

The official  
publication  
of Engineers  
Geoscientists  
Manitoba

# THE KEYSTONE PROFESSIONAL

SUMMER 2020



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# PRICE FACULTY OF ENGINEERING

On March 11, 2020, the Faculty of Engineering announced a transformative \$20 million investment from visionary philanthropists Gerry and Barb Price.

During the celebration held in the Engineering & Information Technology Complex atrium, a host of speakers paid tribute to the Price family, including Chancellor Anne Mahon, President and Vice-Chancellor Dr. David Barnard, Vice-President (External) John Kearsey, and Dean of the Price Faculty of Engineering, Dr. Jonathan Beddoes.

This transformative gift will allow the Price Faculty of Engineering to expand opportunities for Manitobans to study engineering in Manitoba and contribute to the well-being and prosperity of Manitoba through the 2020s and beyond.



## PRICE FACULTY OF ENGINEERING BY THE NUMBERS

**5**

Accredited Engineering Programs

**94**

Faculty Members

**135**

Graduates from Engineering Access Program (ENGAP)

**270**

Graduates from Internationally Educated Engineers Qualification Program (IEEQ)

**496**

Students in Master's and Doctoral Program

**530**

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**1841**

Students in BSc (Engineering) Programs



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The Keystone Professional Committee would like to hear from you. Please email your comments to: [DWawryk@EngGeoMB.ca](mailto:DWawryk@EngGeoMB.ca). Members are also encouraged to submit articles and photos on topics that would be of interest to the membership.

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# THE KEYSTONE PROFESSIONAL

The official publication of Engineers Geoscientists Manitoba



## SUMMER 2020

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## Of Capes and Rings...

Growing up, my favourite movies were the ones where a superhero would come and save the world from the brink of destruction. With the passage of time, I became resigned to the fact that superheroes only existed in movies. Given the current-day pandemic of COVID-19, where some naysayers are already predicting the end of the world, I ponder whether superheroes only come to save us in capes. Aren't people who are on the frontlines dealing with the pandemic, maintaining essential services, and saving lives superheroes? I dedicate this President's Message to all these professionals who are working around the clock to make sure we sail through these unprecedented times with minimum impact on the way we live, function, and exist.

If we were to look at professions that deal with unforeseen calamities on a routine basis, engineering and geoscience couldn't be far from the top, if not at the top themselves. Take, for example, the Spanish Flu that decimated our world in many ways a century ago. In the absence of much knowledge of the flu virus at the time, healthcare



I am confident that we will emerge from this as a stronger society.



workers struggled on the frontlines as medical countermeasures were limited to prescribing aspirin to alleviate symptoms. They relied on engineers working in the area of logistics, sanitation, and transportation to contain the spread of the disease. In the aftermath of the pandemic, the burden to re-emerge from the economic destruction was again to be shouldered by engineers and geoscientists working in manufacturing, construction, and telecommunications, who ramped up production and services to bring the economy back on track.

As dismal as the outlook may seem in the short term, we are much better prepared to deal with the pandemic-driven downturn this time around. Thanks to the hard work of our professional colleagues, we have generated enough

collective knowledge and wisdom in the last hundred years to overcome this catastrophe. Our ability to do billions of mathematical computations in the blink of an eye, enabled by computer engineers (and their tools provided to them by geoscientists and electrical engineers), has given epidemiologists the models to predict the spread of coronavirus and develop mitigation strategies; advancement in data communication has helped most work to be done online, eliminating physical contact and thus helping us flatten the curve; biomedical and clinical engineers have provided physicians and nurses with means to care for the sick; while agricultural, chemical, mechanical, and civil engineers maintain all the essential services that are needed for our society to function.

Therefore, I am confident that we will emerge from this as a stronger society. In a few years from now, looking in the rear-view mirror of our lives, we will see this as another challenge that was thrown at us by mother nature and how a new breed of superheroes came to rescue and saved the world – just like they always do in the movies. The only difference being, these real superheroes did not wear capes, some of them wore iron rings.

If you have any questions or comments, please email me at [President@EngGeoMB.ca](mailto:President@EngGeoMB.ca). ☺

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## My Reconciliation Story – Part II

In the Winter 2019 issue of this magazine, I wrote about Karen, the Indigenous girl I sat beside in my grade six class. She was part of the “sixties scoop”. Since writing that article, I’ve learned a lot more about Manitoba’s history with respect to colonization. I was totally surprised to learn so much from two sources: a biography of Queen Victoria’s life and an old book containing some personal family history.

I was speaking to my aunt on the telephone. I call her every year on her birthday. This year, she is 88. We were talking about grandparents and great-grandparents. She referred me to a book of family history, which I was given years ago. At the time, I didn’t know that this old book had so many details that would come alive all these years later. The book is called *Golden Memories: Palestine, Steele Bridge, Woodside, Golden Stream*. It was published by the History Book Committee, Gladstone, Manitoba, 1980.

My great-great-great-grandfather came to the Gladstone area of Manitoba with his new wife and her parents. They arrived in 1870 at the time of the Red River Rebellion, the incorporation of the Province of Manitoba, and the signing of Treaties 1 through 5.

The patriarch of my family witnessed the social and political machinations that ultimately resulted in the laws, regulations, and conditions, which established colonial rule in Manitoba and across Canada.

### Colonization

In my youth and early adult life, I never thought about colonization. Generally speaking, I was aware that Canada began with two ruling groups: English and French. Never did I pay any attention to Indigenous people. Until recently, I had no awareness of the role and effect Queen Victoria, the British government, and the colonies had on regions of the world and, in particular, Canada. I have recently overcome my ignorance by acquiring knowledge from reliable sources.

I’ve heard some people ask, “So what’s the big deal about colonization anyway? Almost every nation is a colony of some other nation”. Until recently, I would’ve answered, “Sure... Canada, the US, many parts of South America, Africa, Asia, and other places were settled by the British, French, Spanish, Portuguese, Dutch, etc. No big deal.” However, I’ve become convinced that our country and many other

places are suffering because a nation overtook another nation and set up colonies. There is ample evidence of the serious problems being faced a century later by the people of these former colonies – in particular, the Indigenous people of Canada.

### Your Turn

So, what are you doing about reconciliation? Are you thinking about it? Reading about it? Do you care at all? If you haven’t done so already, I recommend you do some reading. Why not engage in some active learning by attending lectures on the topic, borrowing history books from the library, following some of the notable speakers on reconciliation, or attending one of the events on June 21 to recognize National Indigenous Peoples Day. You can also learn about the Association’s mandate to increase Indigenous membership by reading the Indigenous Professional Initiative article on page 16.

### Centennial Year on Hold

As you know, many events and activities planned for the Association’s Centennial year have been postponed or cancelled due to the COVID-19 pandemic. Notwithstanding the ban on in-person group gatherings, the Association hosted a Virtual Birthday Party on Friday, March 27, 2020, to mark 100 years of engineering in Manitoba. Thanks for the many posts, Tweets, and photos that were sent in. Engineers Geoscientists Manitoba will host as many Centennial events as possible – following the recommendations and guidelines from government and health authorities. Watch for updates in the E-News.

Your feedback is invited and welcomed. If you have any thoughts on anything you read in the KP, please email me at [GKoropatnick@EngGeoMB.ca](mailto:GKoropatnick@EngGeoMB.ca). Have a great day! ☺



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# Manitoba Trailblazers

## – Engineers and Geoscientists Make Our Lives Better



**Fred Gilbert** was born in Winnipeg in 1910. He obtained his B.Sc. in engineering physics from Queens University

in 1936. Fred was the forefather of Atomic Energy of Canada Limited in Manitoba. Before becoming the first manager of Whiteshell Nuclear Research Establishment, (WNRE; later renamed Whiteshell Laboratories), Fred worked at the Chalk River site in Ontario, where he was at the forefront of the nuclear industry. As part of his role at WNRE, Fred was also tasked with creating the townsite for the employees. Gilbert was involved in every facet of WNRE and Pinawa, and was a key member of several of the town's first organizations.



**Kimberly Dodds** is the Director of Tissue Bank Manitoba, a Human Tissue Gift Agency, which recovers tissues from

authorized donors for transplantation, medical education, and scientific research. She is a professional bioengineer with a Master of Business Administration. Kim has worked across Canada and internationally in both the private and public healthcare sectors in industries ranging from nuclear pharmaceuticals to point-of-care medical diagnostics. In addition to her role at Tissue Bank Manitoba, Kim teaches in the Health Services Leadership and Management Program at Red River College.



