Kay	233.2	Unnamed	Intermittent Stream/River		
Kay	233.6	Trib To Bois D'Arc	Intermittent Stream/River		
Kay	234.5	Bois D' Arc	Perennial	Agriculture; WW Aquatic Community; Hydropower; Primary Contact Recreation; Public and Private Water Supply; Fish Consumption; Aesthetics	Fully Supporting; Insufficient Information; Insufficient Information; Not Supporting; Fully Supporting; Not Assessed; Fully Supporting
Kay	235.5	Bois D' Arc	Perennial	Agriculture; WW Aquatic Community; Hydropower; Primary Contact Recreation; Public and Private Water Supply; Fish Consumption; Aesthetics	Fully Supporting; Insufficient Information; Insufficient Information; Not Supporting; Fully Supporting; Not Assessed; Fully Supporting
Kay	237.4	Bois D' Arc	Perennial	Agriculture; WW Aquatic Community; Hydropower; Primary Contact Recreation; Public and Private Water Supply; Fish Consumption; Aesthetics	Fully Supporting; Insufficient Information; Insufficient Information; Not Supporting; Fully Supporting; Not Assessed; Fully Supporting
Kay	237.7	Unnamed	Intermittent Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Kay	237.8	Unnamed	Intermittent Stream/River		
Kay	237.8	Unnamed	Intermittent Stream/River		
Kay	237.9	Unnamed	Perennial		
Kay	238.6	Bois D' Arc	Perennial	Agriculture; WW Aquatic Community; Hydropower; Primary Contact Recreation; Public and Private Water Supply; Fish Consumption; Aesthetics	Fully Supporting; Insufficient Information; Insufficient Information; Not Supporting; Fully Supporting; Not Assessed; Fully Supporting
Kay	241.9	Cowskin Creek	Intermittent Stream/River	No Data	No Data
Kay	242.9	Salt Fork Arkansas River	Artifical Path	Aesthetics; Agriculture; WW Aquatic Community; Industrial and Municipal Process and Cooling Water; Primary Contact Recreation; Public and Private Water Supply; Fish Consumption	Insufficient Data; Fully Supporting/Not Assessed; Not Supporting; Fully Supporting; Not Supporting; Not Assessed; Not Assessed
Noble	244.2	Deadman Creek	Intermittent Stream/River		
Noble	244.6	Unnamed	Perennial		
Noble	245.4	Unnamed	Intermittent Stream/River		
Noble	245.6	Unnamed	Intermittent Stream/River		
Noble	250.8	Unnamed	Intermittent Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Noble	251.1	Unnamed	Intermittent Stream/River		
Noble	251.7	Red Rock Creek	Perennial		
Noble	252.2	Unnamed	Intermittent Stream/River		
Noble	253.9	Unnamed	Intermittent Stream/River		
Noble	255.2	Unnamed	Intermittent Stream/River		
Noble	255.2	Unnamed	Intermittent Stream/River		
Noble	255.7	Unnamed	Intermittent Stream/River		
Noble	255.7	Unnamed	Intermittent Stream/River		
Noble	255.7	Unnamed	Intermittent Stream/River		
Noble	258.0	Greasy Creek	Intermittent Stream/River		
Noble	258.1	Unnamed	Intermittent Stream/River		
Noble	258.5	Unnamed	Intermittent Stream/River		
Noble	258.5	Unnamed	Intermittent Stream/River		
Noble	258.9	Unnamed	Intermittent		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
			Stream/River		
Noble	258.9	Unnamed	Intermittent Stream/River		
Noble	259.0	Unnamed	Intermittent Stream/River		
Noble	259.0	Unnamed	Intermittent Stream/River		
Noble	259.2	Unnamed	Intermittent Stream/River		
Noble	261.5	Unnamed	Open Water		
Noble	262.4	Unnamed	Intermittent Stream/River		
Noble	262.8	Unnamed	Intermittent Stream/River		
Noble	264.0	Black Bear Creek	Perennial		
Noble	264.6	Unnamed	Intermittent Stream/River		
Noble	265.3	Unnamed	Intermittent Stream/River		
Noble	266.4	Unnamed	Intermittent Stream/River		
Noble	267.5	Unnamed	Intermittent Stream/River		
Noble	267.7	Unnamed	Intermittent Stream/River		
Noble	268.0	Long Branch	Perennial		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
		Creek			
Payne	272.1	Unnamed	Open Water		
Payne	273.0	East Brush Creek	Intermittent Stream/River		
Payne	273.4	Unnamed	Open Water		
Payne	273.6	Unnamed	Intermittent Stream/River		
Payne	274.9	Little Stillwater Creek	Intermittent Stream/River		
Payne	275.1	Unnamed	Intermittent Stream/River		
Payne	275.1	Unnamed	Intermittent Stream/River		
Payne	275.7	Unnamed	Intermittent Stream/River		
Payne	275.9	Unnamed	Intermittent Stream/River		
Payne	276.2	Unnamed	Intermittent Stream/River		
Payne	276.8	Unnamed	Intermittent Stream/River		
Payne	276.9	Unnamed	Intermittent Stream/River		
Payne	277.3	Unnamed	Intermittent Stream/River		
Payne	277.4	Unnamed	Intermittent Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Payne	279.5	Unnamed	Intermittent Stream/River		
Payne	282.8	Unnamed	Perennial		
Payne	283.5	Unnamed	Intermittent Stream/River		
Payne	286.9	Long Branch	Intermittent Stream/River		
Payne	288.4	Unnamed	Open Water		
Payne	288.5	Cimarron River	Artifical Path		
Payne	290.2	Unnamed	Intermittent Stream/River		
Payne	290.2	Unnamed	Intermittent Stream/River		
Payne	291.3	Cabin Creek	Intermittent Stream/River		
Payne	291.6	Unnamed	Open Water		
Payne	292.4	Unnamed	Open Water		
Payne	292.5	Unnamed	Intermittent Stream/River		
Payne	292.6	Unnamed	Intermittent Stream/River		
Payne	292.7	Cabin Creek	Intermittent Stream/River		
Payne	292.7	Cabin Creek	Intermittent Stream/River		
Payne	292.8	Cabin Creek	Intermittent Stream/River		

