



# Across North and South America

## Elders select Turtle Lodge as their “Central House of Knowledge”

By Sabina Ijaz, MD CCFP

**TURTLE LODGE**, Sagkeeng First Nation, Anishinabe Territory – Respected Traditional Elders from Nations across Great Turtle Island (North America) and Abya Yala (Mexico, and Central and South America) came together in the centre of the North American continent in Manitoba July 19-22, having traveled from their respective territories East, West, North, and from the South all the way to the Inca.

The Elders formally acknowledged that they have selected the Turtle Lodge as their Central House of Knowledge, and their central place of governance as Knowledge Keepers and traditional leaders of their Nations and Peoples, which honours and connects the network of Elders and

regions across the territories, and from where their voice can be shared with all Peoples.

The Turtle Lodge has already become well-known internationally as a centre for sharing traditional Indigenous knowledge on climate change. In 2016, Manitoba Elders gathered for many months at the Lodge, as requested by the Assembly of Manitoba Chiefs’ Grand Chief Derek Nepinak, to discuss their response to a proposed pipeline coming into their territory. Instead of giving a simple yes or no response regarding a pipeline, the Elders developed a document entitled Ogichi Tibakonigaywin - The Great Binding Law, which outlined the natural laws, duties and responsibilities that each individual is born with to take care of the land, as well as the concept of natural consequences that

*continued to page 4 >>*

### Inside this Issue:

Across North and South America .....	cover, 4
Executive Director’s Message .....	2
Eco-Events .....	3
The Great Manitoba Shoreline Cleanup .....	5
Ditch the spray, let the (milk)weeds grow! .....	6-7
Ways to Use Less Plastic .....	7
Environmental Win-Win is Possible .	8
Manitoba Race to Reduce Targets Building Energy Usage...	9
A Year of Ridesharing in Manitoba .	10
Milestones .....	11

“ The Elders formally acknowledged that they have selected the Turtle Lodge as their Central House of Knowledge, and their central place of governance as Knowledge Keepers and traditional leaders of their Nations and Peoples, which honours and connects the network of Elders and regions across the territories, and from where their voice can be shared with all Peoples.







is published four times per year by the  
Manitoba Eco-Network/  
Réseau Ecologique du Manitoba Inc. at  
3rd Floor, 303 Portage Avenue  
Winnipeg, Manitoba, R3B 2B4  
Phone: 204-947-6511 / Fax: 1-866-237-3130  
info@mbeconetwork.org  
www.mbeconetwork.org

**Editor: Shawna Culleton**  
editor@mbeconetwork.org

**CONTRIBUTORS:**

Candi Bezte, Laura Cameron, Kim Carriere,  
Erica Daniels, Kevin Dooley, Sabina Ijaz,  
Peggy Kasuba, Heather Mitchell, Leif Norman,  
Meghan Ostrum, Peggy Kasuba, Amanda San  
Filippo, John Sawchuk, Duncan M. Stokes

**Design & Layout: Tracey O'Neil**  
www.simpliflivedesigns.ca

**MANITOBA ECO-NETWORK  
BOARD OF DIRECTORS:**

**Sean Petty,**  
Chair, Sierra Club Prairie Chapter

**Justine Spearman**  
Vice Chair, Recycle Everywhere

**Dan McInnis**  
Treasurer, Sustainable Building Manitoba

**Jamie Hilland**  
Green Action Centre

**James Beddome, Member-at-Large**

**Kathryn Dompierre, Canadian Water Network**

**Jamie Hilland, Member-at-Large**

**Teresa Prokopanko, Green Action Centre**

**Melissa Turner, Member-at-Large**

**Laura Tyler, Member at Large**



Manitoba Eco-Network is affiliated with  
the Canadian Environmental Network.

Individual subscriptions to *Eco-Journal*  
are available as part of a supporting  
membership to the Manitoba Eco-Network at  
a cost of \$30. Group membership dues are  
\$50. Associate membership dues are \$100.

The opinions expressed by contributors  
are their own and do not represent  
the views of the Manitoba Eco-Network  
or its member groups.

Manitoba Eco-Network is a registered charity  
(# 128446846 RR0001).

**For advertising rates, please contact**  
**info@mbeconetwork.org, or 947-6511.**  
**The advertising deadline for the**  
**Winter 2018 edition is November 12, 2018.**

## Executive Director's Message

*By Duncan M. Stokes*

**LONG, HOT SUMMER IS DRAWING TO A CLOSE.** The Fall chill has seeped into our overnights and I for one cannot complain about our Summer.

Two of the leaves on our Manitoba Eco-Network tree have moved on to other challenges.

Our Coordinator Veronica Sharkey joined us last Fall. Her dedication to the environment and her organizational skills were key contributions to the Manitoba Eco-Network office and we thank her for leaving that footprint. And we wish her nothing but good things as she continues her journey. Thanks you Veronica!

Our Organic Lawn Care Manager Michaelin Lower brought an experienced and stable presence to the program this summer. Michaelin spent some days and nights working the OLC table display in the sweltering heat. Thank you Michaelin! And thank you to Lee Valley for supplying the OLC program with new tools and supplies.

Municipal elections are right around the corner. The Manitoba Eco-Network, in conjunction with our members and partners, will be hosting a Mayoralty Fast Pitch and Forum at the University of Winnipeg for the City of Winnipeg's mayoralty. Our environment meshes with so many key election issues in Winnipeg, we felt it important to host an environmentally focussed event for our members. We're thrilled that Richard Cloutier, CJOB/Global Radio Host and a veteran of all things politics in Winnipeg, agreed to moderate our event.