**Diane Kotelko** works at Magellan Aerospace Winnipeg, where she has been a rocket and spacecraft systems

engineer for more than 30 years. Diane received her mechanical engineering degree at the Royal Military College in Kingston, Ontario, as part of the third class to include women. Engineering is a creative

outlet for Diane as well as a profession. Problem-solving a technical issue on a satellite with a small multi-disciplinary team challenges her ability to think big (orbits) and think small (analog to digital conversions on the spacecraft

computer), while learning something new every day, and eventually contributing to the scientific body of knowledge. Diane's work on rockets and satellites enables scientists to learn more about our earth and our environment by taking measurements

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from a global perspective. Most recently, the images of the 2020 Red River flood progression from the built-in-Winnipeg Radarsat Constellation Mission spacecraft really brought her work full circle. Learn more about Diane's story by visiting [MyStory.EngGeoMB.ca](http://MyStory.EngGeoMB.ca).



**Gordon Christie** was born in Winnipeg in 1924. He began his engineering studies at the University of Manitoba, which he temporarily put on hold in 1943 when he

served as a Pilot Officer-Navigator in the Royal Canadian Air Force until 1945. He would eventually graduate with a B.Sc. in mechanical engineering in 1949. Gordon practised as a professional engineer for a period exceeding 60 years, where he immersed himself in the design of fan and ventilation equipment. He was never found far from a slide rule or drafting board. He would eventually retire in 2011 as President and CEO of CML Northern Blower, Inc. In his early years, Gordon was active with the Association and

was the first editor of *The Manitoba Professional Engineer* publication, which began in 1956. Learn more about Gordon's selection as the first editor in the Association Archive section on page 15.



The world requires minerals for everyone's daily needs, and **Shastri Ramnath** is actively searching to find new mineral deposits to supply them. Shastri is known for her entrepreneurial spirit, creativity, and determination as the co-founder and co-owner of Orix Geoscience Inc., a geological consulting firm, and as the founding President and CEO of Exiro Minerals Corp., a mineral exploration project generation company. A graduate of the University of Manitoba (B.Sc. Geology), South Africa's Rhodes University (M.Sc. Exploration Geology), and Athabasca University (Executive MBA), she is a professional geoscientist with over 20 years of global experience. Her work focuses on a data-driven approach to leverage value from proprietary historical paper datasets to distill high-quality exploration targets, which may one day be developed into materials used by everyone.



**Mark Lee** grew up on a farm in rural Manitoba where his favourite time of year was digging trenches and making dams in the spring mud. After obtaining a more formal engineering education at the University of Manitoba, Mark quickly developed into one of Manitoba's leading water resources engineers. Water is at the center of many components of Manitobans' quality of life. Mark's work as a professional engineer with the Province of Manitoba allows water management decisions to be based on sound engineering and scientific information.



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# Provincial Engineering and Geoscience Week



## FIGHTING HUNGER BY PUTTING ENGINEERING SKILLS TO THE TEST

During the first week of March, over 1,000 students from Winnipeg and surrounding areas put their engineering skills to the test in the 25<sup>th</sup> annual Spaghetti Bridge Competition, as part of Provincial Engineering and Geoscience Week. Students from kindergarten to Grade 12 constructed a bridge truss made only of spaghetti and glue and hoped their entry would hold the most weight. The builders of the strongest truss in each grade level, and overall categories, won a cash prize. The strongest truss was built by a team of Grade 5 students from Dr. F.W.L. Hamilton School, whose truss bore 176.30 kg of weight before breaking.

This year, potential future engineers constructed trusses which held up a total load of **14,036.70 kg**, resulting in a donation of **\$28,073.40**. Since 2010, Engineers Geoscientists Manitoba has donated over \$207,000 to Winnipeg Harvest, enabling them to distribute over 4 million kilograms of food to families in Manitoba.

“We’re overjoyed to be the charity of choice for Engineers Geoscientists Manitoba, who have organized the Spaghetti Bridge event for 25 years,” says Keren Taylor-Hughes, CEO of Winnipeg Harvest. “The event engages students to build bridges that connect people and communities, demonstrating the huge impact that we can have when we all work together. A big thank you to Engineers Geoscientists Manitoba and all participants for their continued and significant support. You are Harvest Heroes.”

Once again, Engineers Geoscientists Manitoba expanded their actions and



L-R: Don Spangelo, P.Eng., FEC proudly shows off his trophy made of pasta presented to him by Tristen Gitzel, P.Eng., FEC in recognition of Don's dedication to the competition over the last 25 years.



Association volunteers speak to students about how professional engineers provide many trusted and valuable skills and services that make everyone's lives better.



Grant Koropatnick, P.Eng., FEC, CEO & Registrar of Engineers Geoscientists Manitoba with Tristen Gitzel, P.Eng., FEC, Chair of PEGW Committee, Keren Taylor-Hughes, CEO, Winnipeg Harvest and Association volunteers.



We couldn't host such great activities without the help of our volunteers.

brought the annual Spaghetti Bridge Competition into four Winnipeg schools, in addition to the final competition held at Kildonan Place. By bringing the event into schools, engineers and geoscientists had the opportunity to speak to hundreds of students about how professionals provide many trusted and valuable skills and services that make everyone's lives better.

Tristen Gitzel, Committee Chair, says the idea for the week's activities is to showcase elements of engineering that are easy for young Manitobans to grasp.

“With doctors, lawyers, and dentists, the general public interacts with them, and they understand what they do. But engineering is more behind the scenes of society, so we're trying to make people better understand our profession,” he says.

### Children's Activities

The Association's volunteers also provided fun activities at Kildonan Place to engage the next generation of engineers and geoscientists. Hundreds of kids had the opportunity to have fun while building structures out of gumdrops, bridging a raging river using straws, digging for cool rocks, and building a working circuit.

The Spaghetti Bridge Competition and Children's Activities are part of a series of events to celebrate Provincial Engineering and Geoscience Week. The celebration is part of National Engineering Month, which takes place across Canada throughout March each year. ☺



Hundreds of kids of all ages joined us for engineering and geoscience activities during Provincial Engineering and Geoscience Week.



Dan Kaethler, P.Eng. with his future engineer and geoscientist daughters.

# How Times Change...



## Two engineers reflect on their work-life experiences through the decades

*Imagine packing up your life and leaving everything that is familiar behind in search of something different, something new, something better. Ramesh Gupta had no clue what those different, new, or better things would look like when he made the bold move from his homeland of India to Canada on a National Research Council of Canada scholarship to attend the University of British Columbia. He landed in B.C., green to the ways of this new world, but intent on discovering everything he could about it. He would later accept an engineering position with Manitoba Hydro to work on the Nelson River Hydro project and other major projects. He reflects on what it was like to start his Canadian engineering career in the 1960s.*



When I first joined Manitoba Hydro in 1967, I believe I was the first professional engineer of East Indian descent at that time. My colleagues had a hard time even pronouncing my name back then. We had an open-office setting, where only senior managers were assigned offices. All the engineers sat together out in the open and all our memos and reports were handwritten or typed

up on a typewriter and dispatched through an interoffice mail system. To make a phone call, we relied on those good old rotary-style phones that took what seemed like an eternity to complete a call, and if you got even one number wrong, you'd have to start all over again.

As engineers, we often worked in groups on projects in the office. It was not uncommon to sit at one's desk and light a cigarette; in fact, it was commonplace, especially in meetings. There were ashtrays around the office, in the conference rooms, and in the hallways to facilitate the process.

My work would sometimes take me out of the office setting and away from my young family. The responsibility would fall on my wife, Asha, to take care of the children while I was away. Initially, I worked in the field quite a bit, on soil explorations at transmission-line tower sites in Northern Manitoba.

By the early 1970s, I was coordinating projects for the Kettle Generating Station on the Nelson River, holding meetings, and liaising with consultants, design staff, and field engineers. Most of this work was done from the Winnipeg office, although there were sometimes short field trips to the Kettle project.

I remember one project, however, during the summer months, that took me away from my family for four-to-six-week stretches of time, once again leaving my wife to take care of it all while I was away. That project was during the 1980s, at the Limestone Generating Station.

