

United States Senate
Committee on Environment and Public Works
Hearing: Chesapeake Bay Restoration: Progress and Challenges

Paul Spies
Local Farmer
Environmental Advocate

Thank you for the opportunity to present on behalf of the agriculture community. I am a fourth generation farmer from Talbot County Maryland. The neighboring county from where we are today. We grow corn, soybeans, wheat, 10 acres of grapes and 1 acre of greenhouse cucumbers. I serve as Vice President of the Maryland Grain Producers and a member of the local farm bureau. I also work for the Chester River Association, a local advocate for the Chester River whose mouth is just on the other side of the peninsula that we sit on today. My position has given me a unique, although sometimes uncomfortable position, to view the work on the progress of the Chesapeake Bay Restoration. That is the viewpoint I will speak from today... like most farmers an environmentally concerned producer.

Today's hearing is entitled "Chesapeake Bay Restoration: Progress and Challenges". So I can end on a positive note I will start with the Challenges. **First**, the goals we have set for ourselves are lofty, not impossible. To use a sailing analogy, we need to use full sail and everyone at the oars. Not one sector of the Chesapeake Bay watershed is going to get us to the complete goal. Each sector will need to pull its weight and contribute significant reductions.

Agriculture faces a three-fold educational challenge. First, how to educate a growing population with less and less ties to its industry. Each generation gets further and further away from any agriculture and food production experience. People are losing sight of how important agriculture and farmers really are. In the state I produce, Maryland, agriculture is a \$8.25 billion industry (UofMD, Department of Agriculture and Resource Economics). Fifty percent of agriculture's revenue comes from animal production. The non-agriculture sector needs to grasp, thou it is not perfect it is vital part of our economy. The old adage rings true... we cannot throw the baby out with the bath water. Agriculture is important to our present and future being.

The second educational challenge is the understanding of how far advanced our local farmers are in terms of nutrient management. And we need to be! We directly affect a public treasure, the Chesapeake Bay. Farmers in other areas may believe that this is a bay problem, but I like to remind them that clean water is an everywhere problem. Streams, rivers, aquifers, lakes, the Gulf of Mexico. Basically, if you use water, nutrient management is coming to a watershed near you! With that said, our Chesapeake Bay farmers are leaders in the field of nutrient management. From nutrient management plans to new fertilizer application technology, we put more effort into improving our nutrient use efficiency than any other are of the country.

The final educational challenge is the understanding of how non-point source nutrient move and the time frame of the movement. Nutrients may enter ground water in a year but it takes decades for it to reach our streams, rivers and bays. USGS has a slide that shows how long it takes field applied nutrients to reach service waters of the state (attached). In the majority of cases it takes over thirty years from application, entering ground water and then traveling to a local creek, stream or river. As a person who's salary directly benefits from tangible environmental improvement results this can be discouraging. Then I listened to the experts with USGS and there was good news. Testing of the bay and its estuaries may not be showing the results that many of us would like, the testing of shallow groundwater is! When looking at 10, 20 and even 30 year old groundwater nutrient loads are reduced. This is good news! All that we have done is working and we need to continue our work.

The final challenge is a request. We need to avoid division. I have been part of multiple projects that agriculture and the environmental communities have come together and accomplish big things. The more we can work together and not point fingers the more we will accomplish for the Chesapeake Bay.

Now onto the positives.

Agriculture is doing its part. Milestones have been met and with continued work future milestones will be met. One thing that no one is good at these days is patience. Cell phones, instant news, fast cars... when we push a button or accelerator we want not just results, but fast results. Many new regulations and actions are being forced through local, state and federal processes. Agriculture has never said we don't want to do our part, but time is needed for change. I urge gracious patience. Not the kind of patience that is given with the idea that it is not needed or deserved, but the kind that you give a partner or team-mate.

One of the biggest successes of the process has been the research and advancement of new technologies and ideas. New fertilization technology has been funded and implemented. A study of how farmers irrigate their crops is underway. These and multiple other projects have received funds that have advanced their cause by many years. Some may never have received the level of attention without the Chesapeake Bay Program.