Major and Sensitive Waterbodies					
State / County	**Approx. MP**	**Waterbody Name**	**Intermittent, Perennial, Reservoir, or Lake**	**State Water Quality Classification[1]**	**Supports Use Designation[1]**
Payne	292.8	Cabin Creek	Intermittent Stream/River		

[1] Streams with no classification or support use designation indicated were not defined.

Appendix K

Impaired Water Bodies in the Vicinity of the Keystone Pipeline Project

(Note: This appendix is Table 3.5-3, taken directly from the Environmental Report for the Keystone Pipeline Project [TransCanada 2007d])

Impaired Waterbodies

State	Waterbody Name	Designated Use	Use Support/ Attainment	Impairment	TMDL Priority
KEYSTONE MAINLINE					
NORTH DAKOTA[1]	Pembina River	Fish and Other Aquatic Biota	Fully Supporting but Threatened	Sedimentation / Siltation	2
		Recreation	Fully Supporting but Threatened	Total Fecal Coliform	2
	Tongue River	Fish and Other Aquatic Biota	Fully Supporting but Threatened	Sedimentation / Siltation	1B
	North Branch, Middle Branch, South Branch Park River	Fish and Other Aquatic Biota (Designation for Park River)	Fully Supporting but Threatened	Sedimentation / Siltation, Total Dissolved Solids (TDS) and Organic Enrichment	2
	North Branch, Middle Branch, South Branch, Forest River	Fish and Other Aquatic Biota (Designation for Forest River)	Not Supporting	Biological Indicators, Sedimentation / Siltation, TDS	2
	North Branch Turtle River	Fish and Other Aquatic Biota (Designation for Turtle River)	Not Supporting	Cadmium, Sedimentation / Siltation, Selenium, TDS	2
	Goose River	Fish and Other Aquatic Biota	Not Supporting	Sedimentation / Siltation	2
		Recreation	Fully Supporting but Threatened	Total Fecal Coliform	
	Sheyenne River	Fish and Other Aquatic Biota	Fully Supporting but Threatened	Sedimentation / Siltation	2
		Recreation	Fully Supporting but Threatened / Not Supporting	Total Fecal Coliform	
SOUTH DAKOTA[2]	See Attached Table K-1				
NEBRASKA[3]	Missouri River	Primary Contact Recreation	Inhibited	Fecal Coliform	5
		Aquatic Life Use	Inhibited	Dieldrin, polychlorinated biphenyls (PCBs)	
		Agriculture Water Supply	Supported		
		Industrial Water Supply	Supported		
	Antelope Creek	N/A	N/A	N/A	3
	West Bow Creek	N/A	N/A	N/A	3
	Norwegian Bow Creek	N/A	N/A	N/A	3