*Ramesh Gupta, P.Eng(Ret), FEC, would eventually become one of the founding members and first president of the India Members Chapter. He retired from Manitoba Hydro after practising for over 30 years, improving the lives of Manitobans.*

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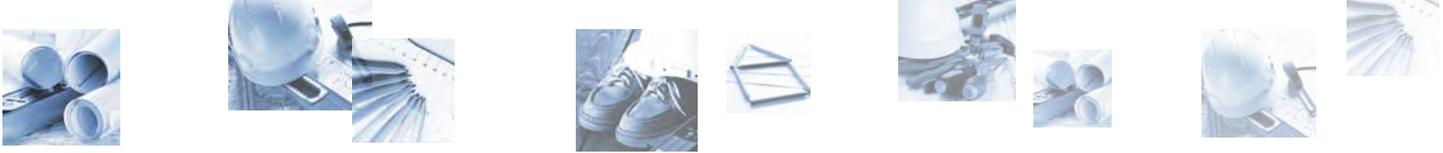
*Sid Sectar's work as an engineer often requires day field trips to Northern Manitoban communities. Sid has always felt that it is our duty to help make the world a more just and sustainable place. His passion for social justice took him through an arts degree with a major in history and a degree in civil engineering from the University of Manitoba. Currently an engineering intern, Sid works at Indigenous Services Canada where his responsibilities include funding, oversight, and providing technical expertise for desperately needed infrastructure projects being constructed in First Nations communities. There, he feels motivated and satisfied knowing he is helping people through infrastructure development. He gives an account of a recent field trip into a remote First Nations community.*

While the office setting is always a part of an engineer's role, much of the work also happens in the field. An example of field work, involves going out to remote First Nation's communities for site visits.

Site-visit days typically start around 6:30 a.m. and by 7:00 a.m., we are all crammed into a nine-seater plane for our flight north. Of course, you cannot forget to take along the essentials, particularly during the cold months, when extra gear is essential to your survival in these parts. Now, besides the typical PPE, documents, and emergency survival gear, the essentials include a cell phone, a tablet loaded with books and Netflix, and a portable charger, so your tablet is never out of action. Sometimes I wonder how we ever survived without all our gadgets!



Sid Sectar, EIT and crew in Pukatawagan, MB



We land by 9:30 a.m. where we are met by the project team, chief, councillors, and community members who will be our transportation for the day. By 10:00 a.m., we hit the ground running touring the community, conducting site visits, talking with consultants and contractors to discuss the progress of projects, and to ask questions. Once this process is complete, it is on to our project team meeting, which lasts for a couple of hours. These meetings open with a prayer with the community leaders, prior to the review of the last meeting's minutes. We then launch into a discussion of construction progress, schedules and budget, and use the remaining time to smooth out any issues, or disputes.

After having lunch with community leaders and the project team, we typically conduct a final site visit before we return to the airport, where we round up the pilots who clean the snow off the plane for our departure home.

As engineers, it is our duty and privilege to serve and protect the public. Through infrastructure development we are in a special position to close socio-economic gaps and bring some semblance of justice to historic wrongs. Our work



Sid Sector, EIT and Chief Sam Knott of Red Sucker Lake

is challenging at times, but arguably one of the most fulfilling as we overcome constraints, work collaboratively, and realise some of life's most essential services. The Engineers Geoscientists Manitoba slogan, "my life's work makes life work better", could not be truer and I am honoured to do my part.

*As evidenced by these firsthand accounts of dedicated engineers, while our professions have evolved over the years, our desire to make life work better has not changed.*

*What does your typical day look like? How has it changed over the years? Send your stories to [DWawryk@EngGeoMB.ca](mailto:DWawryk@EngGeoMB.ca), we would love to hear from you too! 📧*

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# Centennial EVENTS



Plans are still underway to celebrate our Centennial year throughout 2020.

Here are some highlights from events hosted so far. Stay tuned for information on more Centennial events!

## Manitoba Moose Hockey Game

On January 14, over 100 practitioners, family, and friends joined the Association to kick off our Centennial year by attending a Manitoba Moose Hockey game. Everyone enjoyed a fun afternoon while cheering on our home team to victory.



## FortWhyte Alive

Our Centennial Outreach Team couldn't have planned better with the weather on February 22, when the Association hosted a day at FortWhyte Alive. Over 900 community members, practitioners, and their friends and family had the opportunity to enjoy some fresh air while hiking, tobogganing, skating, ice-fishing, and cooking bannock over a campfire.



## Project Donate 2020

During the month of March, donors participated in Project Donate to help build a strong, stable blood inventory to support local patients in need. Thank you to those of you who rolled up their sleeves for Project Donate!



## Centennial Speaker Series

In January, the Centennial Professional Development Team hosted Dr. Barry E. Prentice who delivered a talk on Cargo Airships for Scheduled Supply and Emergency Response in the Arctic. In February, attendees had the pleasure of touring the Manitoba Hydro High Voltage Test Facility. With most practitioners working remotely due to the COVID-19 pandemic, the Association, in partnership with Canada Life, subsidized a two-hour interactive online course on Leading Projects Remotely in April.



Leading Projects Remotely™

Delivered by Lori Marra



## Engineers Geoscientists Manitoba's 100<sup>th</sup> Virtual Birthday Party

While we had originally planned to celebrate this special day by hosting an open house at our office, current events made that impossible, so we held a Virtual Birthday Party on March 27. CEO & Registrar, Grant Koropatnick, shared birthday greetings via a YouTube video to mark the occasion.

## From Our History

**ASSOCIATION ARCHIVE**

### HOT AIR EXPERT NAMED EDITOR

By W. H. Dickins, P. Eng.

When the Public Relations Committee was given the task of finding an editor for this publication, its members began making subtle inquiries about various engineers in the Association, in an effort to find just the right person for the job. They wanted someone young, vigorous, imaginative, photogenic, intelligent, capable of assuming responsibility, capable of



G. T. CHRISTIE

delegating responsibility, a good organizer, a good mixer, reliable, prompt, one able to meet the public, someone able to deal with the vagaries of Council, astute, tactful, shrewd and with enough free time for the task.

Naturally the field was quickly narrowed, so narrow that from an original list of 587 members, all but four were eliminated. It was a chance remark by Bill Patton that led to the final choice. He is reported to have overheard: "Gordon Christie reads the editorial page of the Free Press." Here, indeed, was the man for the job and Gordon was immediately appointed. The fact that he was an expert on hot air also influenced the decision in his favor.

Gordon Thomas Christie, P. Eng., M.E.I.C., was born and educated in Winnipeg. During the war he served for three years with the R.C.A.F., winding up as a navigator. In 1949 he received the degree of B.Sc. M.E. from the University of Manitoba and was married in the same year. For one year following graduation, he was employed in Toronto.

Gordon is now employed by Alpha Manufacturing Company Ltd., in the capacity of sales manager.

Gordon Christie first developed an interest in journalism in grade 6 at Queenston School, when he won first prize for his composition, "Why I want to be a Sword Swallower."

However, Gordon's first love was engineering and he abandoned the field of journalism temporarily, hoping that perhaps one day he might be able to combine the two professions. The opportunity has finally presented itself and with this issue Gordon Christie eagerly embarks on his dual career.

JULY 1956



## The Manitoba Professional Engineer

Published by the Association of Professional Engineers of the Province of Manitoba  
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Vol. 1

