

## this issue

Chair and CEO Report	1
Due Diligence: Is Designing to Code Enough?	2
Engineering and Geoscience in the News	3
National Engineering & Geoscience Month	4

## Chair and CEO Report

### PEGNL welcomes you back to the pages of *illuminate*.

This newsletter gives us the opportunity to speak to you directly about operations, local and national updates, important milestones and issues that affect engineers and geoscientists. In doing so, we also know it provides you the chance to stay informed on our activities and to give important feedback.

Part of that feedback comes in the form of our annual license holder survey which we will be administering in the coming weeks. This year, we will provide some information from the results of the survey in the next edition of *illuminate* and discuss how we can tackle the issues presented. The Atlantic salary survey will also be conducted and released later this year.

As it is National Engineering and Geoscience Month, we have provided an update on some of the activities we have taken part in over the last few weeks. We have seen wonderful work done by volunteers and staff to prepare for this time of year and hope you will enjoy reading about their success.

This issue also features a story on liability and the limited scope of codes and regulations in project planning. This piece speaks to the reality of a changing world and how we all have to adapt for these changes.

Looking forward in the year, we have been making preparations for our Annual General Meeting, which will take place in St. John's on June 8. We are also developing engaging, varied sessions and inviting knowledgeable, interesting speakers to join us for events surrounding the AGM.

We will make further announcements in the coming weeks so stay tuned!

Recently, PEGNL distributed a call for nominations to our Board of Directors. We encourage all those with a keen interest in building the best engineering and geoscience regulatory body for Newfoundland and Labrador to apply.

Nominations are set to close on April 5 and our nomination form can be found [here](#). If you would like to learn more about our board and its functions, you can click [here](#).

Thanks for taking the time to read *illuminate*. If you have any feedback on this issue, or have ideas of what you would like included in future issues, please let us know.



Gerard Dunphy  
P.Eng.  
Chair



Geoff Emberley  
MBA, P.Eng., FEC  
CEO & Registrar

# *Due Diligence:* Is Designing to Code Enough?

---

**You take great care with your work on projects. You ensure compliance with all codes and any applicable municipal, provincial and federal standards. There are times that you have gone beyond the required codes and standards to meet specific circumstances. You study the criteria, review your calculations and ensure that nothing moves forward without the necessary quality checks.**

**One day, you learn that one of your carefully planned projects has seen significant damage by external factors. Suddenly, you may be found negligent and liable for damages.**

As engineers and geoscientists, we regularly refer to codes, government legislation, policy and other guidelines to help us plan and carry out our work. Unfortunately, meeting these codes and standards may no longer be sufficient to protect us against charges and findings of negligence. Professionals are now expected to go beyond the stipulations of codes and standards in instances where someone in our position ought to have known that the code or standard was inadequate.

While this may be a disturbing or uncomfortable thought, there is no denying that we are living in a dynamic world where economics, environment and information exchange have seen drastic changes in a very short time and legislation and codes have been challenged to keep pace with the changes.

One clear example is the issue of climate change. Areas of Newfoundland and Labrador have seen unprecedented flooding in the past decade leading to significant damage to both private and public infrastructure. In order to minimize future losses, project planning and design practitioners must consider new projections. Failing to do so could result in claims of negligence against professional firms and license holders.

Legal precedence is being established in cases where the possibility of severe or changing weather was not properly accounted for. Cases in Thunder Bay, Stratford and Muskoka, Ontario have established that those working on a project may be negligent if they do not consider the extra protection and work that is required to account for changing weather beyond the requirements set out in codes.

The Government of Newfoundland and Labrador commissioned a study on how climate change will affect the province. After analyzing data from 18 weather stations, the study found that “precipitation amounts during extreme events are expected to increase by at least 10 per cent at most locations [and] that what is a 1-in-100 year storm today is expected to become a 1-in-50 or 1-in-25 year storm by mid-century, and that 1-in-25 year storm today is likely to become a 1-in-5 year storm by mid-century.” (Government of Newfoundland and Labrador, Department of Environment and Conservation, 2013)

While in many instances code-making bodies may not have clear published projections beyond codes based on the most current projections, it is imperative that we as practitioners turn our minds to and take account of such issues in our work. Engineers and Geoscientists are consulted for their professionalism and expertise in their fields. Clients, municipalities and the general public rely on that expertise daily. It is important that professionals keep pace with changes that are occurring and that we don't wait for standards and codes to be updated before applying new knowledge that is currently available to us. This issue applies not only to professionals working in consulting firms, but also to those working in companies and with governments that own facilities as well as to regulatory bodies that establish codes and standards.