I think many non-traditional hockey fans couldn't help but get excited about the fabulous run the Winnipeg jets had this Spring during the Stanley Cup Playoffs. Without dating myself too much, I'm old enough to remember the Winnipeg Jets Avco Cups in the old WHA. As a youngster, I was always thrilled to go to a Jets game. Like many, I shed tears of heartbreak when Jets 1.0 left for the dessert in 1996 and I shed tears of joy in 2011 when we got Jets 2.0.

If that was all True North Sports & Entertainment ever did for my city, I would have been happy. But it hasn't been all; far from it, in fact. The work TNS&E has done with groups, organizations and charities has astounded me. This Summer, the Manitoba Eco-Network has been a beneficiary of that generosity. The Jets have taken up the NHL's Go Green initiative. In March, the Jets invited the Manitoba Eco-Network to set up display booths at the game vs. the Nashville Predators.

And, on August 23rd, some members from the TNS&E front office helped us tidy up Stephen Juba Park. The weather was spectacular, Tom Cochrane was doing his sound check at Shaw Park for his concert that evening, so we were treated to music from one of Manitoba's finest ever musicians. Thank you True North Sports & Entertainment! We hope more such opportunities where we can work together avail themselves in the near future. And...Go Jets Go! 🍀



PHOTO: VERONICA SHARKEY



Stephen Juba Park Clean-up

## October

### 17 **2018 MGUG Fall Conference**

*Club Regent Event Centre  
1425 Regent Ave. W.  
Winnipeg, Manitoba R2C 3B2*  
Registration is now open!

### 22 **Nature Manitoba – Discovery Evening Land of the Saguaro**

*7:30 pm, Franco-Manitoban Cultural Centre,  
340 Provencher Blvd on second floor - Salle  
Antoine-Gaborieau.*

**Presenter:** Marilyn Latta,  
Chair of the Habitat Conservation  
Committee and Weekend Botanist

**Admission:** \$5 for members  
(non-member rate \$10)

The iconic Saguaro cactus is a keystone species of the Sonoran Desert, a unique area found primarily in Mexico but stretching north into southern Arizona. Marilyn Latta has spent part of the last five winters near Tucson exploring the area and learning about the relationships between the plants, birds and other wildlife that survive in this extreme desert environment. From Roadrunners to rattlers, and saguaros to chia plants, join Marilyn to learn more about this diverse and fascinating area.

## November

### 12 **Nature Manitoba – Discovery Evening The Caucasus: Nature, Scenery and Culture**

*7:30 pm, Franco-Manitoban Cultural Centre,  
340 Provencher Blvd on second floor - Salle  
Antoine-Gaborieau.*

**Presenter:** Rudolf Koes,  
Birder and Birding Tour Guide

**Admission:** \$5 for members  
(non-member rate \$10)

This presentation will showcase the countries of Georgia and Armenia, with a special focus on the bird-life and flora. This region has seen an increase in tourism in general and eco-tourism in particular, due to relative political stability in recent years, but it is still unspoiled, without the hordes of tourists found elsewhere.

## October 26

### **Manitoba Mystery Co. presents: “Case at the Edge of the Woods”**

*7 pm - 8:30 pm, Fort Whyte Alive*

Join the Manitoba Mystery Company and FortWhyte Alive in solving the Case at the Edge of the Woods. Look and listen for clues, explore the woods, and do your part to help solve the mystery of a true story that took place in Riding Mountain National Park almost a century ago.

**Friday, October 26:** 9 pm - 10:30 pm

**Saturday, October 27:** 7 pm - 8:30 pm

**Saturday, October 27:** 9 pm - 10:30 pm

## December

### 3 **Nature Manitoba – Discovery Evening Caribou Calling**

*7:30 pm, Franco-Manitoban Cultural Centre,  
340 Provencher Blvd on second floor - Salle  
Antoine-Gaborieau.*

**Presenter:** Vicki Trim, Northeast Region  
Wildlife Manager, Manitoba Sustainable  
Development

**Admission:** \$5 for members  
(non-member rate \$10)

Come and hear about Manitoba's various caribou populations and how this species spends its life. Information on the status and management of boreal woodland, eastern migratory woodland and barren-ground caribou populations will be presented.



## Save the Date!

March 6, 2019

The Metropolitan  
Entertainment Centre  
**Winnipeg**



**The Youth Network  
steering committee is  
hard at work preparing  
for our 2018 Green  
Space forum.**

Green Space is a full day of interactive environmental workshops. It is for youth grades 9-12 who are leading school-based environmental projects, those who want to do something but don't know how to get started, and everyone in between! GreenSpace educates, inspires, builds the capacity of youth in Manitoba and mobilizes action for a more sustainable province.

To stay connected with final dates, location, and speakers, email [youth@mbconetwork.org](mailto:youth@mbconetwork.org) or follow us on social media @mbecoyouth.





<< continued from page 1

## Turtle Lodge cont'd...

are in effect for any decisions and behaviour we take.

In June 2017, Turtle Lodge hosted Indigenous Knowledge Keepers from across North and South America along with international climate change experts, who together developed 12 Onjisy Aki Climate Calls to Action focusing on actions to support ancestral knowledge, sovereignty, relationships and transformation. For these efforts Turtle Lodge was awarded the Anne Lindsay Protecting our Earth Award by the Manitoba Eco-Network. In September of 2017, Turtle Lodge hosted the Indigenous Knowledge Keepers and Scientists Gathering, co-chaired by Elder Dave Courchene and David Suzuki, which brought Indigenous approaches and teachings together with the climate change expertise of top Canadian scientists. The Turtle Lodge has continued to host a number of gatherings over the past year, where respected Elders have shared their climate knowledge and approaches with youth and scientists.

