

# CSWAB

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Citizens for Safe Water Around Badger  
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Lloyd Eagan, Regional Director  
Wisconsin Department of Natural Resources  
3911 Fish Hatchery Road  
Madison, WI 53711

## VIA ELECTRONIC MAIL AND U.S. MAIL

July 9, 2007

### **RE: WDNR Response Needed in Response to Increasing Concentrations of Explosives in Groundwater at the Northeast Corner of Badger Army Ammunition Plant**

Dear Lloyd,

We are writing to request your assistance in response to recent test results and reports that indicate increasing risks to groundwater and nearby drinking water wells near the northeast corner of Badger Army Ammunition Plant. We bring this to your attention as your staff maintains that a proactive response to the increasing levels of the four (4) currently unregulated isomers of DNT is not possible as an enforceable exceedance has not occurred near or at the plant boundary. We disagree and believe that the Department is empowered to do so.

Our goal is to encourage the Department to (1) prioritize and require expanded private well testing in the Weigand's Bay area and (2) develop a formal plan for reporting trends in groundwater quality in the NE corner of the facility and other areas of concern, and (3) require the addition of groundwater monitoring wells to characterize groundwater at depth.

Recent test results for Dinitrotoluene (DNTs) in groundwater are higher than expected and correspond with increasing trends both in source and boundary monitoring wells at the NE corner of Badger. Of note, 3,4-DNT was reported at 1.74 ug/l (micrograms per liter) in groundwater monitoring well ELM-8908 and 0.098 ug/l in ELM-9501 in December 2006.

In March 2007, 2,3-DNT was detected at 0.018 ug/l and 3,4-DNT was detected at 0.139 ug/l in monitoring well ELM 9501. At the Deterrent Burning Grounds, 2,6- and 2,4-DNT exceeded the groundwater enforcement standard in DBM-8201 – contaminant levels were 0.119 and 0.107 ug/l respectively in March 2007. At this same monitoring well, 2,3-DNT was detected at 2.2 ug/l in groundwater, 3,4-DNT was detected at 9 ug/l, and 3,5-DNT was detected at 1.27 ug/l.

Monitoring well ELM-9501 is located at the plant boundary just west of the Dan Purcell farm and more than 2,000 feet from the Deterrent Burning Grounds hazardous waste disposal site. When compared to the Enforcement Standard for 2,4- and 2,6-DNT of only 0.05 ug/l, the levels of the other four (4) isomers of DNT appear to be high. Moreover, as ELM-9501 is a single (shallow) water table well, there is no data for groundwater quality at depth which is especially important in evaluating potential risks to nearby drinking water wells. As illustrated in the attached graphs from the June Restoration Advisory Board (RAB) meeting, the Army at Badger notes increasing trends in groundwater contaminant levels especially for the “unregulated” isomers of DNT.

We believe that even when contaminants do not have a corresponding ES, the Department is clearly authorized to require monitoring and cleanup to the extent practicable. Pursuant to Wis. Admin. Code NR § 140.02(4), for example, the WDNR is authorized to take action necessary to protect public health and welfare or prevent a significant damaging effect on groundwater or surface water quality for present or future consumptive or nonconsumptive uses, **whether or not an enforcement standard and preventive action limit for a substance have been adopted under Wis. Admin. Code NR 140** (emphasis added).

For substances which do not have an established standard in ch. NR 140, the department may take or require the responsible parties to conduct any necessary actions, such as developing site-specific environmental standards in cooperation with the department of health and social services, to protect public health, safety and welfare or to prevent a significant damaging effect on groundwater or surface water quality for present or future consumptive or non-consumptive uses. [See: Wis. Admin. Code NR § 722.09 (2)(b)2.]

Wisconsin Stat. §144.76(3) (1977) requires those in violation of its provision to “take the action necessary to restore the environment to the extent practicable and minimize the harmful effects from any discharge to the air, lands or waters of the state.” In a 1998 opinion, the Supreme Court of Wisconsin determined that use of this phrase “restore the environment to the extent practicable” necessary implication reveals an intent to address past conduct. Even when conduct predated the Spills Law, the responsible party must perform remediation of a spill site to “make the environment whole again”. [See: Supreme Court of Wisconsin, Case No. 96-1158 State of Wisconsin, Plaintiff-Appellant v. Chrysler Outboard Corporation, June 19, 1988.]

While the Army is regularly testing the adjacent Purcell farm as well as several other homes adjacent to Badger on a quarterly basis, we believe that recent monitoring well test results together with the lack of groundwater quality data at depth lend urgency to our request for expansion of private well testing.

Additionally, we are requesting the WDNR’s assistance in assuring a better understanding water quality trends at the NE corner of Badger and other areas of concern. While the facility may be internally tracking groundwater quality trends, we believe the Army should be required to develop a mechanism for reporting trends for all DNT isomers and other parameters of concern (to be updated on a quarterly basis) in appropriate monitoring wells and all private drinking water wells. The current annual narrative report should also be expanded accordingly. These steps will assure that this information is readily available to both regulators and the public.

Our final recommendation concerns deficiencies in the current monitoring well system. ELM-9501 is a single shallow groundwater monitoring well that should immediately be

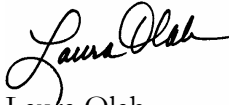
expanded to a well nest capable of monitoring and characterizing groundwater quality at varying depth. An evaluation of the entire groundwater monitoring system is needed, with careful attention to the lack of deeper monitoring wells overall and the significant unmonitored expanse between the source area wells and ELM-9501.

This final recommendation is especially time sensitive as the Army reported it has received funding for the installation of additional monitoring wells but it is our understanding that these resources will not be expended at the NE corner where nearby drinking water wells are threatened (versus placement in the interior of the facility). These efforts will help assure that neighboring residents, health officials, and regulators have critical and timely information that will serve as a basis for current and future decisions.

As neighbors of Badger Army Ammunition Plant, we rely on groundwater for our drinking water for our homes and our families. Please do what you can to protect rural neighbors of Badger before exposures occur and before environmental damage is irreparable.

Thank you in advance for your time and consideration of our letter and we look forward to your reply.

Sincerely,

A handwritten signature in black ink that reads "Laura Olah". The signature is written in a cursive style with a large initial "L".

Laura Olah,  
Executive Director

Cc: Henry Nehls-Lowe, Wisconsin Division of Public Health  
Tim McCumber, Town of Merrimac

Attached to Electronic Version:

PDF file containing graphs and maps that were presented at the June meeting of the Badger Restoration Advisory Board meeting.