Impaired Waterbodies

State	Waterbody Name	Designated Use	Use Support/ Attainment	Impairment	TMDL Priority
	Bow Creek	N/A	N/A	N/A	3
	Middle Logan Creek	N/A	N/A	N/A	3
	Elkhorn River	Primary Contact Recreation	Inhibited	Fecal Coliform	5
		Aquatic Life Use	Supported		
	Shell Creek	N/A	N/A	N/A	3
	Lost Creek	N/A	N/A	N/A	3
	Platte River	Primary Contact Recreation	Inhibited	Fecal Coliform	5
		Aquatic Life Use	Inhibited	PCBs	
		Agriculture Water Supply	Supported		
	Deer Creek	N/A	N/A	N/A	3
	Little Blue River	N/A	N/A	N/A	3
	Big Blue River	Aquatic Life Use	Inhibited	DO	5
		Agriculture Water Supply	Supported		
	Lincoln Creek	Aquatic Life Use	Inhibited	Selenium	5
		Agriculture Water Supply	Supported		
	Crooked Creek	N/A	N/A	N/A	3
	West Fork Big Blue River	Primary Contact Recreation	Inhibited	E. Coli, Fecal coliform	5
		Aquatic Life Use	Inhibited	Selenium, Dieldrin	
		Agriculture Water Supply	Supported		
	Turkey Creek	N/A	N/A	N/A	3
	Swan Creek	Aquatic Life Use	Supported		2
		Agriculture Water Supply	Supported		
	Cub Creek	N/A	N/A	N/A	3

Impaired Waterbodies

State	Waterbody Name	Designated Use	Use Support/ Attainment	Impairment	TMDL Priority
KANSAS[4]	Meadow Creek	N/A			
	Indian Creek	N/A		Biological Impairment	1
	Deer Creek	GP, AL-E, CR-b		Atrazine, Berillium, Copper, pH	2 & 3
	Big Blue River	N/A		Atrazine, Berillium, Copper, pH	2 & 3
	North Elm Creek	GP, AL-E, CR-b		Atrazine, Berillium, Copper, pH	1
	Robidoux Creek	GP, AL-E, CR-B			
	Negro Creek	GP, AL-E, CR-b			
	North Fork Wildcat Creek	N/A			
	Wildcat Creek	GP, AL-S, CR-C, DS, FP, GR, IW, IR, LW or GP, E		Biological Impairment	1
	South Fork Big Nemaha River	GP, AL-S, CR-C, DS, FP, GR, IW, IR, LW		Biological Impairment	1
	Harris Creek	GP, AL-E		Biological Impairment	1
	Craig Creek	N/A			
	Delaware River	N/A		Beryllium, Biological Impairment	1
	Walnut Creek	GP, AL-E		Atrazine	1
	Middle Fork Wolf River	GP, AL-E, DS, FP, GR, IW, IR, LW		Atrazine, Biological Impariment	2
	Buttermilk Creek	GP, AL-E, CR-b		Atrazine, Copper	2
	South Fork Wolf River	GP, AL-E, DS, FP, GR, IW, IR, LW		Atrazine, Biological Impariment	2
	Squaw Creek	GP, AL-E, CR-b			
	Halling Creek	GP, AL-E		Atrazine, Biological Impairment	2
	Jordan Creek	GP, AL-E		Copper	3

