



Photo by Ron Thiessen

A LIVING LANDSCAPE

Lake Winnipeg and Manitoba's boreal forest define our province

BY MARLO CAMPBELL

Water, forest, wildlife – and us.

A special connection exists between Manitobans and the natural treasures of our province.

Lake Winnipeg, the 10th largest freshwater lake in the world, is one of these treasures. For generations, this iconic body of water has provided people with a wealth of experiences: sunny afternoons at the beach with family and friends, splashing in the shallow water and building castles in the sand. Starry nights at the cottage or campsite, sharing stories around a fire. Fishing on the water. Hiking, trapping or hunting in the pristine wilderness nearby. Watching the northern lights. Feeling the power of a late-summer

thunderstorm.

Lake Winnipeg is a vital part of Manitoba's economy too. It directly supports commercial fishing, recreation and tourism – industries that, combined, bring in more than \$100 million each year.

freshwater lakes, and wetlands such as river deltas, peatlands and marshes. Manitoba's boreal forest is home to 49 First Nations where Cree, Anishinaabe, Oji-Cree and Dene families have lived since time immemorial,

compasses the annual breeding grounds for millions of migratory birds, the annual spawning grounds for more than 100 species of fish, and the full-time habitats for a wide variety of animals – from tiny chipmunks to giant bull moose.

The value of the boreal forest's natural resources extends far beyond our borders. Canada's boreal forest is a critical ecological and economic asset to our planet. The area contains one third of the world's unfrozen fresh water supply. It stores more than twice as much carbon as the Amazon forests, greatly helping to mitigate the effects of global climate change.

In Manitoba, the boreal forest and the wetlands within it remain mostly intact. Because of this, this area is a vibrant component of our environment. It helps control floods and erosion. It also

helps purify our water by filtering out nutrients which can lead to algae growth. Filtration is an essential ecological service that helps protect the increasingly fragile health of Lake Winnipeg. In fact, roughly 70 per cent of the water that ends up in the lake filters through boreal forest water systems.

