

Missouri Clean Water Commission Meeting
Department of Natural Resources
1101 Riverside Drive
Jefferson City, Missouri

July 12, 2017

**Annual Report on Affordability Findings of Compliance to the Missouri Clean Water Law
For Calendar Year 2016**

Issue: This agenda item is a presentation summarizing the information contained in the 2016 Annual Report on Affordability.

Background: The department of natural resources is required to make affordability findings that evaluate the affordability of new permit requirements and enforcement actions which are based upon reasonably verifiable data and include an assessment of affordability with respect to persons or entities affected.

Additionally, the department is required to file an annual report by the beginning of the fiscal year with the governor, the speaker of the house of representatives, the president pro tempore of the senate, and the chairs of the committees in both houses having primary jurisdiction over natural resource issues showing at least the following information on the findings of affordability completed in the previous calendar year:

- (1) The total number of findings of affordability issued by the department, those categorized as affordable, those categorized as not meeting the definition of affordable, and those implemented as a federal mandate regardless of affordability;
- (2) The average increase in sewer rates both in dollars and percentage for all findings found to be affordable;
- (3) The average increase in sewer rates as a percentage of median house income in the communities for those findings determined to be affordable and a separate calculation of average increases in sewer rates for those found not to meet the definition of affordable;
- (4) A list of all the permit holders receiving findings, and for each permittee the following data taken from the finding of affordability shall be listed:
 - (a) Current and projected monthly residential sewer rates in dollars;
 - (b) Projected monthly residential sewer rates as a percentage of median household income;
 - (c) Percentage of households at or below the state poverty rate.

Recommended Action: No action is recommended as this item is informational only

List of Attachment:

- Annual Report on Affordability Findings of Compliance to the Missouri Clean Water Law for Calendar Year 2016

Annual Report on Affordability Findings of Compliance to the Missouri Clean Water Law For Calendar Year 2016

Pursuant to Section 644.145.1 of the Revised Statutes of Missouri (RSMo), enacted in 2011, the Department of Natural Resources (Department) has conducted affordability findings when issuing permits that incorporate a new requirement for discharges from publicly owned sewer systems or water or sewer treatment works, or when enforcing provisions of Chapter 644 or the Federal Water Pollution Control Act. This report presents the affordability findings conducted in the calendar year 2016.

Defined in Section 644.145.3(1) RSMo, affordability with respect to payment of a utility bill is “a measure of whether an individual customer or household with an income equal to or lower than the median household income for their community can pay the bill without undue hardship or unreasonable sacrifice in the essential lifestyle or spending patterns of the individual or household”, taking into consideration the criteria described in Section 644.145.4 RSMo (Appendix A).

The main body of the report presents the four categories of costs and impacts related affordability findings pursuant to Section 644.145.9 RSMo, and a geographical distribution of the affordability findings made in the calendar years 2014, 2015 and 2016. A description of the overall procedure for making the affordability findings during calendar year 2016 is provided in Appendix B.

1. Affordability Findings

(1) The Numbers of Findings of Affordability

The total numbers of findings of affordability issued by the Department, with effective dates between January 1, 2016 and December 31, 2016, were 190, including 190 findings categorized as affordable, zero findings categorized as not meeting the definition of affordable, and zero findings implemented as a federal mandate regardless of affordability.

(2) Average Increase in Sewer Rates

For the 190 findings found to be affordable, the average projected increase in monthly sewer rates was \$5.61 in terms of 2015 dollar values, and the average projected increase in monthly sewer rates compared with the current monthly sewer rates was 57.28%.

(3) Average Increase in Sewer Rates as Percentages of Median Household Income

For the 190 findings found to be affordable, the average projected increase in monthly sewer rates as a percentage of monthly median house income (MHI) was 0.179%, where MHIs were referred to the MHIs of the communities (counties, cities, villages, towns or census designated places) in which the service users were residing.

(4) List of All the Permit Holders Receiving Affordability Findings

All the permits holders receiving findings and data for the following indicators are provided in Table 1 below.

- (a) Current and projected monthly residential sewer rates in dollars;
- (b) Projected monthly residential sewer rates as percentages of monthly median household incomes; and
- (c) Percentages of households at or below the state poverty rate.

Table 1. Key Socioeconomic Data Utilized or Generated in the Affordability Findings Issued During 2016

RSMo 644.145.9 Criteria								
(4) (a)	(4) (a)	(4) (b)	(2)	(2)	(3)	(4) (c)	(1)	
↓	↓	↓	↓	↓	↓	↓	↓	
							Federal Mandate	
							0	
							Not Affordable	
							0	
					Average	Average	Average	Affordable
					\$5.61	57.28%	0.179%	190

No.*	Permit No.	Primary Socioeconomic Indicators (MHI: Median Household Income) ***									Affordability****
		Facility Name**	Annual MHI	Current Monthly Residential Sewer Rate	Projected Monthly Residential Sewer Rate		Increase of Monthly Residential Sewer Rate			Households at or Below Poverty	
				\$	\$	% of Monthly MHI	\$	%	% of Monthly MHI		
1	MO-0021784	Newburg WWTF	\$21,727	/////	/////	/////	\$0.16	/////	0.009%	34.8%	Yes
2	MO-0022331	Holcomb WWTF	\$35,438	\$20.00	\$11.64	0.39%	/////	/////	/////	24.9%	Yes
3	MO-0022853	Jackson Municipal WWTP	\$52,182	/////	/////	/////	\$0.06	/////	0.001%	6.2%	Yes
4	MO-0022861	Campbell WWTF	\$22,686	/////	/////	/////	\$0.04	/////	0.002%	35.3%	Yes
5	MO-0023116	Higginsville North Lagoon	\$40,621	/////	/////	/////	\$0.08	/////	0.002%	18.9%	Yes
6	MO-0023124	Louisiana WWTP	\$33,560	/////	/////	/////	\$0.22	/////	0.008%	15.3%	Yes
7	MO-0023132	Thayer Municipal WWTF	\$24,482	/////	/////	/////	\$0.07	/////	0.003%	30.1%	Yes
8	MO-0023230	New Haven WWTF	\$45,023	/////	/////	/////	\$0.04	/////	0.001%	6.9%	Yes
9	MO-0025283	Union West WWTF	\$43,650	/////	/////	/////	\$0.07	/////	0.002%	10.9%	Yes
10	MO-0025810	Washington WWTP	\$52,472	\$27.60	\$27.68	0.63%	\$0.08	0.3%	0.002%	10.4%	Yes
11	MO-0025828	Smithton WWTF	\$43,680	\$17.30	\$21.60	0.59%	\$4.30	24.9%	0.118%	20.6%	Yes

Table 1. Key Socioeconomic Data Utilized or Generated in the Affordability Findings Issued During 2016 (Cont.)

