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Ontario & New Brunswick Consulting Engineers recognized at National Awards Gala for Projects Across Ontario and Abroad

(OTTAWA) October 23, 2018 – From assessing the risks of potential disasters and developing world class safety guidelines, to designing state of the art hydroelectric facilities and landmark buildings, consulting engineers from Ontario and New Brunswick were celebrated for these outstanding achievements Tuesday night in Ottawa at the 2018 Canadian Consulting Engineering (CCE) Awards gala. Recognized as the industry's highest honours, the awards are presented to projects by Canadian firms that showcase the most remarkable engineering feats. “Tonight, we not only celebrate this year’s incredible projects, we celebrate the extraordinary work of consulting engineers over the past 50 years and the important role they have on the social, economic and environmental quality of life of all Canadians,” said ACEC President and CEO John Gamble.



In addition to twenty **Awards of Excellence**, three of which were awarded to the Mississauga **Hatch** office, additional **Special Achievement Awards** were also presented. For best showcasing Canadian engineering expertise outside of Canada **Hatch** and **Manitoba Hydro International** were honoured with an **Ambassador Award** for their project: *Enhancing Dam Safety in Nepal*.

Combining first world standards & local knowledge to address specific needs in the developing world

In the aftermath of the devastating 2015 Gorkha earthquakes in Nepal, globally recognized dam safety experts Hatch and Manitoba Hydro International, along with local Nepalese consultant TMS were tasked with assisting the Government of Nepal in reducing the risks associated with its plans to develop over 15 GW of hydroelectric power within the next 30 years. “They needed a consultant to establish what the status of dam safety is around the world, determine the status of dam safety in Nepal and develop a set of regulations and standards, tailored to the needs and realities of Nepal,” said C. Richard Donnelly, Global Principal Consultant, Hatch and Project Manager.



“In a period of less than two years the Hatch team created first of its kind, world class dam safety guidelines and transferred two decades of Canadian Hydropower experience to a wide range of Nepalese engineers, academics and regulators.” The project’s combination of first world standards and local knowledge in addressing the specific needs and cultures of the developing world is what stood out most for the judges. The Canadian made dam safety management system will also provide tangible social benefits by ensuring that dams are managed safely and maintained in such a way as to protect Nepal’s residents, towns, villages and rich cultural heritage. The transfer of Canadian experience will also provide a new generation of Nepalese hydropower and dam engineers with the knowledge to extend these benefits for generations.



Also receiving an **Award of Excellence** was **Hatch** and **FHR Inc.**'s *Reducing Life Safety Risks to the Kashechewan First Nation Community* project.

Quantifying risk with engineering principles and respecting community knowledge

Located on the Lower Albany River Delta, the Kashechewan First Nation is home to a community of over 2,000 people who face possible flooding each year.

With increasing concerns about life safety risks due to the Kashechewan Ring Dyke's age, the Chief and Council turned to Hatch to quantify the risks and develop solutions to provide a means of warning the community if they should evacuate. Two innovative Hatch engineering tools were implemented to address these challenges. The first, was the newly developed dam safety risk assessment tool Hatch previously applied in their Nepal project; in this instance the tool was used to define the likelihood of the ring dyke's failure. The second flood forecast tool provided an indication of a substantial risk of flooding at least 10 days in advance of the potential event.

The results of the project are significant. The newly developed dam safety risk tool provided decision makers with the scientific evidence needed to address the grave risks this small community is subjected to. The team's innovative approach, applying engineering principles to quantify risk while respecting the community's traditional knowledge, was applauded by the judges. Overall the project has resulted in enhanced safety, potentially reduced evacuation requirements and, "most importantly, [the results have] led to the landmark 'Agreement of Hope' with the governments of Ontario and Canada designed to rectify decades of hardship by developing permanent solutions to this problem," said C. Richard Donnelly, Project Manager.

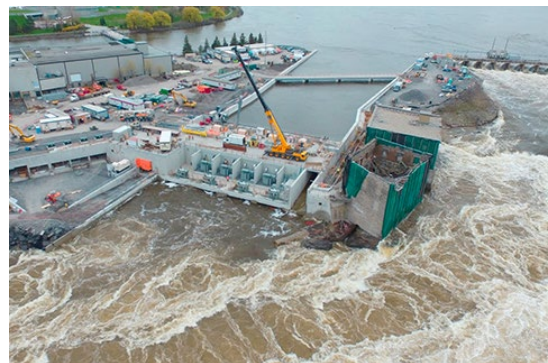


Innovative techniques to address design challenges and environmental constraints

The third **Award of Excellence** presented to **Hatch**'s Mississauga office was for their *Chaudière Falls Hydroelectric Redevelopment Project*. Located on the Ottawa River the project entailed the retirement of two existing small hydroelectric generating stations and the development of a single new hydroelectric facility. Hatch was retained to conduct detailed engineering "throughout the life of the project, which includes planning stage, design phase, procurement, installation, operation and commissioning" of the new 29 MW generating station said James Law, P.Eng., Project Manager.



The team addressed the design challenge of providing unfettered public access to the site and to Chaudière Falls by designing a below grade facility, which, when combined with the newly constructed park, showcases the sweeping vista of the natural falls. The environmental constraints and land-use requirements imposed on the project were significant. Limits on fish and American eel mortality forced the design team to develop both a protection system to prevent entrainment and a bypass system to allow both upstream and downstream migration, a first-of-its-kind in Canada. The innovative manner in which these challenges were addressed, while also ensuring a high safety record, impressed the jury.





