

CANADA'S CLIMATE CHANGE ADAPTATION PLATFORM

Equipping Canadians for a Changing Climate

Annual Report for April 2016 to March 2017



PLENARY MEMBERS (2016/2017)

- **Plenary Chair** – Natural Resources Canada, Lands and Minerals Sector; Nick Xenos | Don Lemmen
- **Plenary Vice-chair** – Alberta Climate Change Office; Kate Rich | Edith Vanderpuye

Territorial and Provincial Governments

- British Columbia – Ministry of Environment Climate Action Secretariat; Suzanne Spence
- Manitoba – Manitoba Conservation and Water Stewardship; Neil Cunningham
- New Brunswick – New Brunswick Environment and Local Government; Darwin Curtis
- Newfoundland and Labrador – Office of Climate Change and Energy Efficiency; Jackie Janes
- Northwest Territories – Environment and Natural Resources; Lisa Dyer
- Nova Scotia – Nova Scotia Environment; Andrew Murphy
- Nunavut – Department of Environment; Kristi Lowe
- Ontario – Ministry of Environment and Climate Change; Kathleen O'Neil
- Prince Edward Island – Department of Environment, Labour and Justice; Jim Young | Todd Dupuis
- Saskatchewan – Ministry of Environment; Scott Pittendrigh
- Yukon – Climate Change Secretariat; Rebecca World

Federal Government Departments and Agencies

- Agriculture and Agri-Food Canada; Alexandre Lefebvre
- Environment and Climate Change Canada; Matt Jones | Laniel Bateman
- Fisheries and Oceans Canada; Keith Lennon
- Health Canada; Carolyn Tateishi
- Indigenous and Northern Affairs Canada; Marie-Ève Neron
- Infrastructure Canada; Sonya Read
- Natural Resources Canada, Canadian Forest Service; Vincent Roy
- Parks Canada; Gilles Seutin
- Public Health Agency of Canada; Christina Lee-Fuller
- Public Safety Canada; Jacqueline Randall | Ryan Hunt
- Standards Council of Canada; Michel Girard
- Transport Canada; Nicole Legault

National Indigenous Organizations

- Assembly of First Nations; Kim Scott
- Inuit Tapiriit Kanatami; Elizabeth Ford

Private Sector and Not-for-profit Organizations

- Chartered Professional Accountants of Canada; Gord Beal
- Canadian Electricity Association; Devin McCarthy;
- Canadian Federation of Agriculture; Drew Black
- Engineers Canada; David Lapp

- Federation of Canadian Municipalities; Jacques Nadeau | Alex Long
- Forest Products Association of Canada; Etienne Bélanger | Bob Laroque
- Insurance Bureau of Canada; David McGown
- Institute for Catastrophic Loss Reduction; Paul Kovacs
- Mining Association of Canada; Ben Chalmers | Brendan Marshall
- Ouranos; Alain Bourque

Observers

- Environment and Climate Change Canada, Climate Research; Marjorie Shepherd
- Environment and Climate Change Canada, Meteorological Service; Mike Crowe | Jen Collette
- Métis National Council; John Weinstein
- Natural Resources Canada, Energy Sector; Lynne Monastesse
- Natural Resources Canada - Mining; Dianne Galus | Photinie Koutsavlis
- Québec - Ministère du développement durable de l'environnement et des parcs; Catherine Gauthier
- University of Waterloo; Elizabeth Atkinson

Adaptation Platform Secretariat (Natural Resources Canada)

- Don Lemmen
- Heather Dewar
- Adam Greenberg

For more information or to contact individual members please email: adaptation@nrcan.gc.ca

Adaptation involves making adjustments in our decisions, activities and ways of thinking in response to observed or expected changes in climate, with the goals of (a) reducing harm and (b) taking advantage of potential opportunities. Adaptation can include behavioural changes, operational modifications, technological interventions, planning changes and revised investment practices, regulations and legislation.

