

Appendix 4. Monthly 10th percentile of streamflows estimated using the Sustainable Yield Estimator for reservoirs in Massachusetts, 1960 - 2004

[Mgal/d, million gallons per day]		Monthly 10th percentile of streamflows from 1960 - 2004 (Mgal / d)											
Water supplier	Reservoir	January	February	March	April	May	June	July	August	September	October	November	December
Amherst Water Department	Amethyst Brook Intake	0.16	0.18	0.35	0.45	0.24	0.08	0.02	0.01	0.02	0.05	0.12	0.17
Amherst Water Department	Atkins Reservoir	0.46	0.52	1.03	1.28	0.68	0.19	0.06	0.04	0.04	0.12	0.30	0.50
Amherst Water Department	Hawley Reservoir	0.43	0.48	0.92	1.14	0.63	0.18	0.06	0.04	0.04	0.12	0.27	0.45
Amherst Water Department	Hill Reservoir	1.17	1.32	2.44	3.02	1.70	0.57	0.22	0.15	0.15	0.40	0.85	1.21
Ashburnham/Winchendon Joint Water Board	Upper Naukeag Lake	0.29	0.36	0.58	1.17	0.47	0.13	0.05	0.03	0.02	0.04	0.10	0.32
Concord Water Department	Nagog Pond	0.18	0.29	0.55	0.56	0.31	0.10	0.02	0.01	0.01	0.03	0.09	0.19
Danvers Water Department	Emerson Brook	0.73	0.94	1.95	2.44	1.33	0.37	0.11	0.05	0.06	0.10	0.30	0.64
Danvers Water Department	Middleton Pond	0.28	0.36	0.76	0.95	0.51	0.16	0.04	0.02	0.02	0.04	0.13	0.25
Danvers Water Department	Swan Pond	0.25	0.32	0.69	0.87	0.46	0.13	0.03	0.01	0.02	0.03	0.10	0.22
Fall River Water Department	Copicut Reservoir	2.73	3.30	5.64	4.59	3.18	1.02	0.36	0.22	0.22	0.60	1.09	2.60
Fall River Water Department	North Watuppa Reservoir	3.76	4.54	7.71	6.28	4.37	1.71	0.64	0.41	0.40	1.03	1.82	3.58
Fitchburg Water Department	Bickford Reservoir	0.87	1.01	1.87	2.26	1.29	0.32	0.11	0.07	0.07	0.19	0.44	0.90
Fitchburg Water Department	Fitchburg Reservoir	0.44	0.58	1.12	1.55	0.82	0.23	0.07	0.03	0.03	0.06	0.19	0.42
Fitchburg Water Department	Lovell Reservoir	0.74	0.99	1.89	2.58	1.38	0.34	0.10	0.05	0.05	0.09	0.28	0.71
Fitchburg Water Department	Mare Meadow Reservoir	0.71	0.83	1.53	1.85	1.05	0.21	0.07	0.04	0.04	0.12	0.29	0.73
Fitchburg Water Department	Meetinghouse Reservoir	0.33	0.38	0.72	0.88	0.49	0.12	0.04	0.02	0.02	0.07	0.17	0.34
Fitchburg Water Department	Scott Reservoir	0.16	0.22	0.43	0.60	0.31	0.08	0.02	0.01	0.01	0.02	0.07	0.16
Fitchburg Water Department	Wachusett Reservoir	0.36	0.42	0.78	0.95	0.53	0.22	0.07	0.04	0.04	0.12	0.30	0.37
Greenfield Water Department	Green River	13.29	14.31	24.08	55.77	27.95	9.63	4.41	2.71	2.55	4.42	7.98	14.61
Greenfield Water Department	Leyden Glen Reservoir	1.04	1.16	2.12	5.30	2.48	0.66	0.22	0.12	0.11	0.22	0.52	1.19
Hingham/Hull (Aquarian Water Company)	Accord Pond	0.29	0.34	0.56	0.46	0.29	0.10	0.03	0.02	0.02	0.06	0.15	0.25
Hinsdale Water Department	Balmont Reservoir	0.07	0.08	0.17	0.21	0.11	0.04	0.01	0.01	0.01	0.03	0.07	0.08
Lee Water Department	Schoolhouse Reservoir	0.72	0.82	1.59	1.97	1.05	0.41	0.15	0.10	0.10	0.27	0.61	0.78