No.*	Permit No.	Primary Socioeconomic Indicators (MHI: Median Household Income) ***									Affordability****
		Facility Name**	Annual MHI	Current Monthly Residential Sewer Rate	Projected Monthly Residential Sewer Rate		Increase of Monthly Residential Sewer Rate			Households at or Below Poverty	
				\$	\$	% of Monthly MHI	\$	%	% of Monthly MHI		
12	MO-0026298	Platte City WWTP	\$63,424	/////	/////	/////	\$0.33	/////	0.006%	15.5%	Yes
13	MO-0026301	Cabool WWTF	\$22,125	\$12.71	\$19.16	1.04%	\$6.45	50.7%	0.350%	36.8%	Yes
14	MO-0026361	Vandalia WWTF	\$34,585	\$17.47	\$21.58	0.75%	\$4.11	23.5%	0.143%	20.7%	Yes
15	MO-0026379	Odessa NW WWTF	/	/	/	/	/	/	/	/	Yes
16	MO-0026662	De Soto WWTF	\$35,105	/////	/////	/////	\$0.10	/////	0.003%	24.8%	Yes
17	MO-0026671	Lowry City WWTF	\$21,468	\$14.15	\$17.90	1.00%	\$3.75	26.5%	0.210%	38.5%	Yes
18	MO-0028037	Nixa WWTF	\$53,127	\$29.45	\$29.47	0.67%	\$0.02	0.1%	0.000%	11.1%	Yes
19	MO-0028053	Hawk Point WWTF	\$42,069	\$21.37	\$61.67	1.76%	\$40.30	188.6%	1.150%	26.2%	Yes
20	MO-0028720	O'Fallon WWTP	\$79,564	\$36.30	\$48.46	0.73%	\$12.16	33.5%	0.183%	4.2%	Yes
21	MO-0028762	Princeton WWTF	\$43,187	/////	/////	/////	\$1.33	/////	0.037%	15.7%	Yes
22	MO-0030821	Morehouse WWTF	\$31,228	\$12.44	\$27.96	1.07%	\$15.52	124.8%	0.596%	13.5%	Yes
23	MO-0031496	W.E. Sears Youth Center	//	//	//	//	//	//	//	//	Yes
24	MO-0033286	Maryville WWTF	\$27,855	/////	/////	/////	\$0.07	/////	0.003%	36.7%	Yes
25	MO-0033910	Choctaw Ridge Lagoon	\$52,878	\$43.56	\$56.34	1.28%	\$12.78	29.3%	0.290%	13.6%	Yes
26	MO-0034916	MDNR, Trail of Tears State Park WWTF	///	///	///	///	///	///	///	///	Yes
27	MO-0036218	Wood Heights WWTP	\$58,950	/////	/////	/////	\$0.19	/////	0.004%	6.6%	Yes
28	MO-0036757	Aurora WWTF	\$35,451	/////	/////	/////	\$0.09	/////	0.003%	19.6%	Yes
29	MO-0039624	Chamois Municipal WWTF	\$26,884	\$38.50	\$25.63	1.14%	/////	/////	/////	30.6%	Yes

Table 1. Key Socioeconomic Data Utilized or Generated in the Affordability Findings Issued During 2016 (Cont.)

No.*	Permit No.	Primary Socioeconomic Indicators (MHI: Median Household Income) ***									Affordability****
		Facility Name**	Annual MHI	Current Monthly Residential Sewer Rate	Projected Monthly Residential Sewer Rate		Increase of Monthly Residential Sewer Rate			Households at or Below Poverty	
				\$	\$	% of Monthly MHI	\$	%	% of Monthly MHI		
30	MO-0039659	Eureka WWTF	\$88,829	\$6.50	\$19.03	0.26%	\$12.53	192.8%	0.169%	3.6%	Yes
31	MO-0039683	Laddonia WWTF	\$41,027	\$36.00	\$39.74	1.16%	\$3.74	10.4%	0.109%	24.7%	Yes
32	MO-0039691	Lancaster WWTF	\$32,228	\$47.00	\$54.55	2.03%#	\$7.55	16.1%	0.281%	19.7%	Yes
33	MO-0039721	Marceline WWTP	\$33,624	\$19.44	\$69.23	2.47%#	\$49.79	256.1%	1.777%	13.5%	Yes
34	MO-0039748	Trenton Municipal Utilities WWTP	\$36,918	\$33.56	\$50.63	1.65%	\$17.07	50.9%	0.555%	17.7%	Yes
35	MO-0040819	Huntsville Northwest WWTF	\$33,271	/////	/////	/////	\$0.06	/////	0.002%	17.5%	Yes
36	MO-0041114	Meadville WWTF	\$54,271	\$35.00	\$80.21	1.77%	\$45.21	129.2%	1.000%	3.1%	Yes
37	MO-0041131	Pacific WWTP	\$40,314	\$27.11	\$45.13	1.34%	\$18.02	66.5%	0.536%	14.6%	Yes
38	MO-0041203	Lagrange WWTP	\$40,182	/////	/////	/////	\$0.25	/////	0.007%	19.6%	Yes
39	MO-0042579	Cassville WWTP	\$43,120	/////	/////	/////	\$0.12	/////	0.003%	10.2%	Yes
40	MO-0043532	Oran WWTF	\$41,632	/////	/////	/////	\$0.17	/////	0.005%	12.7%	Yes
41	MO-0045420	Gerald WWTF	\$41,528	\$20.00	\$22.47	0.65%	\$2.47	12.4%	0.071%	20.5%	Yes
42	MO-0045837	Liberal WWTF	\$33,304	\$13.60	\$25.41	0.92%	\$11.81	86.8%	0.426%	12.4%	Yes
43	MO-0046078	Rock Port WWTF	\$42,950	/////	/////	/////	\$0.05	/////	0.001%	10.8%	Yes
44	MO-0046647	Garden City WWTF	\$39,294	\$34.31	\$21.61	0.66%	/////	/////	/////	11.0%	Yes
45	MO-0047023	Rolla Southwest WWTP	\$33,322	/////	/////	/////	\$0.03	/////	0.001%	26.0%	Yes
46	MO-0047058	Stover Southwest WWTF	\$26,398	/////	/////	/////	\$0.09	/////	0.004%	28.8%	Yes
47	MO-0047325	Windsor Southwest WWTF	/	/	/	/	/	/	/	/	Yes
48	MO-0047350	Doniphan Municipal WWTF	\$34,105	/////	/////	/////	\$0.04	/////	0.001%	30.9%	Yes
49	MO-0048054	Bernie WWTF	\$31,958	/////	/////	/////	\$0.04	/////	0.002%	28.1%	Yes
50	MO-0048178	Lilbourn WWTF	\$23,125	/////	/////	/////	\$0.05	/////	0.003%	38.6%	Yes
51	MO-0048208	Archie WWT Lagoons	\$51,680	/////	/////	/////	\$0.11	/////	0.003%	18.1%	Yes

