

## Re-evaluation of Discharge Monitoring Report Aluminum Data

<b>Drinking Water General Permit Summary - Comparison of aluminum discharge data to acute and chronic aluminum criteria and WQBELs</b>		
<b>Number of Facilities that:</b>	<b>MA</b>	<b>NH</b>
Are covered in the State	61	10
Use Al Based Coagulants, including emergency dischargers	43	7 (only one continuous discharger)
Have Al Effluent Data	41	4
Discharge to Ponds/lakes/reservoirs (DF = 1) or small streams with DF < 2	32	4

<b>Exceedences of Acute Aluminum Criterion (CMC 0.75 mg/l)</b>			<b>Exceedences of WQBEL based on Acute Criterion and Dilution</b>		
<b>Have ever</b> exceeded the AL CMC	<b>27</b>	<b>2</b>	<b>Would have ever</b> exceeded the acute AL WQBEL	<b>22</b>	<b>2</b>
<b>20%</b> or more of AL samples exceeded the CMC	<b>13</b>	<b>1</b>	<b>20%</b> or more of AL samples would have exceeded the acute AL WQBEL	<b>12</b>	<b>1</b>
<b>50%</b> or more of AL samples exceeded the CMC	<b>9</b>	<b>0</b>	<b>50%</b> or more of AL samples would have exceeded the acute AL WQBEL	<b>9</b>	<b>0</b>
<b>100%</b> of AL samples exceeded the CMC	<b>3</b>	<b>0</b>	<b>100%</b> of AL samples would have exceeded the acute AL WQBEL	<b>3</b>	<b>0</b>
<b>Exceedences of Chronic Aluminum Criterion (CCC 0.087 mg/l)</b>			<b>Exceedence of WQBEL based on Chronic Criterion and Dilution</b>		
<b>Have ever</b> exceeded the AL CCC	<b>40</b>	<b>4</b>	<b>Would have ever</b> exceeded the chronic AL WQBEL	<b>35</b>	<b>4</b>
<b>20%</b> or more of AL samples exceeded the CCC	<b>38</b>	<b>4</b>	<b>20%</b> or more of AL samples would have exceeded the chronic AL WQBEL	<b>32</b>	<b>4</b>
<b>50%</b> or more of AL samples exceeded the CCC	<b>35</b>	<b>2</b>	<b>50%</b> or more of AL samples would have exceeded the chronic AL WQBEL	<b>32</b>	<b>2</b>
<b>100%</b> of AL samples exceeded the CCC	<b>11</b>	<b>1</b>	<b>100%</b> of AL samples would have exceeded the chronic AL WQBEL	<b>11</b>	<b>1</b>

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GP Number	Facility Name	Number of Al Samples	Range	Average	% of samples exceeding Al CMC (0.750 mg/l)	% of samples exceeding Al CCC (0.087 mg/l)	Receiving water	7 Q10 Dilution Factor	Acute WQBL	Chronic WQBL	% of samples that would exceed acute WQC limit	% of samples that would exceed chronic WQC limit
MAG640001	Westfield Water Treatment Facility	43	0.031-6.58	0.251	2.33%	53.49%	Jacks Brook	1	0.750	0.087	2.33%	53.49%
MAG640002	Spectacle Pond Drink Water Treatment Plant	14	0.02-0.42	0.089	0.00%	7.14%	Spectacle Pond	1	0.750	0.087	0.00%	7.14%
MAG640003	Gravelly Pond Water Treatment Plant	62	0.01-0.69	0.202	0.00%	74.19%	Gravelly Pond	1	0.750	0.087	0.00%	74.19%
MAG640005	Roaring Brook Reservoir Water Treatment Facility	54	0.051-0.355	0.135	0.00%	61.11%	Roaring Brook Reservoir	1	0.750	0.087	0.00%	61.11%
MAG640006	Coolidge Avenue Water Treatment Plant	55	0.09-0.98	0.347	8.70%	100.00%	Spring Pond	1	0.750	0.087	8.70%	100.00%
MAG640007	Westborough Water Purification Facility	43	0.046-18.9	1.853	37.21%	97.67%	Hocomonco Pond	1	0.750	0.087	37.21%	97.67%
MAG640009	Myers Avenue Water Treatment Plant	52	0.005-2	0.066	1.92%	1.92%	Wetlands adjacent to Shumatuscant River	58	43.500	5.046	0.00%	0.00%
MAG640010	John F Hannigan (aka Hingam St) WTP	55	0.02-0.325	0.116	0.00%	53.85%	wetlands adjacent to Ben Mann Brook	1	0.750	0.087	0.00%	53.85%