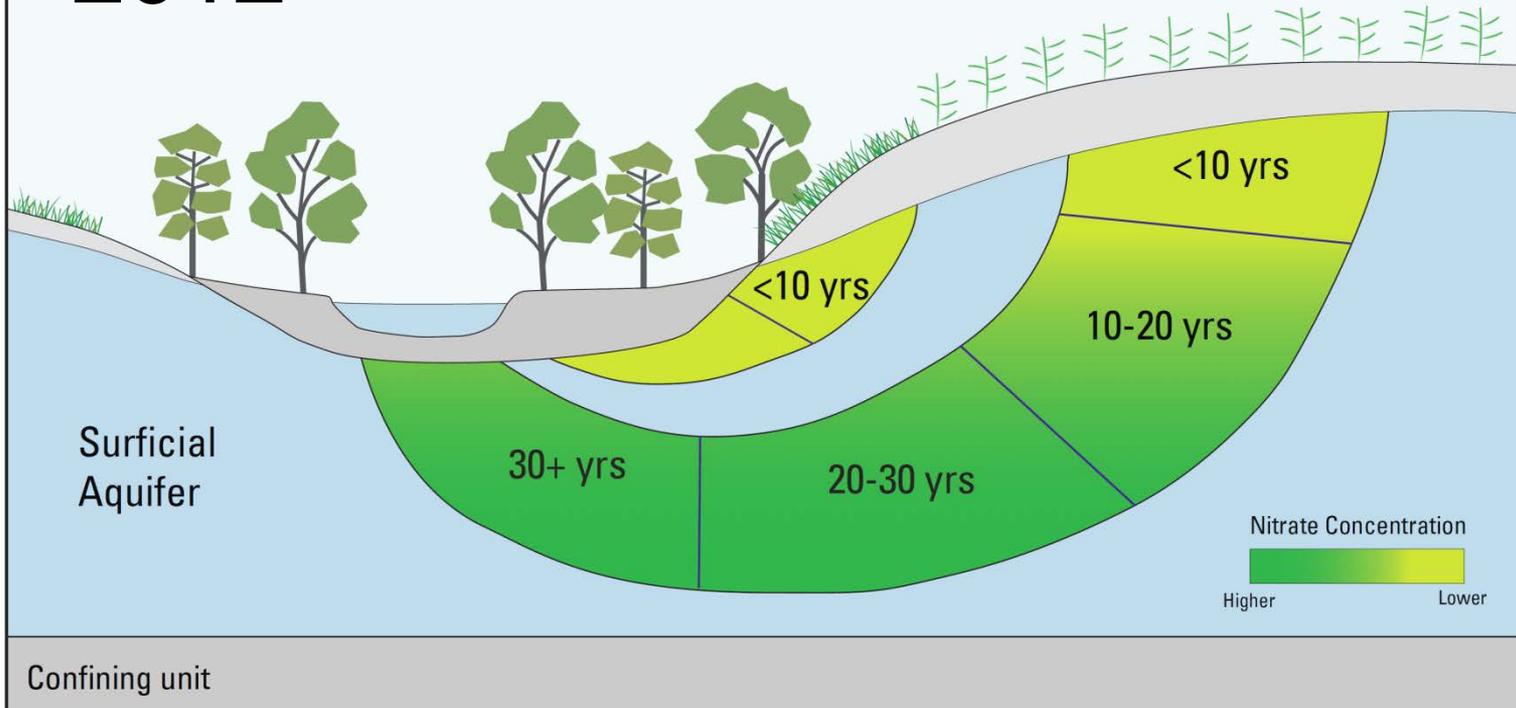
I am one of four brothers. We are all very different. Look different, talk different, have different interest, but we are a family and have real interest in the health and success of each. When we were young and our father gave us a chore to do, many times we all had our own idea on how to best accomplish said chore. We would go off and try it on our own in our own way. At some point we would realize that we were not getting that much done and the Dukes of Hazard was starting in the not too distant future. We would compromise, make a plan, and work together. Sometimes it was mostly my plan most of the time it was not. I will tell you, we always got the job done and we never missed Bo and Luke Duke slinging gravel in Hazard county. The Chesapeake Bay Program has brought us together. We look different, talk different, and have different interest, but we all do care about health and success of the Chesapeake Bay. I hope we can continue to come together, be open to others ideas, make a plan, and work together.

Progress. A forward or onward movement; gradual betterment. The dictionary definition. Many would like to change "gradual" to immediate. Using Webster's version I would like to say we have been successful and are making progress and if we all say at our oars and pull our share the Chesapeake Bay will be the benefactor.

