FRESHWATER SOCIETY

Gray Freshwater Center
2500 Shadywood Road | Excelsior, MN 55331

Freshwater Society is a non-profit organization dedicated to educating and inspiring people to value, conserve and protect all freshwater resources.

BOARD OF DIRECTORS

Stuart Grubb, *Chair*

Rick Bateson, *Vice Chair*

Corrine Ricard, *Treasurer*

Lisa Whalen, *Secretary*

Todd Bolin

Blyth Berg Brookman

Robert Elde, Ph.D.

Richard G. Gray, Sr., D.Sc.

David Knoblauch

Jim Manolis, Ph. D.

Lili McMillan

Darby Nelson, Ph. D.

Tom Skramstad

Richard S. Caldecott, Ph.D., *Emeritus Director*

Barb Luikens, M.D. , *Emeritus Director*

President

Gene Merriam

Executive Director

Joan Nephew

Development Director

Diane Lynch

Sept 23, 2013

Ms. Annie Felix-Gerth,
Pesticide and Fertilizer Management Division,
Minnesota Department of Agriculture
625 Robert Street North
St. Paul, MN 55155-2538

RE: Public Comments: 2013 Minnesota Nitrogen Fertilizer Management Plan

Dear Ms. Felix-Gerth:

Thank you for the opportunity to comment on the 2013 Minnesota Nitrogen Fertilizer Management Plan.

Enclosed (attached) please find the Freshwater Society comments and recommendations on the Plan.
If you would like to contact us for further discussion or clarification, please feel free to contact:

- Gene Merriam, President
  gmerriam@freshwater.org
  763-219-1260 (DD)

- Pat Sweeny, Research and Communications Director
  psweeney@freshwater.org
  763-219-1261 (DD)

We appreciate the Department's hard work on this important program.

Sincerely,

Joan Nephew
Executive Director
jnephew@freshwater.org
763-219-1253 (DD)

2013 Minnesota Nitrogen Fertilizer Management Plan
Freshwater Society's Comments
September 23, 2013

Pollution of groundwater is one of a very few areas where state law explicitly allows regulation of the water pollution from agriculture.[1]

The Ag Department deserves credit for taking responsibility to create a mechanism to impose that regulation in situations where there is serious contamination of drinking water and voluntary efforts don't fix the problem.

The law permitting regulation has been on the books for 20 years, but never has been used.

This draft Nitrogen Fertilizer Management Plan, suggests significant voluntary actions – like switching to different crop rotations, planting different crops, taking land out of production – that the Ag Department and community groups might encourage farmers to take in situations and areas where drinking water is seriously polluted and routine best management practices have not worked.

More than that, the new draft plan spells out a process that eventually could lead to regulations, and enforcement of those regulations.

The regulations could force some unwilling or inattentive farmers to reduce their pollution of groundwater by nitrogen fertilizers. That regulation the plan describes is tentative and relatively vague, but the plan says it might involve:

- Requiring farmers to allow the collection of water samples from their irrigation wells.
- Requiring farmers to report on their fertilizer practices, including the rates and timing of nitrogen and manure applications to their fields.
- Mandating farmers follow specific nitrogen fertilizer best management practices.

If this plan dealt with almost any type of non-agricultural water pollution, the suggested regulation would be considered obviously weak. In agriculture, regulation to prevent pollution is so rare, and so hotly resisted by some farm organizations, that these modest suggestions are a step forward.

The plan's proposal to significantly increase the testing of rural wells for nitrate contamination also is a good thing. The testing has the potential to galvanize community support for reducing pollution.

The Freshwater Society was one of two environmental groups whose representatives were members of an advisory committee that studied the nitrate pollution of groundwater in Minnesota for nearly two years and provided recommendations to the Ag Department for this revision of the nitrogen fertilizer management plan. The department's staff conducted that review with diligence and professionalism.

Nevertheless, this plan ultimately was the product of the Department of Agriculture. The Freshwater Society believes the plan can be, and should be, strengthened. The plan should offer a stronger promise that nitrate contamination of water will be reduced, and it should convey more urgency about keeping that promise.