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GP Number	Facility Name	Number of AI Samples	Range	Average	% of samples exceeding AI CMC (0.750 mg/l)	% of samples exceeding AI CCC (0.087 mg/l)	Receiving water	7 Q10 Dilution Factor	Acute WQBL	Chronic WQBL	% of samples that would exceed acute WQC limit	% of samples that would exceed chronic WQC limit
MAG640012	Babson Water Treatment Plant	42	0.07-0.79	0.392	2.38%	95.24%	Aelwife Brook	1.2	0.900	0.104	0.00%	95.24%
MAG640013	West Gloucester Water Filtration Plant	35	0.07-0.82	0.309	8.57%	97.14%	Little River	1	0.750	0.087	8.57%	97.14%
MAG640014	Gates Pond Water Treatment Plant	33	0.199-0.83	0.368	9.09%	100.00%	Trib to Hog Brook (Assabet)	1	0.750	0.087	9.09%	100.00%
MAG640015	Root Reservoir Water Treatment Facility	62	0.02-4.4	0.299	3.23%	25.81%	Lennox Mountain Brook	2.6	1.950	0.226	1.61%	19.35%
MAG640018	Newburyport Water Treatment Plant	69	0.02-0.57	0.107	0.00%	40.58%	Merrimack River	1200	900.000	104.400	0.00%	0.00%
MAG640019	Harold E. Willis Water Treatment Plant	6	0.2-0.29	0.243	0.00%	100.00%	Swamp to Mine Brook	1	0.750	0.087	0.00%	100.00%
MAG640020	E. H. Sargent Water Treatment Plant	50	0.07-1.228	0.365	8.00%	96.00%	Martins Brook	2.15	1.613	0.187	0.00%	68.00%
MAG640024	Butters Row Water Treatment Plant	50	0.028-0.72	0.152	0.00%	64.00%	Maple Meadow Brook	5.4	4.050	0.470	0.00%	4.00%
MAG640025	Ipswich Water Treatment Plant	13	0.003-35	12.669	61.54%	92.31%	Bull Brook	1	0.750	0.087	61.54%	92.31%

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MAG640028	Winona Water Treatment Plant	55	0.03-0.71	0.337	0.00%	100.00%	Winona Pond	1	0.750	0.087	0.00%	100.00%
MAG640029	Brockton Water Filtration Plant	57	0.03-34.5	2.047	17.54%	96.49%	Silver Lake	1	0.750	0.087	17.54%	96.49%
MAG640031	Great Pond Water Treatment Plant	59	0.2-116	9.027	64.41%	100.00%	Great Pond Reservoir	1	0.750	0.087	64.41%	100.00%
MAG640032	Randolph-Holbrook Water Treatment Plant	57	0.01-2.43	0.192	5.26%	52.63%	Great Pond Reservoir	1	0.750	0.087	5.26%	52.63%
MAG640033	Town of Rutland Water Treatment Facility	4	0.02 - 0.04	0.033	0.00%	0.00%	Muschopauge Pond	1	0.750	0.087	0.00%	0.00%
MAG640037	Winchester Water Treatment Facility	56	0.08-13	1.777	50.00%	98.21%	South Reservoir	1	0.750	0.087	50.00%	98.21%
MAG640039	Fitchburg Regional Water Filtration Facility	55	0.023-1.2	0.217	1.82%	85.45%	Wyman Pond	1	0.750	0.087	1.82%	85.45%
MAG640040	Walter J. Sullivan Water Purification Facility	71	0.6-9.3	1.953	97.18%	100.00%	Fresh Pond Reservoir	1	0.750	0.087	97.18%	100.00%
MAG640041	Crystal Lake (Gardner WTP)	50	0.87-20	6.729	100.00%	100.00%	Crystal Lake	1	0.750	0.087	100.00%	100.00%
MAG640043	Pond Street (Hanover) Water Treatment Plant	50	0.074-1.1	0.519	22.00%	96.00%	Herring Brook	2.9	2.175	0.252	0.00%	78.00%