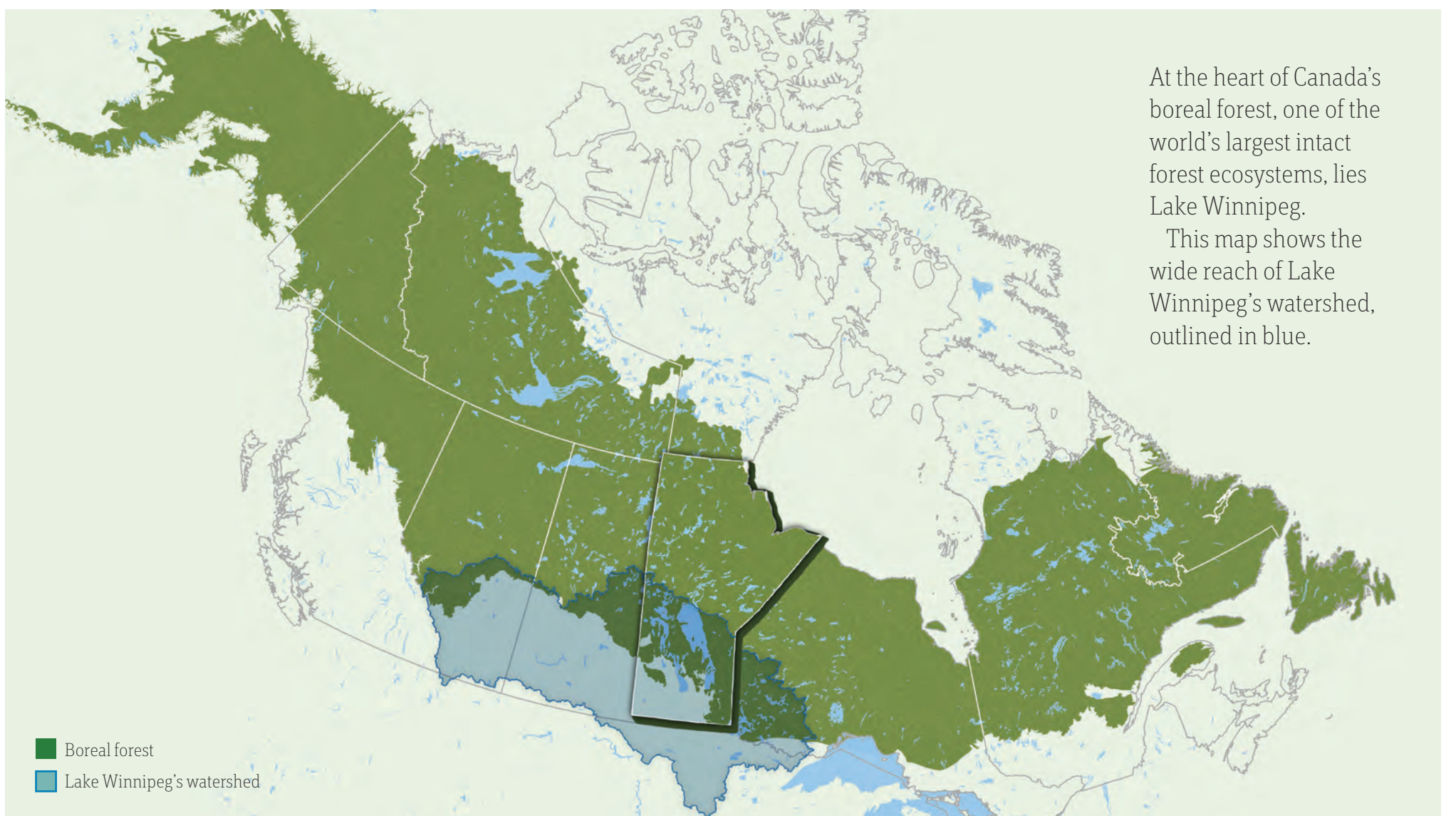
Lake Winnipeg and the boreal forest that surrounds it are part of an interconnected natural life-support system that operates for the mutual ecological benefit of all of its parts. Humans have a place within this system, too. Whether we live on the lake's shores, in a Northern community, in a large urban centre or on a farm, Manitoba's waters, forests and wetlands influence our shared cultures, contribute to our shared economy and better our society's shared health. We are all connected. ■

Canada's boreal forest is a critical ecological and economic asset to our planet.

Surrounding this special lake is another natural treasure: Manitoba's boreal forest. One of the last remaining intact forest ecosystems on the planet, this vast, diverse region covers 80 per cent of Manitoba with trees,

according to elders.

Like Lake Winnipeg, our boreal forest supports Manitoba's economy through forestry, mining, hydropower and other industries. The area also supports nature's food chain; it en-



At the heart of Canada's boreal forest, one of the world's largest intact forest ecosystems, lies Lake Winnipeg.

This map shows the wide reach of Lake Winnipeg's watershed, outlined in blue.

■ Boreal forest
■ Lake Winnipeg's watershed

Lake Winnipeg: what's in our watershed?

A watershed is an area that drains into a particular body of water. Lake Winnipeg's watershed includes parts of four Canadian provinces, four American states and multiple First Nations, covering approximately one million square kilometres. It also encompasses a huge swath of Canada's boreal forest.

Hundreds of millions of birds rely on Manitoba's boreal forest to breed and raise their young, including eagles, pelicans, sandhill cranes, green-winged teals and buffleheads. Some migrate here from as far as South America each summer.



The carbon stored in Manitoba's boreal forest and wetlands is comparable to 100 years of Canada's greenhouse gas emissions, a testament to the region's role in guarding against the impacts of climate change.



Grand Rapids and Misipawistik



The Saskatchewan River Delta, which straddles the Saskatchewan/Manitoba border, is one of the largest freshwater inland deltas in North America.



Prickly pear cactus, carnivorous bog plants, rare orchids, flying squirrels, luminescent fungi and frogs that freeze solid over the winter months – these unusual species depend on the specific conditions found in the boreal forest of the Lake Winnipeg watershed to thrive.