Table 1. Key Socioeconomic Data Utilized or Generated in the Affordability Findings Issued During 2016 (Cont.)

No.*	Permit No.	Primary Socioeconomic Indicators (MHI: Median Household Income) ***									Affordability****
		Facility Name**	Annual MHI	Current Monthly Residential Sewer Rate	Projected Monthly Residential Sewer Rate		Increase of Monthly Residential Sewer Rate			Households at or Below Poverty	
				\$	\$	% of Monthly MHI	\$	%	% of Monthly MHI		
52	MO-0048712	Knob Noster WWTF	\$44,863	/////	/////	/////	\$0.03	/////	0.001%	19.8%	Yes
53	MO-0049239	Warsaw WWTF	\$22,484	/////	/////	/////	\$0.08	/////	0.004%	27.4%	Yes
54	MO-0049654	Green Ridge Lagoon	\$36,277	\$21.30	\$51.29	1.70%	\$29.99	140.8%	0.992%	10.4%	Yes
55	MO-0050687	Arcadia West WWTF	\$43,898	\$11.71	\$28.83	0.79%	\$17.12	146.2%	0.468%	21.1%	Yes
56	MO-0051551	Linn WWTF	\$37,281	/////	/////	/////	\$0.04	/////	0.001%	18.1%	Yes
57	MO-0052132	Wardell WWTF	\$36,686	\$32.00	\$45.29	1.48%	\$13.29	41.5%	0.435%	16.9%	Yes
58	MO-0053708	Lake Adelle Sewer District	\$42,859	NA	\$19.09	0.53%	/	/	/	18.0%	Yes
59	MO-0053937	Moberly Correctional Center WWTF	\$49,078	//	//	//	//	//	//	//	Yes
60	MO-0054496	Knob Noster Valley Hill Lagoon	\$44,863	/////	/////	/////	\$0.02	/////	0.001%	19.8%	Yes
61	MO-0054518	Sweet Springs WWTF	\$42,775	\$16.11	\$21.55	0.60%	\$5.44	33.8%	0.153%	17.8%	Yes
62	MO-0054623	Troy Hwy 47 WWTP	\$51,808	\$35.00	\$35.25	0.82%	\$0.25	0.7%	0.006%	15.2%	Yes
63	MO-0054721	Noel WWTP	\$30,644	/////	/////	/////	\$0.05	/////	0.002%	29.1%	Yes
64	MO-0055182	Benton WWTF	\$54,230	\$14.70	\$30.04	0.66%	\$15.34	104.4%	0.339%	6.1%	Yes
65	MO-0055204	Smithville WWTP	\$71,730	/////	/////	/////	\$0.11	/////	0.002%	6.0%	Yes
66	MO-0055395	Bland WWTF	\$29,630	\$29.75	\$45.09	1.83%	\$15.34	51.6%	0.621%	22.7%	Yes
67	MO-0055425	Lake Lotawana WWTP #1	\$47,333	/////	/////	/////	\$0.06	/////	0.002%	4.1%	Yes
68	MO-0055751	Viburnum Wastewater Lagoon	\$41,330	\$30.00	\$51.25	1.49%	\$21.25	70.8%	0.617%	13.5%	Yes
69	MO-0055981	Bunceton WWTF	\$36,952	\$35.00	\$27.77	0.90%	/////	/////	/////	23.6%	Yes
70	MO-0056260	Ava WWTP	\$24,810	/////	/////	/////	\$0.03	/////	0.001%	27.9%	Yes
71	MO-0057410	Jamestown North WWTF	\$39,861	\$50.50	\$51.00	1.54%	\$0.50	1.0%	0.015%	14.6%	Yes
72	MO-0058203	Jamestown South WWTF	\$39,861	\$50.50	\$51.00	1.54%	\$0.50	1.0%	0.015%	14.6%	Yes

Table 1. Key Socioeconomic Data Utilized or Generated in the Affordability Findings Issued During 2016 (Cont.)

