

**High Hopes Meet Hard Truths: Facing the Reality of Iowa's Water Quality Policy** - Prof. Neil D. Hamilton, Drake University – Sept. 21, 2017  
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My topic today is agriculture and water quality. As these photos show I am a son of the Iowa soil. It has been a special privilege to spend my life working at the intersection between law and policy – and farming. Since my days as a forestry student at Iowa State and then a law student at Iowa, a keen interest has been on how we protect our land, soil, and water – and our wildlife and Iowa's unique natural features. Our ability to protect these resources is made possible only by the decisions of landowners and those farming the land and how their actions reflect a concern for and sense of stewardship. But their actions rest on a foundation of law and policy – reflecting our attitudes toward the resources and on the public funds and attention we are willing to devote to them. You spend your days working to protect public health and provide safe drinking water to your communities are part of this commitment.

I am an optimist who believes Iowa and the nation can find the willpower and wisdom to protect our water quality. But my optimism is tempered by a healthy vein of skepticism with a dash of cynicism for balance. Combined these make me a realist willing to question our motives, identify our limitations, and ask why can't we do better. Thus the title of today's talk.

First, let me speak about our state's proud legacy of leadership on natural resource protection. We stand on the shoulders and in the shadows of these conservation leaders: Ding Darling, Aldo Leopold, John Lacey, Ada Hayden, and Henry A. Wallace – just to name a few. Their work and insights help set the standards against which we can measure the actions we take today.

Second, we have a legacy of laws on soil and water which mark our state as having helped lead the nation. Over seventy-five years ago Iowa adopted the soil and water conservation law creating our 100 Conservation Districts to partner with USDA and local farmers. Iowa was first to appropriate state funds as cost-sharing to help landowners install conservation practices. Almost 40 years ago Iowa's Supreme Court upheld the constitutionality of the law giving conservation districts' authority to enforce maximum soil loss limits for all Iowa landowners. Other legislation reflected our commitment to resource protection: creating our county conservation boards; the 1987 groundwater protection act creating the Leopold Center; and implementing

REAP – the Resource Enhancement and Protection Act – which has provided hundreds of million dollars for local resource protection and education.

Third, I believe Iowa farmers and landowners have a basic commitment to stewardship and doing what is right – when it comes to soil conservation and water quality. It is their land and they love it. There are many outstanding examples of farmers who implement practices to do so and collaborative watershed projects demonstrating what is possible. Farmers are partnering with the public to innovate, to clean up our water, and remain productive. Some may hear my comments today and believe I am suggesting farmers can't or won't help solve our problems. That is not true – but what is important is for us to consider the obstacles preventing our state and farm sector from making the type of progress we need to address our water quality challenge. This 2015 photo of rich Iowa topsoil deposited along the Des Moines River in Waterworks Park after heavy rains upstream illustrates something we also know – progress isn't always forward and we face real challenges - both human and climactic - in protecting our soil and water.

In this regard Iowa has another legacy when it comes to resource protection – what I call: “Unfinished Business or Empty Promises: Legislative Goal Setting and Our Failure to Protect Iowa’s Natural Resources.”

Here are some current Iowa Code provisions on natural resource protection – none of which have been achieved (or perhaps are even remembered):

- In 1981 we enacted T by 2000 with soil conservation plans and folders to be created for every farm - §161A.62
- In 1987 we set a goal of 10% of the state being protected as public land by 2000 - §465A.1(2)(b).
- In 2008 the water resources coordinating council was created, charged with many duties, including creating a water quality marketing campaign to educate Iowans - §466B.4(2).

The provisions all had a reference to – “as funds are available.” The point is we never made sufficient funds available. Other provisions had similar fates:

- A 1982 law required each county to develop agricultural land preservation plans, (§352.5) by March 1985, based on county land use inventories to be completed by 1984.
- Most recently in 2010 voters approved by 62% the Constitutional Amendment to create the Natural Resource Trust Fund and fill it with the next sales tax increase of 3/8 cent.

Granted, some legislative promises were over taken by other events – for example much of our T by 2000 soil conservation plan, was subsumed by the 1985 Conservation Title – but there is still no requirement for most Iowa farms to have a conservation plan. Others were aspirational from inception – like our 10% open space goal. Some simply reflect our lack of commitment and our priorities – for example short-changing REAP, never funded at \$20 million and this year reduced to \$12 million from \$16 in 2016.

A series of events this year may reflect a more threatening direction in the trajectory of Iowa's policy on natural resource protection. In the courts, the Des Moines Waterworks litigation ended with the Iowa Supreme Court holding drainage districts immune from any liability **and any** responsibility to address water quality. This decision led the federal court to dismiss the Clean Water Act claims without considering the still undecided issues raised. In the legislature the results were no better. No action was taken to raise the sales tax and there no increase in the funding Iowa devotes to water quality. The Leopold Center was essentially killed in a last minute, but well planned, punitive attack by those threatened by its work, and the Flood Center at the University of Iowa narrowly avoided a similar fate – for now. As did the Des Moines Waterworks, also the subject of an ill-conceived attempt at legislative reform. The handy excuse of financial exigency was used to make deep cuts in REAP and in the DNR budget.