Berens River



An estimated 2,500 threatened woodland caribou are found in as many as 15 ranges across Manitoba, seven of which are within the Lake Winnipeg watershed.

Winnipegosis

Ashern

Covering 80 per cent of our province, Manitoba's boreal houses one of the largest intact forest sections left on the planet. Its vital wetlands provide erosion protection, filter water and retain nutrients that would otherwise flow into Lake Winnipeg and contribute to massive algal blooms and deterioration of water quality.



Gimli

Sagkeeng

Petersfield

Dauphin

Minnedosa

Neepawa

Portage la Prairie

Selkirk

Beausejour

Brandon

Winnipeg

Lake Winnipeg is the 10th largest freshwater lake in the world when measured by surface area. It stretches approximately 436 km from north to south.



The moose cow and calf pictured here represent just one of many species that call boreal forest wetlands their home. These wetlands provide critical habitat for waterfowl, beaver, muskrat and mink, to name just a few inhabitants. The wetlands also serve as valuable fish nurseries.

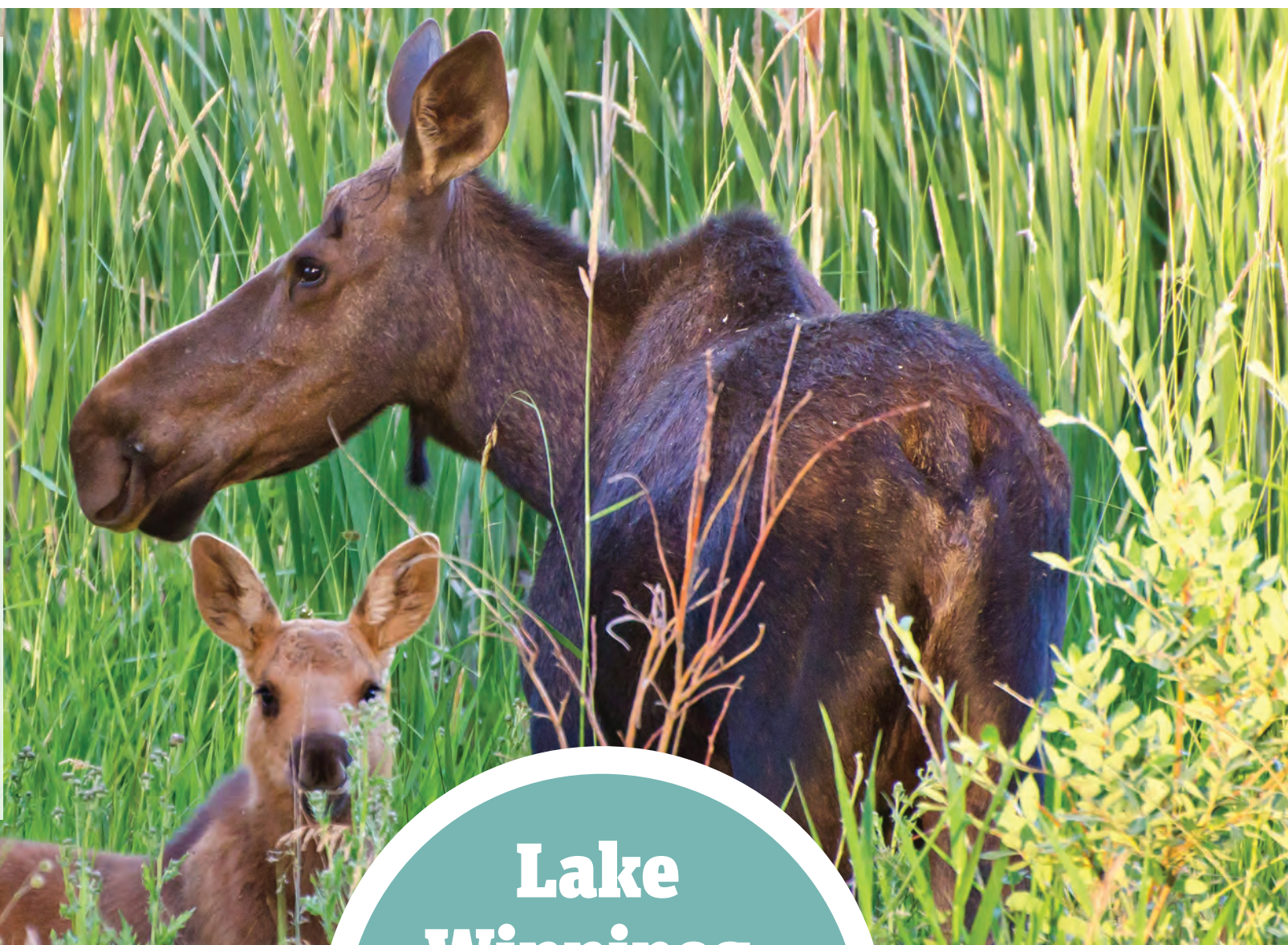


Photo by Kelly Jones

Lake Winnipeg: who's in our watershed?

Walking for water

Manitoba woman to embark on healing journey for Lake Winnipeg

BY SANDY KLOWAK

Katherine Morrisseau-Sinclair did not always have a personal connection to her Anishinabe roots. More than 30 years ago, when on a search for that lost link to her spiritual heritage, it was the beating of the water drum that pulled her in.

"When that water drum sounded, it was like that drum spoke to my spirit, to the very core of me," she says. "I recognized that sound."

This summer, the lifelong Manitoban and long-time Winnipegger will continue to honour the beating of that drum as she embarks on a roughly 1,300 km walk for the health of Lake Winnipeg, accompanied by a group of family, friends and community members.

Morrisseau-Sinclair's traditional Anishinabe name is Aninkiquay and she belongs to the Bear Clan. Members of this clan often serve the community as healers, and protectors.

Women, as life-givers, are intimately tied to water, she explains, and are tasked with protecting this essential life-generating resource.