Impaired Waterbodies

State	Waterbody Name	Designated Use	Use Support/ Attainment	Impairment	TMDL Priority
	Rock Creek	GP, AL-E		Copper	3
	Brush Creek	GP, AL-E			
	Missouri River	GP, AL-S, CR-B, DS, FP, GR, IW, IR, LW			
MISSOURI[5]	Missouri River	IRR, LWW, AQL, WBC-B, SCR, DWS, IND	N/A	Chlorodane, PCBs	M
	Contrary Creek	LWW, AQL, WBC-B	N/A	N/A	N/A
	Platte River	IRR, LWW, AQL, WBC-B, SCR, DWS	N/A	N/A	N/A
	Malden Creek	N/A	N/A	N/A	N/A
	Wolfpen Creek	N/A	N/A	N/A	N/A
	Jenkins Branch	N/A	N/A	N/A	N/A
	Horse Fork Creek	LWW, AQL, WBC-B	N/A	N/A	N/A
	Little Platte River	LWW, AQL, WBC-B, SCR	N/A	N/A	N/A
	Shoal Creek	LWW, AQL, WBC-B, SCR		Fecal Coliform	M
	Little Shoal Creek	N/A	N/A	N/A	N/A
	Deer Creek	N/A	N/A	N/A	N/A
	Plum Creek	N/A	N/A	N/A	N/A
	Log Creek	LWW, AQL, WBC-B, SCR	N/A	N/A	N/A
	Brush Creek	N/A	N/A	BOD, VSS	H
	Crabapple Creek	LWW, AQL, WBC-B	N/A	N/A	N/A
	Mud Creek	LWW, AQL, WBC-B	N/A	N/A	N/A
	Willow Creek	LWW, AQL, WBC-B	N/A	N/A	N/A
	Big Creek	LWW, AQL, WBC-B	N/A	Metals, Sediment	H/M

Impaired Waterbodies

State	Waterbody Name	Designated Use	Use Support/ Attainment	Impairment	TMDL Priority
	Grand River	IRR, LWW, AQL, WBC-A, SCR, DWS	N/A	N/A	N/A
	Potter Slough	N/A	N/A	N/A	N/A
	Salt Creek	LWW, AQL, WBC-B	N/A	N/A	N/A
	Brush Creek	LWW, AQL, WBC-B	N/A	BOD, VSS	H
	Lake Creek	LWW, AQL, WBC-B		Sediment	M
	Palmer Creek	LWW, AQL, WBC-B	N/A	N/A	N/A
	Mussel Fork Creek	LWW, AQL, WBC-B	N/A	Sediment	M
	Chariton River	IRR, LWW, AQL, WBC-A, SCR	N/A	N/A	N/A
	Puzzle Creek	LWW, AQL, WBC-B	N/A	N/A	N/A
	Middle Fork Little Chariton River	LWW, AQL, WBC-B (classifications for Little Chariton River)	N/A	N/A	N/A
	East Fork Little Chariton River	LWW, AQL, WBC-B (classifications for Little Chariton River)	N/A	N/A	N/A
	Big Creek	N/A	N/A	Metals, Sediment	H/M
	Saling Creek	N/A	N/A	N/A	N/A
	Long Branch Creek	LWW, AQL, WBC-B	N/A	Unknown	M
	Goodwater Creek	N/A	N/A	N/A	N/A
	Youngs Creek	LWW, AQL, WBC-B	N/A	N/A	N/A
	Skull Lick Creek	N/A	N/A	N/A	N/A
	South Fork Salt River	N/A	N/A	N/A	N/A
	Bean Creek	LWW, AQL, WBC-B	N/A	N/A	N/A
	Littleby Creek	LWW, AQL, WBC-B	N/A	N/A	N/A