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No. 1

### SECOND TRY

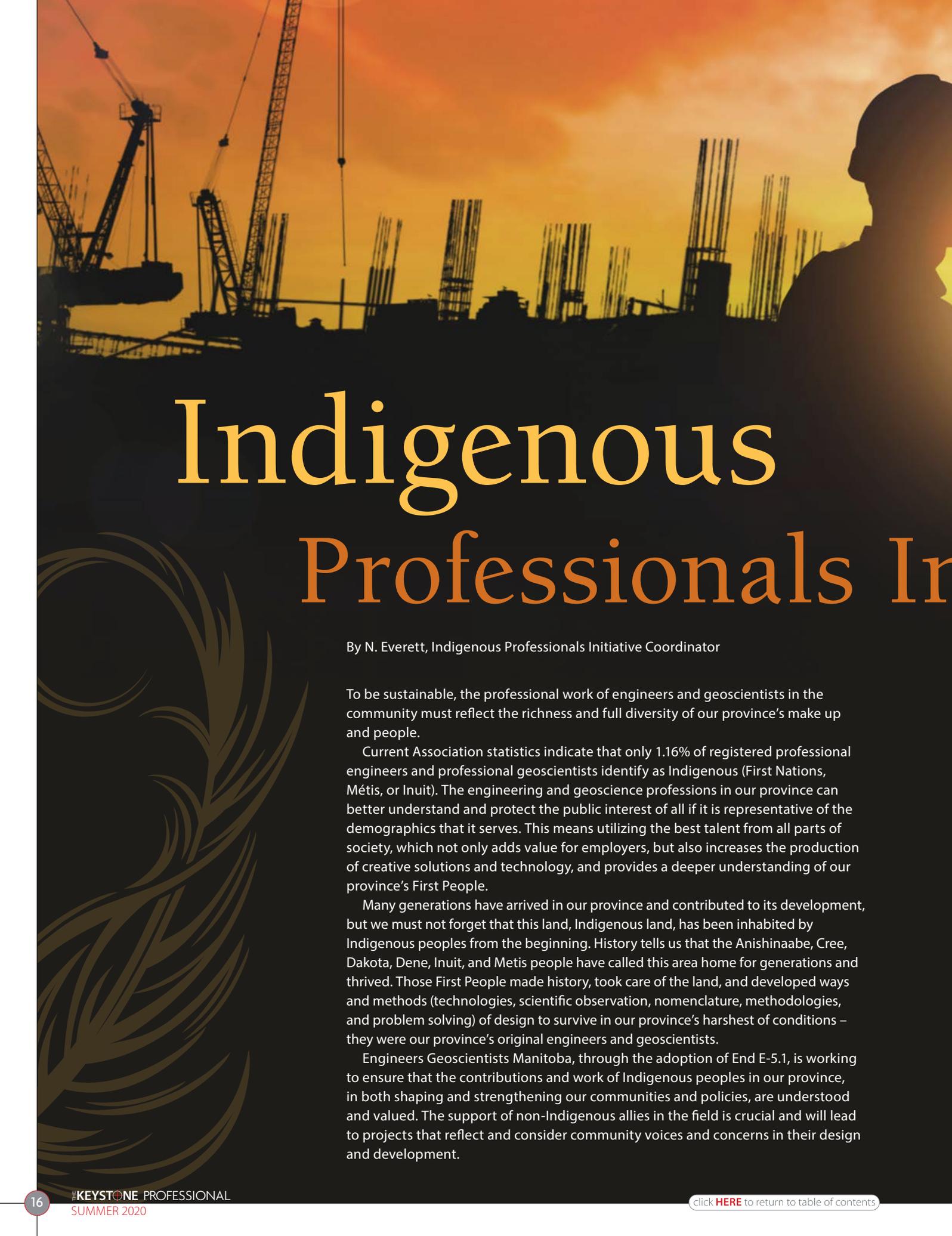
A few years ago the Association undertook the task of producing a news bulletin. Three issues (mimeographed) were distributed and then, despite the efforts of an enthusiastic and energetic committee, the project was discontinued because the sources of the kind of news and information which went to make up the bulletin dried up.

We welcome a fresh start in "The Manitoba Professional Engineer" because the Editor and committee producing it intend to make it a medium for publishing news items of interest to the members. There is no thought that it will, in any manner, be the means of presenting technical subjects.

The editorial staff wants to print items concerning members, which will be of interest to others. Such a bulletin needs the active co-operation of all, either in the way of making available personal notes, such as promotions, transfers, outstanding achievements and the like. You may hear of things that you consider of little or no importance, from the point of news value; however, we urge you to send these in and let the editorial staff be the judge.

—L.S.C.

As of 2020, over 300 issues have been published since 1956. We're pleased that Mr. Christie and the committee gave it a "SECOND TRY".

A background image showing a construction site at sunset. Several cranes and rebar structures are visible against a warm, orange sky. In the foreground on the right, the silhouette of a person wearing a hard hat is visible. On the left side, there is a decorative, stylized graphic of a plant or leaf pattern in a dark green color.

# Indigenous Professionals In

By N. Everett, Indigenous Professionals Initiative Coordinator

To be sustainable, the professional work of engineers and geoscientists in the community must reflect the richness and full diversity of our province's make up and people.

Current Association statistics indicate that only 1.16% of registered professional engineers and professional geoscientists identify as Indigenous (First Nations, Métis, or Inuit). The engineering and geoscience professions in our province can better understand and protect the public interest of all if it is representative of the demographics that it serves. This means utilizing the best talent from all parts of society, which not only adds value for employers, but also increases the production of creative solutions and technology, and provides a deeper understanding of our province's First People.

Many generations have arrived in our province and contributed to its development, but we must not forget that this land, Indigenous land, has been inhabited by Indigenous peoples from the beginning. History tells us that the Anishinaabe, Cree, Dakota, Dene, Inuit, and Metis people have called this area home for generations and thrived. Those First People made history, took care of the land, and developed ways and methods (technologies, scientific observation, nomenclature, methodologies, and problem solving) of design to survive in our province's harshest of conditions – they were our province's original engineers and geoscientists.

Engineers Geoscientists Manitoba, through the adoption of End E-5.1, is working to ensure that the contributions and work of Indigenous peoples in our province, in both shaping and strengthening our communities and policies, are understood and valued. The support of non-Indigenous allies in the field is crucial and will lead to projects that reflect and consider community voices and concerns in their design and development.



“

Those First People made history, took care of the land, and developed ways and methods (technologies, scientific observation, nomenclature, methodologies, and problem solving) of design to survive in our province’s harshest of conditions – they were our province’s original engineers and geoscientists.

”

# Initiative

The mandate of End E-5.1 is guided by the work of the Indigenous Professionals Initiative Coordinator, Nicole Everett (a member of the Berens River First Nation, with roots also in the Long Plain First Nation and Swan Lake First Nation), within the Department of Equity and Representation. The initial focus of work for the Indigenous Professionals Coordinator and Initiative is:

- to increase the numbers of Indigenous practitioners in engineering and geoscience by identifying and developing strategies to remove barriers of access to education, student support, licensure, and industry support for Indigenous engineers and geoscientists;
- to develop an environmental scan and strategic operational/action plan for the Initiative;
- to maintain and track statistics on the number of Indigenous professionals working in engineering and geoscience, enrollment rates for

secondary pre-requisite requirements for admission to engineering and geoscience programs, the number of students enrolled in post-secondary programs, and graduation rates, for the purpose of establishing metrics and benchmarks;

- to improve the image of the engineering and geoscience professions within Indigenous communities, and support Indigenous youth participation in existing programs such as the Engineering Access Program (ENGAP) at the University of Manitoba, the Verna J. Kirkness Science and Engineering Education Program, and others designed to encourage interest about engineering and geoscience fields of study;
- to advocate for funding of Indigenous engineering access programs;
- to build the membership of the Association’s Indigenous Professionals Initiative Committee (IPIC) to include members who can provide guidance in the areas of education, student support, traditional knowledge, and engineers and geoscientists already working in the industry to guide the direction of End E-5.1; and
- to explore and pursue collaborations with community organizations,

Indigenous organizations, and representatives from First Nations, provincial, and federal government representatives, in order to enhance opportunities for Indigenous representation in engineering and geoscience.

Along with this, the pathway to reconciliation for the Association will involve training and the development of professional development opportunities to increase understanding among Association members, chapters, committees, working groups, and staff on the following:

- the history of colonization and marginalization of Indigenous peoples;
- duty to consult and Indigenous engagement;
- traditional knowledge and its link to engineering and geoscience; and,
- information on the Truth and Reconciliation Commission’s Calls to Action, the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), and the National Inquiry into Missing and Murdered Indigenous Women and Girls Call to Justice that relate to the industry.

Visit the Indigenous Professionals Initiative webpage at <http://enggeomb.ca/IndigenousProfessionals.html> for more information. ☎

# Curling Funspiel



January 22, 2020, marked the third Curling Funspiel in the Association's Sport Committee's current revival of an old tradition. There were 16 teams gathered at St. Vital Curling Club, in search of a fun afternoon, prizes, and their name on the trophy.

Using a cumulative high-value scoring system, all teams had the chance to score big, from the seasoned league players to the non-curlers who were trying the game for the very first time. Teams played five, two-end games and individuals could also participate in the Draw to the Button competition, which was won by Michelle Wadelius.

Congratulations to the team from WSP Group that quickly emerged at the top of the pack, and fiercely defended their spot to win 27 points ahead of the second place team.

A special mention goes out to the Price Industries team for winning our first Best Costume award.

The Sports Committee would like to thank all participants for joining this year's Funspiel and helping to raise over \$4,000 to support geoscience students at the University of Manitoba.



Winning team from WSP Group: (L-R) Lauren Lange, Diana Emerson, P.Eng., Lissa VanDorp, P.Eng., Michelle Wadelius, P.Eng.

Mark your calendars for next year's Curling Funspiel on January 20, 2021. ☺



Winners of the Best Costume Award from Price Industries (L-R) Ryan Plett, EIT, Steve Hoepfner, EIT, Dirk Kelsch, Nelson Sprout, EIT

## Thank You to our Sponsors



# Government Relations' Update on Policy Development: *The Limitation of Actions Act*

**T**he *Limitation of Actions Act* refers to a law, which sets a period that a person can wait before filing a lawsuit. The limitation periods in Canada vary by province and by type of claim. Many Canadian jurisdictions have updated their limitation periods in recent years and an increased uniformity across jurisdictions in Canada was achieved. Manitoba currently has a basic limitation period ranging from two to 10 years. Comparatively, most Canadian jurisdictions have a nearly universal basic limitation period of two years. Manitoba also has an ultimate limitation of 30 years, which is the longest limitation period in Canada, while other jurisdictions' general limitation periods are 10 to 15 years.