"One of my many responsibilities in life as a woman is to take care of the water and the earth," she says.

Designated 2013's 'Most Threatened Lake in the World' by German-based Global Nature Fund, Lake Winnipeg is ailing as a result of excessive nutrients making their way into its watershed, causing an excess growth of algae which ultimately robs its waters of necessary oxygen.

"People live along that lake – their livelihoods are there through fishing and trapping. If we lose a lake like Lake Winnipeg, we are losing our connection to life itself," Morrisseau-Sinclair says. "When I look at my granddaughter, I want her to have access to good, clean water. I want my great-grandchildren to have that."

A water walk is a spiritual ceremony of healing for a body of water in need. Morrisseau-Sinclair's Lake Winnipeg Water Walk is set to begin on July 12 in Norway House, near the northern-most tip of the lake.

While plans are still in the works, she expects the group to walk to Petersfield, on the southeastern tip, before travelling by car up the east side of the lake as far as possible by road. She will then walk down the east side to Lower Fort Garry National Historic Site, near Selkirk. The entire walk is expected to take roughly three weeks to complete.

"We will walk, conduct water ceremonies, offer prayers and songs to the lake petitioning the spirits of the water to heal her," she says.

Morrisseau-Sinclair is walking for water, but she knows the health of the boreal forest is intricately tied to the life of the lake.

"It's all part and parcel of the same. [The boreal forest] is a beautiful tract of land that holds many of our stories – of our past, but of our future as well."

Morrisseau-Sinclair invites everyone to participate in her water walk. She stresses the importance of cooperation in the face of a threat that will impact all Manitobans.

"This isn't just an Aboriginal issue," she says. "It's going to be an Aboriginal approach, but this is a human issue. I'm hoping we can all just walk for life." ■



"If we lose a lake like Lake Winnipeg, we are losing our connection to life itself."

