The Value of a Wetland: A Case Study in Renewable Resource Management

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Norman and Cathy Merrick farm 3,500 acres of land in the north eastern grain belt of the province of Saskatchewan, Canada. A small farm by today's standards, the black soil is rich in organic matter, very productive and highly valued. Typical for much of the land in this area, it is mildly hilly to gently rolling. Norman and Cathy's land has numerous tree-ringed wetlands that occupy low areas of the landscape and support a variety of plant and animal species, both aquatic and terrestrial. Norman loves their farm, and he often sits on the door step looking out across the landscape finding beauty in the shape of the land and reflecting on his use of it.

Tonight we find Norman sitting on the door step once again, but on this occasion his thoughts weigh heavy upon him. Norman has always considered himself to be an ethical person with a concern for the environment and he has always guided his actions accordingly, as much as farming can allow. However, Norman also recognizes his responsibility to his family and to tradition, knowing that the farm not only has to bring a living, but that it must remain viable so that they can see it pass on to their children.

Norman's grandfather raised a family on 320 acres of land. However in today's world the instability of grain prices, the high cost of farm chemicals and fertilizers, and changes to grain marketing have encouraged or made necessary an expansion in the size of the average farm. Farms have had to grow in acreage to mitigate increasing input costs and decreasing profit margins. To remain viable, farms not only have had to increase in size, but also seek greater efficiencies. New seeding and tillage practices and bigger equipment have made it possible for individual farmers to manage larger and larger acreages. At the same time, an increase in land values has made it a challenge to expand acreage for smaller operators. One solution to this problem has been to increase the amount of land that can be seeded by draining wetlands and bringing that land into crop production.

On this particular evening Norman is joined by his niece, Angela Hardy. Angela has just recently obtained her B.Sc. in Renewable Resource Management and will be starting a job with Nature Conservancy Canada, in Regina, Saskatchewan. At NCC she will be doing field surveys to assess soil, plant and wildlife resources on newly acquired conservation land. Angela shares her uncle's love for the land, but tonight Angela notices the stress in Norman's face and asks what he is thinking.

"I'm thinking about those trees," he said gesturing with his arm to the bluffs in open field in front of them. "I think some of them will have to come down."

"Oh that's ... but, why?" Angela responded taken aback by Norman's admission.

"My equipment, it's too big. Easier to go through them instead of around them all the time. They're just a source of weeds. I think it's time I drained the wetland and got that land into production," Norman said forcing some confidence into his voice.

"But wetlands are important; they have many functions...," Angela started with perhaps too much judgement in her voice. Norman reacted strongly.

"The Value of a Wetland" by Thomas T. Yates

"Really? And what does that mean in dollars and cents? I've got a family to care for and a farm to keep going. They may be nice to look at, but show me what they're worth!"

The next day, when Angela returned to Regina she contacted her friend Bobbie Mezaros, an agronomist working with Ducks Unlimited Canada. She recounted her interaction with her uncle, how bothered she was by it, and how helpless she felt.

"Here I am, knowledgeable in sustainable land management and I wasn't able to articulate the benefits that wetlands give to society. My uncle said, 'Tell me what a wetland is worth!' I knew what I wanted to say, but I couldn't get it out."

"Give yourself a break. Norman is like a lot of farmers right now who are looking for solutions. I think if you ask most of them, they would like to do the right thing, but farming is hard and it's changing fast. If one doesn't keep up, they'll be left behind. That's why 90% of the wetlands in his area have been lost."

Angela was shocked. "90%, I can't believe it! How do we stop this? Where is our government?"

"Unfortunately a strong policy on wetland management doesn't currently exist. Sure there are some environmental codes, but they are broken on a regular basis and my guess is that enforcement is often hampered by political interference," Bobbie suggested.

"But you're with DUC; surely you have an interest in this?" Angela observed.

"Of course; as you well know, wetlands are the prime breeding habitat for ducks," Bobbie replied. "We are very active in your uncle's area. We talk to growers and try to get their permission to plug drainage ditches and restore wetlands. But it's slow going and Norman's not the first one to say 'Show me the money.""

"So let's do it!" Angela asserted, hearing in her mind Norman warming up his bull dozer. "Let's show them the money."

Questions

- 1. How many acres is Norman and Cathy's farm? Is their farm a big farm by today's standards?
- 2. What are some of the challenges facing small farms? Why do farms have to get bigger?
- 3. Why can't Norman just buy more land?
- 4. Aside from water, what else do wetlands have?
- 5. Why is Norman worried?
- 6. What is he thinking of doing? What benefit to Norman is there in draining a wetland?
- 7. Does Angela know anything about wetlands? How do you know?
- 8. Why does Ducks Unlimited Canada protect wetlands? What do they do to protect wetlands?
- 9. What does Angela mean by "show them the money"?
- 10. List some of the environmental, social and economic issues of this case.

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