

Appendix E

Water Withdrawals in Verdigris River Basin

Draft

Lake Oologah TMDL Report

Prepared for:

Oklahoma Department of Environmental Quality
Joe A. Long, Environmental Programs Manager
Water Quality Division / Watershed Planning Section
P. O. Box 1677
Oklahoma City, OK 73101-1677
Telephone: (405) 702-8198

FY 2016/17 §106 Grant #I-00640015
Project # 5
May 31, 2017

DYNAMIC SOLUTIONS, LLC
6421 DEANE HILL DRIVE
KNOXVILLE, TENNESSEE 37919



Dynamic Solutions
LLC

Appendix E – Water Withdrawals in Verdigris River Basin

List of Tables

Table 1 Information of Water Withdrawals for Industrial and Municipal Facilities.....	1
Table 2 Information of Water Withdrawals for Irrigation and Recreation Facilities.....	1
Table 3 KDHE Monthly Water Withdrawal Data (unit: 1000 gallon).....	4
Table 4 KDHE Annual Water Withdrawal Data (unit: MGY)	6

List of Figures

Figure 1 Locations of Water Withdrawals for Industrial and Municipal Facilities.....	2
Figure 2 Locations of Water Withdrawals for Irrigation and Recreation Facilities	3

Table 1 Information of Water Withdrawals for Industrial and Municipal Facilities

WUAPERS_ID	Name	UMW_COD	COUNTY	LONGITUDE	LATITUDE	Data
233	City of Altoona	MUN	WL	-95.66513	37.5235	Monthly
2219	City of Buffalo	MUN	WL	-95.72466	37.70876	Monthly
2768	City of Cherryville	MUN	MG	-95.676341	37.285685	Monthly
3018	City of Coffeyville	MUN	MG	-95.63432	37.06126	Monthly
8379	City of Independence	MUN	MG	-95.69758	37.23757	Monthly
17839	City of Thayer	MUN	NO	-95.488629	7.4819017	Monthly
19999	City of Yates Center	MUN	WO	-95.80314	37.83286	Monthly
28086	Heartland Cement Co	IND	MG	-95.67288	37.21177	Monthly
57793	Coffeyville Resources & Marketing	IND	MG	-95.60744	37.05537	Monthly
58869	Hirricane Service LLC	IND	WL	-	37.638994	Monthly
40450		IND	WO	-95.841984	37.787805	Annual

Table 2 Information of Water Withdrawals for Irrigation and Recreation Facilities

WUAPERS_ID	UMW_CODE	COUNTY	LONGITUDE	LATITUDE	Data Interval
5758	IRR	WL	-95.84572	37.6761	Annual
11933	IRR	WL	-95.7715	37.64152	Annual
13831	IRR	WL	-95.76514	37.64267	Annual
17006	IRR	MG	-95.69001	37.26701	Annual
20363	IRR	MG	-95.62196	37.11937	Annual
21593	IRR	MG	-95.675088	37.218105	Annual
22295	IRR	MG	-95.674111	37.216686	Annual
23970	IRR	WL	-95.85814	37.67538	Annual
24314	IRR	WL	-95.81242	37.66876	Annual
36298	IRR	MG	-95.68249	37.06102	Annual
52670	IRR	WL	-95.82613	37.6584839	Annual
52994	REC	MG	-95.5257967	37.2432193	Annual