Today may not be the place to ask – but has our legacy of leadership on resource protection become an ephemeral gully of inaction?

Instead of what might be evidence of progress on resource protection and water quality – we have what can best be described as High Hopes. So now let us turn to identifying these High Hopes.

For many Iowa's politicians and farm groups the list of High Hopes includes:

- Water quality is getting better, or at least the public can be convinced it is, so public attention can be re-directed;
- The Nutrient Reduction Strategy (NRS) will work eventually and the concerted effort to avoid any regulatory answers can prevail;
- Bill Stowe and Des Moines Waterworks will go away or be defanged;
- Gulf States won't tire of our pollution and seek ways to retaliate for the growing Hypoxia zone;
- EPA will stay captured by anti-government, anti-science ideologues; and

For those who see water quality with a greater sense of urgency – who are frustrated by the unwillingness of others to accept responsibility for their role in our problem - the High Hopes are:

- Iowa will get serious about water quality and find funds to address it, such as by passing a sales tax increase to fund the Natural Resources Trust Fund to address water quality and other resource protection issues;
- We will adopt effective tools, like those used in other states – buffer strips and nutrient plans – to set a baseline of expected landowner actions;
- We will monitor the water to set a baseline and to see what is working rather than just count practices and hope for the best.

Clearly, you can make your own list of High Hopes for how we address these issues. But now let's turn to the Hard Truths – at least as I see the evidence.

### Twelve Hard Truths About Soil and Water Protection Policy in Iowa

1. No Legal Pressure to Improve - Regardless what some say or think there is no “pressure” on Iowa agriculture to improve water quality – certainly no legal pressure as we essentially have few regulatory standards applying to farming practices. No federal or state law directly addresses farming and water quality – and none appear on the horizon. The only pressure farmers might feel is self-imposed, a recognition of their stewardship responsibility. This is what makes Aldo Leopold's vision of a Land Ethic so important. Some farm leaders are fond of saying doing nothing on water quality is not an option. But of course it is – and it may be the preferred option for many farmers and landowners – if doing something costs money.
2. Bill Stowe and Des Moines Waterworks are not enemies of agriculture – Public officials like those from Des Moines Waterworks and you here today

are not the enemy of agriculture – but you are legally responsible to your customers to provide safe drinking water. Going forward you may be key allies for farmers interested in source water protection. Work in Iowa watersheds shows public agencies can be key partners on innovative projects.

3. Iowa's water quality is not getting better, and tiling is making it worse – At best our water quality is going sideways. more likely, getting worse. In reality we aren't sure because we don't monitor much of our water. Failing to create a water quality baseline means we can't gauge our progress. The Iowa Water Quality Information System is our best source of information. Its brochure states “farmers need to what know what does and doesn't work, and the public needs to be assured conservation efforts lead to improved water quality.” This is a great goal for Iowa's water quality policy – as is continuing to have an Iowa Flood Center. We also need to recognize the link between water quality and the increase in tiling. We know tiling can increase flooding risks. Tiling, like most cropping practices is not regulated, and perhaps doesn't need to be. But surveys show few landowners see tiling as a water quality concern.
4. We make it difficult for landowners and citizens to test the water. This summer I set out to test the water in the creek flowing through our farm and learned this truth. We have essentially defunded the IOWater program, and reduced opportunities for citizen engagement in seeking water quality improvements. Even institutions you hope would lead this effort, such as the conservation districts, have at best mixed and limited interest.
5. Public health issues are a growing concern with water quality. Much of our water quality attention has focused on nitrates and on the economic impacts from losing nutrients. But you live in the world of public health and are very aware of the other health risks present in our water - bacteria, e coli, and blue-green algae. You know our water quality issues are not going away and future problems may be even more contentious and threatening.
6. Dismissal of the DMWW litigation did not address the Clean Water Act claims. The DMWW litigation was unusual because it sought to hold someone responsible and raised CWA issues many people felt were unfair or settled. Most significant is whether the water flowing from tile outlets and in drainage ditches might be point sources? The case was dismissed so the issues were not addressed but could resurface.

7. Current state funding is inadequate. What it will cost to improve water quality and who should pay are key but contentious questions. But there is little disagreement the costs are significant and the funding Iowa now appropriates – whether it is \$10 million or some larger number – is inadequate to make real progress to improve water quality on any scale, e.g. we spend less than 40 cents per crop acre per year.

[Reports about steps Iowa farmers are taking sound impressive – over 600,000 acres of cover crops planted, miles of new stream buffers, and sixteen demonstration watersheds funded by DNR. Each action is good news but the reports involve only a small part of Iowa’s land. We have over 23 million acres in row crops, 1,600 watersheds, and 72,000 miles of rivers and streams. Any gains may be swamped by other forces such as the coming of less expensive nitrogen fertilizers from Iowa’s new facilities.]