Impaired Waterbodies

State	Waterbody Name	Designated Use	Use Support/ Attainment	Impairment	TMDL Priority
	West Fork Cuivre River	LWW, AQL, WBC-B	N/A	N/A	N/A
	Coon Creek	LWW, AQL, WBC-B	N/A	N/A	N/A
	Long Branch Creek	N/A	N/A	N/A	N/A
	Elkhorn Creek	LWW, AQL, WBC-B	N/A	BOD, VSS	H
	Brush Creek	LWW, AQL, WBC-B	N/A	BOD, VSS	H
	Bear Creek	LWW, AQL, WBC-B	N/A	Unknown	M
	Camp East Creek	N/A	N/A	N/A	N/A
	Cuivre River	LWW, AQL, WBC-B/A, SCR	N/A	N/A	N/A
	Whites Branch Creek	N/A	N/A	N/A	N/A
	Peruque Creek	LWW, AQL, WBC-B/A, SCR		NVSS	M
	Dardenne Creek	LWW, AQL, WBC-B/A, SCR		Unknown	M
	Trinity Channel	N/A	N/A	N/A	N/A
	Grand Lake	N/A	N/A	N/A	N/A
	Mississippi River	IRR, LWW, AQL, WBC-B, SCR, DWS, IND		Chlordane, PCBs	M
ILLINOIS[6]	Mississippi River				
	Indian Creek	Aquatic Life	Not Supporting	Habitat Assessment	(Category) 4C
		Fish Consumption	Fully Supporting		
		Primary Contact	Not Assessed		
		Secondary Contact			
		Aesthetic Quality			
	Cahokia Creek	Aquatic Life	Fully Supporting		2 & 5
		Fish Consumption			

Impaired Waterbodies

State	Waterbody Name	Designated Use	Use Support/ Attainment	Impairment	TMDL Priority
		Primary Contact	Not Supporting	Fecal Coliform	
		Secondary Contact	Not Assessed		
		Aesthetic Quality			
	Burrough's Branch (N. loop)	Aquatic Life	Not Assessed	N/A	3
		Fish Consumption			
		Primary Contact			
		Secondary Contact			
		Aesthetic Quality			
	Mooney Creek (S. loop)	Aquatic Life	Not Assessed	N/A	3
		Fish Consumption			
		Primary Contact			
		Secondary Contact			
		Aesthetic Quality			
	Sugar Creek	Aquatic Life	Not Assessed	N/A	3
		Fish Consumption			
		Primary Contact			
		Secondary Contact			
		Aesthetic Quality			
	Silver Creek	Aquatic Life	Not Supporting/Fully Supporting	Dissolved Oxygen, Sedimentation/Siltation, TSS, pH, Total Nitrogen, TPH	2 & 5
		Fish Consumption	Fully Supporting		
		Secondary Contact	Not Assessed		
		Aesthetic Quality			

Impaired Waterbodies

State	Waterbody Name	Designated Use	Use Support/ Attainment	Impairment	TMDL Priority
	Sugar Fork	Aquatic Life	Not Assessed	N/A	3
		Fish Consumption			
		Primary Contact			
		Secondary Contact			
		Aesthetic Quality			
	Sand Creek	Aquatic Life	Not Assessed	N/A	3
		Fish Consumption			
		Primary Contact			
		Secondary Contact			
		Aesthetic Quality			
	Highland Silver Lake	Aquatic Life	Not Supporting	Dissolved Oxygen, Sedimentation/Siltation, TSS, TPH, Aldrin	5
		Fish Consumption	Not Supporting	Chlordane	
		Public Food and Processing Water Supplies	Not Supporting	Manganese	
		Primary Contact	Not Assessed		
		Secondary Contact			
		Aesthetic Quality	Not Supporting	Aquatic Algae	
	Shoal Creek	Aquatic Life	Not Supporting/Fully Supporting	Dissolved Oxygen, Sedimentation/Siltation, TSS, TPH, Unknown Impairment	2 & 5
		Fish Consumption	Fully Supporting/Not Assessed		
		Public and Food Processing Water Supplies	Not Supporting	Manganese	