While adaptation in the natural environment occurs spontaneously, adaptation in human systems often benefits from careful planning that is guided by both scientific research and detailed understanding of the systems involved.

Warren, F.J. and Lemmen, D.S. (2014): Introduction; *in* Canada in a Changing Climate: Sector Perspectives on Impacts and Adaptation, (ed.) F.J. Warren and D.S. Lemmen; Government of Canada, Ottawa, ON, p. 20.

CANADA'S CLIMATE CHANGE ADAPTATION PLATFORM 5TH ANNUAL REPORT (APRIL 2016 TO MARCH 2017)

Table of Contents

Plenary Members (2016/2017)	ii
The Adaptation Platform	1
<i>Adaptation Canada 2016</i>	2
<i>National Climate Change Assessment</i>	3
Plenary	4
Working Groups.....	7
<i>Agriculture</i>	7
<i>Biodiversity Adaptation</i>	8
<i>Coastal Management</i>	8
<i>Economics</i>	10
<i>Energy</i>	10
<i>Forestry</i>	11
<i>Infrastructure and Buildings</i>	11
<i>Mining</i>	13
<i>Northern Adaptation Partnership</i>	14

THE ADAPTATION PLATFORM

The Adaptation Platform brings together representatives from industry, Indigenous, professional and not-for-profit organizations, federal, provincial and territorial governments, and researchers to tackle shared climate change adaptation priorities. Collaboration between the public and private sectors, and across jurisdictions and disciplines, is essential to address the complex and cross-cutting issue of climate change adaptation.

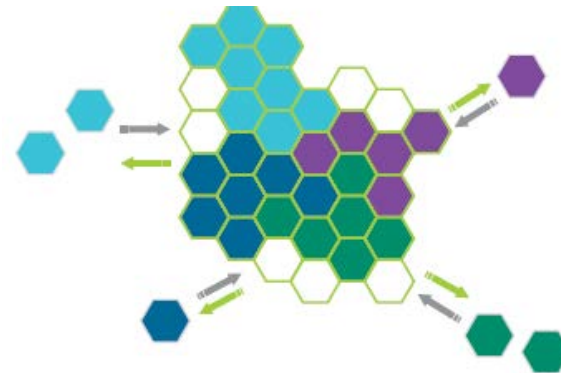
Platform participants are both the users and producers of adaptation knowledge and tools. As a result, the Platform's work is demand-driven, facilitating the analysis and implementation of adaptation action, and directly responding to the needs of decision-makers in Canada's public and private sectors. By providing the structure to pool financial resources, knowledge, and people, the Adaptation Platform works to create new information and tools for adaptation and get these products to the appropriate users.

Canada's Adaptation Platform is structured around several components: a plenary body, a series of subject-matter specific working groups, a secretariat and a broad network of individuals engaged in delivering adaptation actions. Additionally, Regional Adaptation Collaboratives (including the Pan-Territorial Adaptation Partnership) are active across the country performing outreach, and enhancing regional dissemination of Platform results.

Natural Resources Canada chairs the Adaptation Platform, and has committed ongoing resources to support the overall Platform, selected Working Group activities, and to provide the secretariat function.

The Plenary, comprised of senior-level representatives of governments and national organizations, meets twice yearly. The main objective of Plenary is to identify critical and emerging adaptation priorities in Canada and to support collaborative efforts in focused areas of work. Plenary members also generate support for adaptation action and disseminate adaptation knowledge within their organizations and extended networks.

Working Groups focus efforts on shared adaptation priorities within their particular subject matter area. Plenary members can nominate participants from their organizations and networks that bring the resources (time, money, expertise) needed to develop and carry out working group activities. Additional members are recruited by the Working Group chairs or co-chairs.



Administrative duties are carried out by a secretariat housed within Natural Resources Canada. Tasks include: supporting Plenary; managing a shared workspace; facilitating interactions amongst the working group co-chairs; running a webinar series; and producing the annual report and regular newsletters.

