From: Gunderson, Larry (MDA)
To: Kjaersgaard, Jeppe (MDA); Berg, Jeffrey (MDA)
Subject: FW: Nitrogen comment
Date: Wednesday, August 02, 2017 1:53:19 PM

Mr. Kragnes provides some evidence for the soils and geology in his area.

Larry

Larry Gunderson, Supervisor
Fertilizer Technical Unit
Minnesota Department of Agriculture
625 Robert Street North
St. Paul, Minnesota 55155
651-201-6168
Larry.Gunderson@state.mn.us

-----Original Message-----
From: David Kragnes [mailto:djkragnes@aol.com]
Sent: Tuesday, August 01, 2017 9:18 AM
To: Gunderson, Larry (MDA) <larry.gunderson@state.mn.us>
Subject: Nitrogen comment

I was at the meeting in Hawley. I feel the point made that raised the most questions in my mind was over your use of surface soil maps with out regard to the depth of permeable soil underneath.

Example, in Clay county, Kragnes township, Section 26 is all marked and yet the soil is so heavy underneath that it is impossible to let heavy rain soak away. It will stand for weeks. In section 36 you have an area marked where , in the early 90s a farmer, Ed Kassenborg, dug 11 wells before he could find household water. Same heavy soil but no water to put at risk. The area is marked.

By contrast, in Glyndon Township, Sec 5&6 there are well known areas that dry up overnight in the spring, yet are not marked. There is a remarkable depression just west of county road 11 that never holds water. It must be almost directly connected to the Buffalo River Aquifer, yet it is not marked. Glaring errors like these bring the credibility of the whole map into question.

My last concern is over the system of shallow wells that is planned for testing. There are times when a one foot well will produce water on my property but the 180 foot of clay under it to the aquifer cause a different dynamic. How shallow is shallow? In Glyndon 5, I think a 50 foot well will get you irrigation amounts. In Kragnes 36, 200 feet won't get enough to wash your car. Important difference.

Thank you
David Kragnes
10600 60th St. N
Felton MN 56536
218-236-0857

Sent from my iPad