

By Ms. Amick, a petition (accompanied by bill, Senate, No. 987) of Carol C. Amick, Jonathan L. Healy, Steven Angelo, Robert C. Buell, Stanley C. Rosenberg, other members of the General Court and others for legislation relative to the protection of water supplies from sodium chloride and other deicing chemicals. Natural Resources and Agriculture.

**The Commonwealth of Massachusetts**

In the Year One Thousand Nine Hundred and Eighty-Seven.

**AN ACT RELATIVE TO THE PROTECTION OF WATER SUPPLIES FROM SODIUM CHLORIDE AND OTHER DEICING CHEMICALS.**

*Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:*

1 SECTION 1. Section 7A of chapter 85 of the General Laws as  
2 inserted by chapter 1208 of the Acts of 1973 and as most recently  
3 amended by section 198 of chapter 706 of the Acts of 1975, is hereby  
4 further amended by striking the section in its entirety and inserting  
5 in place thereof the following new section: —

6 Section 7A: No person shall store sodium chloride, or other  
7 chemically treated abrasives or other chemicals which the depart-  
8 ment of environmental quality engineering believes to be injurious  
9 to water supplies, used for the removal of snow or ice on roads in  
10 such a manner or place as to subject any water supply or ground-  
11 water supply to the risk of contamination. The department of  
12 environmental quality engineering, hereinafter called the depart-  
13 ment, in consultation with the department of public works, shall  
14 issue regulations as to the place and manner of storage of such  
15 chemicals, and may, by specific order, in a particular case regulate  
16 the place where such chemicals may be used for the aforementioned  
17 purpose of removal of snow or ice from roads. Such regulations as  
18 to the manner of storage should include, but need not be limited to,  
19 a definition to structure for water proof and weather proof storage  
20 facilities designed to prevent the free entry of rain, sleet or snow,  
21 sized to house at least fifty percent of the anticipated winter need of  
22 such chemicals, and sufficiently rigid to withstand exposure to

23 expected annual weather extremes and roofloads without structu-  
24 ral failure. Further stipulations as to the size, shape and materials  
25 adequate for proper protection shall be subject to the discretion of  
26 the department. Any person who uses more than one ton of deicing  
27 chemicals in the twelve month period from June first through May  
28 thirty-first shall report annually, on or before the first Monday in  
29 July, to the department, the amount of such chemicals at the  
30 beginning of said period, purchased during said period, and shall  
31 specify where said chemicals were used by road section, or other  
32 appropriate landmark, and the amount of chemicals on hand at the  
33 end of said period. Copies of said report shall also be submitted to  
34 the local board of health, water department, conservation commis-  
35 sion, and other appropriate municipal agencies in any municipali-  
36 ties in which such chemicals are used, and said report shall be  
37 available for public inspection; provided, however, that the depart-  
38 ment of public works, the Massachusetts Turnpike Authority, the  
39 Massachusetts Bay Transit Authority, and the Metropolitan Dis-  
40 trict Commission shall be required to file said report only with the  
41 department, and shall not be required to file copies of said report  
42 with the aforementioned municipal agencies unless specifically  
43 requested to by said agency. All reports so prepared shall be availa-  
44 ble for public inspection at any time from any person required to  
45 file. The department may require or conduct studies of road deicing  
46 alternatives and the probable maintenance thereof by use of such  
47 chemicals upon any nearby reservoirs, ponds, streams, lakes,  
48 wetlands and the groundwater aquifers associated with both pri-  
49 vate and public water supply sources, and measures to mitigate  
50 such impacts. Estimates of such chemicals to be applied on the  
51 proposed roads and other paved areas shall be based on the most  
52 recent records of chemicals actually applied under the provisions of  
53 this section.

54 The word "person" as used in this section shall include surveyors  
55 of highways, road commissioners, superintendents of streets in  
56 towns, commissioners, superintendents of public works, the chief  
57 administrative offices of state agencies, and private persons includ-  
58 ing corporations and management firms of large apartment com-  
59 plexes, large shopping centers, business parks, office parks, indus-  
60 trial parks or districts.