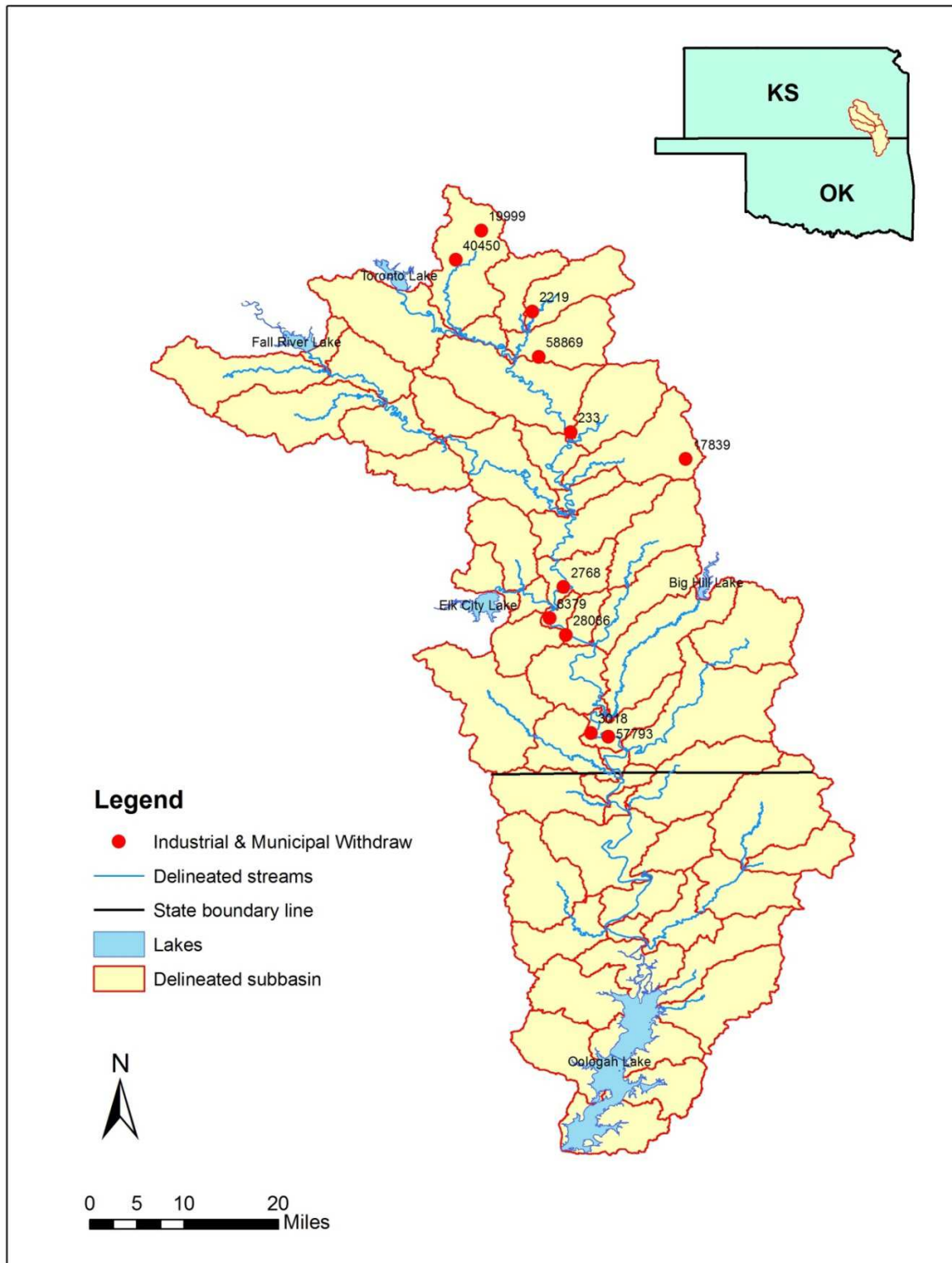


Figure 1 Locations of Water Withdrawals for Industrial and Municipal Facilities

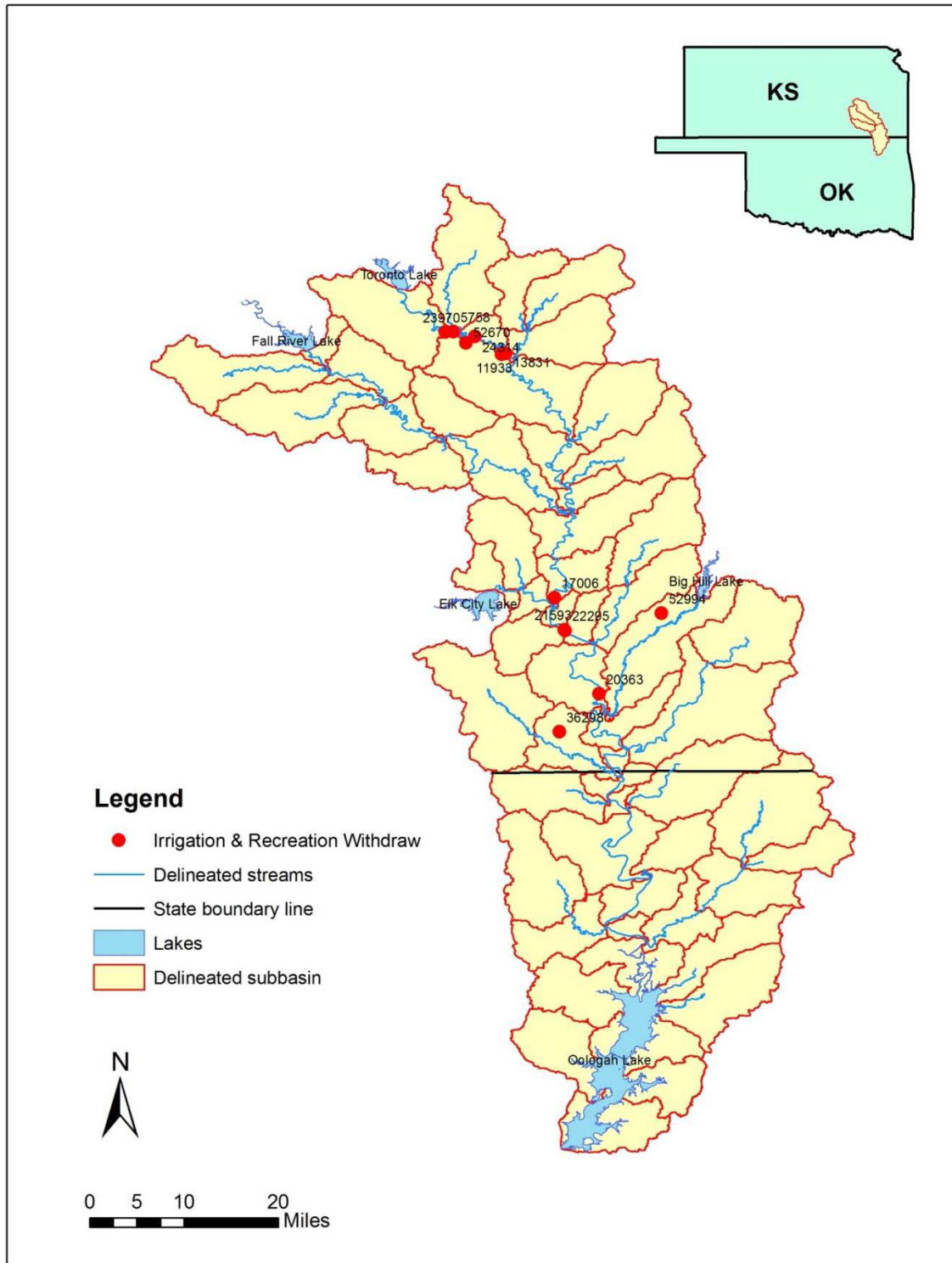


Figure 2 Locations of Water Withdrawals for Irrigation and Recreation Facilities

Table 3 KDHE Monthly Water Withdrawal Data (unit: 1000 gallon)

WUAPERS_ID	233	2219	2768	3018	8379	17839	19999	28086	57793	58869
Jan-04	1723	1885		99570	44533	1767	5824		0	
Feb-04	1036	2616		86920	41918	1031	5628		0	
Mar-04	1084	2586		85200	48722	1977	5602		0	
Apr-04	1058	2767		75730	42328	2006	5493	750	0	
May-04	1114	2675		87840	52262	2436	6283		0	
Jun-04	1241	3151		82640	53055	2536	6332	6844	0	
Jul-04	1240	2923		89500	53909	2640	6750	4271	0	
Aug-04	1130	3318		104510	52214	2755	6634	6545	0	
Sep-04	1266	3056		96900	56191	2500	6952	6894	0	
Oct-04	1179	3304		84320	46975	1976	7248	4709	0	
Nov-04	1072	2991	1020	80230	43954	2004	6762	6175	0	
Dec-04	1234	2908	1020	80160	44107	1726	7079	6005	0	
Jan-05	1124	3112	0	84140	47703	1662	7359	6350	0	
Feb-05	895	2677		70470	38903	1657	6227	5777	0	
Mar-05	1078	2964		77790	46157	2079	6955	3247	0	
Apr-05	1105	3006		67960	46641	1936	7076	3857	0	
May-05	1378	2713		82100	50197	2170	7958	0	0	
Jun-05	1300	3354		92900	52709	3179	7750	0	0	
Jul-05	2945	2826		103770	58567	2540	8652	0	0	
Aug-05	2116	3144		121170	59822	2806	9358	0	0	
Sep-05	1207	3277		99560	50795	2856	8445	0	0	
Oct-05	1262	3189		89080	48229	3161	8610	0	0	
