

TABLE 1
WAUKESHA WATER UTILITY
WESTERN WELL SIMULATIONS
SIMULATED DRAWDOWN (FEET)

SCENARIO	LAYER 1	LAYER 11
10 MGD - 2 WELLS	1.4	215
10 MGD - 3 WELLS	1.15	175
10.5 MGD - 7 WELLS	1.2	160

**TABLE 2
WAUKESHA WATER UTILITY
WESTERN WELL SIMULATIONS
BASE FLOW REDUCTIONS IN STREAMS NEAR SIMULATED WELLS
FLOWS IN GALLONS PER DAY**

SCENARIO		MODEL STREAM NUMBER											
		36 Bark River	37 Unnamed ¹	38 Bark River	46 Unnamed ²	47 Bark River	49 Bark River	52 Battle Cr. & Laura Lake	53 Silver Lake	54 Middle & Lower Genesee	55 Upper Genesee & Duck Lake	57 Golden Lake	229 Irr. Ditch
No pumping	BASE FLOW	8,512,240	334,580	9,731,480	3,710,753	13,725,800	14,316,720	1,353,880	653,453	524,348	292,917	802,604	538,111
10 MGD - 2 WELLS	BASE FLOW	7,801,640	310,270	8,908,680	3,571,700	12,723,480	13,269,520	1,163,140	500,412	435,186	234,573	779,416	493,605
	REDUCTION	710,600	24,310	822,800	139,053	1,002,320	1,047,200	190,740	153,041	89,162	58,344	23,188	44,506
	% REDUCTION	8	7	8	4	7	7	14	23	17	20	3	8
10 MGD - 3 WELLS	BASE FLOW	7,749,280	303,613	8,848,840	3,553,748	12,641,200	13,194,720	1,195,304	517,317	421,049	236,368	780,912	496,148
	REDUCTION	762,960	30,967	882,640	157,005	1,084,600	1,122,000	158,576	136,136	103,299	56,549	21,692	41,963
	% REDUCTION	9	9	9	4	8	8	12	21	20	19	3	8
10.5 MGD - 7 WELLS	BASE FLOW	7,824,080	306,306	8,901,200	3,553,748	12,686,080	13,217,160	1,191,564	474,980	441,769	241,230	767,448	475,279
	REDUCTION	688,160	28,274	830,280	157,005	1,039,720	1,099,560	162,316	178,473	82,579	51,687	35,156	62,832
	% REDUCTION	8	8	9	4	8	8	12	27	16	18	4	12

¹ Tributary to Bark River.

² Tributary between Bark River and Union Lake.

TABLE 3
WAUKESHA WATER UTILITY
ESTIMATED FOX RIVER AND TRIBUTARY FLOWS

Scenario	Fox River ¹		Mill Brook ² Q80=1.26		Mill Creek ² Q80=1.18		Pebble Brook ² Q80=5.44		Pebble Creek ² Q80=3.41	
	Flow (cfs)	Percent Reduction	Flow (cfs)	Percent Reduction	Flow (cfs)	Percent Reduction	Flow (cfs)	Percent Reduction	Flow (cfs)	Percent Reduction
Base	83.45		1.73		3.73		5.00		3.53	
Run 1-1	81.08	2.8	1.49	19.0	3.71	1.7	4.55	8.3	3.49	1.2
Run 1-2	79.94	4.2	0.66	84.9	3.34	33.1	3.15	34.0	3.55	0.0
Run 2-1	75.98	8.9	0.76	77.0	3.42	26.3	3.14	34.2	3.09	12.9
Run 2-2	78.42	6.0	Dry		3.21	44.1	2.54	45.2	3.55	0.0

¹ Q80 not used for flow for Fox River. It is estimated where it enters Vernon Marsh utilizing the model and average flows recorded at the USGS gauge in Waukesha.

² Flow for the tributaries is estimated where they discharge into the Fox River.