We recommend:

- The plan should state more directly that Minnesota has a nitrate water pollution problem. And it should state more clearly that the problem is caused by major changes over the last 50 years in the crops we grow and the way we grow them.

You can find those changes if you make your way to Page 34 in the plan. They are: increased use of commercial nitrogen fertilizer; substantially more acres of corn, a crop that needs high levels of nitrogen fertilizer; and the replacement of many acres of alfalfa and other hay crops, which consume nitrogen, with soybeans.

- The plan should explicitly say the nitrate problem is serious.

Some -- relatively few -- wells at homes and farms have water with nitrate concentrations that exceed the health limits. But if one of those wells is yours – especially if you have infant children or grandchildren, if you are pregnant or your wife is pregnant – it is a serious and expensive problem.

If you live in one of the communities where public wells are contaminated by fertilizer from nearby fields you are already are paying higher water bills. Those higher costs are reported on Page 20 in the draft plan.[2]

Beyond the issue of drinking water wells, we have evidence from Ag Department tests that nitrate pollution of shallow groundwater near fertilized fields is bad and getting worse. Depending on the region of the state, 8 percent to 62 percent of the water samples drawn from shallow, edge-of-field monitoring wells had nitrate levels above the health standard. In six out of seven regions, the tests showed that contamination getting worse in the last decade. That data is reported on Page 56 in the draft plan.

- The plan should direct significantly more attention to contamination of surface waters.

This plan and the two-year process that led to it have focused on nitration contamination of groundwater. But we know nitrogen fertilizers and manure also contaminate Minnesota lakes and rivers and contribute to the oxygen-deprived Dead Zone in the Gulf of Mexico.

The Minnesota Pollution Control Agency's June 2013 report titled "Nitrogen in Minnesota Surface Waters" estimates that 73 percent of the nitrogen flowing to surface waters comes from agricultural sources: cropland groundwater, cropland tile drainage, cropland runoff; and feedlots. The report also says sampling has found nitrate exceeding the health standards in 15 streams in Southeastern Minnesota and that Minnesota contributes 6 percent of the nitrogen loading to the Gulf of Mexico.

On a legalistic, bureaucratic level it is understandable that this draft report would largely refrain from offering solutions to surface water contamination. State law gives the Department of

Agriculture responsibility for the pollution of groundwater by agricultural chemicals and leaves it to the Pollution Control Agency to protect surface waters.

But common senses says the Department of Agriculture should not now write one plan aimed at reducing pollution of groundwater from farming and leave it to the Pollution Control Agency to perhaps later offer another, more-stringent, strategy.

- The plan should be less timid in its proposals for some – ultimate – resort to regulation in extreme cases.

  The plan proposes an almost endless succession of proposals for increasingly aggressive voluntary best management practices. The Department, under this plan, proposes to resort to regulation only when farmers have finally declined to adopt those practices. We believe the statute's language – "if the implementation of best management practices has proven to be ineffective" – allows the Department to resort to regulation when reasonable best management practices fail to reduce nitrate contamination. We do not believe the Department is required to propose every possible voluntary remedy before imposing reasonable regulation.

---

[1] Minnesota Statutes Chapter 103H.275. "...the commissioner of agriculture, may adopt water resource requirements under subdivision 2 that are consistent with the goal of section 103H.001 and are commensurate with the ground water pollution if the implementation of best management practices has proven to be ineffective."
Chapter 103H.001 says: "It is the goal of the state that ground water be maintained in its natural condition, free from any degradation caused by human activities. It is recognized that for some human activities the degradation prevention goal cannot be practicably achieved. However, where prevention is practicable, it is intended that it be achieved. Where it is not currently practicable, the development of methods and technology that will make prevention practicable is encouraged."
[2] See also a September 2013 Minnesota Public Radio report on the expense the City of St. Peter incurs because of nitrate contamination.[2]