Nov-05	1368	2821		81990	45252	3041	8753	0	0	
Dec-05	1496	3404	810	88720	46421	3679	10310	0	0	
Jan-06	1054	2733	0	87850	52037	2996	8627	0	104879	5
Feb-06	1044	2819	0	76180	45986	2964	7961	0	88569	7
Mar-06	1098	2987	0	80230	53844	2892	9860	0	107058	2
Apr-06	1211	2791	0	88750	52628	4126	10102	0	111347	4
May-06	1906	2411	0	97640	63345	2867	11842	6265	106336	7
Jun-06	2251	2602	0	111230	61352	2998	14167	1872	108709	3
Jul-06	2605	2540	0	134010	77826	3272	15196	0	115356	3
Aug-06	2443	3096	0	148870	83421	3888	14033	0	103487	4

Oklahoma Dept. Environmental Quality, Water Quality Division
Water Withdrawals in Verdigris River Basin

WUAPERS_ID	233	2219	2768
Sep-06	2095	2509	0
Oct-06	2166	2819	0
Nov-06	2093	2495	0
Dec-06	2280	2746	0
Jan-07	2225	2451	0
Feb-07	2302	2403	0
Mar-07	2225	2444	0
Apr-07	1823	2317	0
May-07	2311	2022	0
Jun-07	2684	2359	0
Jul-07	0	3904	0
Aug-07	2064	2652	0
Sep-07	2039	1961	0
Oct-07	1955	1854	0
Nov-07	2001	1703	0
Dec-07	2246	1734	0

Table 4 KDHE Annual Water Withdrawal Data (unit: MGY)

WUAPERS_ID	2004	2005	2006	2007
5758		63.636		
11933		23.716	40	
13831	111.327	90.419	247.7	30.263
17006			8.746	
20363	88.107	12.374	81.858	
21593	2.836	2.836	2.836	1.013
22295	1.33	1.252	1.096	1.174
23970	3.996	7.218	13.663	13.898
24314	24.551	102.501	93.114	64.909
36298	36.539	44.627	42.571	45.273
40450	1817	1197	577.239	717.275
52670		7.09		
52994			9.363	