No.*	Permit No.	Primary Socioeconomic Indicators (MHI: Median Household Income) ***									Affordability****
		Facility Name**	Annual MHI	Current Monthly Residential Sewer Rate	Projected Monthly Residential Sewer Rate		Increase of Monthly Residential Sewer Rate			Households at or Below Poverty	
				\$	\$	% of Monthly MHI	\$	%	% of Monthly MHI		
73	MO-0058351	St. Charles Missouri River WWTP	\$56,735	/////	/////	/////	\$0.02	/////	0.000%	11.4%	Yes
74	MO-0080632	Festus-Crystal City WWTP	\$45,701	/////	/////	/////	\$0.00	/////	0.000%	/////	Yes
75	MO-0080667	Arcadia East WWTF	\$43,898	\$11.71	\$28.83	0.79%	\$17.12	146.2%	0.468%	21.1%	Yes
76	MO-0081400	Beaufort Elementary School WWTF	\$49,655	//	//	//	//	//	//	21.2%	Yes
77	MO-0083780	Campbellton Elementary School WWTF	//	//	//	//	//	//	//	//	Yes
78	MO-0083879	Miller County R-III Tuscumbia WWTF	//	//	//	//	//	//	//	//	Yes
79	MO-0086517	Athena Elementary School WWTF	//	//	//	//	//	//	//	//	Yes
80	MO-0086631	Miller County Care And Rehabilitation WWTF	\$36,797	//	//	//	//	//	//	20.9%	Yes
81	MO-0087149	Jamesport WWTF	\$31,134	\$9.75	\$34.60	1.33%	\$24.85	254.9%	0.958%	28.5%	Yes
82	MO-0088676	Winfield Municipal Lagoon	\$48,210	\$18.50	\$48.00	1.19%	\$29.50	159.5%	0.734%	18.1%	Yes
83	MO-0089443	Peculiar WWTP	\$59,262	\$58.40	\$62.03	1.26%	\$3.63	6.2%	0.074%	12.0%	Yes
84	MO-0090654	Williamsville WWTF	\$28,261	\$35.19	\$18.49	0.79%	/////	/////	/////	33.8%	Yes
85	MO-0090841	Lake Mykee South Lagoon	\$49,008	\$45.46	/	/	/	/	/	13.6%	Yes
86	MO-0091031	Lawson WWTF	\$49,008	\$24.75	\$27.85	0.68%	\$3.10	12.5%	0.076%	10.1%	Yes
87	MO-0091375	Rosebud North Lagoon	\$37,602	\$20.50	\$10.53	0.34%	/////	/////	/////	19.3%	Yes
88	MO-0092975	New London WWTF	\$28,444	\$27.00	\$33.93	1.43%	\$6.93	25.7%	0.292%	30.2%	Yes
89	MO-0093556	MDOC, Ozark Correctional Center WWTF	/////	/////	/////	/////	/////	/////	/////	/////	Yes
90	MO-0094161	Waynesville WWTP	\$57,132	/////	/////	/////	\$0.13	/////	0.003%	9.5%	Yes

Table 1. Key Socioeconomic Data Utilized or Generated in the Affordability Findings Issued During 2016 (Cont.)

No.*	Permit No.	Primary Socioeconomic Indicators (MHI: Median Household Income) ***									Affordability****
		Facility Name**	Annual MHI	Current Monthly Residential Sewer Rate	Projected Monthly Residential Sewer Rate		Increase of Monthly Residential Sewer Rate			Households at or Below Poverty	
				\$	\$	% of Monthly MHI	\$	%	% of Monthly MHI		
91	MO-0094200	Lake Hannibal Estate WWTF	\$49,618	\$45.46	\$54.66	1.32%	\$9.20	20.2%	0.222%	9.9%	Yes
92	MO-0094765	Bourbon WWTF	\$36,502	\$27.00	\$33.14	1.09%	\$6.14	22.7%	0.202%	20.0%	Yes
93	MO-0094927	Versailles WWTF	\$30,483	/////	/////	/////	\$0.14	/////	0.006%	25.9%	Yes
94	MO-0094951	Slater WWTF	\$29,303	\$26.65	\$29.70	1.22%	\$3.05	11.4%	0.125%	17.9%	Yes
95	MO-0095028	Caruthersville WWTF	\$26,263	\$12.96	\$16.07	0.73%	\$3.11	24.0%	0.142%	37.1%	Yes
96	MO-0095109	Niangua WWTF	\$37,573	\$31.25	\$35.92	1.15%	\$4.67	14.9%	0.149%	12.9%	Yes
97	MO-0095745	Knox City WWTF	/	/	/	/	/	/	/	/	Yes
98	MO-0095907	Deepwater WWTF	\$29,467	/////	/////	/////	\$0.33	/////	0.013%	19.1%	Yes
99	MO-0096091	Chilhowee WWTF	\$29,681	\$39.00	\$39.00	1.58%	/////	/////	/////	23.6%	Yes
100	MO-0096318	Carrollton WWTF	\$32,865	/////	/////	/////	\$0.17	/////	0.006%	16.4%	Yes
101	MO-0096644	CGCRCSD, Tamarac Estates WWTF	\$50,516	\$35.00	////	////	////	////	////	9.7%	Yes
102	MO-0097781	Callaway Hills Elementary School WWTF	//	//	//	//	//	//	//	//	Yes
103	MO-0098019	Two Mile Prairie Elementary School WWTF	//	//	//	//	//	//	//	//	Yes
104	MO-0099058	Mapaville State School WWTF	//	//	//	//	//	//	//	//	Yes
105	MO-0099228	Lincoln County PWS #1, Green Acres WWTF	\$39,948	\$65.52	////	////	////	////	////	19.4%	Yes
106	MO-0099252	NPSD, Antire Springs WWTF	\$54,953	/////	/////	/////	\$0.41	/////	0.009%	14.2%	Yes
107	MO-0099490	Van Buren WWTF	\$28,656	/////	/////	/////	\$0.08	/////	0.003%	16.2%	Yes
108	MO-0099759	CGCRCSD, Red Barn Restaurant WWTF	\$50,516	\$35.00	////	////	////	////	////	9.7%	Yes

Table 1. Key Socioeconomic Data Utilized or Generated in the Affordability Findings Issued During 2016 (Cont.)