In April 2017, results of the Association's membership survey showed that *The Limitation of Actions Act* legislation was among one of the top issues practitioners wanted to see the Association lobby the government to assist the public and the engineering and geoscience industries. In September 2017, the Limitation of Actions Task Group was formed by members of industry, under the guidance of the Association's Government Relations Department and the Government Relations Advisory Committee (GRAC), to address concerns raised by members and the public regarding *The Limitation of Actions Act*. The task group, in consultation with the Association's legal team, submitted a briefing to the Manitoba Minister of Justice in the spring of 2018. The briefing *Proposal to Amend the Limitation of Actions Act* suggested to replace current limitations in order to be more consistent with neighbouring provinces, and suggested a two-year basic limitation period and 10- or 15-year ultimate limitation period, respectively, for Manitoba.

The proposal argues that by signing the New West Partnership Trade Agreement (NWTPA) and the implementation of the Canadian Free Trade Agreement, the Manitoba government had committed to reducing barriers to the free movement of workers, goods, services, and investment; to reducing red tape; and to improving regulatory efficiency, to better align regulations across provinces.

Current Basic and Ultimate Limitation Periods in Manitoba and Neighbouring Selected Provinces			
Province	Year of Reform	Basic Limitation Period (Years)	Ultimate Limitation Period (Years)
British Columbia	2013	2	15
Alberta	1999	2	10
Ontario	2002	2	15
Saskatchewan	2005	2	15
Manitoba	1931	2/6/10	30
New Brunswick	2012	2	15
Nova Scotia	2014	2	15

**TABLE NOTES:** As to all provinces: subject to different definitions, exclusions, and special considerations, such as when the clock starts on the limitation period; these are based on generic and general interpretations. In Manitoba, the basic limitation period will depend upon the basis of the cause of action. Speaking generally, the basic limitation period for claims arising out of a tort, such as negligence, are two years after the cause of action arises, and claims arising out of a contract are six years after the cause of action arises. The limitation period relating to a claim under the mortgage and claims relating to ownership of land is 10 years after the cause of action arises. However, there are numerous sub-categories of specific types of claims and applicable basic limitation periods.

The briefing included reasons for amending *The Limitation of Actions Act* in Manitoba. To summarize, the briefing stated that:

- **A shorter limitation period is in the public's interest, as it could serve to encourage business owners and operators to take more responsibility for their facilities, products, or systems**  
As such, if they knew that their resources end within a finite period, they might be more inclined to examine or audit the facilities, products, or systems periodically to conform compliance with the design standards.
- **A shorter limitation is also beneficial when balancing the rights of the plaintiff and the claimant**  
The general perception is that claimants should not be allowed to "sit on their rights" for an inordinate length of time before bringing a lawsuit, and that the defendants should not be subjected to the threat of possible legal action indefinitely.
- **The quality of evidence deteriorates with the passage of time**  
Witnesses' memories fade, documents are no longer available, and many claims do not proceed to court after 10 years because the evidence has deteriorated to the point that it is not possible to generate a complete and reliable record to support a fair judicial decision.
- **In 2010, the Manitoba Law Reform Commission comprehensively reviewed the current Act providing 38 recommendations for changes to the Act**
- **Shorter limitation periods may result in reducing the liability cost to companies, sole practitioners, and retired professionals**
- **Businesses currently have to cover a longer period of exposure to potential liability, which increases their cost of doing business in Manitoba**
- **Consistency is expected to be achieved for jurisdictions within Canada**

In November 2019, in the reading of the Speech from the Throne, it was stated that the government will put forward the amendments to *The Limitation of Actions Act* to bring Manitoba in line with the rest of the country. In the ministerial mandate letter issued in March 2020 by Premier Brian Pallister to the Honourable Cliff Cullen, Minister of Justice and Attorney General, the premier outlined the minister's responsibilities for the upcoming legislative session. Of interest to our Association is the province's commitment to modernize the legislation relating to the limitation of actions.

The success of the initiative depends on the effective communication with government, productive stakeholder engagement, and the support from our Association. Encouraged by the commitment of the provincial government to reform the legislation, seven professional and regulatory organizations, including our Association, jointly submitted a letter to Minister Cullen this March, which proposed a meeting to discuss the plan to amend the legislation and identified how they can assist in the process. We are convinced better solutions to this issue can be achieved through continued communication and mutual determination between government, stakeholders, and the general public. ☺

# Geohazards: Floods

By R. Reichelt, P.Geo., FGC

Springtime in Manitoba often means flooding and by the time this article goes to press, this year's spring flood would have come and gone, hopefully without any major issues! In this article, we will examine flooding in the Red River watershed, since the major floods in Manitoba's history have occurred there. With that in mind, we can discuss the following:

- What is the history of flooding in Manitoba?
- Why is the Red River Valley prone to serious flooding?
- What have we done to mitigate the danger?

## History of Flooding in Manitoba

Written history in the Red River Valley began with the Selkirk Settlement in 1812. We have not come across any descriptions or oral histories of flooding from the original inhabitants of the watershed, although it would be interesting to hear their stories. The major floods in the Red River Valley are shown in Figure 1.

Each of the flood events severely affected the people who lived in the Red River Valley. As population and development increased, so did the human and financial costs of each flood. As a result of these costs,

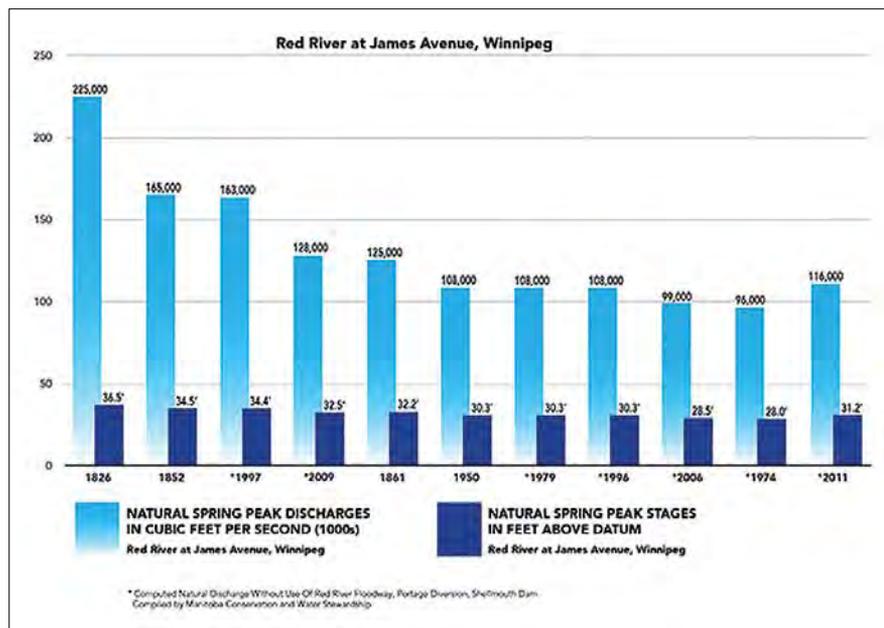


Figure 1 – Major Flood Events in the Red River Valley<sup>1</sup>

people sought to understand the flooding and find ways to mitigate it.

## Why is the Red River Valley Prone to Serious Flooding?

The underlying reason for why the Red River Valley is prone to flooding

is ultimately due to its location and geological history. Figure 2 shows the Red River watershed with the Red River highlighted.

Donald P. Schwert<sup>3</sup> of North Dakota State University in Fargo outlines four consequences of the Red River's location that makes flooding likely:

1. **Timing of Spring Thaw:** The Red River flows north. This means that the southernmost reaches of the river will be thawing in the spring, while the northern reaches are still frozen.



Figure 2 – Red River Watershed with the Red River Highlighted<sup>2</sup>



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This, in turn, will cause a backup of meltwater in the valley, due to the still-frozen sections restricting water flow.

