Analysis of the Surface Drinking Water Provided By Intermittent, Ephemeral, and Headwater Streams in the U.S.
Completed by U.S. EPA in July 2009

The objective of this study is to illuminate regional patterns of dependence on intermittent, ephemeral and headwater streams (I/E/H) for water that supplies public surface drinking water systems in the continental United States. This was accomplished by analyzing the stream types found in Source Protection Areas (SPAs). A SPA is the area upstream from a drinking water intake that provides water to a public drinking water system during a 24 hour period. Each system serves a specific population, based on county. The percent of streams in SPAs that are I/E/H was calculated by determining the proportion of I/E/H out of all the stream miles contained in the mapped SPAs for each geographic unit. "Total Population Served" is the sum of all populations served by public drinking water systems for that unit whereas the "Population Dependent" includes only populations for those systems fed by SPAs containing I/E/H waters. AK and HI excluded due to lack of data. Data Sources: National Hydrography Dataset at medium resolution and the Federal Safe Drinking Water Information System (4th Quarter 2006).

State	Total Population Served by Public Drinking Water Systems using surface water	Population Dependent on Public Drinking Water Systems relying on I/E/H	% Population Dependent on Public Drinking Water Systems relying on I/E/H	Total stream Miles in Source Protection Areas	Miles of Intermittent /Ephemeral /Headwater in SPAs	% of streams in SPAs that are Intermittent /Ephemeral /Headwaters	Miles of Headwaters in SPAs	Miles of Intermittent /Ephemeral in SPAs	Miles of Perennial streams in SPAs
TOTAL	**124,364,960**	**117,447,743**	**94%**	**357,403.5**	**207,476.4**	**58%**	**178,442.5**	**122,907.8**	**169,527.2**
AL	2,705,859	2,681,327	99%	10238.8	5,552.2	54%	5418.6	2353.7	6077.4
AR	948,185	941,225	99%	7854.0	5,088.7	65%	4427.8	4393.5	2407.6
AZ	3,254,601	3,254,601	100%	8101.3	6,381.3	79%	3156.4	6233.1	163.9
CA	7,320,360	7,314,715	99.92%	32688.3	18,592.2	57%	13523.3	13321.1	10470.0
CO	3,866,332	3,772,743	98%	16894.9	10,509.9	62%	8511.0	7473.0	6895.1
CT	2,241,030	2,241,030	100%	1431.9	844.8	59%	843.2	86.9	1076.8
DE	281,400	281,400	100%	344.4	183.6	53%	183.3	68.1	247.4
FL	1,808,955	1,808,955	100%	2597.7	580.2	22%	472.8	261.6	647.6
GA	4,918,344	4,912,944	99.89%	9897.6	5,557.1	56%	5477.2	2710.5	6204.5
IA	667,428	667,428	100%	3810.5	2,318.5	61%	1938.4	2039.1	991.2
ID	252,026	252,001	100%	8043.0	4,815.5	60%	4078.5	2866.4	3908.4
IL	4,872,325	1,680,948	34%	9894.4	5,687.5	57%	4832.6	4781.8	3335.6
IN	1,951,112	1,703,230	87%	2329.9	1,157.7	50%	1103.2	422.4	1420.3
KS	1,504,285	1,503,521	99.95%	7912.9	5,351.1	68%	4307.7	5007.0	2132.2
KY	3,282,980	3,282,980	100%	15064.8	8,184.7	54%	7923.8	3849.4	8933.0
LA	1,901,559	1,886,783	99%	4405.0	1,163.4	26%	990.5	518.0	1245.4
MA	5,009,161	4,915,909	98%	2636.0	1,413.0	54%	1396.1	216.5	1878.8
MD	3,990,271	3,990,016	99.99%	3993.5	2,210.1	55%	2195.7	560.9	2935.6
ME	456,041	454,360	99.63%	2306.3	1,264.8	55%	1255.8	206.2	1478.1
MI	1,977,536	1,400,633	71%	1342.1	550.8	41%	460.6	461.3	476.1
MN	1,068,598	978,928	92%	1736.4	627.2	36%	499.2	353.7	514.4
MO	2,498,142	2,498,142	100%	10114.6	6,310.8	62%	5193.5	5675.9	2918.5
MS	110,041	110,041	100%	347.0	209.9	61%	180.6	193.2	122.1
MT	351,401	234,219	67%	5873.3	3,594.9	61%	2192.4	2983.8	1456.9
NC	4,722,950	4,719,825	99.93%	13155.8	7,391.8	56%	7240.2	2755.3	8929.3
ND	292,414	292,414	100%	2637.2	1,498.2	57%	887.8	1399.6	547.2
NE	525,566	525,566	100%	695.3	370.9	53%	295.7	299.9	160.1
NH	503,657	503,196	99.91%	2340.7	1,310.6	56%	1272.8	377.8	1665.9
NJ	4,258,089	4,258,089	100%	2391.0	1,157.4	48%	1147.8	119.8	1868.9
NM	281,206	280,906	99.89%	2974.4	1,995.5	67%	1306.3	1792.0	625.0
NV	23,792	23,792	100%	48.8	40.0	82%	4.5	35.5	11.7
NY	11,471,432	11,146,815	97%	10436.4	5,728.4	55%	5668.0	518.5	7698.3
OH	5,894,716	5,285,318	90%	11604.9	6,977.7	60%	6471.4	4908.0	5386.2
OK	2,326,616	2,326,616	100%	8092.1	5,330.2	66%	4545.0	4387.5	2291.3
OR	1,782,414	1,770,246	99%	16029.3	9,134.4	57%	8393.0	2527.0	11289.7
PA	8,215,216	8,035,216	98%	18604.4	10,720.0	58%	10487.3	4678.2	11909.6
RI	580,332	564,893	97%	270.5	169.2	63%	169.2	33.2	172.0
SC	1,933,219	1,933,219	100%	5660.2	2,887.7	51%	2825.3	883.7	3726.1
SD	309,421	309,421	100%	2117.3	1,326.9	63%	962.6	1173.5	277.7
TN	3,573,078	3,572,494	99.98%	18464.4	10,584.8	57%	10478.1	1100.8	15043.7
TX	11,674,641	11,557,744	99%	20482.9	12,570.2	61%	9546.0	10877.9	4284.2
UT	1,490,700	1,428,450	96%	6515.3	4,441.5	68%	3169.5	3744.4	1805.5
VA	2,369,620	2,364,709	99.79%	9260.2	5,290.2	57%	5158.6	2721.4	5629.8
VT	181,226	181,226	100%	1820.2	951.4	52%	951.0	45.7	1309.0
WA	2,110,490	2,002,833	95%	11438.5	6,355.0	56%	5139.2	3455.0	5541.5
WI	1,392,700	391,531	28%	504.3	253.8	50%	228.5	137.4	62.0
WV	1,007,781	1,002,731	99.50%	14824.9	8,387.1	57%	8205.7	4455.3	9012.7
WY	205,712	202,414	98%	7175.9	4,453.7	62%	3326.9	3443.3	2343.0