

**PROPOSED REGULATION OF THE
STATE ENVIRONMENTAL COMMISSION**

LCB File No. R181-08

August 25, 2008

EXPLANATION – Matter in *italics* is new; matter in brackets ~~[omitted material]~~ is material to be omitted.

AUTHORITY: §§1-6, NRS 445A.425; §§7, 9 and 10, NRS 445A.425 and 445A.465; §8, NRS 445A.425 and 445A.570.

A REGULATION relating to groundwater; setting forth the criteria relating to the concentration of constituents in groundwater; and providing other matters properly relating thereto.

Section 1. Chapter 445A of NAC is hereby amended by adding thereto the provisions set forth as sections 2 and 3 of this regulation.

Sec. 2. *“Groundwater” means water below the surface of the land which is in a zone of saturation.*

Sec. 3. 1. *Unless otherwise determined by the Department, all groundwater shall be deemed potential drinking water. A discharge that may affect groundwater must not cause the constituents in any receiving groundwater to exceed the following criteria:*

Criteria

<i>CONSTITUENT</i>	<i>MAXIMUM CONTAMINANT LEVEL (milligrams/Liter or mg/L)</i>
<i>Antimony</i>	<i>0.006 mg/L</i>

<i>Arsenic</i>	<i>0.010 mg/L</i>
<i>Barium</i>	<i>2.0 mg/L</i>
<i>Beryllium</i>	<i>0.004 mg/L</i>
<i>Cadmium</i>	<i>0.005 mg/L</i>
<i>Chromium (total)</i>	<i>0.1 mg/L</i>
<i>WAD cyanide</i>	<i>0.2 mg/L</i>
<i>Fluoride</i>	<i>4.0 mg/L</i>
<i>Lead</i>	<i>0.015 mg/L</i>
<i>Mercury (inorganic)</i>	<i>0.002 mg/L</i>
<i>Total Nitrogen (as Nitrogen)</i>	<i>10 mg/L</i>
<i>Nitrite (as Nitrogen)</i>	<i>1.0 mg/L</i>
<i>Selenium</i>	<i>0.05 mg/L</i>
<i>Thallium</i>	<i>0.002 mg/L</i>
<i>Uranium</i>	<i>0.030 mg/L</i>
<i>Aluminum</i>	<i>0.2 mg/L</i>
<i>Chloride</i>	<i>400 mg/L</i>
<i>Color</i>	<i>15 (color units)</i>
<i>Copper</i>	<i>1.0 mg/L</i>
<i>Corrosivity</i>	<i>noncorrosive</i>
<i>Foaming Agents</i>	<i>0.5 mg/L</i>
<i>Iron</i>	<i>0.6 mg/L</i>

<i>Magnesium</i>	<i>150 mg/L</i>
<i>Manganese</i>	<i>0.1 mg/L</i>
<i>Odor</i>	<i>3 threshold odor number</i>
<i>pH</i>	<i>6.5-8.5 mg/L</i>
<i>Silver</i>	<i>0.10 mg/L</i>
<i>Sulfate</i>	<i>500 mg/L</i>
<i>Total Dissolved Solids</i>	<i>1000 mg/L</i>
<i>Zinc</i>	<i>5.0 mg/L</i>

Organic Criteria

<i>Alachlor</i>	<i>0.002 mg/L</i>	<i>Ethylbenzene</i>	<i>0.7 mg/L</i>
<i>Atrazine</i>	<i>0.003 mg/L</i>	<i>Ethylene dibromide</i>	<i>0.00005 mg/L</i>
<i>Benzene</i>	<i>0.005 mg/L</i>	<i>Glyphosate</i>	<i>0.7 mg/L</i>
<i>Benzo(a)pyrene (PAHs)</i>	<i>0.0002 mg/L</i>	<i>Heptachlor</i>	<i>0.0004 mg/L</i>
<i>Carbofuran</i>	<i>0.04 mg/L</i>	<i>Heptachlor epoxide</i>	<i>0.0002 mg/L</i>
<i>Carbon tetrachloride</i>	<i>0.005 mg/L</i>	<i>Hexachlorobenzene</i>	<i>0.001 mg/L</i>
<i>Chlordane</i>	<i>0.002 mg/L</i>	<i>Hexachlorocyclopentadiene</i>	<i>0.05 mg/L</i>
<i>Chlorobenzene</i>	<i>0.1 mg/L</i>	<i>Lindane</i>	<i>0.0002 mg/L</i>
<i>2,4-D</i>	<i>0.07 mg/L</i>	<i>Methoxychlor</i>	<i>0.04 mg/L</i>