Elders from North and South America, most of whom are fluent in their original languages and knowledgeable in the ceremonies and teachings of their Nations and Peoples, were called to come together at the Zuguswediwin (“Lifting the Sacred Pipe”) National Elders Gathering, based on a dream received by Elder Nii Gaani Aki Inini – Leading Earth Man (Dave Courchene) of the Anishinabe Nation. Courchene is the caretaker of Turtle Lodge, a sacred lodge he dreamed of over 30 years ago, that was built by volunteers, mainly young people, using donated materials, in 2002.

In the dream he received while recovering from a major illness this year, Courchene explained that Grandmothers from different Nations were crossing a turtle-embroidered yellow blanket carrying medicines and a document – a declaration of commitment – to an Elder carrying a sacred Pipe, for blessing, witnessed by the People.

At the Zuguswediwin gathering last week, Elders, including respected Traditional Knowledge Keepers, hereditary chiefs, treaty keepers and firekeepers of the Treaty Nations, convened to discuss how to implement their nationhood and restore balance and wellness to their Nations and Peoples, using their traditional ways. Young people and Grandmothers from the Giigewigamig First Nation Health Authority provided the inspiration, arriving at the gathering after walking 185 km for four days through the communities of Bloodvein,



Zuguswediwin Blanket Ceremony



Grandmothers bring Declaration to Water

Hollow Water, Black River and Sagkeeng, walking in reverence for their ancestral way of life based on close connection to land, air, water and fire. Other youth shared dreams and visions they had received through fasting on the land.

Delegates from national research bodies including the Social Sciences and Humanities Research Council (SSHRC), Natural Sciences and Engineering Research Council (NSERC) and Canadian Institutes of Health Research (CIHR) were welcomed and permitted to present questions to the Elders on how to work together to provide a framework for respectful engagement of Indigenous communities, brought to the gathering at Turtle Lodge by the National Centre for Truth and Reconciliation (NCTR). Their questions were met with firm responses by the Elders that they need to lead and spearhead their own processes of sharing knowledge, setting agendas that are based on Indigenous values and priorities, de-

termined through a ceremonial context, and based within their own house of knowledge – the Turtle Lodge.

Together the Elders developed and ceremonially ratified the Zuguswediwin “Lifting the Pipe” Declaration of Commitment of the Original Nations and Peoples of Great Turtle Island, a spiritual commitment to act in accordance with their ancestral laws and traditions. The declaration both begins and ends in the Anishinabe language, and is intended to be further translated into all the respective languages of the Elders who signed it, after Grandmothers carried it with medicines across the yellow turtle blanket in a powerful ceremony, passing it over to the Pipe carriers at Turtle Lodge, on July 21.

On July 22, the Elders and witnesses took the Zuguswediwin Declaration to Manitou Api – “Where the Creator Sat”, an ancient sacred site in the centre of the continent, to be blessed by a Sacred Pipe that was commissioned by a national group of Elders representing the four directions in Ottawa in 2016. At Manitou Api, the group also honoured their ancestors and placed the document in the water, for its message to be symbolically and spiritually carried around the world.

One of the Elders, Allan White from Whitefish Bay Anishinabe Nation, came forward with the instruction that he had received in the ceremony, that the Grandmothers and Elders will dream, and to gather at the Turtle Lodge at the same time next year, bringing those dreams for the people to understand the full meaning and power of vision that comes from dreams.

The Zuguswediwin Declaration is being engraved onto the hide of a buffalo, and will soon be available for all to see at the Turtle Lodge. 🌱

PHOTO: ERICA DANIELS

PHOTO: ERICA DANIELS



# The Great Manitoba Shoreline Cleanup

## Year 1 – Summary and Thank You!

By Candi Bezte

**A HUGE THANK YOU** to all who took part in, helped organize, and provided materials, snacks and prizes for the Great Manitoba Shoreline Cleanup in 2018 – Take Pride Winnipeg, The Forks Market, Stellas, Bronuts, Clementine, Portia-Ella, Safeway-Sobeys, and the Fast Trippier Law Office. Also, a big thank you to the media outlets/personnel who picked up this story – English and French CBC, CHVN, 107.1, 104.1, CKUW, and the Winnipeg Free Press. It's about time some "good news" stories were reported. While the fact that there is a lot of trash along our waterways isn't a particularly good story, the sense of community, comradery, accomplishment, and the enthusiasm of the participants, particularly the youth who took part, definitely were. Special shout-outs to the organizers of clean-ups: Rob Altemeyer, Derek Sims, Andre MacNair, Lise Smith, and the Manitoba Environmental Youth Network.

As a part of The Great Canadian Shoreline Cleanup our youth cleanup documented the removal of 895 cigarette butts, 66 food wrappers, 48 glass bottles, 44 plastic bags, 43 beverage cans, 40 bottle caps, 26 plastic bottles, 23 straws, 15 coffee cups etc., and at Omand's Creek we found lots of the above, as well as 5 shopping carts, 4 Life Savers, 3 road pylons, 2 pairs of jeans and a suitcase! One thing that became clear, in some areas, homelessness is an issue within our city and this was directly reflected in the types of trash that were found in a number of areas, including a couch, various pillows/cushions and items of clothing.

