

STUDY AREA STATISTICS

Estimates based on GIS data and assumptions from literature review.

STANDARD - NO BMPS

		Study Area Land Use Indicators							Riparian Indicators					
Study Area	Scenario	Acres	% Sewer	Percent High Intensity Land Use	% Impervious	% Forest	% Wetland	% Forest & wetland	RIP % HILU	RIP % Impervious	RIP % Forest	RIP % Wetland	RIP % Forest and Wetland	
Woonsocket Reservoir #1	Current Land Use	3132	8%	20%	15%	43%	21%	64%	15%	11%	37%	39%	76%	
Woonsocket Reservoir #3	Current Land Use	1858	0%	5%	3%	59%	15%	74%	6%	3%	53%	30%	82%	

Woonsocket Reservoir #1	Future Land Use	3132	8%	25%	24%	14%	21%	35%	15%	11%	37%	39%	76%
Woonsocket Reservoir #3	Future Land Use	1858	0%	4%	6%	30%	15%	45%	6%	3%	53%	30%	82%

BMPS

Woonsocket Reservoir #1	Storm new	3132	8%	25%		14%	21%	35%	15%		37%	39%	76%
Woonsocket Reservoir #1	Storm all	3132	8%	25%		14%	21%	35%	15%		37%	39%	76%
Woonsocket Reservoir #1	imperv new	3132	8%	25%	22%	14%	21%	35%	15%		37%	39%	76%
Woonsocket Reservoir #1	Storm all/imperv new	3132	8%	25%	22%	14%	21%	35%	15%		37%	39%	76%

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Note: Nutrient loading estimates are potential inputs at the source & represent amounts entering runoff or groundwater recharge.

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		Estimated Nutrient Loading					Estimated Nitrate-N sources to grw recharge					
Study Area	Scenario	NO3N in GW Recharge mg/l	NO3N to GW recharge lbs/ac/yr	N SW runoff lbs/ac/yr	Total N to study area lbs/ac/yr	% N in SW runoff from Atm.	P to SW lbs/ac/yr	Septic Systems	Lawn Fert.	Agri. Fert.	Pet Waste	Other
Woonsocket Reservoir #1	Current Land Use	1.1	4.4	3.6	8.0	1.0%	0.6	51%	9%	24%	2%	14%
Woonsocket Reservoir #3	Current Land Use	0.7	2.6	3.2	5.9	33.9%	0.3	23%	6%	41%	1%	29%

Woonsocket Reservoir #1	Future Land Use	2.2	7.2	4.1	11.3	1.5%	0.9	72%	16%	6%	3%	4%
Woonsocket Reservoir #3	Future Land Use	1.1	3.7	3.3	7.1	34.1%	0.5	46%	20%	19%	3%	11%

BMPS

Woonsocket Reservoir #1	Storm new	2.2	7.2	3.9	11.1	1.6%	0.9	72%	16%	6%	3%	4%
Woonsocket Reservoir #1	Storm all	2.2	7.2	3.2	10.3	2.0%	0.7	72%	16%	6%	3%	4%
Woonsocket Reservoir #1	imperv new	2.1	7.2	3.9	11.1	1.6%	0.9	71%	16%	6%	3%	4%
Woonsocket Reservoir #1	Storm all/imperv new	2.1	7.2	2.9	10.1	2.1%	0.7	71%	16%	6%	3%	4%

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SOILS hydrologic groups

SWAP

Study Area	Scenario	% A	% B	% C	% D	%SHWT <1.5-3.5'	%SHWT 1.5'-3.5'	%Restr.C, .2"/hr	%Erode	HILU on A soil	HILU on HWT <3.5'
Woonsocket Reservoir #1	Current Land Use	6%	56%	33%	5%	33.2%	15%	22%	51%	1%	3%
Woonsocket Reservoir #3	Current Land Use	7%	64%	27%	2%	30.3%	12%	15%	51%	0%	2%

Woonsocket Reservoir #1	Future Land Use	6%	56%	32%	5%	33.2%	15%	22%	51%	2%	3%
Woonsocket Reservoir #3	Future Land Use	7%	64%	27%	2%	30.3%	12%	15%	51%	0%	1%

BMPS

Woonsocket Reservoir #1	Storm new
Woonsocket Reservoir #1	Storm all
Woonsocket Reservoir #1	imperv new
Woonsocket Reservoir #1	Storm all/imperv new

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Estimated Water Budget / Runoff / Recharge

Study Area	Scenario	# ISDS	ISDS /Acre	Precip Inches	ET Inches	Avail. Precip Inches	SW runoff Inches	Net recharge Precip. Inches	ISDS recharge Inches	SW runoff % avail.
Woonsocket Reservoir #1	Current Land Use	472	0.15	44	18	26	8.7	17.3	0.2	34%
Woonsocket Reservoir #3	Current Land Use	75	0.04	44	18	26	9.3	16.7	0.1	36%
Woonsocket Reservoir #1	Future Land Use	1,051	0.34	44	18	26	11.7	14.3	0.5	45%
Woonsocket Reservoir #3	Future Land Use	220	0.12	44	18	26	10.6	15.4	0.2	41%

BMPS

Woonsocket Reservoir #1	Storm new
Woonsocket Reservoir #1	Storm all
Woonsocket Reservoir #1	imperv new
Woonsocket Reservoir #1	Storm all/imperv new

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Study Area	Scenario	GW recharge % avail	Precip Mgal/yr	ET Mgal/yr	Avail. Precip Mgal/yr	surface runoff Mgal/yr	Avg.net recharge precip. Mgal/yr	ISDS recharge Mgal/yr	If 100% forested surface runoff Mgal/yr	Lost recharge from 100% forested Mgal/yr
Woonsocket Reservoir #1	Current Land Use	66%	3742	1531	2211	741	1,470	21	187	554
Woonsocket Reservoir #3	Current Land Use	64%	2220	908	1312	469	843	3	386	83

Woonsocket Reservoir #1	Future Land Use	55%	3742	1531	2211	997	1,214	46	186	810
Woonsocket Reservoir #3	Future Land Use	59%	2220	908	1312	534	778	10	385	149

BMPS

Woonsocket Reservoir #1	Storm new
Woonsocket Reservoir #1	Storm all
Woonsocket Reservoir #1	imperv new
Woonsocket Reservoir #1	Storm all/imperv new