Lee Water Department	Upper (Leahey) Reservoir	0.14	0.15	0.31	0.39	0.20	0.07	0.02	0.01	0.01	0.05	0.11	0.15
Leicester (Cherry Valley and Rochdale Water)	Henshaw Pond	0.20	0.29	0.52	0.62	0.33	0.13	0.04	0.02	0.01	0.04	0.10	0.21
Leominster DPW- Water Division	Distributing Reservoir	0.31	0.37	0.69	0.84	0.47	0.13	0.04	0.02	0.02	0.07	0.18	0.32
Leominster DPW- Water Division	Fall Brook Reservoir	0.32	0.38	0.71	0.87	0.49	0.09	0.03	0.02	0.02	0.05	0.13	0.33
Leominster DPW- Water Division	Goodfellow Pond	0.11	0.13	0.26	0.32	0.17	0.05	0.01	0.01	0.01	0.03	0.07	0.12
Leominster DPW- Water Division	Haynes Reservoir	0.08	0.10	0.19	0.23	0.13	0.03	0.01	0.00	0.00	0.01	0.04	0.08
Leominster DPW- Water Division	Morse Reservoir	0.07	0.08	0.16	0.20	0.11	0.03	0.01	0.00	0.00	0.01	0.04	0.07
Leominster DPW- Water Division	Natown Reservoir	1.15	1.33	2.44	2.95	1.68	0.45	0.16	0.10	0.10	0.27	0.61	1.18
Leominster DPW- Water Division	Simonds Pond	0.04	0.05	0.09	0.11	0.06	0.01	0.00	0.00	0.00	0.01	0.02	0.04
Lincoln Water Department	Flints Pond (Sandy Pond)	0.15	0.24	0.45	0.46	0.25	0.07	0.02	0.01	0.01	0.02	0.06	0.15
Marlborough DPW - Water and Sewer Division	Millham Reservoir	1.08	1.26	2.31	2.79	1.59	0.40	0.14	0.09	0.09	0.24	0.56	1.12
Marlborough DPW - Water and Sewer Division	Williams Lake	0.05	0.08	0.16	0.17	0.09	0.03	0.01	0.00	0.00	0.01	0.02	0.05
Milford Water Company	Echo Lake	0.37	0.44	0.80	0.69	0.42	0.10	0.03	0.02	0.02	0.06	0.15	0.32
North Brookfield Water Department	Doane Pond	0.16	0.24	0.40	0.52	0.27	0.10	0.03	0.01	0.01	0.03	0.08	0.18
North Brookfield Water Department	Horse Pond	0.18	0.27	0.49	0.58	0.30	0.10	0.03	0.01	0.01	0.03	0.08	0.20
Pittsfield Water Department	Ashley Lake	0.66	0.74	1.45	1.80	0.96	0.32	0.11	0.07	0.08	0.21	0.48	0.71
Pittsfield Water Department	Cleveland Reservoir	3.58	3.52	6.31	12.95	5.79	2.71	1.21	0.75	0.70	1.21	3.11	4.42

Refinement and Evaluation of the Massachusetts Firm-Yield Estimator Model, Version2.0

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Water supplier	Reservoir	January	February	March	April	May	June	July	August	September	October	November	December
Pittsfield Water Department	Farnham Reservoir	0.70	0.79	1.54	1.91	1.02	0.41	0.14	0.10	0.10	0.27	0.60	0.75
Pittsfield Water Department	Sandwash Reservoir	0.40	0.46	0.90	1.12	0.59	0.22	0.07	0.05	0.05	0.15	0.34	0.43
Pittsfield Water Department	Upper Sackett Reservoir	0.19	0.21	0.42	0.53	0.28	0.10	0.03	0.02	0.02	0.06	0.15	0.20
Schuette Water Department	Main Reservoir	1.33	1.79	2.85	2.10	1.23	0.39	0.12	0.10	0.09	0.20	0.53	1.25
South Deerfield Water Supply District	Roaring Brook Dam	0.80	0.95	1.75	3.57	1.76	0.59	0.18	0.11	0.10	0.20	0.43	0.86
South Deerfield Water Supply District	Whately Reservoir	0.20	0.26	0.49	1.04	0.49	0.13	0.03	0.02	0.02	0.04	0.10	0.22