8. Farmers and Agriculture need to lead - Iowa agriculture has a mixed record on water quality. The Iowa Soybean Association has taken a consistent, progressive, and active approach addressing the issue and is leading many innovative watershed efforts. Others take a more defensive approach – denying any problem, deflecting responsibility, and delaying action. The many farmers and landowners working to protect soil and water are not well served by those who resist increased funding for water quality, who won’t endorse basic tenets of stewardship, and who are unwilling to police “bad actors” – [the 20% responsible for 80% of the problems]. Farmers taking the lead in protecting water quality need our support.
9. Urgency and Responsibility may be what’s missing – The good news is we know how to significantly reduce pollution from our 23 million acres of crops. We have great examples of farmers and landowners taking steps to reduce the nitrates leaving their land. Watershed projects show collective action like constructing wetlands and planting cover crops can be part of the solution. Even with these examples the reality is much more needs to be done. What is missing is a sense of urgency and our reluctance to accept protecting water quality as a personal responsibility.

[In reality we have conditioned agriculture to expect special treatment under the law – asking and expecting little in resource protection, especially if it costs rather than pays. That is the story of the non-point source exemption and the theory of cost-sharing for conservation. It is why some farm leaders talk about the need for a “value” proposition” before we can expect farmers

to make changes to protect water quality. Aldo Leopold identified this problem when he said viewing conservation solely in economic terms is the key log we must move if we want to make progress.]

10. Agricultural businesses and input suppliers need to engage. To effectively address water quality, all the players in Iowa's farm sector and economy need to be involved. Some ag businesses are looking for ways to assist but more involvement is needed. Agricultural businesses – seed companies, fertilizer suppliers, chemicals dealers – those who provide the inputs and buy the farm products - need to get off the sideline and be involved in addressing water quality and conservation, including taking some responsibility for contributions made by use of their products.
11. Repealing WOTUS won't benefit farmers – It would be hard not to have heard of the WOTUS (or Waters of the US Rule) debate. But WOTUS is a manufactured political controversy of little practical significance for most farmers. The WOTUS “battle” was contrived to demonize EPA and oppose regulatory efforts to address clean water. An objective reading shows the rule has essentially no impact on Iowa farmers. First, agriculture is largely exempt from the Clean Water Act, and the new rule expand this. Second, allegations of costly new permit requirements don't withstand scrutiny because they don't happen for land now subject to federal jurisdiction!

[This hasn't stopped opponents of WOTUS from waging an effective multi-year misinformation campaign drawing in legions of politicians. Even though one of new Administration's first actions was to order reversal of the rule – efforts to flog it as an example of government over-reach continue.]

12. Reliance on the Nutrient Reduction Strategy may be part of the problem – Iowa has staked our future on the Nutrient Reduction Strategy (NRS) when it comes to addressing water quality. The NRS is long on science, but thin on strategy and devoid of policy. Yet everyone refers to it as accepted truth. It is like the New Testament. We are all familiar with the document, most of us have read some parts, but few of us have read it all. If you haven't looked at the NRS, I encourage you to, for example the projections of the billions it may cost to implement. Examine the assumptions underpinning the scenarios for how Iowa will reduce nitrate loading from agriculture by 41% at some future unspecified date, measured against a still unspecified baseline.

Here are a few from Scenario #1 - 60% of all cropland with cover crops, 60% of all tile drained land treated with bioreactors, and 27% of ag land treated with wetlands; or from Scenario #8 - 70% of all streams with buffers, 100% of all fall applied commercial fertilizer using N inhibitors, and 70% of all tile drained land treated with bioreactors. Plus, all the practices last for 50 years – like tattoos! Of course basic assumptions are needed to project future changes, but is it wrong to ask if we are being naïve or foolhardy to base our strategy on such wildly optimistic ideas? There is little policy discussion of what it will take to encourage these changes on the land – other than the fervent belief it can be done voluntarily and with little new money.

With these Hard Truth's let me put down the shovel and wrap things up. To conclude here are several questions - that if we answer - might help us find how our hard truths and high hopes can be reconciled.

1. What “post litigation” strategy can address the issues raised by the DMWW litigation – not just potential legislation but progress on the ground to protect source water – and get all of the stakeholders in the watershed involved? Can we make The Raccoon River Watershed a national model for progress?
2. Can the growing interest in corporate sustainability – like Walmart's Giga-ton project and recognizing the role of fertilizer use (see recent NPR reports) be combined with private conservation initiatives like Land O'Lakes SUSTAIN to create real and transformative changes on the land?
3. Can examples of action by Minnesota on buffer strips and drainage district initiatives and Ohio on nutrient management education and planning, be used to move Iowa off the anti-regulatory, voluntary only dogma now dominant? What can we learn from other states?
4. Can we magnify and expand the success of the watershed management approach being led by the Iowa Flood Center and others so we aren't talking about a few dozen projects, but instead the hundreds of projects needed to scale up our efforts?
5. Will public health motivate a shift in public concern about water quality? Smoking was a personal health issue until our understanding of the dangers of second-hand smoke made it a public health issue – leading to changes in public smoking laws. Could public health concerns play the same role with water quality?