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March 2, 2018

Karen McKeown, State Health Officer/Administrator
DHS Division of Public Health
1 West Wilson St.
Madison, WI 53701-2659

Subject: **Request for Recommendations for State Groundwater Quality Standards**

Dear Ms. McKeown:

The Department of Natural Resources requests that your agency recommend state health based groundwater quality standards for 16 substances (Attachment 1), provided adequate toxicologic information is available. These substances have been found in, or are considered to have a reasonable probability of entering, the groundwater resources of the state.

The list of substances in Attachment 1 has been prioritized by category, in accordance with ch. 160, Stats. Other available information, such as whether a lifetime health advisory level or US Environmental Protection Agency reference dose had been established for the substance, and statewide occurrence of the substance in groundwater, was considered in prioritizing the list.

We also request that your agency review existing groundwater standards for 11 substances (Attachment 2), and the toxicological basis for those standards. It appears that there may be new toxicologic information for these substances that may justify revising current standards.

We appreciate your assistance and look forward to working with you in our joint effort to protect public health and the environment.

Sincerely,

James A. Zellmer
Acting Administrator
Division of Environmental Management

cc: Dr. Jon Meiman - DHS
Chuck Warzecha - DHS
John Petty - DATCP
Lori Bowman - DATCP
Darsi Foss - DNR
Joe Van Rossum - DNR
Steve Elmore - DNR
Andrea Keller - DNR
Bruce Rheineck - DNR

Attachment 1

List with categorization and ranking of substances for possible new health based NR 140 Groundwater Quality Standards development

	Substance	CAS RN	Category	Rank
1.	Chromium, Hexavalent	18540-29-9	II	High
2.	Strontium	7440-24-6	I	High
3.	Thiamethoxam	153719-23-4	II	High
4.	Imidacloprid	138261-41-3	II	High
5.	Clothianidin	210880-92-5	II	High
6.	Isoxaflutole	141112-29-0	II	High
7.	Isoxaflutole DKN degradate	143701-75-1	II	High
8.	Isoxaflutole BA degradate	142994-06-7	III	High
9.	Thiencarbazone-methyl	317815-83-1	III	High
10.	Dacthal TPA & MTP degradates	(TPA) 2136-79-0 (MTP) 887-54-7	I	High
11.	Glyphosate	1071-83-6	II	High
12.	Glyphosate AMPA degradate	1066-51-9	II	High
13.	Sulfentrazone	122836-35-5	II	High
14.	Bacteria, Escherichia coli (E. coli)	N/A	I	High
15.	Perfluorooctanoic Acid (PFOA)	335-67-1	I	High
16.	Perfluorooctane Sulfonate (PFOS)	1763-23-1	I	High

CAS RN – Chemical Abstract Service (CAS) registry number (RN)
N/A – not applicable
Category I - detected in groundwater in excess of "federal number"
Category II - detected in groundwater but not in excess of "federal number", or detected but no "federal number" established
Category III - reasonable probability of being detected in groundwater
"Federal No." - established US EPA maximum contaminant level, "suggested no adverse response level"/health advisory level or cancer risk level

Attachment 2

List of substances for possible revisions to existing NR 140 Groundwater Quality Standards

	Substance	CAS RN	Current NR 140 ES/PAL
1.	Trichloroethylene (TCE)	79-01-6	5 ppb/0.5 ppb
2.	Tetrachloroethylene (PCE)	127-18-4	5 ppb/0.5 ppb
3.	1,2,3-Trichloropropane (1,2,3-TCP)	96-18-4	60 ppb/12 ppb
4.	1,1-Dichloroethane (1,1-DCA)	75-34-3	850 ppb/85 ppb
5.	Boron	7440-42-8	1,000 ppb/200 ppb
6.	Molybdenum	7439-98-7	40 ppb/8 ppb
7.	Aluminum	7429-90-5	200 ppb/40 ppb
8.	Cobalt	7440-48-4	40 ppb/8 ppb
9.	Barium	7440-39-3	2,000 ppb/400 ppb
10.	1,4-Dioxane	123-91-1	3 ppb/0.3 ppb
11.	Bacteria, Total Coliform	N/A	0*/0*

CAS RN – Chemical Abstract Service (CAS) registry number (RN)
NR 140 ES/PAL – WI Groundwater Quality Enforcement Standard (ES) and Preventive Action Limit (PAL) in ch. NR 140, Wis. Adm. Code
ppb = parts per billion (ppb) or micrograms per liter (ug/L)
N/A – not applicable
* bacteria not present in water sample