One take-home – we can all do better with our garbage and work on reducing waste. To start, bring your own mug (BYOM). If you smoke, butt out better (BOB) – cigarette butts should not be dropped on the ground, they are small pieces of toxic waste that pollute the environment to a much greater degree than we realize. On that note, we have some handy little pocket ashtrays to give away courtesy of Take Pride Winnipeg. If you are a smoker and would like to give one a try, please contact us at the Eco-Network. For those who don't want to give up their straws, like me, you can always purchase a reusable one. We have some lovely



PHOTO: KIM CARRIERE



PHOTO: KIM CARRIERE



PHOTO: CANDI BEZTE

stainless steel straws with cleaners available for sale right here at the Eco-Network.

All told, these cleanups involved over 250 volunteers, removed nearly 400 bags of waste and literally thousands of pounds of trash from our local waterways. I know there were many other cleanups that occurred in and around the city. A big thank you to any/all who participated

in any form of cleanup in 2018 – next year we'd love to hear from you to document your progress and maybe even report under the Great Canadian Shoreline Cleanup. If you have been involved in or would like to get involved in this kind of volunteer endeavor, please let us know – we'd love to hear from you! Call or e-mail Candi at 204-590-9181 / [water@mbconetwork.org](mailto:water@mbconetwork.org). 🌱





# Ditch the spray, let the (milk)weeds grow!

By Peggy Kasuba

**WE LIVE IN A RURAL MUNICIPALITY (R.M.)** northeast of Winnipeg. I grow a very large pollinator garden. My garden began as mixed vegetable and flower until nature decided it was the perfect sight for Monarch Butterflies. There are now many Swamp Milkweed plants and Monarch caterpillars in my gardens. Many of my garden's flowering plants, including Common Milkweed, are, sadly, on Manitoba's "Noxious Weed" list and are chemically sprayed on our roadsides and in ditches, resulting in eradication.

Widespread and increasing use of herbicides is a significant threat, which kills both the milkweed needed by the caterpillars and the nectar-producing wildflowers needed by the adults. Herein lies the dilemma. Milkweed is necessary to produce the Monarch Butterfly. This is common knowledge.

The Committee of Status of Endangered Wildlife in Canada (COSEWIC) listed Monarch Butterflies as category (E): *A wildlife species facing eminent extirpation or extinction*. Furthermore, their status listed in the Species at Risk Act (SARA) Public Registry is Status schedule 1: special concern. The Wildlife Branch is responsible for the administration of The Endangered Species and Ecosystems Act in Canada.

So, agricultural based R.M.s are caught between a "rock and a hard place." Of Manitoba's 137 municipalities, 98 are rural. I do not know the spraying practices of other R.M.s. Our R.M. is mainly agricultural, and therefore, supports chemical spraying.

There are however, many roadside and ditch locations that do not border, or are near cropland, but continue being sprayed yearly. Such as the large section of the road on which ourselves and six other residents live. Letters to our R.M., Agassiz Weed Control (for our district), and with approval from Manitoba Sustainable Development, have been successful in having us on the 'No Spray' list. In the past, some years more successful than others.

Because my husband and I are retired and spend the majority of our time outdoors, we have developed a 6th sense for chemical spray vehicles within a mile from our home. We have chased down chemical spray vehicles on foot, on bicycle



“The difference between a flower and a weed is a judgement.” *Author unknown*

and in our vehicle. It's actually not that hard to do because they drive slowly. We then tell the person in the truck, "stop spraying right now. We will contact the authority for this chemical spraying, as we are on the No Spray list." The chemical spraying ceases, all 7 residents now sign a group petition and request to be on the No Spray List, again. We now send this letter yearly to our R.M., Agassiz Weed Control (for our district) and Manitoba Sustainable Development.

Residents do not have to be notified that roadsides and ditches where they live will be chemically sprayed for noxious weeds. Hmmmmmm. Most people work during the day

or are away from their homes for other reasons, and therefore are not aware of the chemical spraying until the roadside and ditch plant life begins to die.

The good news is that the names on the No Spray List is growing.

We have lived where we are for 18 years and have watched the Monarch Butterfly population continuously dropping. Other residents have noticed this also. A common question is 'have you seen any Monarchs yet?' Often the answer is no, or there have been a few sightings.

There have been some years in which I've asked my garden, "where are the Monarchs?,"



## Ways to Use Less Plastic

By Meghan Ostrum

**THESE ARE JUST SOME IDEAS YOU CAN TRY.** We don't do everything on this list. What I am going to do is slowly introduce more and more tips into my life and not try to change all of our habits at once. A small change is easier than many at once. Choose the ideas that work for you!

