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January 26, 2016

Larry Gunderson  
Minnesota Department of Agriculture  
625 Robert Street North  
St. Paul, MN 55155-2538

Dear Mr. Gunderson,

The Minnesota Corn Growers Association (MCGA) appreciates this opportunity to comment on behalf of over 7,100 farmer members on the proposed new Nitrogen Fertilizer Rule. Many Minnesota farm families rely on groundwater as a source of drinking water and to support agricultural production activities. Consequently, MCGA shares Commissioner Fredrickson's goal of working together to respond to localized concerns about unsafe levels of nitrate in groundwater. Minnesota's corn farmers invest approximately \$1.5 million each year to protect surface and groundwater from nitrogen loss. Corn farmers are working to develop a combination of practices that are effective, economical and feasible for protecting Minnesota's water resources by supporting innovative research projects, on-farm programs, and people with expertise in research and outreach.

Researchers have been investigating nitrogen movement in the environment and its relationship to agricultural practices for many years. Farmers have used this information for continual improvement of their nitrogen management practices. The investment that has been made in this area reflects the complexity of the issue and much remains to be discovered about how nitrogen use efficiency can continue to be improved. With that in mind, MCGA offers the following comments regarding the proposed Nitrogen Fertilizer Rule in order to effectively achieve the goals of the Nitrogen Fertilizer Management Plan (NFMP).

*Item 2: (1) Restrict application in fall and frozen soils in vulnerable groundwater areas and (2) Require the adoption of nitrogen fertilizer Best Management Practices (BMPs) in areas that have elevated nitrate in their groundwater and BMPs are not being adopted voluntarily* – The NFMP states that the Minnesota Department of Agriculture (MDA) will implement rules when an area has moved to a regulatory mitigation level (Level 3 or 4). This occurs when 10% of the wells tested within a township exceed the Health Risk Limit *and* Best Management Practices (BMPs) for that region are not being adopted. MCGA believes that it is in these situations that the rules should be applied including the first part of the rule related to the restriction of nitrogen fertilizer application in the fall and to frozen soils. Furthermore, dedicated monitoring wells should be used as part of the mitigation criteria to verify the presence of elevated nitrate-nitrogen concentrations in the groundwater given that private well data may be confounded by construction issues.

*Item 3: Criteria for determining vulnerable groundwater areas* – As stated above, the definition of vulnerable area should include documented elevated nitrate-nitrogen concentrations observed in dedicated monitoring wells for the purposes of implementing the proposed rules in addition to the

*We are dedicated to identifying and promoting opportunities for corn growers while enhancing quality of life*

proposed soils and geologic related criteria. This criteria should be weighted more heavily than the other proposed criteria in determining vulnerable areas. MCGA encourages the use of the County Geologic Atlases particularly in the areas in which karst or fractured bedrock is present to accurately identify groundwater vulnerability. There are areas in these regions of the state that have topsoil characteristics that protect groundwater from nitrate-nitrogen leaching. MCGA doesn't believe that the Minnesota Department of Natural Resource's Procedure for Determining Near-Surface Pollution Sensitivity should be used as an additional criterion as it is a model based on maps that are already being used to identify vulnerable areas.

*Item 4: Boundaries for vulnerable groundwater areas* – MCGA recognizes the need for a boundary when implementing the rule. Exceptions should be made for townships that have clearly defined soils and geologic differences that impact groundwater vulnerability.

*Item 5: Exceptions to the first part of the rule* – MCGA strongly support the allowance for fall application of Monoammonium Phosphate (MAP) and Diammonium Phosphate (DAP). Phosphorus fertilizer formulations that do not contain nitrogen are not readily available and it is not economically feasible to restrict these applications to the spring.

*Item 6: Public notice* – The Commissioner should provide notice to county and township officials. In addition farm organizations, agricultural service providers, and extension professionals should also be included in the notice.

*Item 7: Activities for mitigation* – Nitrogen management practices are evolving rapidly with the evolution of precision agriculture. MCGA believes these practices should be explored further for their environmental benefits and credited where they are being adopted.

MCGA looks forward to working with MDA on ongoing nitrogen research and education programs.

Sincerely,

A handwritten signature in black ink that reads "Noah Hultgren". The signature is written in a cursive, flowing style.

Noah Hultgren  
President  
Minnesota Corn Growers Association