

I. **Water Quality Regulations and Issues**

Moderator: Representative John Bartholomew, Vermont

- a. Minnesota, *Representative Paul Anderson*
- b. Iowa, *Representative John Wills*
- c. Wisconsin, *Secretary Sheila Harsdorf*
- d. Kansas, *Senator Carolyn McGinn*
- e. Indiana, *Senator Sue Glick*

Vermont has issues with nitrogen in saltwater in the Connecticut River on its east coast and phosphorus in fresh water. The perception is that water quality issues are related to farming, particularly dairies. About forty percent of water pollution can be attributed to farming. The issue has divided the state's house and senate. The agriculture committees in both chambers are working to mitigate the efforts in other committees to increase regulation on farms.

Minnesota Representative Paul Anderson

The issue of strips came up in 2014-5 when Governor Mark Dayton proposed a fifty-foot buffer strip on both sides of all public waters. Farmers questioned the validity of a buffer that wide on waters that didn't move. Minnesota has a definition of public waters from the 1970's that was used as a one size fits all identification of these waters even though on some farms dry swales, for example, would qualify for the buffers. The proposal became law with no ag committee hearings.

The law did not address the issue of compensation to farmers who had to give up land for the buffer strips. A half mile waterway requires about seven acres of land for a grass buffer strip. Legislation has been introduced every year since 2015 to compensate farmers either through a tax credit or paying the average county grant for the land taken out of production. The bills have not passed. The deadline for buffering public waters was November 1, 2017 and November 1, 2018 for buffering public ditches at a 16.5-foot width (one rod).

Anderson commented that making a program mandatory increases its complexity by requiring enforcement. The state tried to give as much local control as possible to each county or watershed. Some counties rejected this option, fearing liability if it was challenged in court. Revisions in the last couple of years allow a reduced buffer width for inlets going into a ditch and for minimum tillage operations. Most counties are at seventy percent compliance and have been given extensions for wet weather-caused delays in implementation.

Iowa Representative John Wills

Iowa's water quality program started in 2010 with the nutrient reduction strategy. In 2018 the legislature passed the bill, signed by the governor, that launched a water quality control program that has funding in place.

The nutrient reduction strategy is an important part of the program. It is:

- science and technology based
- voluntary in nature; plans can be individualized
- includes point source four percent nitrogen reduction and sixteen percent phosphorus reduction (sanitary sewer and industrial); non-point source 41 percent nitrogen reduction and 29 percent phosphorus reduction (agricultural and residential)

- continually evolving; reviewed annually.

The plan is implemented at the watershed level using local water quality plans. Iowa first focused on the plan and then on the money. The strategy is funded by three revenue streams: Rebuild Iowa Infrastructure Fund (rural), existing funding and water service excise tax (urban).

Wisconsin Agriculture Secretary Sheila Harsdorf

Started in 2015, Wisconsin's Producer-Led Water Protection Grants program is driven by farmers who can identify the unique challenges in their respective watersheds as well as solutions and innovative ideas. The voluntary program requires at least five producers in a single watershed to form a group and apply for funding. They are encouraged to work with other producers in the watershed and to devise a formal agreement with another entity such as a local conservation department, county, university or the ag or natural resources department. They must raise matching funds. The state put \$250,000 into the program in 2015. It limited each grant to \$20,000 grants. Interest in the program tripled in the second and third years. The funding was increased to \$750,000 a year and doubled the grants to \$40,000 each. There are currently about forty awardees around the state.

The grant funding can be used to start a group, for outreach to farmers, to bring in expert speakers and for incentive payments to producers in the watershed. It encourages proposals to develop a baseline so the positive impacts can be measured. The department that is implementing the program has a lot of latitude in determining what is an acceptable expense for reimbursement.

Kansas Senator Carolyn McGinn

Wichita is Kansas' largest city. It has two sources of water – a lake reservoir and an underground aquifer that is used not just by agriculture, but industry and municipalities. The water supply was dwindling. As the aquifer depleted it drew in chlorides from old oil drilling practices and from natural chlorides in the Arkansas River. If that continued the water would not be usable.

Wichita owns all the senior water rights it got back in the 1940's. Kansas is a first in time, first in rights state, not riparian. Farmers have the junior water rights and stood to lose their irrigation supplies.

Kansas took on an aquifer storage re-charge project 12-15 years ago that would push the chlorides back as the aquifer replenished. Wichita spent over \$250 million on the re-charge project. The chloride plumes have been pushed back. The aquifer has re-charged due to better water management and recent extensive rainfall. The issue is somewhat muted for now. (However, Wichita wants more re-charge credits and is asking the state to change the formula.)

Municipalities, industry and agriculture all cooperated to solve the common problem of cleaning the water, something agriculture could not have done alone.

Indiana Senator Sue Glick

Indiana has huge aquifers but many have never been mapped. In the last few years the Indiana Geological Survey has been changed to the Geological and Water Survey. It has become much more proactive about knowing where the water is and how much water is in the area that is served by glaciers.

Glick's district borders Michigan and Ohio. It has numerous lakes, many with aquifers beneath them. Sandy soils in some areas produce a rapid percolation rate into the aquifer and then into the rivers. Waters from her district drain into Lake Erie, Lake Michigan and some even eventually reach the Ohio and Mississippi rivers.

Indiana's intent in the last few years has been to know (a) where water is, (b) how big the aquifers are and if they are safe and (c) if the water is affordable. The state wants to attract clean industries and be able to supply their water needs.

Aging sanitary and water supply systems need to be replaced or expanded. Recent legislation established programs through the Indiana Finance Authority's ability to bond whereby municipal water systems can borrow money with matching funds. Five-year plans are required that not only address aging infrastructure by aging technology and technicians. The intent is to replace them with young people with an interest in water conservation and systems operation.

Indiana views water losses as non-revenue. It has to prioritize in terms of purpose, the cost of improvements and who will pay for it. Local water commissions don't want to raise rates to pay for system upgrades. The state is looking at county/regional utility districts that concentrate on water treatment systems to replace septic systems.

An Ohio participant described the algal blooms in Lake Erie and the Ohio River which are Toledo's water supply. Under the Lake Erie Bill of Rights the lake is an entity that can theoretically take other entities to court, including agriculture communities. How do we get the word out that this legacy phosphorus is going to be a long-term issue that could implicate drainage issues and the red tide with the Mississippi delta? It is possible that localities downstream from Ohio could replicate such charges against Ohio growers. Glick responded that Indiana passed a bill two years ago that establishes a government-appointed agency that has to have members of both legislative houses, DNR and water quality experts. This commission is to involve itself in disputes involving aquifers that flow under Michigan, Indiana and Ohio and to work with regulatory agencies to develop solutions that will be beneficial to all three states.

Another participant noted that phosphorus persists in waterbodies through algae uptake indefinitely. Legacy phosphorus is a generational issue that will take a long time to address.