

## **World Food Prize Symposium 2002**

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ELIZABETH BECKER

Now Jim Gulliford. He's, I guess, the man in the middle who directs Region 7, which I learned from listening to him this morning. He has four states – Nebraska, Iowa, Missouri and Kansas. And he has to figure out how to entice farmers and agribusiness and everybody else to follow these Best Management Practices.

He was here in Iowa before with the Department of Soil Conservation in the Department of Agriculture and Land Stewardship. And he too has a degree from the Iowa State University. Mr. Gulliford.

JIM GULLIFORD

Thank you, Elizabeth. What you didn't mention is I'm with the Environmental Protection Agency. I've been with them now for one year. And I think, Craig, one of the good things that we could possibly do is encourage people from the USDA and EPA to move between these two agencies and dialog a little bit on the challenges, the opportunities, the needs, the ways to solve problems. I think it would be very helpful.

As I've thought about this topic of concern for water quality and the urban/suburban rural issues that are a part of that, one of the things that I felt might be helpful would be to take a very quick historical look. And I don't think it's inappropriate even at this point in the panel to step back and look at what we've seen happen over the last years.

I'm from that generation that 30 years ago, 32 years ago actually, with the formation of the Environmental Protection Agency – it's one of our new agencies actually in federal government – where I've been through that whole historical timeframe from the establishment of the agency to where we are now. I was a college student who was interested in environmental issues in very early in the seventies when EPA came about.

And my generation can clearly recall the things that we saw in the not-so-distant past of uncontrolled discharges that resulted in waters unsafe for fishing or swimming, let alone drinking. Waste washing up on our shores when the common and best way to get rid of waste and refuse from our coastal cities was to put it in barges, haul it out and then dump it. We had situations where chemicals, petroleum, hydrocarbon, filled our rivers from point sources to where again the classic was the Cuyahoga River in Cleveland bursting in flame, of being ignited, if you will, and giving the image of being on fire.

But really it was that image about 30 years ago that really led to a realization by the people of our country that there clearly was a capacity to which our lakes, our rivers and streams could absorb

the waste that as a country we were able to produce – a country that was becoming great from a manufacturing standpoint and a country that was becoming great from an agricultural standpoint. And virtually everything we've put our hands and our minds to we became very successful at.

And we had this idea culturally, going back much more than 30 years ago, that our rivers were there for two things: transportation and then secondly to remove waste from our immediate vicinities.

With the coming of the Environmental Protection Agency two years later the Clean Water Act was passed. And the goals of the Clean Water Act were fairly clear and fairly simple – to make the waters of our nation fishable, swimmable, and drinkable, and that there was a considerable task ahead of us to do that.

Where we've had our greatest success has been dealing with point sources of pollution and in dealing with the industrial sources where clearly it was easy to identify a type or some point of discharge that was releasing waste from anything from a manufacturer, a processor, a waste treatment plant, for example in our communities, and discharging that into our rivers.

But there was also something else in play was that it was easy to develop a regulatory approach that said, in our waters that are discharged from industrial processes we shall limit them to such-and-such. We developed permits for these types of industries. We found that, in industry, again some of those qualities that made industry great, their competitive nature, it was such that not all of our industries survive those types of requirements, those types of environmental controls.

But our best industries were those that said, "Not only can we stop this type of discharge, but we can find ways to utilize waste products. We can diminish our waste streams." And so now some of our greatest companies are those companies which have minimized waste streams, have found productive off-line uses for those where they actually market those, and where L.D. said perhaps we have too many plastics, I can promise you that there are industries that would use all of those plastics and find ways to recycle them and value them very highly.

But that was what we found in industry, was not only could they meet those minimum standards for water quality, but the best of the industry and the industry that survived also became very good at reducing waste streams and saving money or making money for shareholders as a part of that.

So we've seen something there that was very successful. And our challenge is to find ways to apply that same type of problem solving to make ourselves more profitable to agriculture. And as we've talked, there are Best Management Practices that clearly can do that very thing. The better job we do of managing our inputs, reducing our wastes, the more effective we're going to be as producers as well.

However, there are a couple of differences that make this a challenge. And some of the things that we're looking at from an EPA standpoint as well, is that we buy grain, we buy meats by the most part by the pound or by the bushel. And we don't ask the producer, "Did you grow this

grain in a way that minimized the environmental impacts?" There is no economic reward in the marketplace for the producers that do that.

As Craig indicated, we're looking at the EQUIP program now and opportunities for the Conservation Security Act to find ways to do just that, to say to those producers that have not only found the best ways to reduce their waste, to make their production processes more efficient, how they grow crops efficiently and profitably, and find ways to reward those people. That ought to be the type of approach that we take, is to find the ways that offer incentives not to just change a practice but to the most effective or the most efficient in the use of our resources that way. So that's one of the challenges that we have.

And secondly, while in my region I might have 200 printers or 400 metalplaters or 16 power plants to regulate as an EPA regulator, I also have 230,000 farmers. And it's going to be very difficult for me, nigh unto impossible, to develop a regulatory scheme that would apply the same way it did to industry, large industry and small industry, to 230,000 individual producers that are out there.

