

By Mr. Scaccia of Boston, petition of Angelo M. Scaccia 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 Ninety-Three.

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  
2 as appearing in the 1986 Official Edition, is hereby further  
3 amended by striking the section in its entirety and inserting in  
4 place thereof the following new section: —

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

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

56 The word "person" as used in this section shall include surveyors  
57 of highways, road commissioners, superintendents of streets in  
58 towns, commissioners, superintendents of public works, the chief  
59 administrative officer of state agencies, and private persons  
60 including corporations and management firms of large apartment  
61 complexes, large shopping centers, business parks, office parks,  
62 industrial 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  
8 be injurious to water supplies, or other chemically treated  
9 abrasives in an area designated as a “water supply area: modified  
10 chemical treatment area” by a municipality, the metropolitan  
11 district commission, or municipal water purveyor or being critical  
12 for the protection of water supply, either public or private, except  
13 under application rates approved by the department of  
14 environmental quality engineering.

15 Said areas shall be petitioned for designation according to  
16 regulations adopted by the department and approved by the water  
17 resources commission. The applicant shall provide the department  
18 of environmental quality engineering with the information that  
19 it deems necessary to fully consider the application. Such  
20 information shall include but not be limited to the following: —

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

28 Using this information, a determination will be made by the  
29 department of environmental quality engineering of the  
30 susceptibility of an area to road salt contamination. Upon  
31 determining that an area warrants designation as a “water supply  
32 area: modified chemical treatment area”, the department of  
33 environmental quality engineering shall identify that area as either  
34 an “area of elevated sodium levels” or as an “area at risk of  
35 experiencing elevated sodium levels” based upon the current  
36 acceptable limits for sodium in drinking water established by the  
37 department of public health. In consultation with the department  
38 of public works, the department of environmental quality  
39 engineering shall establish an application rate of deicing materials

40 that in areas experiencing elevated sodium levels will reduce  
41 sodium levels to current acceptable limits within a reasonable  
42 time. In areas at risk of experiencing elevated sodium levels, an  
43 application rate of deicing materials which will prevent sodium  
44 levels from exceeding current acceptable limits for sodium in  
45 drinking water shall be chosen. In determining appropriate  
46 application rates, the effect of improved or altered drainage or  
47 other mitigating measures to the extent that they adequately limit  
48 the impact of deicing materials on water supplies, may, along with  
49 chemical deicing alternatives be considered as a replacement for  
50 reducing applications of deicing materials where public safety  
51 concerns apply.

52 For the purposes of this section, the term “municipal water  
53 purveyor” shall mean any entity, public or private, supplying  
54 water to the public for human consumption if such system has  
55 at least fifteen service connections or which services at least  
56 twenty-five persons.

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

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

1 SECTION 4. Section 5A of chapter 84 of the General Laws  
2 as appearing in the 1986 Official Edition 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  
9 highways maintained by the parties entered into agreement.