Southbridge Water Department	Cohasset Reservoir	0.55	0.63	1.27	1.24	0.74	0.16	0.05	0.04	0.04	0.10	0.26	0.50
Southbridge Water Department	Hatchet Brook Reservoir No. 3	0.17	0.19	0.40	0.39	0.23	0.05	0.01	0.01	0.01	0.03	0.09	0.15
Southbridge Water Department	Hatchet Brook Reservoir No. 4	0.17	0.20	0.41	0.40	0.23	0.05	0.01	0.01	0.01	0.03	0.08	0.15
Southbridge Water Department	Hatchet Brook Reservoir No. 5	0.27	0.32	0.65	0.63	0.37	0.09	0.02	0.02	0.02	0.05	0.14	0.25
Southbridge Water Department	Hatchet Pond	0.04	0.05	0.11	0.11	0.06	0.01	0.00	0.00	0.00	0.01	0.02	0.04
Springfield Water Department	Borden Brook Reservoir	2.21	2.38	4.49	5.73	2.61	0.99	0.43	0.27	0.31	0.79	1.74	2.56
Springfield Water Department	Cobble Mt. Reservoir	11.23	12.22	22.65	28.95	14.02	5.35	2.60	1.84	1.95	3.88	8.38	11.99
Wakefield Water Department	Crystal Lake	0.19	0.30	0.56	0.57	0.31	0.11	0.03	0.01	0.01	0.03	0.10	0.19
West Springfield Water Department	Beaehole Reservoir	1.31	1.70	3.13	4.05	2.34	0.96	0.35	0.19	0.18	0.39	0.79	1.31
Westborough Water Department	Sandra Pond	0.37	0.44	0.80	0.69	0.42	0.15	0.04	0.03	0.03	0.10	0.21	0.32
Westfield Water Department	Granville Reservoir	1.62	1.78	3.47	4.50	2.07	0.67	0.26	0.17	0.19	0.44	1.15	1.74
Westfield Water Department	Montgomery Reservoir	0.66	0.70	1.26	2.25	1.03	0.39	0.13	0.08	0.08	0.19	0.42	0.66
Winchester Water Department	Middle Reservoir	0.05	0.08	0.14	0.15	0.08	0.02	0.00	0.00	0.00	0.00	0.02	0.05
Winchester Water Department	North Reservoir	0.13	0.21	0.39	0.40	0.22	0.07	0.02	0.01	0.01	0.02	0.07	0.13
Worcester Water Department	South Reservoir	0.07	0.12	0.23	0.24	0.13	0.03	0.01	0.00	0.00	0.01	0.03	0.08
Worcester Water Department	Holden Reservoir No. 1	1.23	1.73	3.05	3.60	1.95	0.79	0.28	0.16	0.13	0.29	0.66	1.33
Worcester Water Department	Holden Reservoir No. 2	0.15	0.22	0.40	0.47	0.25	0.11	0.03	0.02	0.01	0.03	0.09	0.16
Worcester Water Department	Kendall Reservoir	0.47	0.55	1.03	1.25	0.71	0.18	0.06	0.03	0.03	0.10	0.25	0.49
Worcester Water Department	Kettle Brook Reservoir No. 1	0.26	0.37	0.68	0.80	0.42	0.14	0.04	0.02	0.02	0.04	0.12	0.28
Worcester Water Department	Kettle Brook Reservoir No. 2	0.10	0.14	0.26	0.31	0.16	0.06	0.02	0.01	0.01	0.02	0.05	0.10
Worcester Water Department	Kettle Brook Reservoir No. 3	0.15	0.22	0.41	0.48	0.25	0.09	0.03	0.01	0.01	0.03	0.07	0.17
Worcester Water Department	Kettle Brook Reservoir No. 4	0.44	0.63	1.13	1.34	0.71	0.24	0.07	0.04	0.03	0.08	0.19	0.47
Worcester Water Department	Lynde Brook Reservoir	0.75	1.07	1.91	2.25	1.21	0.42	0.13	0.07	0.06	0.14	0.34	0.82
Worcester Water Department	Pine Hill Reservoir	1.77	2.04	3.71	4.47	2.57	0.69	0.26	0.17	0.16	0.42	0.94	1.82
Worcester Water Department	Quinapoxet Reservoir	6.45	7.40	13.10	15.63	9.19	3.06	1.36	0.92	0.89	2.03	4.00	6.62