- 2. Ice Jams:** Another consequence of the northward flow of the river is that as the ice breakup proceeds, ice flows will pile up against the still-frozen parts of the river in the north. Ice jams can dam the river and cause rapid flooding upstream of the jams.
- 3. Geological History:** The Red River sits near the southern extent of a former glacial meltwater lake, known as Lake Agassiz (see the discussion of the Ice Ages in the Fall 2019 edition of *The Keystone Professional*). This history created a flat topography. Once the river overflows its banks during a flood, the water will cover a broad area.
- 4. Decrease in the Slope of the River:** As one travels from the source of the Red River in South Dakota towards the mouth of the river at Lake Winnipeg, the slope, or gradient, of the river decreases. For example, the gradient at Fargo-Halstad is approximately 0.008% (5 inches per mile), while at Drayton-Pembina, near the international boundary, the gradient is approximately 0.002% (1.5 inches per mile). When the river overflows its banks, the effect is to create a large lake. It's as if Lake Agassiz had come back to reclaim its former domain.

### Mitigation

One of the great engineering accomplishments of the 20th century was the construction of the Red River Floodway to divert flood waters around Winnipeg and to prevent catastrophic damage from flooding. Originally built between 1962 and 1968 at a cost of \$63 million, the floodway was, at the time, the second largest earth-moving project in the world (second only to the Panama Canal, and larger than the Suez Canal project). Often called Duff's Ditch after then-Premier Duff Roblin, operation of the floodway during flood events has prevented tens of billions of dollars in flood damage to Winnipeg. Expansion of the floodway system following the 1997 flood increased the floodway's capacity from 1,700 cubic metres per second (cms) to 3,964 cms.<sup>4</sup>

A more complete discussion of the flood control in Manitoba was published in the Winter 2010 edition of *The Keystone Professional*.

### Final Thoughts

Many of you who read the Geology & Society articles in *The Keystone Professional* have told us that you appreciate the references provided with the articles. If you are so inclined, feel free to follow the references below to find out more about flooding in the Red River Valley. And, if you love country music, listen to Chris Isaak and Stevie Nicks sing the Red River Valley at <https://www.youtube.com/watch?v=xkYZjB69oTU>.

### References

- <sup>1</sup> Manitoba Infrastructure, 2020, *Flood Information, History of Flooding in Manitoba*, <https://www.gov.mb.ca/flooding/history/index.html>
- <sup>2</sup> Musser, K, 2007, Map of the Red River of the North, licensed under Creative Commons, <https://commons.wikimedia.org/wiki/File:Redrivernorthmap.png>
- <sup>3</sup> Schwert, D. P., 2009, *Why is The Red River of The North So Vulnerable To Flooding?*, [https://www.ndsu.edu/fargo\\_geology/whyflood.htm](https://www.ndsu.edu/fargo_geology/whyflood.htm)
- <sup>4</sup> Manitoba Infrastructure, 2020, *Water Management and Structures, Red River Floodway*, <https://www.gov.mb.ca/mit/wms/index.html> ⊕



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## Meet the People That Make Life Work Better

**Trevor Ouellette**, P.Eng., FEC

## Member Profile

By R. Lewis

For over 25 years, Trevor Ouellette has given his life to the practice of engineering. For Trevor, that devotion goes beyond a job. It's a passion, and one that he has no plans of giving up any time soon.

Trevor spent his early life in Dauphin, and eventually made the move to Winnipeg to attend Red River College and then the University of Manitoba, under the Engineering Access Program (ENGAP), which recognizes the potential of students from remote parts of the province and and supports them in the urban environment of Winnipeg and into their chosen field of engineering. While Trevor now calls Winnipeg home, his love for his hometown, his people, and his connection to his Indigenous roots are evident even in the projects he undertakes. He has given back to First Nation communities through the foundational projects he has worked on, from water and wastewater treatment facilities, to a local community hall where gathering and community are at the heart of the local culture.

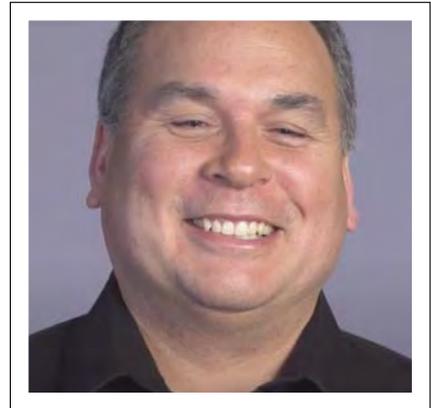
Trevor has spent the last eleven-and-a-half years working at Manitoba Hydro's Winnipeg head office, where he manages construction and design projects related to the maintenance of generating stations and control facilities. When he's not busy travelling to remote locations for Manitoba Hydro, or spearheading projects, like the rehabilitation of the Russell Control Structure on the Laurie River watershed, Trevor can be found supporting other initiatives that promote the Indigenous community, ensuring their ideas and voices are represented and heard.

**What was the catalyst for you entering the engineering profession?**

Growing up, I always enjoyed fixing things and wanted to know how they worked. My parents had a great influence on me, as they promoted education and a strong family work ethic. My dad could do just about anything. He fixed cars, built houses, ran several businesses, repaired electronics, and made electrical-wiring repairs. My mom was always there to support the family, a business partner with dad, a homemaker, a teacher that taught all six of her children how to cook, clean, and love each other, she was the glue that held the family together.

**What does a typical workday look like for you?**

Let me tell you that today, and these past few months, have been anything but typical. A normal day would be taking the bus to the downtown Manitoba Hydro office building, but these COVID-19 days I am working from home, where I work in the Generation Project Management Department, as a Project Engineer. At any given time, I will be working on several projects and they can be at various stages, from planning to executing construction. The project locations are from all-weather access to remote locations accessible only by winter roads, air, or rail. The remote projects are the most challenging and enjoyable ones, as they bring a high level of planning and execution to make the project a success. A project is never a success without the team members, which can range in numbers from two to over fifty internal and external subject-matter experts, that all support the development of the scope of work,



cost estimates, schedules, etc. The days would include meetings and information gathering at key points from key team members in the project and making sure that everything is progressing to keep the project and budget on track.

**What advice do you have for people considering entering the geoscience and engineering professions?**

For any profession, ask yourself: What do I like to do? What makes me happy? Do I enjoy solving problems? Do I like challenges? Do I like math? Do I want to travel the world or stay at home? If you love what you do as a profession, then it won't feel like work.

**What's the most rewarding part of your career?**

The most rewarding part of my career to date has been working with people from various backgrounds and at different stages in their lives and development. I enjoy giving presentations to schools and getting the kids to think about everyday things and relate them to what their future goals are in life. I enjoy showing the students that engineering plays a role in everything

we do and how we all live today and in the past. I have worked in various remote First Nation and other communities throughout Northwestern Ontario and Manitoba, providing the leaders of their communities with the engineering knowledge to help with the development of their community infrastructure, such as water and wastewater treatment facilities that service homes and businesses, roads, community halls, offices, schools, and nursing stations. Being involved in projects like this lets you know that you are improving the lives of people, and that is what engineers do.

### **What are the three most memorable projects you've worked on?**

One of the first projects I was involved in was the water and wastewater treatment facilities in the remote community of Big Trout Lake First Nation in Northwestern Ontario. I recall getting snowed in for several days, as no planes were flying. Most people would have just stayed in their rooms and waited for the weather to lift, but like any small-town boy, I went to the rink to see what was happening. As luck would have it, there was a hockey game happening, so I borrowed someone's hockey equipment and played a good-old-fashioned game of hockey.

Another memorable project was a building addition to a local community hall in Matheson Island on Lake Winnipeg. In remote locations, the community hall is the hub or the heart of the community. It is the gathering place in the community, the local offices where the community residents go for information, and for community interaction, sports, dances, craft shows, and other community-gathering events. This is what helps the community to grow.

There are many things that can connect communities, there are spiritual, cultural, and then there are physical connections. Back in 2005, a new water-treatment plant was being constructed in the community of Waterhen, Manitoba, and shortly thereafter, a 22 km water pipeline was installed to provide a supply of treated water to the community of Meadow Portage and several residents along the pipeline route. The installation of

a rural water pipeline between the two communities of Waterhen and Meadow Portage was something that will provide ties between the communities for generations to come.

### **Do you have a dream project? If so, what is it?**

I have always wanted to be a bridge engineer and build a massive bridge somewhere in the world. We will see what happens as my career is far from being over.

### **What do you get out of engineering that you couldn't get out of any other line of work?**

Resilience. I enjoy seeing the end results of a project and the people, the relationships that you build while working on those projects. At the end of the day, when it is all said and done and you reflect on the past and you can say, "Yes I have made a difference in this world and the people that live in it" and you pass the torch onto the next generation of engineers of the world.

### **Are there Engineers Geoscientists Manitoba initiatives that you are involved in or support?**

The Engineers Geoscientists Manitoba Indigenous Members Chapter. I am the vice-president and one of the founding members. I am also an active member of the Indigenous Professional Initiative Committee.