Developing risk mitigation strategies to minimize the impact of a ship-source oil spills

Also located in Ottawa was the *Area Risk Assessment for Ship-Source Spills* project by Fredericton firm **Dillon Consulting Limited**. Dillon led the development of an Area Risk Assessment (ARA) Methodology, a geographically focused in-depth process that was tested by completing ARAs in four Canadian regions with high vessel traffic. The methodology determines the probable locations of ship-source oil spills, their trajectories, and the areas that would likely be impacted. The risk assessment output generates a series of maps illustrating the likely locations and volumes of ship-source oil spills and the most vulnerable areas. The ARA methodology also allows the development of risk mitigation strategies to help minimize the impact of a ship-source oil spill on our natural environment, and on the devastating social and economic consequences to coastal communities that can follow in the wake of a spill.

“Dillon is honored to receive this award with Transport Canada and to have developed with them such a progressive approach to assess the risks of ship-sourced oil spills in Canadian waters,” said Malcolm Marston, Partner, Dillon Consulting Limited. The jury noted that this approach is an exceptional example of risk communication done right.



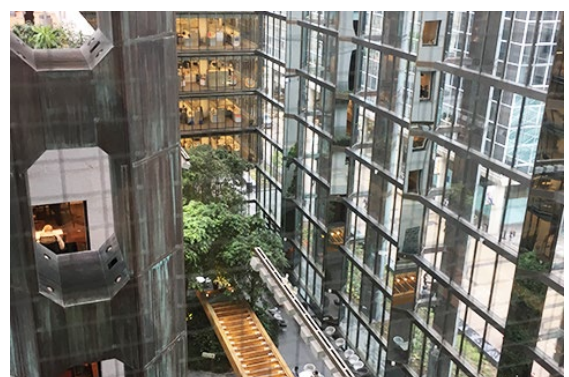
Considering the environment and the impact of design solutions on the world around us, while maintaining historic significance



Another Ottawa area project, **Bouthillette Parizeau (BPA)**'s *Bank of Canada Head Office Renewal Project* was also recognized with an **Award of Excellence**. A landmark building, and the nation's central bank, the 80,000 m² project aimed to address performance and infrastructure deficits, modernize and elevate the Bank as a workplace, address life safety compliance, achieve higher levels of sustainability, and improve security, all while preserving the cultural and historical significance of the complex.

The Bank of Canada was committed to delivering a sustainable project based on LEED® principles. Sustainable design, a core principle at BPA, considers the environment and the impact of design solutions on the world around us. As a result, BPA focused on integrating engineering solutions that would minimize energy consumption, maximize energy recovery, improve indoor air quality and reduce the environmental footprint, which highly impressed the judges. Accomplishing these objectives was essential for the historic building to remain relevant as a workplace and as the home of Canada's foremost financial institution. The project would also create a modern public service workplace that could attract, retain and enable a workforce to work smarter, greener and healthier. The public spaces, which are adjacent to Parliament Hill, also enhance a significant downtown location and anchor Spark Street, Ottawa's outdoor pedestrian mall.

“BPA is honoured to be acknowledged with an Award of Excellence for our consulting engineering services for the Bank of Canada Head Office Renewal Project. A testament to the project's success is that 234 Wellington Street remains relevant as a workplace and the home of Canada's foremost financial institution. The award recognizes the Renewal



Project’s complexities that required innovation engineering solutions and keen coordination between client, design disciplines, constructors and suppliers,” said Patrick St-Onge, P. Eng., LEED AP, Vice President, Ottawa-Gatineau.

In November, follow the [#20DaysOfExcellence](#) in engineering campaign on social media and at www.acec.ca/20daysofexcellence to watch videos of other award-winning projects like these and to learn more about the impact of consulting engineering on our quality of life.

About award-winning firms

Bouthillette Parizeau (BPA), founded in 1956 is a leading mechanical and electrical consulting engineering firm. BPA’s long history of excellence includes design solutions that are innovative, energy focused, cost-effective and feasible. BPA recognizes that the ingredients of successful projects is to focus on consistent management strategies, have a talented and experienced team of personnel, communicate effectively and be supported with appropriate technologies. www.bpa.ca

Dillon, is an employee-owned professional firm specializing in planning, engineering, and environmental sciences providing collaborative and inventive solutions to complex, multi-faceted problems. Dillon is founded on the passion and relentless pursuit of the best solution for our clients, and the communities in which we work and live. Proudly Canadian since founded in 1946 in London, Ontario, we have never stopped innovating, building and leading towards a better tomorrow. www.dillon.ca

Hatch - Whatever our clients envision, our engineers can design and build. With over six decades of business and technical experience in the mining, energy, and infrastructure sectors, we know and understand that your challenges are changing rapidly. We draw upon our 9,000 staff with experience in over 150 countries to challenge the status quo and create positive change for our clients, our employees, and the communities we serve. www.hatch.com

About Awards co-sponsors

ACEC represents companies in Canada that provide professional engineering services to both public and private sector clients. These services include the planning, design and execution of all types of engineering projects, as well as providing independent advice and expertise in a wide range of engineering and engineering-related fields. For more information about ACEC and the 2018 Canadian Consulting Engineering Awards, please visit www.acec.ca.

Canadian Consulting Engineer is a bi-monthly magazine for engineers in the construction industry. It is a division of Annex Publishing & Printing Inc. The award-winning projects are described in full in the October-November 2018 issue of *Canadian Consulting Engineer* at <http://www.canadianconsultingengineer.com/digital-edition/>.

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Multimedia (photos, project descriptions, videos)

[Bouthillette Parizeau \(BPA\) project photo](#)

[Dillon Consulting Limited project photo](#)

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[Hatch project photo](#)

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[Hatch and FHR Inc project photo](#)

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