### KITCHEN IDEAS:

- cut the ends off the stems of produce and then store in a glass of water in the fridge or on the counter
- keep your jars and use them
  - steel containers freeze well too.
  - you can freeze them – leave some space at the top of the jar
- store onions and potatoes in a dark place in a basket



### Wrap your lettuce in a tea towel and put in the fridge.

- use beeswax wraps for your cheese
- stand celery and float carrots in water
- put leftovers in jars or put a plate over it and put them in the fridge
- wrap bread in cloth and store in a wooden bread bin
- don't buy convenience food
- make your own bread



### Buy bread from bakeries and use your own packaging.

- clean with baking soda and vinegar
- buy laundry detergent in boxes and not liquid in plastic containers or in pods
- bring your own containers to restaurants to package leftovers
- use a bar soap to wash dishes and hair
- bring your own paper bags to put cereal, chips, and/or coffee in
- use cloth rags to clean your home rather than paper towels
- buy milk in paper containers
- use cloth napkins instead of paper napkins
- use wood or glass cutting boards – the glass ones are easy to clean
- use real silverware and plates for parties

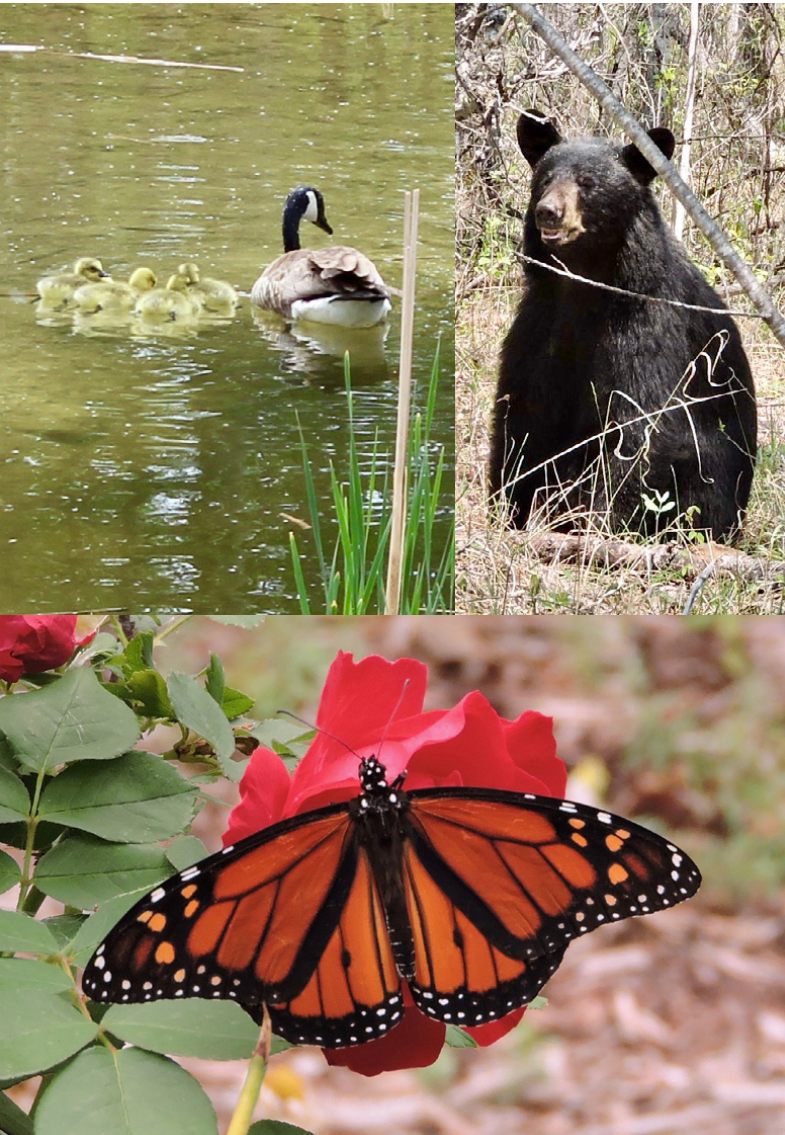
### PERSONAL USE IDEAS:

- stop buying bottled water
- use your own thermos at the coffee shop
- say no to straws
- bring your own shopping bags to the stores
- skip the disposable razor
- switch from disposable diapers to cloth
- switch from disposable period pads to reusable cloth pads



### Carry your own reusable drink containers – if cost is an issue then use a mason jar.

- use matches rather than plastic lighters
- use fabric bags for shopping instead of plastic
- use cloth toys for your pets – you can even make your own
- use junk mail to stuff around packages instead of bubble wrap
- use rechargeable batteries to reduce buying batteries
- use a reusable cloth or steel container to carry your lunch
- use mason jars for almost anything



as there are much fewer now. Over several years, I have also asked my garden, “where are the bees?”

This year, there were many bees, but still low on Monarch Butterflies. We have no official counts, records, or research to prove this. However, gardeners know what is, or isn't, present in their gardens. Silence in the garden is not a good sign. I walk  $\frac{3}{4}$  of a mile to get our mail and again to get home. I know what is or isn't present on our roadside and ditches. I monitor them.

This year we have seen many groups of wild Milkweed left unsprayed and not cut down on roadsides and in ditches in our R.M. We have not investigated why this is, but are very happy to see this change and hope it will continue.

There is hope! And best part of all, there are many Monarch caterpillars munching on Milkweed and many of us await the Monarch to take flight!



# Environmental Win-Win is Possible:

## Manitoba leads on renewable fuels

By Robert Parsons, Mathew Baranowski, Ken Borce and Trevor MacHutchon

**MANITOBA'S CARBON TAX** of \$25 per tonne is coming, and will comply with Federal requirements, at least initially. At issue is what happens in 2020 when it is supposed to rise to \$30, and later by 2022 to ultimately \$50, while Manitoba's tax remains the same? Frictions are building, with intransigence on both sides. A confrontation appears to be looming, but is there a valid compromise that could allow both governments to claim victory? We believe this is possible by the Federal government recognizing the equivalent carbon-pricing market values of Manitoba's elevated biofuels mandates.

