Response to Call for Abstracts Closing March 31, 2008

Abstract for Oral 20 minute Power Point Presentation

Placentia NL Case Study Example of Incorporating Climate Change Adaptation into Infrastructure Decision Making - This presentation summarizes a 2008 case study example application of a climate change - infrastructure vulnerability protocol. The Engineering Protocol used is from the Public Infrastructure Engineering Vulnerability Committee (PIEVC) whose Secretariat is hosted by Engineers Canada. The project team included representatives of AMEC, RV Anderson, Cameron Consulting Incorporated, and Memorial University of Newfoundland. The same project team was involved in preparing the original PIEVC protocol documentation. The infrastructure of interest was a coastal breakwater, a flood wall, an urban flood plain using the Town Hall as an example location, and a road and culvert system. In August 2007, post tropical storm Chantal resulted in multi-million dollar damages to this region of Newfoundland. Consultations involved the infrastructure owner - operators, including some of the design and maintenance people. The significant climate and other changes related to sea level, storm surge, rainfall, and runoff. The Infrastructure - Change - Performance relationship evaluations considered structural integrity, capacity, stability, maintenance, operations and monitoring, policies and procedures, insurance / property protection, life cycle asset management and more. The order in which relationships were evaluated was qualitatively prioritized based on magnitude and severity of consequences. Qualitative and quantitative evaluations were made of infrastructure vulnerability and adaptive capacity. Project legacies included the preparation of site specific Intensity - Duration - Frequency (IDF) curves for current and 2050 conditions. Specific recommendations ranged from “no further action” to more information gathering to reduce uncertainties; to management activities involving monitoring, maintenance and operations; and to new initiatives on design and procedures. Project results and recommendations influenced the 2008 design and construction of post disaster replacement infrastructure by the government of Newfoundland and Labrador.

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(Bio / Introduction on next page)
Ontario Society of Professional Engineers (OSPE) International Symposium
Engineering in a Climate of Change, Toronto ON October 16, 2008

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Introduction of the person making the Oral 20 minute Power Point Presentation

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Cameron Ells is a civil engineer, environmental consultant and entrepreneur. He founded Cameron Consulting Incorporated in 2000, and provides services to public and private sector clients in Canada and internationally. He was a founding member of ClimAdapt and Climate Canada Atlantic, and attended the 2005 United Nations Climate Change Convention in Montreal.

In May 2006, at the Engineering Institute of Canada Climate Change Conference in Ottawa, he presented a paper on Incorporating Climate Change Adaptation into InfraGuide (Municipal Infrastructure) Type Decision Making.

Cameron Consulting led the multi-disciplinary project team in preparing the 2007 Phase I Scoping Studies on climate change - infrastructure vulnerability for the Public Infrastructure Engineering Vulnerability Committee: made of representatives of several federal government departments, some provincial and municipal governments, and others, whose administration is organized through Engineers Canada (formerly the Canadian Council of Professional Engineers).

He was also the Steering Committee Chair for the Atlantic Climate Change 2008: Risks, Rewards and Tools for Action conference hosted by the Environmental Services Association of Nova Scotia (ESANS), Dalhousie University. The Committee included federal and provincial government representatives. He wrote an influential discussion paper Applying Public Sector Resources to Climate Change Adaptation in Canada in 2006, and led a 2008 conference workshop on Incorporating Climate Change Adaptation into Design, Development and Management Decision Making.