<i>Dalapon</i>	<i>0.2 mg/L</i>	<i>Oxamyl (Vydate)</i>	<i>0.2 mg/L</i>
<i>1,2-Dibromo-3-chloropropane (DBCP)</i>	<i>0.0002 mg/L</i>	<i>Polychlorinated biphenyls (PCBs) as Decachlorobipheny</i>	<i>0.0005 mg/L</i>
<i>o-Dichlorobenzene</i>	<i>0.6 mg/L</i>	<i>Pentachlorophenol</i>	<i>0.001 mg/L</i>
<i>p-Dichlorobenzene</i>	<i>0.075 mg/L</i>	<i>Picloram</i>	<i>0.5 mg/L</i>
<i>1,2-Dichloroethane</i>	<i>0.005 mg/L</i>	<i>Simazine</i>	<i>0.004 mg/L</i>
<i>1,1-Dichloroethylene</i>	<i>0.007 mg/L</i>	<i>Styrene</i>	<i>0.1 mg/L</i>
<i>cis-1,2-Dichloroethylene</i>	<i>0.07 mg/L</i>	<i>Tetrachloroethylene</i>	<i>0.005 mg/L</i>
<i>trans-1,2-Dichloroethylene</i>	<i>0.1 mg/L</i>	<i>Toluene</i>	<i>1.0 mg/L</i>
<i>Dichloromethane</i>	<i>0.005 mg/L</i>	<i>Toxaphene</i>	<i>0.003 mg/L</i>
<i>1,2-Dichloropropane</i>	<i>0.005 mg/L</i>	<i>2,4,5-TP (Silvex)</i>	<i>0.05 mg/L</i>
<i>Di(2-ethylhexyl) adipate</i>	<i>0.4 mg/L</i>	<i>1,2,4-Trichlorobenzene</i>	<i>0.07 mg/L</i>
<i>Di(2-ethylhexyl) phthalate</i>	<i>0.006 mg/L</i>	<i>1,1,1-Trichloroethane</i>	<i>0.2 mg/L</i>
<i>Dinoseb</i>	<i>0.007 mg/L</i>	<i>1,1,2-Trichloroethane</i>	<i>0.005 mg/L</i>
<i>Dioxin (2,3,7,8-TCDD)</i>	<i>3E-08 mg/L</i>	<i>Trichloroethylene</i>	<i>0.005 mg/L</i>
<i>Diquat</i>	<i>0.02 mg/L</i>	<i>Vinyl chloride</i>	<i>0.002 mg/L</i>
<i>Endothall</i>	<i>0.1 mg/L</i>	<i>Xylenes (total)</i>	<i>10 mg/L</i>
<i>Endrin</i>	<i>0.002 mg/L</i>		

2. If the constituents in the receiving groundwater already exceed the criteria specified in subsection 1, a discharge must not cause further degradation of groundwater quality beyond existing levels.

3. A zone of saturation that cannot produce usable water is not subject to the criteria in subsection 1, except that a discharge into such a zone is prohibited if it causes or may cause the constituents in any groundwater which is usable to exceed those criteria.

4. The Department may establish a value for any constituent not specified in subsection 1 that may reasonably be expected to be discharged by a facility in sufficient volume and concentration to cause an adverse impact on human health and the environment.

Sec. 4. NAC 445A.070 is hereby amended to read as follows:

445A.070 As used in NAC 445A.070 to 445A.348, inclusive, *and sections 2 and 3 of this regulation*, unless the context otherwise requires, the words and terms defined in NAC 445A.071 to 445A.116, inclusive, *and section 2 of this regulation* have the meanings ascribed to them in those sections.

Sec. 5. NAC 445A.117 is hereby amended to read as follows:

445A.117 If any of the provisions of NAC 445A.070 to 445A.340, inclusive, *and sections 2 and 3 of this regulation*, or any application thereof to any person, thing or circumstance is held invalid, it is intended that the invalidity not affect the remaining provisions or their application that can be given effect without the invalid provision or application.

Sec. 6. NAC 445A.239 is hereby amended to read as follows:

445A.239 1. Public notice of any public hearing held pursuant to NAC 445A.070 to 445A.340, inclusive, *and sections 2 and 3 of this regulation* must be circulated at least as

widely as was the notice of the permit application. Notice for public hearings held under NAC 445A.238 must be:

(a) Published in at least one newspaper of general circulation within the geographical area of the discharge;

(b) Sent to all persons and government agencies which received a copy of the notice or the fact sheet for the permit application;

(c) Mailed to any person or group upon request; and

(d) Given, pursuant to paragraphs (a), (b) and (c), of this subsection, at least 30 days in advance of the hearing.