Manitoba's ethanol mandate of 8.5 per cent has been around for a decade. We hardly think about it now. Although not well recognized nationally, we lead the country, being 3.5 per cent higher than what is required by the Federal government. Manitoba's biodiesel mandate of 2 per cent began a little later and was the first in Canada. It was matched, however, over time by the Federal government. As part of its Climate and Green Plan, Manitoba identified a possible increase of the biodiesel mandate up to 5 per cent, securing again a leadership position, becoming 3 per cent higher than Federal levels. These reductions using mandates can be translated to equivalent carbon taxes needed to reach the same levels. The mandates have advantages too. They yield direct reductions in emissions, not indirect. They are broadly applicable, including marked-fuels exempted from taxes. Lastly, in Manitoba they are documented to be cost-efficient.

A brief explanation of carbon pricing is important given a general lack of understanding. Carbon pricing does not create emission reductions by magic. Rather it uses basic economics. Carbon taxes increase the prices of fossil fuels that in turn reduce their quantities consumed. The effect, though, is indirect and depends on how sensitive consumers are to the increases in prices. In economic terms the latter is quantified by the parameter called "price elasticity of demand."

Price elasticity of demand is the percentage change in volume consumed divided by the percentage change in price. The values for gasoline and diesel are typically different. Their values are known to be both negative, in that as price goes up demand goes down, and relatively inelastic, in that achieving a 10 per cent reduction in volume requires more than a 10 per cent increase in price. Elasticity values have been also changing over time. Within North America it has been observed that consumers of both gasoline and diesel are becoming increasingly insensitive to prices.

So what then will happen with Manitoba's carbon tax? The truth is no one knows until it happens. We can, nevertheless, consider a range of elasticity values based on experience elsewhere. Most important is British Columbia (BC), an early carbon tax adopter, beginning around 2008. Indeed, they have literally become the poster child.

Econometric analyses of BC fuel consumption show reductions due to carbon taxes. An interesting wrinkle is that consumers in BC appear much more sensitive to changes in carbon taxes than to changes in base-fuel prices. This is around five times more sensitive for diesel and ten times more sensitive for gasoline.

Assuming consumers here respond just like BC, we can estimate a price for the existing higher ethanol mandate using the simple elasticity formula. A volume change of -0.035 times rough gasoline price of \$1.20 per Litre divided by elasticity of about -0.8, based on BC results, yields an equivalent price of 5.3¢ per Litre. We can do the same for the proposed higher biodiesel mandate. A volume change of -0.03 times rough diesel price of \$1.10 per Litre divided by elasticity of about -0.5, based on BC results, yields an equivalent price of 6.6¢ per Litre. The equivalent prices for gasoline



“ Within North America it has been observed that consumers of both gasoline and diesel are becoming increasingly insensitive to prices. So what then will happen with Manitoba's carbon tax?

and diesel both end up translating to the same carbon tax level, around \$25 per tonne.

At the same time, concerns have been raised about how replicable may be BC's experience. For example, the timeframe for the tax in BC was also during the lead-up to the 2010 Winter Olympic Games, when significant public transport infrastructure was underway, suggesting the tax was not the only factor. If it turns out Manitobans respond to the carbon tax only as much as to a change in base-fuel prices, then the elasticity values will be much lower, and equivalent prices much higher. Looking at BC base-fuel price effects, gasoline could be ten times higher, as much as \$250 per tonne, and diesel five times higher, as much as \$125 per tonne.

The results show a wide band of variability in prices, but this reflects the uncertainty of how Manitobans will ultimately respond to the carbon tax. In the end, though, the variability is not so crucial in that a positive outcome occurs in all cases. The sum of the direct carbon tax of \$25 per tonne, plus the equivalent values for the mandates in all cases comes to at least \$50 per tonne, as required by the Federal government, and indeed could be much higher. Our analysis shows that an environmental win-win is indeed possible by recognizing Manitoba's leadership and the monetary value of our elevated biofuels mandates.

### Author descriptions:

Parsons teaches Sustainability Economics at the I. H. Asper School of Business, University of Manitoba, while Baranowski, Borce and MacHutchon are MBA-students in the Asper program.



# Manitoba Race to Reduce Targets Building Energy Usage

By Amanda San Filippo

FROM TRANSPORTATION SYSTEMS to the expedition of communication, technological advancements have created a level of convenience and economic prosperity unknown to previous generations.

While there are marked advantages, recent concerns regarding the externalization of environmental and social costs related to the consumption of energy needed to fuel these processes have raised questions about the sustainability of current extraction and distribution of energy systems.

## Manitoba is no exception

Despite the province's skill for producing renewable energy, more than a billion cubic metres of non-renewable natural gas is imported into Manitoba during an average year. Regardless of publicly funded projects such as Bipole III transmission line and the Keeyask Generating Station, climate change, impending carbon taxes and inflation mean the cost to society associated with energy use is going up.

This is especially true within the commercial sector where, according to NRCan, energy use and GHG emissions are growing fastest.

## Shifting toward energy efficiency

These issues have left many commercial building owners and managers looking for creative ways to reduce energy use. Thus the rise of successful energy efficiency building challenges, like Manitoba Race to Reduce.

Manitoba Race to Reduce involves collaboration between commercial building landlords and tenants to encourage smart energy use. The objective is to reduce participants' energy consumption by 10 per cent over four years.

The program attempts to mitigate barriers to energy efficiency by providing participants with benchmarking data and communication tools. Its focus on changing work place behaviour over expensive capital investments also enables smaller businesses to compete successfully.

In the commercial building sector which includes both public and private institutions, the importance of energy efficiency is significant.