— KATHERINE MORRISSEAU-SINCLAIR

Lake Winnipeg Water Walk

What: A spiritual walk to promote the healing of Lake Winnipeg
When: Starting July 12, 2014
Where: All around the lake, starting at Norway House

Want to get involved?

Visit lakewinnipegwaterwalk.ca and join the Lake Winnipeg Water Walk group on Facebook for info and updates.

The water walk is looking for a variety of partners and resources, including donations for gas, food and lodging. Email katherine@lakewinnipegwaterwalk.ca if you'd like to participate or help out.



Robin Reader: boreal traditions

BY SANDY KLOWAK

Deep in Manitoba's boreal forest, nestled in the rich and fertile wetlands of the Saskatchewan River Delta north of The Pas, sits the Reader family's 40-acre homestead, which dates back to 1883.

Robin Reader grew up there, and says his great grandfather – an Anglican priest – was the first Reader to settle the area. Nearby Reader Lake was named after his family.

Reader, an engineering technologist for Ducks Unlimited Canada, now lives in The Pas but visits the homestead on a regular basis.

"When you leave Highway 10 and enter the forest, within less than a minute you feel calmer. It's a cathedral of big spruce trees," he says.

Reader describes the Saskatchewan River

"The boreal forest is lying here like a beautiful carpet..."

Live-Work-Play in the watershed

Lake Winnipeg and Manitoba's boreal forest are important to Manitobans from all walks of life. Here are some of their stories

Delta as a unique area rich in wetlands, important for fish and waterfowl. He enjoys spending time outdoors observing the area's birds and animals. Reader has preserved his father's small sawmill and still manages to find time to tend the traditional trap line.

The delta is an essential part of the Lake Winnipeg watershed, he says. Its wetlands filter and purify water from the Saskatchewan River, which drains into the lake.

Despite spending much of his life in the area, Reader still finds the landscape of the boreal forest awe-inspiring.

"It's huge. The vastness is really something that could be celebrated in a big way," Reader says. "The boreal forest is lying here like a beautiful carpet, providing oxygen and homes for [birds and animals] and lumber and so much more."

Sam Murdock: fishing Lake Winnipeg

BY SANDY KLOWAK

Thousands of Manitobans depend on Lake Winnipeg's fishing industry for their livelihood – an industry that returns roughly \$20 million a year. One of those Manitobans is Sam Murdock.

A commercial fisher, Murdock co-chairs the Lake Winnipeg Fishery Co-Management Board, which represents all fishers on the lake, 80 per cent of whom are First Nations or Metis. He's also the director of operations for Fisher River Cree Nation, which sits on the shores of Lake Winnipeg. It's a place he has called home all his life.

Murdock knows first-hand the importance of the lake on personal, cultural and economic levels.



Rhea Thiessen: a child's love for the lake

BY RON THIESSEN

My 10-year-old daughter Rhea has been swimming, boating, bird-watching and exploring Lake Winnipeg and its surrounding boreal forest every summer of her life. She's hiked many trails and built dozens of sand structures. Diving off the piers at Matlock Beach is one of her favourite activities. When Rhea is at Lake Winnipeg, life feels ideal: carefree, fun, adventurous and happy.

I recall feeling hesitant about informing her that the lake she loves is in trouble and a big effort is now required to make it better. I felt torn between wanting to protect her childhood innocence and needing to teach her as much as I could.

When I finally broke the news, Rhea wanted to know what could be done about it.

I let her know that a large part of the solution

is reducing nutrients from the lands and waters that flow into the lake. I shared with her that more people need to understand that protecting and properly managing the lake's surrounding boreal forests and wetlands is fundamental to this effort. With roughly 70 per cent of the water entering Lake Winnipeg through Manitoba's boreal forest, we need to maintain its natural ability to filter and hold water on the land as best as we can.

Saving Lake Winnipeg and conserving Manitoba's boreal forest may be two of the best legacies we leave for our children and upcoming generations. As a born-and-raised Manitoban, I believe we are up for the challenge if we work together to make it happen. And the coolest thing is, I know my girl wants to do what she can to save the big lake she loves so much.