Impaired Waterbodies

State	Waterbody Name	Designated Use	Use Support/ Attainment	Impairment	TMDL Priority
		Primary Contact	Not Supporting/Not Assessed	Fecal Coliform	
		Secondary Contact	Not Assessed		
		Aesthetic Quality			
	Little Beaver Creek	Aquatic Life	Not Assessed	N/A	3
		Fish Consumption			
		Primary Contact			
		Secondary Contact			
		Aesthetic Quality			
	Kaskaskia River	Aquatic Life	Not Supporting/Not Assessed	Dissolved Oxygen, Silver, pH, TSS, TPH, Unknown Impairment	2 & 5
		Fish Consumption	Fully Supporting		
		Public Food and Processing Water Supplies	Not Supporting	Manganese	
		Primary Contact	Not Supporting/Fully Supporting/Not Assessed	Fecal Coliform	
		Secondary Contact	Fully Supporting/ Not Assessed		
		Aesthetic Quality	Not Assessed		
	Bear Creek	Aquatic Life	Not Assessed	N/A	3
		Fish Consumption			
		Primary Contact			
		Secondary Contact			
		Aesthetic Quality			
CUSHING EXTENSION					
KANSAS	Little Blue River	GP, AL-E, CR-C, CR-b, DS, FP, GR, IW, IR, LW	Supporting	Copper, Biology	2

Impaired Waterbodies

State	Waterbody Name	Designated Use	Use Support/ Attainment	Impairment	TMDL Priority
	Mill Creek	GP, AL-E, CR-b, FP	Supporting	Atrazine	3
	Coon Creek	GP, AL-E, CR-C, FP	Supporting	No Data	No Data
	Carter Creek	GP, AL-E, CR-b	Supporting	No Data	No Data
	West Fancy Creek	GP, AL-E, CR-b, FP	Supporting	No Data	No Data
	Lincoln Creek	GP, AL-E, CR-b	Supporting	Biology	2
	Republican River	GP, AL-S, CR-C, DS, FP, GR, IW, IR, LW	Supporting	Biology	2
	Chapman Creek	GP, AL-E, CR-C, DS, FP, GR, IW, IR, LW	Supporting	Fecal Coliform; Sulfate	1
	Smoky Hill River	GP, AL-E, CR-C, DS, FP, GR, IW, IR, LW	Supporting	Chloride; Fecal Coliform; Sulfate; Biology	1
	Carry Creek	GP, AL-S, FP	Supporting	Sulfates	1
	West Branch Lyon Creek	GP, AL-S, FP	Supporting	Fecal Coliform	1
	Mud Creek	GP, AL-S, DS, FP	Supporting	Chloride; Fecal Coliform; Sulfate	1
	Cottonwood River	GP, AL-E, CR-C, DS, FP, GR, IW, IR, LW	Supporting	Zinc	3
	Spring Branch	GP, AL-E	Supporting	No Data	No Data
	Catlin Creek	GP, AL-S, FP	Supporting	No Data	No Data
	Doyle Creek	GP, AL-E, DS, FP, GR, IW, IR, LW	Supporting	No Data	No Data
	East Branch Whitewater River	GP, AL-E, DS, FP, GR, IW, IR, LW	Supporting	Atrazine	2
	Diamond Creek	No Data	Supporting	No Data	No Data
	Brush Creek	No Data	Supporting	No Data	No Data
	Fourmile Creek	GP, AL-E, FP	Supporting	Atrazine	2
	Rock Creek	GP, AL-E	Supporting	Atrazine	2
	Spring Branch	GP, AL-E	Supporting	No Data	No Data