Public organizations face a mandate to use public funding responsibly.

Private institutions may not have the hin-

drance of the taxpayer's eye, but corporations are still subservient to shareholders and even more so to their competitors.

In both cases, the commercial sector's public reach places it in a unique position to influence large populations in relation to energy efficiency.

Despite this, and the well-recognized existence of technologies to improve energy efficiency, many commercial buildings still aren't using these low-risk and well-proven tools for responsible fiscal, social and environmental management.

## The efficiency gap

It's well documented that energy conservation is not only critical to mitigating the negative effects of climate change but also to saving money. However, the uptake of energy-saving upgrades, retrofits and behavioural changes in commercial buildings remains slow.

This well-studied but complex societal problem is referred to as the "efficiency gap". The term is used to describe the difference between levels of investment in energy efficiency which appear to be cost-effective, and the (lower) levels actually occurring.

Studies on the phenomenon highlight a combination of economic, organizational and behavioural barriers as the reasons for neglecting energy efficiency within the commercial sector.

Primary barriers postulated by researchers include issues of split incentives, capital constraints and lack of information. While some of these constraints can be alleviated with appropriate policy tools, like mandated building codes and carbon taxes, a significant contributor to change requires a societal shift that starts within the sector.

## Manitoba Race to Reduce breaks down barriers

Tapping into the competitive nature and public impression of commercial organizations, Manitoba Race to Reduce is modelled after a program by the same name in Toronto, implemented in 2011 by Civic Action.

Despite pressing issues plaguing Southern Ontario at the time, such as energy shortages and smog, local politicians hesitated to make any major policy changes. Recognizing the need for a creative approach to move energy efficiency for-

ward, Civic Action worked with large-scale local commercial organizations to come up with a plan.

That plan morphed into a four-year race, aimed at reducing energy use from participating buildings by 10 per cent.

The results were a resounding success, with 69 million square feet of regional commercial office space, equal to 42 per cent of the Greater Toronto Area, collectively reducing energy use by 193 million ekWh (equivalent kilowatt hours) or 12.1 per cent. The program was the recipient of the national 2015 Clean 50 Award – Top 15.

In Manitoba, participant registration is over seven million square feet of commercial office space. The vast majority of participants are found within Winnipeg city limits – a significant percentage of participants for a city with a modest population of just over 700,000.

The program provides participants with a plan of action, a toolkit of technical advice, and case study intelligence. These resources help organizations increase awareness of their energy use, measure and monitor their energy use, and change workplace behaviours and processes to make them more energy efficient.

The willingness of building owners to jump onboard with the program demonstrates a need for assistance in knocking down barriers to energy efficiency and a timely recognition that change starts from within. 🌱



### DO YOUR PART!

Did you know your building may be competing in Manitoba Race to Reduce? Over 7 million square feet of commercial office space is competing to reduce their energy consumption and your building can't win without you.



### GET INVOLVED!

To find out if your building is registered, visit:  
[www.manitobaracetoreduce.ca](http://www.manitobaracetoreduce.ca)



# A Year of Ridesharing in Manitoba:

## Gearing up for GoTober with GoManitoba

By Heather Mitchell

**MANITOBANS DRIVE. A LOT.** According to 2016 Census data, 75% of Manitobans drive alone to work or school each day, and only 7% carpool. It also costs individuals ~\$8,600-\$13,000 per year to own and operate a vehicle in Canada [1]. That's the second-largest monthly expense for most Canadians! At the same time, transportation is the largest source of GHG emissions in Manitoba [2]. With so many Manitobans driving alone each day, it is resulting in negative environmental, economic, and health impacts. By carpooling instead, you could be saving money, time, the environment, and overall traffic congestion in our cities. People across Manitoba are interested in carpooling, but often don't know how to organize one. Luckily, Green Action Centre has the solution!

Introducing GoManitoba: a free, ridesharing service for Manitobans. This powerful technology matches potential drivers and passengers to carpool together, as well as cycling and transit mentors and mentees to navigate sustainable routes for the first time. The Single Trip Matching feature of GoManitoba is a perfect fit for those looking for a one-time trip to an event, appointment or inter-commu-

nity travel. To use GoManitoba, simply visit [www.GoManitoba.ca](http://www.GoManitoba.ca) and create a trip profile to match with other commuters and find ideal ride matches to share a ride. Users never see the exact start or end point of their matches, just an approximation. Only after messaging through GoManitoba can users make the choice to meet a good match in real life, much like Kijiji matches buyers and sellers. It's important to note that GoManitoba acts as the mechanism to find possible connections, but you are in control of who you connect with. Messages are sent through the app, relaying general information to assist in connecting possible commuting partners.

GoManitoba provides a guideline to organize a safe, effective carpool, from meeting in a public place and checking references and insurance, to talking about music preferences in the car. This ridesharing technology is used by millions of users around the world, and no safety issues have occurred to date.

GoManitoba launched last September and the user base is steadily growing, with more than 1,000 users across Manitoba. Because GoManitoba is a service that matches and con-

nects people, it's important to have as many users on the site as possible to increase the likelihood of matches. The more users on the site the better it works!

**Celebrate GoManitoba's one-year anniversary with us during GoTober:** throughout the month of October, challenge yourself, your workplace or your school to commute in a healthier, more sustainable way as many times as possible! You'll have plenty of chances to win prizes for doing so by registering for and using GoManitoba. Visit [www.greenactioncentre.ca/GoTober](http://www.greenactioncentre.ca/GoTober) to learn more about getting started using this new awesome commuting tool!