2. The contents of the public notice of any public hearing must include at least the following:

(a) Name, address and phone number of the Department;

(b) Name and address of applicants;

(c) Name of the waterway to which the discharge is made and a short description of the location of each discharge to the waterway;

(d) A brief reference to the public notice issued for the permit application, including identification number and date of issuance;

(e) Information regarding the time and location for the hearing;

(f) The purpose of the hearing;

(g) A concise statement of the issues raised by the persons requesting the hearing;

(h) Address and phone number of the premises at which interested persons may obtain further information, request a copy of draft permits and fact sheets and inspect and copy application forms and related documents; and

(i) A brief description of the nature of the hearing, including the rules and procedures to be followed.

Sec. 7. NAC 445A.253 is hereby amended to read as follows:

445A.253 1. Any disposal of pollutants into wells must be regulated to protect the public health and welfare and to prevent pollution of the ground and surface water resources of the State.

2. If an applicant for a permit proposes to dispose of pollutants into wells as part of a program to meet the proposed terms and conditions of a permit, the Director shall specify additional terms and conditions in the final permit which must prohibit the proposed disposal or must control the proposed disposal in order to prevent pollution of ground and surface waters of the State and to protect the public health and welfare.

3. Any permit issued for the disposal of pollutants into wells must be issued in accordance with the procedures and requirements specified in NAC 445A.070 to 445A.340, inclusive, and *sections 2 and 3 of this regulation and NAC* 445A.810 to 445A.925, inclusive.

4. The Director shall utilize in his review of any permits proposed to be issued for the disposal of pollutants into wells any policies, technical information or requirements specified by the Administrator in regulations issued pursuant to the Act or in directives issued to the regional offices of the United States Environmental Protection Agency.

Sec. 8. NAC 445A.324 is hereby amended to read as follows:

445A.324 1. If a person who is determined to be responsible for a diffuse source contributing to a violation of standards for water quality fails or refuses properly to carry out a plan of best practices approved or selected by the municipality pursuant to the requirements of NAC 445A.070 to 445A.340, inclusive, *and sections 2 and 3 of this regulation*, the municipality

~~{must}~~ *shall* issue an order for compliance. The order must specify the particular failure or refusal and prescribe the corrective action to be taken and a reasonable time for completing that action.

2. The order must be served upon the person responsible by personal service or sent to him by registered or certified mail.

3. A failure of the person to comply with the order authorizes the municipality to seek injunctive relief to enforce compliance.

Sec. 9. NAC 445A.361 is hereby amended to read as follows:

445A.361 “Groundwater” ~~[means all subsurface water comprising the zone of saturation, including perched zones of saturation, which could produce usable water.]~~ *has the meaning ascribed to it in section 2 of this regulation.*

Sec. 10. NAC 445A.424 is hereby amended to read as follows:

445A.424 1. A facility, regardless of size or type, may not degrade the waters of the State to the extent that:

(a) The quality of surface water is lowered below that allowed by NRS 445A.565.

(b) ~~{For groundwater:~~

~~——(1)]~~ The quality *of groundwater* is lowered below ~~[a state or federal regulation prescribing standards for drinking water; or~~

~~——(2) The concentration of WAD cyanide exceeds 0.2 mg/l.]~~ *that allowed by section 3 of this regulation.*

↪ The Department may establish a numerical limit for any constituent not regulated by ~~[subparagraphs (1) and (2)]~~ *section 3 of this regulation* which may reasonably be expected to be

discharged by the facility in sufficient volume and concentration to cause an adverse impact on human health.

(c) The quality of those waters of the State which already exceed the criteria established by subsection 2 is lowered to a level that the Department finds would render those waters unsuitable for the existing or potential municipal, industrial, domestic or agricultural use.

2. The Department may exempt a body of groundwater or portion thereof from the ~~[standards established in subsection 1:]~~ *criteria set forth in section 3 of this regulation*, if the request for an exemption to the ~~[groundwater standards]~~ *criteria* and the supporting information is submitted as part of the application for the permit. The following criteria will be considered by the Department in determining whether to exempt a potentially impacted body of groundwater from the ~~[standards in subsection 1:]~~ *criteria set forth in section 3 of this regulation*:

(a) The impacted groundwater does not currently serve as a source of drinking water and because of the following reasons the groundwater will not serve as a source of drinking water:

(1) The groundwater produces a mineral, hydrocarbon or geothermal fluid which the applicant can demonstrate to the satisfaction of the Department exists at a concentration that is expected to be capable of commercial production and that releases by the facility will not affect this production;

(2) The groundwater is situated at a depth or location which makes recovery of water for drinking economically or technologically impractical; or

(3) It would be economically or technologically impractical to render the water fit for human consumption; or

(b) The total dissolved solids in the groundwater is more than 10,000 milligrams per liter and the groundwater is not reasonably expected to become a supply of drinking water.