Impaired Waterbodies

State	Waterbody Name	Designated Use	Use Support/ Attainment	Impairment	TMDL Priority
	Whitewater River	GP, AL-E, DS, FP, GR, IW, IR, LW	Supporting	Atrazine	2
	Badger Creek	GP, AL-E, DS	Supporting	Atrazine	2
	Dry Creek	GP, AL-E	Supporting	Atrazine	2
	Fourmile Creek	GP, AL-E, CR-C, DS, FP, GR, IW, IR, LW	Supporting	Atrazine	2
	Eightmile Creek	GP, AL-E, DS, FP, GR, IW, IR, LW	Supporting	No Data	No Data
	Polecat Creek	GP, AL-E, FP	Supporting	No Data	No Data
	Stewart Creek	GP, AL-E	Supporting	No Data	No Data
	Crooked Creek	GP, AL-E	Supporting	No Data	No Data
	Arkansas River	GP, AL-S, CR-B, DS, FP, GR, IW, IR, LW	Supporting	pH; Chloride	2;1
OKLAHOMA	Chilocco Creek	No Data	No Data	No Data	No Data
	Bois d'Arc Creek	Agriculture; WW Aquatic Community; Hydropower; Primary Contact Recreation; Public and Private Water Supply; Fish Consumption; Aesthetics	Fully Supporting; Insufficient Information; Insufficient Information; Not Supporting; Fully Supporting; Not Assessed; Fully Supporting	Sulfates, Pathogens, Turbidity	High
	Cowskin Creek	No Data	No Data	No Data	No Data
	Salt Fork Arkansas River	Aesthetics; Agriculture; WW Aquatic Community; Industrial and Municipal Process and Cooling Water; Primary Contact Recreation; Public and Private water supply; Fish Consumption	Insufficient Data; Fully Supporting/Not Assessed; Not Supporting, Fully Supporting; Not Supporting; Not Assessed; Not Assessed	Pathogens, Turbidity	High
	Deadman Creek	Aesthetics; Agriculture; Warm Water Aquatic Community; Industrial and Municipal Process Cooling Water; Primary Contact Recreation; Fish Consumption	Insufficient Data; Insufficient Data; Insufficient Data; Insufficient Data; Not Assessed; Not Assessed	No Data	No Data
	Red Rock Creek	Aesthetics; Agriculture; Warm Water Aquatic Community;	Fully Supporting; Fully Supporting; Not Supporting; Fully	Turbidity	High

Impaired Waterbodies

State	Waterbody Name	Designated Use	Use Support/ Attainment	Impairment	TMDL Priority
		Industrial and Municipal Process Cooling Water; Primary Contact Recreation; Fish Consumption	Supporting; Not Supporting; Not Assessed		
	Long Branch	Aesthetics; Agriculture; Warm Water Aquatic Community; Industrial and Municipal Process Cooling Water; Primary Contact Recreation; Fish Consumption	Not Assessed	No Data	No Data
	Greasy Creek	No Data	No Data	No Data	No Data
	Black Bear Creek	Aesthetics; Agriculture; Warm Water Aquatic Community; Industrial and Municipal Process Cooling Water; Primary Contact Recreation; Fish Consumption	Fully Supporting; Fully Supporting; Fully Supporting/Not Supporting; Fully Supporting; Not Supporting; Insufficient Data; Insufficient Data	Unknown Toxicity, Lead, Pathogens, Turbidity	High
	East Brush Creek	Aesthetics; Agriculture; Warm Water Aquatic Community; Industrial and Municipal Process Cooling Water; Primary Contact Recreation; Fish Consumption	Not Assessed	No Data	No Data
	Little Stillwater Creek	No Data	No Data	Nitrates	High
	Cimarron River	Aesthetics; Agriculture; Emergency Water Supply; Warm Water Aquatic Community; Industrial and Municipal Process Colling Water; Primary Contact Recreation; Fish Consumption	Fully Supporting; Fully Supporting; Fully Supporting; Insufficient Information; Fully Supporting; Not Assessed; Not Assessed	Sulfates, Pathogens, Turbidity	High
	Cabin Creek	Aesthetics; Agriculture; Warm Water Aquatic Community; Industrial and Municipal Process Colling Water; Primary Contact Recreation; Fish Consumption	Not Assessed	No Data	No Data

[1]Source: NDDH 2004.

1A = TMDLs are scheduled for completion in the next two years.

1B = TMDL activities (e.g., monitoring or modeling) are scheduled to begin in the next two years.

2 = scheduled for TMDL development in the next 10 years.

3 = impaired for fish consumption due to methyl mercury (low priority for state due to complexities related to fate and transport of methyl mercury and due to interstate and international nature of atmospheric mercury sources.

[2]Source: SDDENR 2004.

[3]Source: Nebraska Department of Environmental Quality (NEDEQ) 2004.