### **What makes your current job such a great place to work?**

Manitoba Hydro has such a unique and multi-cultural work force that provides me the opportunity to get to meet and learn about cultures from around the world. Manitoba Hydro's flexibility to allow for the little things in life that you have to attend to make

your family life strong. All of this allows me to be focused and execute projects in a timely manner.

### **What do you hope the engineering and geoscience professions will look like 20 years from now here in Manitoba?**

30% female membership.

### **When you're not working, you can be found...?**

Enjoying time at the lake with friends and family, taking on new renovation projects with my brothers at the cabin, or on home renos that never end. In the wintertime, you can find me at a rink watching my son play hockey or watching my daughter compete at volleyball matches.

### **How much of a balancing act is family life and work life, and what's your secret to keeping on top of both?**

The work life and the family life balancing act is one that can be very challenging to say the least. As a general guideline, I always give 100% when I am at work and 100% when I am with my family. I try not to take work home, or let it interfere with my family time. And the same goes in reverse. There will always be interference between the two, but when this does happen, I let my family know what is going on in my work life and always repay the time spent away from them by creating memories, like a ski trip or just sitting around a campfire telling stories, as most times, your best memories are the simple ones.

### **What tips can you offer to young engineers just starting out in the field or persons who are considering geoscience or engineering as a career?**

If you want to travel the world and get paid to do it, while encountering interesting challenges that most people never have the chance to do, then engineering is for you. Hang in there! You will love it, like I do.

Engineers Geoscientists Manitoba launched the *My Story* campaign in 2019. This campaign was designed to connect with members and other Manitobans with engaging and real stories about engineers, by engineers. Trevor was among several local engineers who volunteered their time and told their personal stories on video. These stories highlighted their reasons for becoming engineers, the obstacles they had to overcome to reach their goals, and the impact their work makes on the world around them. You can see Trevor's, and other member, videos at [MyStory.EngGeoMB.ca](http://MyStory.EngGeoMB.ca). 



# Pakistan Members Chapter

By R. Lewis

A warm welcome is in order for Engineers Geoscientists Manitoba's newest chapter, the Pakistan Members Chapter, which was approved on January 16, 2020.

For those who have had the experience of making a foreign land their new home, there is a tendency to seek out the familiarity of the culture they left behind, for even a hint of the comforts that come with the traditions of their former lives.

For founding member Mehroz Ali, the Pakistan Members Chapter captures the essence of Pakistani culture and traditions through connection with a group of like-minded individuals further solidified by their professions as engineers and geoscientists.

Mehroz, a process engineer, noticed that there were several Pakistani engineers within the province but had little familiarity or interaction with any of them. This lack of connection within the Association and within his own ethnic and professional community was not only something that Mehroz felt needed to be addressed, but something that he also felt he could personally be instrumental in tackling. In May of 2019, he approached the Association, and later began the process to create a full-fledged chapter.

With the assistance of the Association in posting notices in the weekly newsletter seeking fellow Pakistani engineers and geoscientists, Mehroz's efforts gained momentum, first with another engineer, Aisha Tahir, who is now the chapter's secretary, coming on board, and later, six others following suit. Today, the group boasts a membership of 28 members.

While the turn of events within the province, nation, and world at large as a result of COVID-19 have resulted in a pause in life as we know it, with in-person events on hold, the chapter is excited to get going with the first of its events and working towards the objectives

that have already been established for its membership. Among the chapter's objectives are the following:

- Encourage registration and licensing of interns affiliated with the chapter.
- Promote and engage in programs, functions, and activities that will contribute to the professional development of its member affiliates.
- Promote the 30-by-30 initiative within the Pakistani community of Manitoba.
- Provide financial assistance in the form of awards and bursaries to engineering and geoscience students enrolled in post-secondary institutions in Manitoba.
- Establish a registry of professional engineers, professional geoscientists, and interns with a Pakistani background within Manitoba.
- Encourage those community members who have made Manitoba their new home, and already have an engineering or geoscience degree from outside of Canada, but are not currently practising their profession due to the accreditation process, to go through the accreditation process with Engineers Geoscientists Manitoba, so that they can practice their professions in Manitoba.

The Chapter Executive is fully engaged in the efforts of the Association to newly registered engineers who are women reflected within the profession by 30% by the year 2030. A challenge, no doubt, but one that the Pakistan Members Chapter is strategizing to achieve within their own community. Already, the Chapter Executive is practising what it preaches, with two women holding positions on the committee.

Another challenge that Mehroz sees for the new chapter is encouraging newcomers from Pakistan, who would have already been credentialled in their homeland before making the move to Canada, to pursue the accreditation process with the Association. While in theory the idea is a noble one, Mehroz

appreciates the financial struggles many newcomers face in laying down roots for themselves and their families, while ensuring that they can provide for them. This has resulted in many qualified Pakistanis seeking jobs as cab drivers to make ends meet. Mehroz is confident that the Pakistan Members Chapter can be instrumental in paving the way for these qualified individuals, and in encouraging them to pursue their accreditation with the Association.

The decision to leave one's homeland isn't always an easy one, but the opportunities to thrive in one's adopted homeland can make that decision worth it in the long run. The Pakistan Members Chapter hopes to bring some of those opportunities to its community in the future.

For more information on the chapter, visit the Pakistan Members Chapter webpage: <http://www.enggeomb.ca/PakistanChapter.html>. ☎



Mehroz Ali, P.Eng.  
Chair



Syed Umair Shah, P.Eng.  
Vice Chair



Aisha Tahir, P.Eng.  
Secretary



Haris Shah, EIT  
Treasurer



Uzma Siddique, EIT  
Member-At-Large



Abdul Razzaq, EIT  
Member-At-Large

## New Members Luncheon



New members in attendance at the New Members Luncheon on February 13, 2020, where they received their official licence certificates.

## Notice to Members: Annual General Meeting

The 2020 Annual General Meeting of Engineers Geoscientists Manitoba is scheduled to be held at 1:30 p.m., on Thursday, October 15, 2020, at the RBC Convention Centre Winnipeg, 375 York Avenue, Winnipeg, MB. The Association Council is watching the current pandemic situation and will follow the advice of health officials for hosting a large group event. It may be necessary to make alternative arrangements to hold the Annual General Meeting in a virtual meeting format. A notice will be sent when a safe option is confirmed.

## NOTICE

Under *The Engineering and Geoscientific Professions Act* and the Association's Discipline By-law.

This is notice that on February 14, 2020, an engineering intern consented to the registration of a conviction and issuance of a reprimand on a charge of professional misconduct or unskilled practice in accordance with section 35(1)(f) of *The Engineering and Geoscientific Professions Act*.

The conviction arises out of the intern's plagiarism of written material found on the internet and represented as their own work in a progress report to the Association. Specifically, the intern:

- used the work of others, claimed as their own without attribution, and submitted to the Association as such, which constitutes a violation of Canon 5 of the Code of Ethics, and
- did not address the matter with open honesty when questioned in person.
- Further, nor did it appear that they understood the gravity of their actions.

Taken together, this constitutes conduct unbecoming an engineer, in accordance with sections 46 (1) (b) and (d) of the Act.

In addition to the reprimand, the intern consented to having their internship suspended for a period of two years.

Grant Koropatnick, P.Eng., FEC, CEO & Registrar

## Chinese Members Chapter Annual General Meeting

It was wonderful to have members of other members chapters join the Chinese Members Chapter for the chapter's Annual General Meeting on January 18, 2020. Dinner was served, followed by a business meeting, volunteer appreciation reception, and professional development.



Jasmine Li, EIT, Chinese Member Chapter Chair with guests Mike Toma, P.Eng. and Youssef Mouzahem, EIT (Arab Members Chapter), Robyn Koropatnick, P.Eng., FEC, Grant Koropatnick, P.Eng., FEC, CEO & Registrar, Getnet Muluye, P.Eng. (Ethio-Eritrean Members Chapter), Ganpat Lodha, P.Geo, FGC (India Members Chapter) and Wayne Wong, P.Eng. (Chinese Member Chapter).

## Arab Members Chapter Celebrates Its Third Birthday

Held on January 19, 2020, the event began with a moment of silence to celebrate the life of valued member Britta Esfand, who was on board flight 752 in Iran with her husband and their daughter.

Four bursaries, two of which in recognition of the Association's Centennial year, were awarded to engineering students. The event continued with two guest speakers, birthday cake, and a contest with prizes.