No.*	Permit No.	Primary Socioeconomic Indicators (MHI: Median Household Income) ***									Affordability****
		Facility Name**	Annual MHI	Current Monthly Residential Sewer Rate	Projected Monthly Residential Sewer Rate		Increase of Monthly Residential Sewer Rate			Households at or Below Poverty	
				\$	\$	% of Monthly MHI	\$	%	% of Monthly MHI		
109	MO-0099961	East Lynne WWTF	\$54,577	/////	/////	/////	\$0.18	/////	0.004%	17.7%	Yes
110	MO-0100102	Creighton WWTF	\$44,051	\$30.43	\$28.02	0.76%	/////	/////	/////	19.3%	Yes
111	MO-0100129	Dixon WWTP	\$32,205	\$35.77	\$40.41	1.51%	\$4.64	13.0%	0.173%	17.6%	Yes
112	MO-0100676	Eldon WWTP	\$27,142	\$34.52	\$40.90	1.81%	\$6.38	18.5%	0.282%	41.4%	Yes
113	MO-0101273	Iberia WWTF	\$30,131	\$32.31	\$42.28	1.68%	\$9.97	30.9%	0.397%	18.4%	Yes
114	MO-0102288	Willow Springs WWTP	\$27,882	\$33.40	\$39.68	1.71%	\$6.28	18.8%	0.270%	29.0%	Yes
115	MO-0103764	Bellflower WWTF	\$31,250	\$36.43	\$37.22	1.43%	\$0.79	2.2%	0.030%	32.2%	Yes
116	MO-0104671	Ewing WWTF	\$36,094	\$23.00	\$54.34	1.81%	\$31.34	136.3%	1.042%	10.4%	Yes
117	MO-0104736	Sullivan WWTP	\$33,182	/////	/////	/////	\$0.05	/////	0.002%	13.1%	Yes
118	MO-0104914	Conception Junction Sewage Treatment Lagoon	\$52,688	\$17.00	\$45.36	1.03%	\$28.36	166.8%	0.646%	5.9%	Yes
119	MO-0106151	Fremont Hills WWTF	\$102,353	/////	/////	/////	\$0.11	/////	0.001%	2.9%	Yes
120	MO-0106321	Sanitary Sewer District #102 WWTP	\$48,631	/////	/////	/////	\$0.19	/////	0.005%	17.4%	Yes
121	MO-0106348	Russellville WWTF	\$49,017	\$57.35	\$60.77	1.49%	\$3.42	6.0%	0.084%	18.1%	Yes
122	MO-0106585	Hermann WWTF	\$38,545	\$26.00	\$25.08	0.78%	/////	/////	/////	6.3%	Yes
123	MO-0107719	Center WWTF	\$27,726	\$35.00	\$45.77	1.98%	\$10.77	30.8%	0.466%	24.7%	Yes
124	MO-0108243	Silex WWTF	\$26,560	\$37.00	\$33.99	1.54%	/////	/////	/////	53.3%	Yes
125	MO-0108511	Excelsior Estate WWTF	\$48,945	/////	/////	/////	\$0.99	/////	0.024%	12.4%	Yes
126	MO-0108804	Warsaw R-9 High and Middle School WWTF	//	//	//	//	//	//	//	//	Yes
127	MO-0109797	Clarksburg WWTF	\$25,762	\$17.30	\$21.27	0.99%	\$3.97	22.9%	0.185%	40.2%	Yes
128	MO-0109975	MDC, Powder Valley Conservation Nature Center	/////	/////	/////	/////	/////	/////	/////	/////	Yes

Table 1. Key Socioeconomic Data Utilized or Generated in the Affordability Findings Issued During 2016 (Cont.)

No.*	Permit No.	Primary Socioeconomic Indicators (MHI: Median Household Income) ***									Affordability****
		Facility Name**	Annual MHI	Current Monthly Residential Sewer Rate	Projected Monthly Residential Sewer Rate		Increase of Monthly Residential Sewer Rate			Households at or Below Poverty	
				\$	\$	% of Monthly MHI	\$	%	% of Monthly MHI		
129	MO-0110272	Lamar Closed Sanitary Landfill	\$44,698	/////	/////	/////	/////	/////	/////	22.5%	Yes
130	MO-0110400	Twin Cities Industrial Park WWTF	\$27,713	/	/	/	/	/	/	28.7%	Yes
131	MO-0111236	Edgerton WWTF	\$51,220	\$77.00	\$38.98	0.91%	/////	/////	/////	6.4%	Yes
132	MO-0112534	Goodman WWTF	\$38,106	/////	/////	/////	\$0.22	/////	0.007%	19.1%	Yes
133	MO-0112623	Adrian Wastewater Lagoon	\$38,436	\$22.50	\$32.38	1.01%	\$9.88	43.9%	0.308%	11.2%	Yes
134	MO-0114537	Leesville R-9 School WWTF	//	//	//	//	//	//	//	//	Yes
135	MO-0114740	Asbury WWTF	\$36,061	NA	\$17.71	0.59%	/	/	/	16.0%	Yes
136	MO-0115410	CCSD Catawissa WWTF	\$42,559	\$34.00	\$39.70	1.12%	\$5.70	16.8%	0.161%	12.5%	Yes
137	MO-0116009	Hermann Industrial Tract Lagoon	\$36,071	/////	/////	/////	\$0.02	/////	0.001%	10.4%	Yes
138	MO-0116076	Leeton WWTF	\$34,172	\$17.00	\$43.32	1.52%	\$26.32	154.8%	0.924%	23.1%	Yes
139	MO-0116599	Branson, Cooper Creek WWTF	\$41,547	/////	/////	/////	\$0.03	/////	0.001%	21.6%	Yes
140	MO-0117129	Piedmont Industrial Park	\$23,783	/////	/////	/////	\$0.00	/////	0.000%	34.5%	Yes
141	MO-0117951	Bunker WWTF	\$22,717	/////	/////	/////	\$0.05	/////	0.003%	52.4%	Yes
142	MO-0118656	Rosecrans Memorial Airport WWTF	//	//	//	//	//	//	//	//	Yes
143	MO-0118966	Northeast Correctional Center WWTF	\$30,950	\$45.73	\$50.58	1.96%	\$4.85	10.6%	0.188%	19.5%	Yes
144	MO-0118982	Flemington WWTF	\$20,167	\$29.00	\$18.38	1.09%	/////	/////	/////	41.1%	Yes
145	MO-0119016	Morrison WWTF	\$43,791	NA	\$27.58	0.76%	/	/	/	8.2%	Yes
146	MO-0119032	Lakeland R-III School District WWTF	\$32,623	//	//	//	//	//	//	21.8%	Yes
147	MO-0119172	Rock Port I-29 WWTF	\$42,950	\$28.75	\$30.09	0.84%	\$1.34	4.7%	0.037%	10.8%	Yes

Table 1. Key Socioeconomic Data Utilized or Generated in the Affordability Findings Issued During 2016 (Cont.)