1 SECTION 2. Said chapter 85 is hereby further amended by  
2 inserting after section 7B the following new section: —

3 Section 7C. The Massachusetts Department of Public Works,  
4 the Massachusetts Turnpike Authority, the Metropolitan District  
5 Commission and the Massachusetts Bay Transit Authority shall  
6 not use sodium chloride or other chemicals which the department  
7 of environmental quality engineering has reason to believe may be  
8 injurious to water supplies, or other chemically treated abrasives in  
9 an area designated as a “water supply area: modified chemical  
10 treatment area” by a municipality, the metropolitan district com-  
11 mission, or municipal water purveyor or being critical for the  
12 protection of water supply, either public or private, except under  
13 application rates approved by the department of environmental  
14 quality engineering.

15 Said areas shall be petitioned for designation according to  
16 department procedure. The applicant shall provide the department  
17 of environmental quality engineering with the information that it  
18 deems necessary to fully consider the application. Such informa-  
19 tion shall include but not be limited to the following: —

- 20 1. The water quality of the area;
- 21 2. The natural background sodium levels of the water;
- 22 3. The geological characteristics of the area, including but not  
23 limited to areas of contribution, and soil permeability
- 24 4. Potential sources of contamination;
- 25 5. The rate at which the particular water resource will cleanse  
26 itself of sodium contamination.

27 Using this information, a determination will be made by the  
28 department of environmental quality engineering of the susceptibil-  
29 ity of an area to road salt contamination. Upon determining that an  
30 area warrants designation as a “water supply area: modified chemi-  
31 cal treatment area”, the department of environmental quality engi-  
32 neering shall identify that area as either an “area of elevated sodium  
33 levels” or as an “area at risk of experiencing elevated sodium levels”  
34 based upon the current acceptable limits for sodium in drinking  
35 water established by the department of public health. In consulta-  
36 tion with the department of public works, the department of envir-  
37 onmental quality engineering shall establish an application rate of  
38 de-icing materials that in areas experiencing elevated sodium levels  
39 will reduce sodium levels to current acceptable limits within a  
40 reasonable time. In areas at risk of experiencing elevated sodium

41 levels, an application rate of de-icing materials which will prevent  
42 sodium levels from exceeding current acceptable limits for sodium  
43 in drinking water shall be chosen. In determining appropriate  
44 applicaton rates, the effect of improved or altered drainage or other  
45 mitigating measures to the extent that they adequately limit the  
46 impact of de-icing materials on water supplies, shall be considered  
47 as a replacement for reducing applications of de-icing materials  
48 where public safety concerns apply.

49 For the purposes of this section, the term “municipal water  
50 purveyor” shall mean any entity, public or private, supplying water  
51 to the public for human consumption if such system has at least  
52 twenty-five service connections.

1 SECTION 3. Said chapter 85 is hereby further amended by  
2 inserting after section 7C the following new section: —

3 Section 7D. Signs shall be erected an maintained by the authority  
4 having appropriate jurisdiction as required by the department on  
5 all main highways and on all ways leading thereto, and on all main  
6 highways and other ways designated as a water supply area: modi-  
7 fied chemical treatment area” under section 7C of chapter 85 of the  
8 General Laws. Said signs shall notify motorists that they have  
9 entered a modified chemical treatment area and shall warn them to  
10 proceed with caution. Said signs shall be of the same size, material  
11 and color markings as other warning signs authorized in section 2,  
12 and shall conform to the department of transportation manual of  
13 Uniform Traffic Control Devices. Subject to appropriation, the  
14 department of public works shall, in consultation with the depart-  
15 ment of environmental quality engineering, make incentive grants  
16 available to cities and towns for the purpose of implementing road  
17 de-icing alternatives, posting signs for modified chemical treatment  
18 areas, mapping water supply areas for restricted chemical treat-  
19 ment, and installing runoff controls to prevent the pollution of  
20 water supplies from de-icing chemicals.

1 SECTION 4. Section 5A of chapter 84 of the General Laws as  
2 inserted by chapter 319 of the acts of 1945 is hereby amended by  
3 inserting after the first paragraph the following new paragraph:  
4 “The selectmen, highway surveyor, highway commissioners or  
5 other officer having charge of the maintenance of highways in any  
6 city or town which accepts this section may enter into agreements

7 with its neighbors for the designation of an area as a “water supply  
8 area: modified chemical treatment area” on the ways and highways  
9 maintained by the parties entered into the agreement.



By the Senate, Resolved, That the sum of \$100,000 be and it is the duty of the Treasurer to pay out of the Treasury the sum of \$100,000 to the Secretary of the Senate for the purpose of carrying out the provisions of the Act approved March 1, 1907, entitled "An Act to provide for the establishment of a National Bureau of Standards."

On the Report of the Finance Committee

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