Ron Thiessen is the executive director of the Manitoba chapter of the Canadian Parks and Wilderness Society (CPAWS).



A new approach

Former adversaries find common ground in the boreal forest



BY MARLO CAMPBELL

Our shared natural resources are also our shared responsibility – but defining what exactly that means can be challenging.

Historically, environmental concerns have differed from industry perspectives over how best to manage the boreal forest.

Fortunately, times are changing. The past several years have seen a new approach to natural-resources stewardship that finds common ground between former adversaries.

The Canadian Boreal Forest Agreement (CBFA) involves forestry companies and environmental groups working collaboratively to ensure a sustainable future for both the boreal forest and the people whose livelihoods depend on it.

Signed in 2010, the CBFA applies to 73 million hectares of forest across Canada. Current signatories include 19 forestry companies and seven environmental non-governmental organizations (ENGOS).

One of those companies is Tolko Industries Ltd. In Manitoba, Tolko employs about 320 people at its operations in The Pas, which include its kraft paper mill. Related operations provide jobs to forestry contractors working across northern Manitoba, throughout the company's 8.7-million-hectare for-

“You come together and, after a while, you build a certain level of trust with each other and you move forward.”

– GRANT GLESSING, TOLKO

est management license area, an expanse of land approximately one and a half times the size of Nova Scotia.

According to Grant Glessing, who works in Tolko's stewardship and tenures department for B.C./Manitoba, it's been a “long, evolving process,” as company reps, environmental groups and local First Nations have worked to hammer out how to practically implement the agreement's six components, including improving sustainable forestry practices and protecting at-risk species such as woodland caribou.

“You come together and, after a while, you build a certain level of trust with each other and you move forward,” Glessing says.

“Like in any relationship, the more you understand each other's interests, the better off you'll be.”

Final say on whatever agreement is reached lies with governments; ongoing CBFA negotiations are not prescriptive but rather, a way that industry and environmentalists can jointly – and

respectfully – help guide the future of forestry and conservation.

“We'd rather be part of the solution and be (on the) forefront with it than to be part of the problem,” Glessing says.

The collaborative approach to proactive solutions is also the main focus of the Lake Winnipeg Health Plan (LWHP). Championed by the Lake Winnipeg Foundation (LWF), an ENGO working to restore and protect the health of Lake Winnipeg and its watershed, the plan was developed in 2012 with input from conservation groups, industry leaders and freshwater scientists.

Launched in January 2013, the LWHP identifies eight actions to reduce the amount of phosphorous flowing into the lake – the main cause of blue-green algae blooms which have been increasing in both size and frequency in recent years, contaminating beaches and raising alarm bells about the deteriorating health of the great lake.

Phosphorous comes from many different sources, industrial practices like agriculture among them.

“Because there isn't a simple cause and effect, it's really easy to just abdicate responsibility,” says Alexis Kanu, LWF's executive director.

“What we need to do is find the champions that are willing to step forward and make that first investment, show the success behind that and, rather than pointing fingers at everybody else who hasn't come forward yet, offer them an inviting hand and say, look, there is an opportunity for you to be a part of this.”

Key components of the plan include conserving Manitoba's wetlands and boreal forest, vegetation-rich ecosystems which filter the water that flows into Lake Winnipeg. Like the CBFA, it also recognizes the need for industry and conservationists to work together, with the understanding that all Manitobans deserve a healthy and productive lake, and that it will take participation at the household, community and provincial levels to ensure that happens.

“What we're looking at is sustainable industries,” Kanu explains. “We want a strong economy going forward and we need a sustainable environment on which to base that economy.”

To learn more about the CBFA, go to www.canadianborealforestagreement.com. ■

This boreal wetland complex in the Duck Mountains is part of an interconnected system that moves water through the Lake Winnipeg watershed.

Photo courtesy of Ducks Unlimited Canada



The coastal wetlands of Manitoba's great lakes are among the largest in the world.

Photo courtesy of Ducks Unlimited Canada