No.*	Permit No.	Primary Socioeconomic Indicators (MHI: Median Household Income) ***									Affordability****
		Facility Name**	Annual MHI	Current Monthly Residential Sewer Rate	Projected Monthly Residential Sewer Rate		Increase of Monthly Residential Sewer Rate			Households at or Below Poverty	
				\$	\$	% of Monthly MHI	\$	%	% of Monthly MHI		
148	MO-0120081	Charleston WWTF	\$28,828	/////	/////	/////	\$0.15	/////	0.006%	32.7%	Yes
149	MO-0120421	Southeast Missouri Regional Port Authority WWTF	//	//	//	//	//	//	//	//	Yes
150	MO-0120553	Crest Ridge R-VII School District	\$32,083	/////	/////	/////	/////	/////	/////	20.0%	Yes
151	MO-0122220	USFWS, Squaw Creek National Wildlife Refuge WWTF	///	///	///	///	///	///	///	///	Yes
152	MO-0122599	Vanduser WWTF	\$31,650	\$22.00	\$32.83	1.24%	\$10.83	49.2%	0.411%	25.6%	Yes
153	MO-0123391	Oak Ridge Estates WWTF	\$41,619	\$22.12	///	///	///	///	///	17.5%	Yes
154	MO-0123404	Koshkonong WWTF	\$24,625	/////	/////	/////	\$0.04	/////	0.002%	21.0%	Yes
155	MO-0123579	Lone Jack WWTP	\$62,307	\$68.80	\$36.28	0.70%	/////	/////	/////	13.1%	Yes
156	MO-0124311	Pleasant View School WWTF	//	//	//	//	//	//	//	//	Yes
157	MO-0124427	Pike Creek Sewer District WWTF	\$28,262	\$46.69	///	///	///	///	///	32.7%	Yes
158	MO-0124664	Lohman WWTP	\$47,333	\$39.00	\$44.56	1.13%	\$5.56	14.3%	0.141%	10.2%	Yes
159	MO-0125032	Phelps County PWSD #2, Forest Lakes Sub.	\$43,468	/////	/////	/////	\$0.55	/////	0.015%	18.1%	Yes
160	MO-0125059	Phelps County PWSD #2, Country Club Terrace	\$43,468	/////	/////	/////	\$1.21	/////	0.033%	18.1%	Yes
161	MO-0125598	Malden Industrial Park Lagoon	\$31,172	/////	/////	/////	\$0.01	/////	0.000%	23.2%	Yes
162	MO-0125831	Purdin WWTF	\$31,346	\$55.00	\$38.55	1.48%	/////	/////	/////	18.1%	Yes
163	MO-0126454	Jackson County Vehicle Service Center WWTF	\$48,631	///	///	///	///	///	///	17.4%	Yes

Table 1. Key Socioeconomic Data Utilized or Generated in the Affordability Findings Issued During 2016 (Cont.)

No.*	Permit No.	Primary Socioeconomic Indicators (MHI: Median Household Income) ***									Affordability****
		Facility Name**	Annual MHI	Current Monthly Residential Sewer Rate	Projected Monthly Residential Sewer Rate		Increase of Monthly Residential Sewer Rate			Households at or Below Poverty	
				\$	\$	% of Monthly MHI	\$	%	% of Monthly MHI		
164	MO-0126748	Phelps County PWSD #2, College Hills North	\$43,468	/////	/////	/////	\$0.73	/////	0.020%	18.1%	Yes
165	MO-0126799	Bauman Park At Smithville Lake WWTF	\$63,120	///	///	///	\$0.19	///	///	9.0%	Yes
166	MO-0128091	Highlandville WWTF	\$55,711	\$65.00	\$36.73	0.79%	/////	/////	/////	16.3%	Yes
167	MO-0128490	NPSD, Interim Saline Creek Regional WWTF	\$99,938	/////	/////	/////	\$0.28	/////	0.003%	7.4%	Yes
168	MO-0128716	Bates City WWTF	\$50,529	\$65.00	\$23.41	0.56%	/////	/////	/////	19.2%	Yes
169	MO-0128732	Thornfield R-1 School District WWTF	\$23,321	//	//	//	//	//	//	20.0%	Yes
170	MO-0128767	Amoret WWTF	\$24,616	/////	/////	/////	\$0.44	/////	0.021%	44.5%	Yes
171	MO-0128830	Lake Jacomo Campground WWTF	\$48,700	///	///	///	///	///	///	17.4%	Yes
172	MO-0129259	MDNR, Big Lake State Park WWTF	/	/////	/////	/////	\$1.00	/////	/////	/////	Yes
173	MO-0129704	Twitty Industrial Park WWTF	\$43,468	/////	/////	/////	\$1.79	/////	0.049%	18.1%	Yes
174	MO-0129739	CGCRCSD, Saxony Lutheran High School	\$58,182	\$35.00	//	//	//	//	//	6.2%	Yes
175	MO-0129763	DCSD, Steven A. Rogers WWTF	\$56,070	/////	/////	/////	\$1.39	/////	0.030%	5.4%	Yes
176	MO-0129828	Diggins WWTF	\$46,383	\$43.00	\$27.77	0.72%	/////	/////	/////	12.7%	Yes
177	MO-0132241	Jakes Creek Trail Area WWTF	\$59,598	/////	/////	/////	\$0.53	/////	0.011%	5.9%	Yes
178	MO-0135216	Omar N. Bradley Airport WWTF	\$33,469	//	//	//	//	//	//	21.1%	Yes
179	MO-0135453	Southwest City WWTF	\$29,321	/////	/////	/////	\$0.23	/////	0.009%	33.4%	Yes

Table 1. Key Socioeconomic Data Utilized or Generated in the Affordability Findings Issued During 2016 (Cont.)

No.*	Permit No.	Primary Socioeconomic Indicators (MHI: Median Household Income) ***									Affordability****
		Facility Name**	Annual MHI	Current Monthly Residential Sewer Rate	Projected Monthly Residential Sewer Rate		Increase of Monthly Residential Sewer Rate			Households at or Below Poverty	
				\$	\$	% of Monthly MHI	\$	%	% of Monthly MHI		
180	MO-0135461	Barnett WWTF	\$21,313	\$45.00	\$56.59	3.19%#	\$11.59	25.8%	0.653%	42.7%	Yes
181	MO-0135569	Stoddard Co. Common Sewer District #1	\$39,270	\$63.00	////	////	////	////	////	15.0%	Yes
182	MO-0136719	RMSD, Rocky Mount WWTF	\$35,911	NA	\$57.00	1.90%	/	/	/	23.6%	Yes
183	MO-0136859	Lake Mykee North Lagoon	\$52,878	\$45.46	//	//	//	//	//	13.6%	Yes
184	MO-0137316	Guilford WWTF	\$38,096	\$39.92	\$40.00	1.26%	\$0.08	0.2%	0.003%	/	Yes
185	MO-0137896	MDNR, Echo Bluff State Park WWTP 1	///	///	///	///	///	///	///	///	Yes
186	MO-0137898	MDNR, Echo Bluff State Park WWTP 2	///	///	///	///	///	///	///	///	Yes
187	MO-0137901	MDNR, Echo Bluff State Park WWTP 3	///	///	///	///	///	///	///	///	Yes
188	MO-0137910	MoDOT, Separate Stormwater Sewer System	///	///	///	///	///	///	///	///	Yes
189	MO-0138169	Festus Armory and Field Maintenance Shop WWTF	///	///	///	///	///	///	///	///	Yes
190	MO-0138274	MOANG, Macon Training Site WWTF	//	//	//	//	//	//	//	//	Yes

Table 1. Key Socioeconomic Data Utilized or Generated in the Affordability Findings Issued During 2016 (Cont.)