So there isn't a way in my mind to transfer this model perfectly. But I do believe that there are ways to learn from that model, because agriculture is a very proud and a very effective industry. And if we can develop an understanding and an expectation with agriculture that we do have to do things better, I think that perhaps we can find a model that will be successful.

I want to talk really just for a couple of minutes about future challenges here in the Midwest. Obviously, I put nonpoint versus pollution at the top, defining sources, delineating sources, looking at issues of faith and transport. From a watershed standpoint, understanding how all of those come into play to create the water quality that eventually does reach Des Moines from a water source standpoint.

And I think then, too, it was mentioned the issue of total maximum daily loads, TMDLs. As an agency, we're working on a rule right now as to how we will require those waters or stream segments, lakes where we have water quality impairments to develop TMDLs, which in a sense are plans which again define the source, the nature of the pollutants, then look at ways those pollutants can be reduced until the quality of the water in that watershed again meets our intended use and our goals for it. So I think that obviously nonpoint pollutants and the issue of TMDLs is a very important challenge that the EPA will face.

Secondly, I think that we want to seize on the opportunity to make environmental improvements in our waters as a result of management improvements in the Ag sector. As I mentioned before, we clearly can do that; it's a matter of gathering around the table and talking about what is possible and what it's going to take to get to that. Now, that's not a simple discussion to have, because as Craig indicated, we've spent a long time looking at each other, talking about what we're going to do to each other than what we're going to do with each other.

But again if you look at just even last Monday the front page article in *The Kansas City Star*, a discussion on the issue of hypoxia, on agriculture and how the corn growers in the state of

Missouri are committed to look at ways to, not only as an individual do something better but as an industry and as a collection of farmers across the regions, to do better.

I think we need to look at – and I'm not going to go into a lot of this – but helping states in our water systems implement our new drinking water standards. L.D. talked a little bit about some of the challenges of new pollutant concerns coming down the pipe. And it's a challenge that is not only one of, what do we need to assure that we have quality drinking water, but also, how can we do this in a framework that assures that our ratepayers can handle those costs?

Because we do face situations where with small water utilities when faced with the question of – Should I put in the arsenic controls that we know are good for the health of our consumers, but the fact is that those consumers can't pay, or those ratepayers can't pay for the cost of those arsenic controls – the answer then becomes, well, we just shut down the water utility, then we don't have any standards that we have to meet, we can all go back to drinking well water. And certainly know that that isn't going to be in the interests of our people.

And so we have a big challenge there to deal with the scales, the varying scales of the size of our producers, of our water utilities and the people that they serve and looking for ways that we can find to meet those needs.

The fourth thing I want to talk about as a future challenge is to strengthen the protection of our infrastructure and increasing security, not only in our water supply, in our water treatment plants, but also our wastewater facilities, and this large agrochemical industry that we have here in the Midwest.

In light of the terrorist threats to our nation that are very real – obviously, they've been made to us, and it's something that we're going to have to change the way we do business to plan for in the future. Congress has begun a process, I think, of providing resources for risk assessment, but risk assessment is only the first step in that process. When our utilities understand what their weaknesses are in assuring security of their water supplies, of their water treatment facilities, of the chemicals that they manufacture, transport and store and eventually use in agriculture, it's then – What do we do, what steps can we take that have reasonable cost to them to minimize those threats that are there for us? So that's another area that EPA is very much concerned with, and we're going to invest a lot of our resources looking at those issues.

By no means would I suggest that those are the four issues or the only issues that we're going to address in the future, but certainly those are ones that we want to work on. I believe that there are good models that are out there for water quality protection.

The watershed approaches that we've used to solve in many cases fewer dimensions of problems than we're facing today, I think, are still things that are ways that we can look at. And we have a lot on science. We understand a lot of the science about water quality, the impairments to water quality. We need to work still on the economic sides of these equations, and I think the social and cultural sides of, again, how we come to agreement on where we want to go, what we want to do, and then the technologies that are there for us.

Watershed approach gives us an opportunity, whether you're talking about the watershed of the Mississippi River and issues at the Gulf, the Raccoon River and issues of Des Moines water, or small watersheds like French Creek up in Alamakee County where we're interested in high-quality recreational opportunities for trout fishermen.

The watershed approach gives us an opportunity to look at how a variety of impacts, whether they be agricultural, stormwater, construction site, urban, even suburban home and yards, how all of those things come together. Watersheds then also have a social component of the people that live there, and if those people can decide what they feel are their priorities for water quality, perhaps they can get together to work on plans to solve them.

So we think that more important than ever is the applicability of the watershed approach to solving problems.

I guess I'm not going to talk, I'm absolutely not going to talk a lot more about these issues, but we do believe that there are fresh opportunities. The approach that I've been charged with is to look at innovative solutions, to not be constrained by the ideas of the past from a problem-solving standpoint, to look at partnership approaches, to knowing that it isn't an adversarial relationship that's going to solve the problems of the future – it's going to be how we all can get together and work on those, and finally to not talk about what we're doing necessarily but talk about the results of what we're doing.

It's not enough to just put in a Best Management Practice; it's to manage a Best Management Practice in a way that it's effective and that it achieves the environmental objectives or the water quality objectives that we want from it. So innovation, partnership and results are going to be very important in the future.

Thank you, Elizabeth.