## Welcome New Members

S.O. Agboola	M.P. Clouthier	S. Jangle	R.A. McLean	D.R. Scharbatke
S. Ahmed	E.S. Coles	I. Jeria	S.J. McMillan	R.W. Sewell
C. Alegre	B.A.H. Crimp	J.L. Johnson	K.J.J. Messinbird	H.A. Shah
M.S. Annakkage	S.P. Dave	I.E. Joven	J. Meyers	B.G. Shewfelt
J.E. Aquino	D.K. Dixon	D.G. Justiniano Pardo	J.M. Ndoreraha	C.M. Sholikowski
R.M. Bailey	C.D. Dobson	T. K	J.E. Neufeld	T. Shu
J.F. Bao	P.A.J. Dufault	S.K. Kapuge Kariyawasam	T.D. Neusitzer	F. Sigouin
J.F.B.J.J. Baril	E.B. Dyck	Mudalige	B.L. Nielsen	J.F. Somers
J.S. Bawa	R.S. Dyck	M. Kavgic	C.B. Norman	J.A. Stadnyk
M.M. Bazri	M.E. Edgar	H. Kazempour	M. Oberholzer	B.C. Stevenson
P.M. Bedard	C.P. Farnum	B. Khorshidi	J.P. Pachikara	M.R.C. Storozinski
M. Beriault	S.V. Frankovich	T.R. Kirouac	V.K. Patel	P. Tocko
A. Bhardwaj	D.V. Frederick	J.L. Klassen	R.M. Paterson	J. Tousignant
T.D. Bhatt	P.D. French	M. Lafond	A.T.A. Peach	B.R. Trivedi
A. Bhattacharya	A.J. Friesen	A. Larouche	J.A. Perez Marchena	P.G. Vandoorne
C.O. Bohm	P.S. Fritz	K.M.F. Lee	W.V. Peter	J.H. Villada Castillo
S.D. Broeska	N. Garmsiri	W. Liu	C.J. Pyziak	S.K. Virk
K.G. Brown	V.D. Gautam	Y. Liu	M.H. Rai	H. Wang
J.E. Brownlee	J.C. Geeganage	C.A. MacGregor	C.L. Robinson	H. Wang
C.J. Bzovey	M.A. Ghaib	G.D. Macpherson	G.B. Robinson	N.R. Wiebe
D. Canuel	T.S. Ghataurah	K.J. Manansala	J. Roy	M. Xing
R.M. Capinpin	E. Ghrear	L.B. Mateus	M.L. Rozgonyi	E.G. Yaholnitsky
A. Caron	C.W. Gray	S.T. McGlamery	M. Rustan	M. Yudelevich
F.M. Cavaliere	W. Hanafi	D.M. McHugh	A. Saint-Pierre	K.J.E.M. Zumel
V. Cherniak	Y. Hlukh	T.J. McKenzie	D.M. Sawka	
F.L. Chowdhury	H.R. James	D.M. McLachlin	S. Sayeur	

## Interns

M.F.F. Acierto	D.F. Collette	A. Keshmiri	B.C. Pochinco	D.P.U. Tran
H.O. Adediran	A.S. Dhaliwal	M.A. Klapheke	T.W. Rusk	L.A. Valiquette
M. Ahsan Badhan	S.M. Fernando	M.S. Kowalski	M. Sadeque	J.E. van Leeuwen
M.A.R.M. Ali	N.A. Ferrer	M.A.I. Marquez	B. Salarieh	C.M. Verwey
F.A. Amushi	M. Firuziaan	D.V. Mavely	M.S. Sandhu	B.T. Villarba
E.G. Amyotte	L.P.S. Frovich	K.C. McCorquodale-Bauer	S.K. Sharma	K.M. Wainwright
A.G.M.R. Bediwy	T.O. Giesbrecht	D.J. McGinn	S.J. Simpson	G.N. Williamson
D. Bejte	M.K. Green	H. Nishine	B. Singh	G.W. Wong
P.S. Bhathal	L.B.M. Guidolin	S.N. Odeleye	V. Singh	I.R. Woodcock
P.P. Bhimani	J. Han	S. Pejhan	M. Soifer	Y. Zeng
K.A. Bhuyan	T.J. Henkelman	D.J. Petrie	F. Song	X. Zhou
L. Che	M.K. Keshavarz	R.G. Phillips	C.R. Tarry	

## Licensees

D.R. Davis  
D.A. Olheiser  
B.D. Oliver

## In Memoriam

James Norman Warrenner  
William Corbett Brisbin  
Myron Teophil Kostelnyk  
Brian Marion Bodnaruk

Duane George Boutang  
Bernard Norman Crocker  
Melanie Saskia Scott Mulder



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### HELP WANTED

#### WANTED – WRITERS, MEMORIES, STORIES, PHOTOS, TIDBITS

Have memories, stories, photos, or tidbits from the last 100 years?

Interest in current issues relating to engineering and geoscience?

Do you have a passion for writing?

The *Keystone Professional Committee* would love to hear from you!

Contact [DWawryk@EngGeoMB.ca](mailto:DWawryk@EngGeoMB.ca) for more information.



### New Members

These members should have appeared in the Autumn 2019 issue. We apologize for the omission.

- |                      |                        |
|----------------------|------------------------|
| A.M. Alzawi          | A.J. Mesina            |
| A. Bagheri Vandaei   | M. Najjar              |
| L.J. Callele         | J.H.M. Omichinski      |
| H. Chen              | B.E. Pakkala           |
| D. Christie          | T.R. Paterson          |
| M. Cliche            | C.A. Phillips          |
| V. Diatha            | M.M. Rahman            |
| M.T. Dugan           | N.G. Rasmussen         |
| T.W. Fatigun         | M.S. Saggi             |
| J.D. Fredericks      | J. Salanguit           |
| M. Gholami           | E.M. Salinas Escarcega |
| J. Gomez             | R.C. San Buenaventura  |
| M. Hiebert           | B.A. Schellenberg      |
| A.T. James           | K.B. Schmidt           |
| J.A. Keys            | B.M.S. Tanchuk         |
| A. Laprise-Deschenes | B.E. Waddington        |
| R.J.S. Legaspi       | O. Wade                |
| D. Levesque          | J.S. Wang              |
| Q.Y. Lin             | J.R.J. Workman         |
| P. Loghmani          | R.S. Yoon              |
| Ardackani            | X. Yu                  |
| H. Mallhi            |                        |

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# Plagiarism and Good Character

Recently, the Investigation Committee dealt with conduct that violated not only the *Code of Ethics*, but also touched on the issue of good character. What also made this issue unusual was that it was with respect to actions taken by an intern, instead of a full member. Fortunately, the matter was resolved by way of a joint agreement between the Investigation Committee and the practitioner.

This matter arose when suspicions were raised about details in an experience report submitted to Engineers Geoscientists Manitoba. The report was intended to cover several years of work experience and included several distinct projects. One particular constant identified in the report caused the initial reviewer to look it up online. From this initial web search, it appeared that the intern had plagiarized some of the content in their experience report.

Once the Investigation Committee got involved, a full review of the content of the report was undertaken. Each of the four projects described in the report

“Being a professional is much more than simply being technically proficient in a particular area. Character matters.”

was evaluated to determine the extent to which the wording may have been inappropriately copied from online sources. The Investigation Committee compared the content of the project descriptions to individual sources found online. From these comparisons, they determined that between 64 and 76% of the content was identical. No attribution was provided by the intern in their report.

The Investigation Committee considered this conduct to be a violation of the *Code of Ethics* as well as “conduct unbecoming”. With respect to the code, they specifically believed that the intern’s actions failed to “give credit where it is due”, in contravention of Canon 5. With respect to conduct unbecoming,

it appeared that the intern failed to communicate honestly with Engineers Geoscientists Manitoba.

Issues of honesty are concerning; in that they speak to the character of the individual. A willingness to deceive one’s regulatory body suggests that the person may be willing to deceive in other professional matters. It is for this reason that our Manual of Admissions requires applicants to be “of good character”.

The matter was resolved by way of a joint resolution. The intern provided written consent to the registration of a conviction and the imposition of a penalty, as allowed for in 35(1)(f) of the Act. The penalty included a suspension of the individual’s internship for two years. This means that the intern’s application for membership will be delayed by two years.

This matter highlights the reality that being a professional is much more than simply being technically proficient in a particular area. Character matters. The public expects that when they engage or hire professionals, the professionals will conduct themselves ethically, including being honest in all of their professional undertakings.

Do you have questions about the concepts of “conduct unbecoming” or “good character”? Have you seen these issues raised in another professional arena? If so, I’d be happy to hear about them.

As always, I appreciate comments and discussion about standards issues. If you’d like to talk about the above topic or any other area of concern, please do not hesitate to contact me at: [MGregoire@EngGeoMB.ca](mailto:MGregoire@EngGeoMB.ca). ☺

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