Notes

* This table is arranged in ascending order of permit numbers.

Projected Monthly Residential Sewer Rate as a percentage of the Monthly Median Household Income exceeds 2%. An affordability threshold for Projected Monthly Residential Sewer Rate as a percentage of the Monthly Median Household Income varies depending on the situation of each individual community. The cost analyses associated with these permits have resulted in findings that the Projected Monthly Residential Sewer Rates will likely be affordable. If additional information is provided in the future that indicate the Projected Monthly Residential Sewer Rates are unaffordable, the Department will modify the analyses and permits accordingly and grant extensions to schedules of compliance to mitigate the impacts on the residents.

** Abbreviations used in facility names include the following.

- CCSD - Calvey Creek Sewer District
- CGCRCSD - Cape Girardeau County Reorganized Common Sewer District
- DCSD - Duckett Creek Sanitary District
- MDC - Missouri Department of Conservation
- MDNR - Missouri Department of Natural Resources
- MDOC - Missouri Department of Corrections
- MoDOT - Missouri Department of Transportation
- NPSD - Northeast Public Sewer District
- PWSD - Public Water Supply District
- RMSD - Rocky Mount Sewer District
- USFWS - U.S. Fish & Wildlife Service Squaw Creek National Wildlife Refuge
- WWTF - Wastewater Treatment Facility
- WWTP - Wastewater Treatment Plant

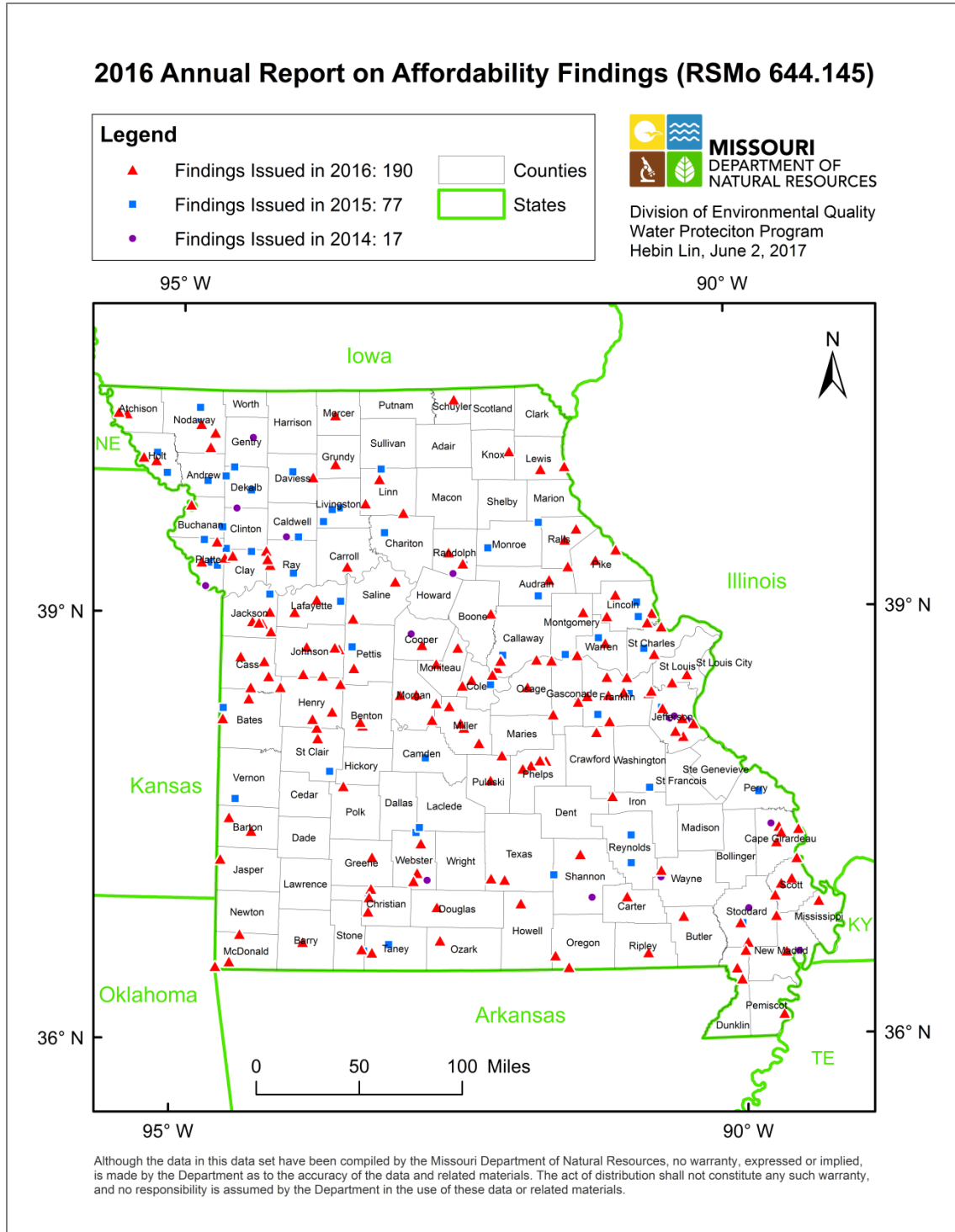
*** Notation for data include the following.

