Integrating Climate Risk into Infrastructure Development

Location: Winnipeg, Manitoba
Date: June 14, 2016, 8:30 am to 4:30pm
Location: Winnipeg Winter Club, 200 River Avenue

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Workshop Objectives-upon completion of the workshop participants should:

- Have an increased understanding of climate trends and potential future scenarios and their impacts on civil infrastructure in Manitoba
- Develop a basic understanding of risk assessment processes as it pertains to infrastructure responses to climate hazards and projected changes in climate for Manitoba
- Develop knowledge and acquire hands on experience with the case-study application of the PIEVC climate change risk assessment framework
- Recognize the benefits of a multi-disciplinary and multi-stakeholder collaboration to address the impacts and complexities of climate change on infrastructure in Manitoba

AGENDA (DRAFT)

8:00-8:30 **Registration, coffee/juice, muffins**

8:30-8:45 **Welcome, Introductions, workshop objectives**

Co-Facilitator-Roger Rempel, P. Eng. FEC, Senior Environmental Engineer and Climate Change Impacts Specialist, WSP/MMM Group

Co-Facilitator-David Lapp, P. Eng., **FEC**, Practice Lead, Globalization and Sustainable Development, Engineers Canada

8:45-9:15 **The Need for Infrastructure Climate Risk Assessment**
David Lapp, P. Eng., **FEC**, Engineers Canada

9:15-9:45 **Climate information for Public Infrastructure Decision-Making**
Ryan Smith, M.Sc., Research Associate, Prairie Climate Centre, University of Winnipeg

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9:45-10:15   **Principles of Risk Assessment and the PIEVC Engineering Protocol – Part 1**
D. Lapp, FEC, P.Eng. Engineers Canada; Roger Rempel, P. Eng. FEC, WSP/MMM Group

10:15-10:30   *Refreshment Break*

10:30-11:00   **Implications of Not Accounting for Climate Change Vulnerabilities (Confirmed)**
Laura Zizzo, CEO, Zizzo Strategy (webinar remote presentation)

11:00-11:30   **PIEVC Applied to IO Buildings Assessment (Confirmed)**
Jeremy Carkner, Morrison Hershfield (webinar remote presentation)

11:30-12:15   **Principles of Risk Assessment and the PIEVC Engineering Protocol – Part 2**
D. Lapp, FEC, P.Eng. Engineers Canada; Roger Rempel, P. Eng. FEC, WSP/MMM Group

12:15-12:30   **Introduction and Instructions to Workshop Case Study #1:** *PIEVC Assessment of a School Building*
D. Lapp, FEC, P.Eng. Engineers Canada; Roger Rempel, P. Eng. FEC, WSP/MMM Group

12:30-1:00   **Lunch and Networking**

1:00-1:30   **Exercise #1** - **Infrastructure Component and Climate Parameter Matrix Definition Small Group Discussion**
D. Lapp, FEC, P.Eng. Engineers Canada; Roger Rempel, P. Eng. FEC, WSP/MMM Group

1:30-2:00   **Exercise #1 - De-Brief and Q&A**
D. Lapp, FEC, P.Eng. Engineers Canada; Roger Rempel, P. Eng. FEC, WSP/MMM Group

2:00-2:30   **PIEVC Applied to University of Saskatchewan, Faculty of Engineering Building Project**
Doug Thomson, Associated Engineering (webinar remote presentation)

2:30-3:30   Exercise #2 - **Risk Matrix Completion: Introduction and Small Group Discussion** (with Break)
D. Lapp, FEC, P.Eng. Engineers Canada; Roger Rempel, P. Eng. FEC, WSP/MMM Group

3:30-4:00   Exercise #2 - **Risk Assessment Matrix Completion: Plenary De-Brief and Discussion**
D. Lapp, FEC, P.Eng. Engineers Canada; Roger Rempel, P. Eng. FEC, WSP/MMM Group

4:00:4:15   **Climate Risk Assessment as a Policy Tool**
D. Lapp, FEC, P.Eng. Engineers Canada; Roger Rempel, P. Eng. FEC, WSP/MMM Group

4:15-4:30   **Closing Remarks and Final Q&A**
D. Lapp, FEC, P.Eng. Engineers Canada; Roger Rempel, P. Eng. FEC, WSP/MMM Group

4:30   **End of Workshop**

*Note – participation in this workshop will qualify for 8 professional development credit hours with APEGM