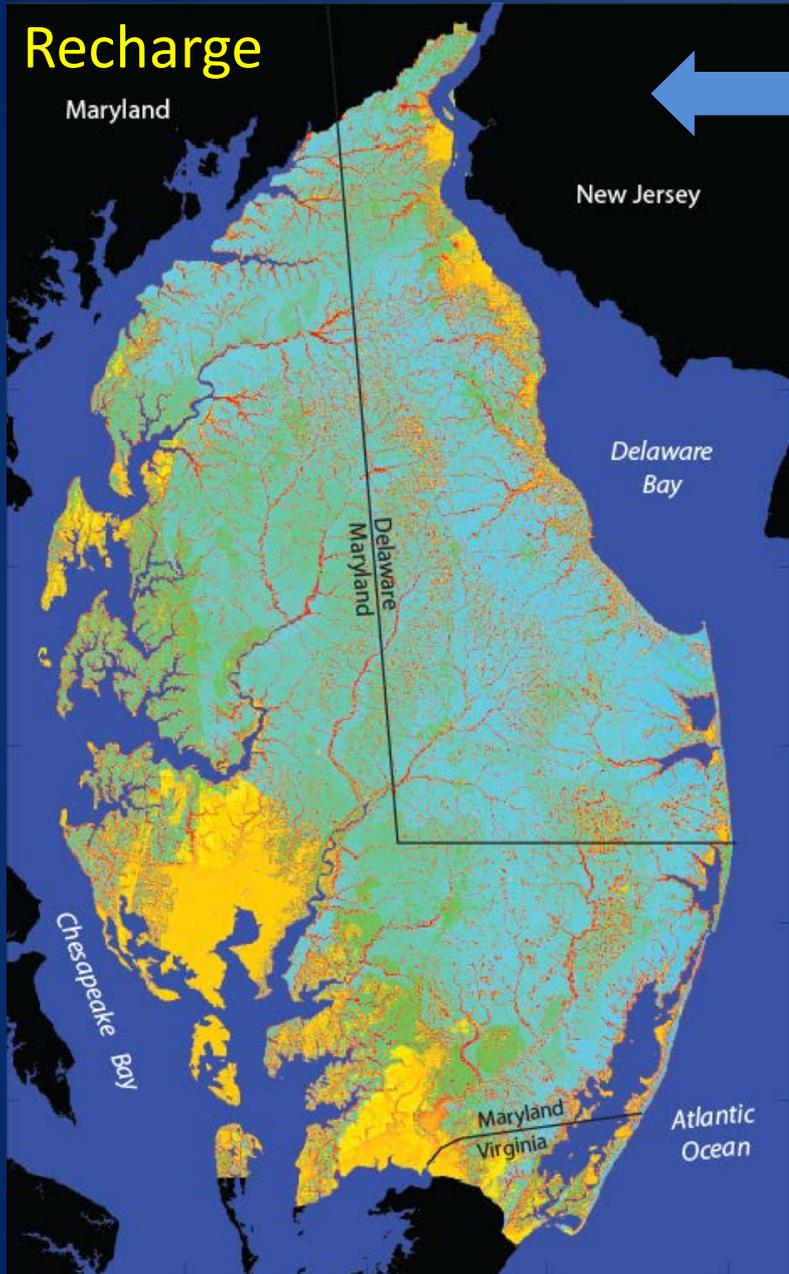
Changes in nitrate that are related to changes in inputs at the water table are observed as water travels through the flow system and over time

Travel-time of Nitrate through Groundwater to Streams

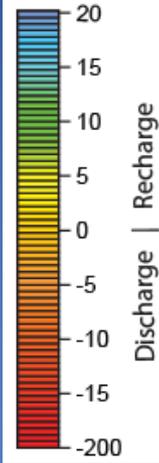
2012



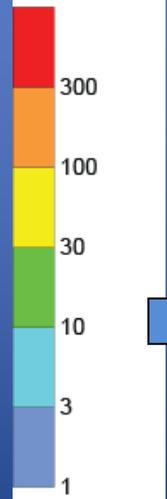
Recharge



Net recharge
in inches
per year



Groundwater
return time,
in years



Return time "discharge"