Category 2 = Some of the designated uses are met but there is insufficient information to determine if all uses are being met; Category 3 = Insufficient data to determine if any beneficial uses are being met; Category 5 = One or more beneficial uses are determined to be impaired by one or more pollutants and all of the TMDLs have not been developed. Category 5 waters constitute the Section 303(d) list subject to EPA approval/disapproval.

[4]Source: KDHE 2004.

AL-E = expected aquatic life use.
AL-S = special aquatic life use.
CR-B = primary contact recreation segment is by law or written permission of the landowner open to and accessible to the public.
CR-b = secondary contact recreational segment is not open to and accessible by the public under Kansas law.
CR-C = primary contact recreation segment is not open to and accessible by the public under Kansas law.
DS = domestic water supply use.
FP = food procurement use.
GP = general purpose waters.
GR = groundwater recharge.
IR = irrigation use.
IW = industrial water supply use.
LW = livestock watering use.

Priority Levels – unknown.

[5]Source: MODNR 2004.

AQL = protection of warmwater aquatic life and human health-fish consumption.
BOD = biological oxygen demand (mg/l).
DWS = drinking water supply.
IND = industrial water supply.
IRR = irrigation water supply.
LWW = livestock and wildlife watering.
SCR = secondary contact recreation.
THP = total petroleum hydrocarbons (mg/l).
VSS = volatile (organic) suspended solids (mg/l).
WBC-A = whole body contact recreation open to public with whole body contact recreational use(s).
WBC-B = whole body contact recreation waters not contained within Category A.

Priority M – Medium.

Priority H – High.

[6]Source: ILEPA 2006.

Table K-1: Impaired or Contaminated Water Bodies in South Dakota[1]

Approximate Milepost	Waterbody Name	Waterbody Type	State-listed Beneficial Use(s) [2]	State/EPA Listed Impairments
257.5	Unnamed	Intermittent Stream/River		Impaired - Trophic state index - nutrients (at Amsden Lake)
258.7	Mud Creek	Perennial Stream/River		Impaired - Trophic state index - nutrients (at Amsden Lake)
315.6	Pearl Creek	Intermittent Stream/River	Warm water (WW) marginal fish life propagation waters; limited-contact recreation waters	
343.1	Redstone Creek	Intermittent Stream/River	WW marginal fish life propagation waters; limited-contact recreation waters (classification for segment in Sanborn county)	
362.1	Rock Creek	Intermittent Stream/River	WW marginal fish life propagation waters; limited-contact recreation waters (classification for segment in Hanson county)	
362.3	Rock Creek	Intermittent Stream/River	WW marginal fish life propagation waters; limited-contact recreation waters (classification for segment in Hanson county)	
375.7	Wolf Creek	Intermittent Stream/River	WW marginal fish life propagation waters; limited-contact recreation waters	
384	Wolf Creek	Intermittent Stream/River	WW marginal fish life propagation waters; limited-contact recreation waters	Impaired - Ammonia
391	Wolf Creek	Perennial Stream/River	WW marginal fish life propagation waters; limited-contact recreation waters	Impaired - Ammonia
421.7	James River	Perennial Stream/River	WW semipermanent fish life propagation waters; limited-contact recreation waters	Impaired Total Suspended Solids - Turbidity
423.5	Unnamed	Intermittent Stream/River		
428	Beaver Creek	Perennial Stream/River	WW marginal fish life propagation waters; limited-contact recreation waters	
435.8	Missouri River	Artificial Path/Perennial Stream/River	Domestic waster supply, WW permanent fish life, immersion recreation, limited contact recreation, commerce and industry waters	

[1] Table is modified from Table 1 included in Response to Data Request #2, Item 4 provided by Keystone

[2] All streams in South Dakota are assigned the beneficial uses of irrigation and fish and wildlife propagation, recreation, and stock watering. The classifications only designate the quality at which the waters are to be maintained and protected.

Sources: South Dakota Administrative Rules 74:51:01:42, 74:51:03:01, 74:51:03:05, and 74:51:03:20; USEPA 2004 Section 303(d) List Fact Sheet for South Dakota; South Dakota Total Maximum Daily Load Waterbody List 2002.