Take advantage of this free and easy-to-use technology to save the environment and your wallet. It gives you the ability to explore all of your commuting options, share a ride, enter contests, win prizes, and track your savings. 🌱

### References:

- [1] Own a car? You won't believe how much that's costing you every year
- [2] Climate Change Connection, <http://climatechangeconnection.org/emissions/manitoba-ghg-emissions/>



PHOTO: LEIF NORRMAN



# Milestones

## Celebrating 70 with a fundraising fitness challenge

By John Sawchuk

**I TURNED 70 YEARS OLD THIS YEAR.** In the months leading up to my birthday, people asked if I was going to do anything special for it. I've watched other people have special events to mark significant times in their lives – big parties, small parties, restaurant dinners, lawn flamingoes, backyard BBQ's, special trips, romantic getaways, destination races, and on and on. A relative of mine even did 70 acts of kindness in her 70th year. I didn't think she had been particularly selfish or grumpy in her prior 69 years, but a noble venture anyway. So, I started thinking, did I want to do anything, and if so, what? I knew it would have to be something that was really meaningful to me.

I decided to do something to draw attention to the health and fitness of people and the health and fitness of Lake Winnipeg. To accomplish that I created the Purejohn70 Health and Fitness Challenge to mark and celebrate my 70th birthday.

What was it, and how did I come up with it? I started by identifying things that were important to me and that had been a constant in my life. I've been physically active all my life, and for the last 30 years have been involved in endurance sports – first marathons and then triathlons. Currently I swim, bike, run and go to the gym regularly. I played with combinations of those activities and settled on a repeating 4 day rounds of cycling 100 kilometres on the first day, swimming 1km on the second day, running 10km on the third day and resting on the fourth day. This neatly totaled 111km, and if I did it 7 times it would be a total of 777 kilometres. Magnificent! And even better, I scheduled it so my last run would be on my birthday in August. Voila – a 28-day fitness challenge involving activities that I love!

But then I thought, so what? What was this really about and what does it mean? I wanted to encourage other people to be active in their own lives and thought that using myself as an example might help. I knew that I was celebrating my own good health at age 70 and that I could even consider doing something like this. Health and fitness are like a bit like the chicken



PHOTOS: PUREJOHN70 CHALLENGE



and egg, “Am I healthy because I'm active and fit, or am I active and fit because I'm healthy?” I think they go hand in hand. I think we are built to be mobile, and I get huge satisfaction from self-propelled motion. But then again, who's going to know? If I want to draw attention to the health benefits of being active, how could I do that?

I decided that making it a fundraiser for a charity would help to give meaning to the challenge and bring it to the attention of the public. But which charity? There are so many worthy causes. I looked again to what had been a constant in my life.

In 1959, my parents bought a lot at Wanasing Beach which fronts onto Traverse Bay on the east side of Lake Winnipeg. My dad built the cabin that my wife and I now own. Our summers have been spent swimming, sailing, boating, water-skiing, fishing and just enjoying the beach. Our children, grandchildren and friends have also enjoyed cottage life there. There it was right in front of me – the Lake Winnipeg Foundation and the health and fitness of the 10th largest freshwater lake in the

world. The Foundation was excited to support me and I set an optimistic fundraising goal of \$7,777. I was trying to use those “7's” in whatever way I could. The Foundation sweetened the pot for donors by sending a birthday card to me on behalf of anyone who contributed \$70 or more. I received 30 cards!

How successful was the Challenge? Well I completed the physical part of the challenge successfully with no significant issues and enjoyed all of it thoroughly. That speaks in part to the training and preparation that I did. Most importantly, I learned more about myself and the reserves and strengths that I have to draw upon. I believe that we all have these reserves and we can only benefit by accessing them. To do that though, we need to push ourselves a bit further than we normally would but that's the only way to discover what we are capable of.

I raised \$4225.77 for the Foundation. Depending on your perspective that may seem like a lot or may be somewhat insignificant. Every dollar helps every worthy cause. To me, the real success has the increased awareness that I was able to bring to the current state of Lake Winnipeg, and the need for action to be taken to improve its health and fitness.

I'm just one individual and whatever I do is not going to be the driving force to make Lake Winnipeg healthy again. It will take a team effort over a sustained period of time to bring about the necessary changes. I'm proud of the role that the Purejohn70 Challenge has played, and while it has come to an end the main goal of improving the water quality of the lake remains. What can you do to help?

***We're doing our part  
to be environmentally responsible.***



***We're committed to the triple bottom line of People, Planet and Prosperity.***

We choose to do business in a way that is good for our planet by making choices like purchasing green energy, reducing our paper consumption, practicing active transportation, composting and more. These are just some of the ways and the actions we take as a credit union to reduce our impact on the environment and to create a better world. Our values set us apart and is why more Manitobans choose Assiniboine Credit Union as their financial institution than any other credit union in the province.

***Follow us on social, read our blog, learn more.*** [assiniboine.mb.ca](http://assiniboine.mb.ca)



[@MyAssiniboine](https://twitter.com/MyAssiniboine)



**Complimentary copy**

Please consider subscribing at  
204-947-6511 or  
[www.mbeconetwork.org](http://www.mbeconetwork.org)

Canada PM 40010075 Postage paid at Winnipeg, MB. Return undeliverable Canadian addresses to: **Manitoba Eco-Network**, 3rd Floor-303 Portage Ave., Winnipeg, MB R3B 2B4