

Sent: Thursday, October 09, 2003 6:29 PM
Subject: SALT DE-ICING CREEPING INTO TAP WATER

Dear Aquathin Dealer OnLine, Splash NewsBulletin and Allergic Reaction NewsBulletin Members;

The quick read below discusses the data that Mother Nature is less able to dilute the zillions of tons of rock salt heaved onto roadways (over the past couple hundred years) in winter to melt snow. I would urge you to show this article to Clients living in your colder regions that are on private wells. Also concerning de-icers, the article pays attention to salt....and does not mention airplane de-icing chemicals sprayed onto wings have also been found in elevated concentrations in nearby groundwaters.

Now here are two most important concerns for serious consideration; All of us Aquathin U. grads know that osmosis is the natural process where a low concentration of salts seeks a high concentration of salts through a semipermeable membrane. Therefore as the salt concentrations are increasing from road salt, the elevated levels of salts can begin to increase more rapidly in other seasons as they will begin to attract more salts and minerals. Add in a little drought, and you can envision even more rapid increases in TDS.

I love my Aquathin !

Warmest regards to all...as well, your comments are always welcome and very much appreciated.

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Salt water may be coming to a tap near you: Winter road de-icer may have seeped into drinking water, officials say

By Sarah MacDonald / News Staff Writer
Wednesday, October 8, 2003

DEDHAM -- Road salt laid down in the winter has made its way into your drinking water, according to a study by the water company.

A five-year study of sodium chloride levels in some Dedham-Westwood Water District wells found seasonal spikes, supporting the theory that salt used to de-ice Rte. 128 runs off the road and eventually out of local faucets.

While the levels pose no health hazard, water officials worry customers may taste the difference someday soon.

"The fact that salt levels are growing and have been for years concerns us," said District Director Nan Crossland. "Before long we're going to reach the taste issue."

According to tests done in 2002, water from taps at the water district office and Westwood Town Hall showed between 50 and 70 milligrams of sodium per liter of water. The state Department of Environmental Protection drinking water guideline for sodium is 20 milligrams per liter. Typical concentrations in the eastern Massachusetts area is 5 to 10 milligrams per liter.

The study linked the salt to the highway by comparing levels in wells closest to Rte. 128 -- Well 5 is just 400 feet from the road -- with wells farther away. Tests showed wells closer to the highway had higher salt concentrations than those with runoff from town roads.

The White Lodge Wellfield, which includes five individual wells on the northbound side of Rte. 128 in Dedham, provides 3 million gallons per day of drinking water to 37,000 people in Dedham and Westwood. Well 5 provides 22 percent of the total water supply for the area.

The study found salt levels show no sign of returning to lower levels, especially with the additional lane to be added to the highway in each direction as part of the Rte. 128 Add-a-Lane project.

"We need to discuss this now," Crossland said.

But the water district has not gotten any formal response from the state Highway Department since submitting the study this summer. Crossland said two MassHighway representatives met with local officials, but the pair had not yet read the study. The water district sent a letter to the state department asking for a response, but hasn't heard anything.

"We're concerned about their lack of response," Crossland said. "We should be cooperating on this."

Unlike oil, gas or other car byproducts, salt is not filtered out as it leaches through the ground.

"You need to treat it at a desalinization plant, which is expensive and difficult to do," Crossland said. "The proactive is so much the better road to take."

The study recommends MassHighway monitor its winter salt-spreading more carefully and take salt levels into account when designing upgrades to drainage along the highway. Other suggestions include checking automated spreading equipment and replacing sodium chloride with other de-icing materials.

Officials also ask MassHighway to consider naming the section of Rte. 128 nearest the wells a low salt zone. The study reported the state dumps 41 tons of salt on the 1,500 feet of road closest

to the wells per year. If the area were designated as a low salt zone, crews would use a mixture with more sand and less salt to de-ice the road.

More than 600 of the 3,000 miles of road currently maintained by MassHighway are under the low salt designation.

Spokesman Jon Carlisle said "MassHighway has a standard operating procedure to determine if there is a need to reduce salt application. There is a formalized process, for continuity."

He said highway officials were writing a letter to water district officials outlining the department's requirements, on top of the completed study. MassHighway will require the water district to collect samples and submit each month for a year.

The \$25,000 study, completed in June, was funded with federal money through the Environmental Protection Agency and a state Wellhead Protection Grant from the Department of Environmental Protection. The study was compiled by the Boston-based firm of Dewberry-Goodkind.

Crossland said the environmental agencies are pleased with the study and are hopeful something could be done.

"Our goal is to get the level of salt in our water down however we can," she said.