- NA - data not available as the permittees did not provide their current user rates, although the Department had made attempts to obtain the information;
- / - generally not applicable for the analysis such as due to data not available for the "current monthly residential of sewer rate;"
- // - not applicable as schools, churches, nursing homes, airports, ports, training centers, and correctional centers do not finance the upgrade, operation, or maintenance of their wastewater treatment facilities based on residential sewer rates;
- /// - not applicable as federal-owned, state-owned, local government-owned systems do not finance the upgrade, operation, or maintenance of their wastewater treatment facilities based on residential sewer rates;
- //// - not applicable as different sewer districts user specific rate structures and they are generally considered as sufficient to comply with the permits;
- ///// - not applicable as this column only presents results of those permits that would induce increase of monthly residential sewer rate;
- ////// - data not included in the analyses for requirements for only sampling or monitoring.

**** Yes - affordable, No - not affordable, Mandate - federal mandate regardless of affordability.

2. Geographical Distribution: 2014-2016

The locations of the wastewater treatment facilities for which affordability findings have been conducted during calendar years 2014, 2015 and 2016 respectively are illustrated in Map 1 below.



Map 1. Locations of the Wastewater Treatment Facilities with Affordability Findings Issued in 2014, 2015 and 2016

3. Conclusion

Based on the information and data collected, derived and examined, all the affordability findings issued by the Missouri Department of Natural Resources during calendar year 2016 met the criteria of affordable.

This report was prepared by Hebin Lin, PhD, Economist, Operating Permits Section, Water Protection Program, Missouri Department of Natural Resources, June 2, 2017.

Appendix A. Subsections 644.145.4 and 644.145.9 of the Revised Statutes of Missouri

Revised Statutes of Missouri Chapter 644 Water Pollution

644.145.4. The department of natural resources shall adopt procedures by which it will make affordability findings that evaluate the affordability of permit requirements and enforcement actions described in subsection 1 of this section, and may begin implementing such procedures prior to promulgating implementing regulations. The commission shall have the authority to promulgate rules to implement this section pursuant to chapters 536 and 644, and shall promulgate such rules as soon as practicable. Affordability findings shall be based upon reasonably verifiable data and shall include an assessment of affordability with respect to persons or entities affected. The department shall offer the permittee an opportunity to review a draft affordability finding, and the permittee may suggest changes and provide additional supporting information, subject to subsection 6 of this section. The finding shall be based upon the following criteria:

- (1) A community's financial capability and ability to raise or secure necessary funding;
- (2) Affordability of pollution control options for the individuals or households at or below the median household income level of the community;
- (3) An evaluation of the overall costs and environmental benefits of the control technologies;
- (4) Inclusion of ongoing costs of operating and maintaining the existing wastewater collection and treatment system, including payments on outstanding debts for wastewater collection and treatment systems when calculating projected rates;
- (5) An inclusion of ways to reduce economic impacts on distressed populations in the community, including but not limited to low- and fixed-income populations. This requirement includes but is not limited to:
 - (a) Allowing adequate time in implementation schedules to mitigate potential adverse impacts on distressed populations resulting from the costs of the improvements and taking into consideration local community economic considerations; and
 - (b) Allowing for reasonable accommodations for regulated entities when inflexible standards and fines would impose a disproportionate financial hardship in light of the environmental benefits to be gained;
- (6) An assessment of other community investments and operating costs relating to environmental improvements and public health protection;
- (7) An assessment of factors set forth in the United States Environmental Protection Agency's guidance, including but not limited to the "Combined Sewer Overflow Guidance for Financial Capability Assessment and Schedule Development" that may ease the cost burdens of implementing wet weather control plans, including but not limited to small system considerations, the attainability of water quality standards, and the development of wet weather standards; and
- (8) An assessment of any other relevant local community economic condition.

644.145.9. The department shall file an annual report by the beginning of the fiscal year with the governor, the speaker of the house of representatives, the president pro tempore of the senate, and the chairs of the committees in both houses having primary jurisdiction over natural resource issues showing at least the following information on the findings of affordability completed in the previous calendar year:

(1) The total number of findings of affordability issued by the department, those categorized as affordable, those categorized as not meeting the definition of affordable, and those implemented as a federal mandate regardless of affordability;

(2) The average increase in sewer rates both in dollars and percentage for all findings found to be affordable;

(3) The average increase in sewer rates as a percentage of median house income in the communities for those findings determined to be affordable and a separate calculation of average increases in sewer rates for those found not to meet the definition of affordable;

(4) A list of all the permit holders receiving findings, and for each permittee the following data taken from the finding of affordability shall be listed:

(a) Current and projected monthly residential sewer rates in dollars;

(b) Projected monthly residential sewer rates as a percentage of median household income;

(c) Percentage of households at or below the state poverty rate.

Appendix B. Overall Procedure for Making Affordability Findings

The Department conducts an affordability finding, or a Cost Analysis for Compliance (CAFCom), as part of the renewal process for a National Pollutant Discharge and Elimination System (NPDES) permit, utilizing the following four primary tools and data sources:

(1) A Financial Questionnaire with a Community Supplemental Survey sent to permit holders categorized as a Publicly Owned Treatment Works (POTW) for collecting information on the sustainability and financial capability of a municipality; examples of information requested are the “current monthly residential sewer rates”, and primary socioeconomic indicator (Table 1), and “property tax collection rate in the municipality”, a secondary socioeconomic indicator;

(2) The Affordability PreScreening Tool developed by the Department for compiling and analyzing socioeconomic data available from national, regional and local databases, including statistics from the U.S. Census Bureau; an example of data being “monthly median household income” (Table 1) and “percentage of households at or below poverty” (Table 1);

(3) A CAPDEWORKS Model developed by Hydromantis Environmental Software Solutions, Inc. for estimating the capital costs and operating and maintenance costs for different wastewater treatment technologies for compliance of upgrades so as to calculate the “projected monthly residential sewer rate” (Table 1);

(4) The Missouri Rural Population Sustainability Assessment Tool developed by the Environmental Finance Center at Wichita State University for assessing the potential of growth and sustainability of each rural community.

Once the draft NPDES permit is completed, the permit holder is given the opportunity to review and comment on the draft permit and the CAFCom during the 15 day preview and 30 day public notice period. This review and comment periods offer permit holders an opportunity to provide additional information in regard to their community’s unique financial situations before the final NPDES permit is issued. When the operating permit contains a Schedule of Compliance, during the 15 day preview, Department staff contact the permit holder via phone calls to ensure the permit holder has received and understood the draft permit and the CAFCom.