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MAG640044	Falulah Water Filtration Facility	20	0.027 - 0.625	0.214	0.00%	80.00%	Falulah Brook	1.2	0.900	0.104	0.00%	80.00%
MAG640045	Ashburnham & Winchendon Water Filtration Facility	59	0.01-0.38	0.112	0.00%	57.63%	Upper Naumkeak Lake	1	0.750	0.087	0.00%	57.63%
MAG640046	Centennial Water Treatment Plant	9	0.08-0.262	0.165	0.00%	77.78%	Amethyst Brook	7.3	5.475	0.635	0.00%	0.00%
MAG640050	Billerica Water Treatment Plant	3	0.12 - 1.3	0.610	33.33%	100.00%	Concord River	1	0.750	0.087	33.33%	100.00%
MAG640052	Worcester Water Filtration Plant	58	0.81-5.2	1.977	100.00%	100.00%	Holden Reservoir	1	0.750	0.087	100.00%	100.00%
MAG640055	Lowell Regional Water Treatment Facility	58	0.02-0.82	0.307	3.45%	91.38%	Merrimack River	1200	900.000	104.400	0.00%	0.00%
MAG640058	Andover Water Treatment Plant	59	1.0-12.0	4.749	100.00%	100.00%	Haggets Pond	1	0.750	0.087	100.00%	100.00%
MAG640059	Arlington Ave Water Treatment Facility	66	0.44-3.87	1.427	89.39%	98.48%	Wenham Lake Reservoir	1	0.750	0.087	89.39%	98.48%
MAG640062	Vernon C. Russell Water Treatment Plant	22	0.12-6.8	1.929	68.18%	100.00%	Unnamed Trib	1	0.750	0.087	68.18%	100.00%
MAG640065	Amesbury Water Treatment Facility	51	0.02 - 0.25	0.086	0.00%	35.29%	Powwow River	16.5	12.375	1.436	0.00%	0.00%
MAG640067	Dighton Water Treatment Plant	7	0.019 - 0.185	0.105	0.00%	57.14%	Segreganset River	1.1	0.825	0.096	0.00%	57.14%

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MAG640068	Swansea Water District Desal.	3	0.03 - 1.05	0.640	66.67%	66.67%	Palmer River	1	0.750	0.087	66.67%	66.67%
MAG640069	Quittacas Water Treatment Plant	28	0.017-1.66	0.252	3.57%	96.43%	Little Quittacas Pond	1	0.750	0.087	3.57%	96.43%
MAG640070	Lily Pond Treatment Plant	34	0.028 - 21	0.754	2.94%	61.76%	Lily Pond	1	0.750	0.087	2.94%	61.76%
NHG640005	Goffstown Village Water Treatment Facility	2	0.1-0.11	0.105	0%	100%	Whitte Brook	1	0.75	0.087	0%	100%
NHG640007	Newmarket Water Treatment Plant	1	1.0-1.0	1	33%	33%	Berry Brook	1	0.75	0.087	33%	33%
NHG640009	Greenville Water Treatment Plant	50	0.05 - 0.78	0.13	2%	30%	Tobey Reservoir	1	0.75	0.087	2%	30%
NHG640012	City of Lebanon Water Plant	2	0.26-0.38	0.32	0%	100%	Wetland to Mascoma River	1	0.75	0.087	0%	100%