To learn more about the NL Government climate projections report, please click [here](#). We will also discuss this issue at our sessions around the AGM.



## in the news

**Our news section gives us an opportunity to bring highlights of what is happening across the country and the globe in engineering and geoscience. As well, it is the perfect place to shine a spotlight on contributions and achievements of our own license holders.**

### Local News

**Steven Edwards, P.Eng.**, wins the NOIA Rising Star Award for 2018. Learn more [here](#).

**Terry Goodyear, P.Eng, FEC.**, Receives the Order of Newfoundland and Labrador. Learn more [here](#).

**Earl Ludlow, P.Eng.**, appointed to The Rooms' Board of Directors. Featured story [here](#).

**Dr. Jacques Guigne, P.Geo. And Gary Dinn, P.Eng.** Win Disrupt Mining 2018 competition.

Click [here](#) to learn more.

Article by **Greg Naterer, P.Eng.**, featured in the National Post. Read the article [here](#).

**Glenn Sharp, P.Eng.**, heads the first company in the province to receive certification for carbon credits.

Story can be found [here](#).

**Darlene Whalen, P.Eng.**, has been appointed Chair for the Board of Commissioners of the Public Utilities Board.

Read the government announcement [here](#).

### National & International News

The [Ocean Supercluster](#) is announced by the Federal Government, with a number of engineering and geoscience partners from Newfoundland and Labrador.

Read more [here](#).

Accelerated Bridge Construction has come under fire with collapse in Florida.

Read more [here](#).

In relation to our feature article on pg. 2, rising sea levels in Liverpool, Nova Scotia mimic issues in NL.

Click [here](#) to read more.

The construction industry is finding new opportunities thanks to the increasing use of robotics.

Read more [here](#).

The Canadian Indigenous Science and Engineering Society held Maanomatapoyah: it's first national gathering of Indigenous STEM students and professionals.

Learn more [here](#).

# NEGM Bridge Building Competition

The St. John's edition of the [27th Annual Bridge Building Competition](#) took place at the Johnson Geo Centre on March 3, 2018. The PEGNL-sponsored event occurs every March during National Engineering and Geoscience Month (NEGM), where students apply engineering concepts for a fun and educational project.

The challenge asks students in grades seven to nine to make a bridge out of popsicle sticks and white school glue. Students are provided with guidelines as to what makes a well-designed popsicle bridge.

"The Bridge Building Competition is a fun, family event where participants can learn the value of engineering and geoscience," says Kevina Willmott, PEGNL staff liaison for the NEGM committee.

The event also featured booths to educate attendees about geoscience and other engineering applications.

Other bridge-building events are being held across the province. Prizes for the top three in each region, as well as the overall provincial top three, will be awarded once all results have been tabulated. Schools that sponsor the event are also eligible for prizes.

Thanks to our volunteer committee, judges and Memorial University student volunteers for their time and support of this initiative.



*Volunteers from MUN test the weight capacity of a student bridge.*



*The internal construction of the Paradigm Hyperloop*

## Memorial University Open House

The [Faculty of Engineering and Applied Science at Memorial University](#) held their annual open house on March 10, 2018. The event gave people of all ages a chance to learn an array of engineering principles.

Over 200 attendees were treated to tours on robotics, mining, milling, computer engineering and more. Faculty and students were on hand to teach visitors about an array of topics and showcase the work being done at MUN and in our province.

The open house also featured the Paradigm team's hyperloop pod which placed second in the SpaceX Hyperloop Pod Competition, first among all North American teams. The Hyperloop concept is meant to provide fast, affordable and sustainable alternative travel, and guests were treated to a detailed description of the work that local students are bringing to a forefront on the international stage.

PEGNL was pleased to take part in the event and provide information on how we help ensure public safety while promoting the value of ethical engineering and geoscience practice in the province.