The workspace is a virtual forum where Working Group and Plenary members can plan, work, share and review draft products. It complements traditional forms of discussion and collaboration such as teleconferences and face-to-face meetings.

Newsletters were circulated to over 1200 Platform members in the spring and fall of 2016. Seven webinars were held over the course of the year with an average of 87 people participating in each webinar. All webinars have been recorded and are available at <http://webinars.cullbridge.com/course/view.php?id=575>. There was an increase in the number of new members subscribing to the workspace in 2016/17.

The Adaptation Platform is successfully connecting the resources, people and ideas needed for Canada's regions and industries to understand the effects of a changing climate and adapt their operations accordingly.

More information on the Adaptation Platform can be found at: <http://www.nrcan.gc.ca/environment/impacts-adaptation/adaptation-platform/10027>

Adaptation Canada 2016

The Ontario Centre for Climate Adaptation Research, Ouranos (a Consortium in Quebec) and NRCan collaborated to prepare for a national conference, [Adaptation Canada 2016](#), held in Ottawa May 12th to 14th. This event showcased results of adaptation programming across governments, academia, and the private sector and provided the first national networking opportunity in ten years.

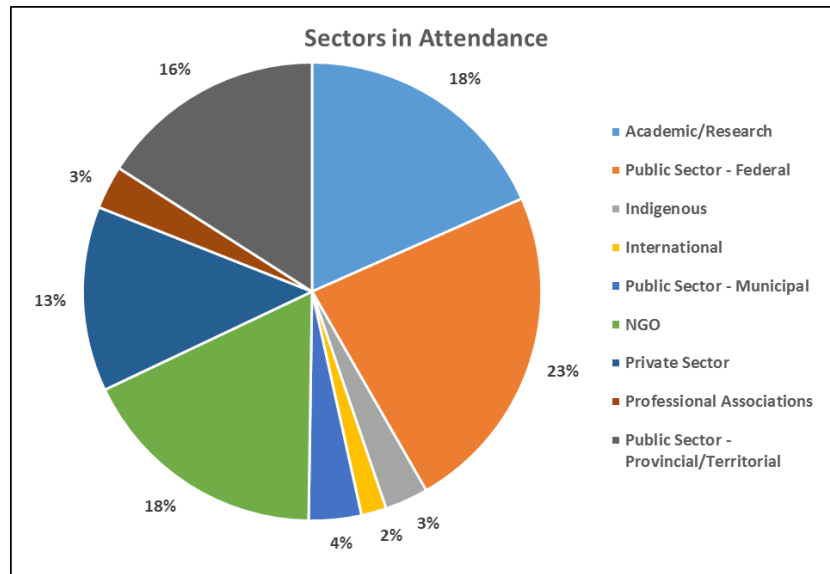


Minister McKenna speaking at the opening of Adaptation Canada 2016

With more than 250 presentations over the course of three days the event increased awareness of information, tools and resources available to aid in adaptation planning and facilitated new collaborations. Many presentations provided tangible examples of how to implement solutions to respond to the impacts of a changing climate. Additionally the event broadened the number of professions, sectors and communities addressing climate change adaptation; provided examples of adaptation planning and implementation

occurring in Canada; and showcased climate change impacts and adaptation science that can be used to support local resilience planning.

Registration included 635 delegates from governments, industry, academics, and Indigenous, professional, and not-for-profit organizations.



National Climate Change Assessment

The year 2016/17 saw completion of one round of assessment reports, as well as the initiation of work in developing Canada’s next national assessment of climate change impacts and adaptation. The first highlight was the release of the report “[Canada’s Marine Coasts in a](#)

[Changing Climate](#)” by the honourable James Carr, Minister of Natural Resources Canada, in April at the Adaptation Canada 2016 conference.

This report, led by Natural Resources Canada, involved contributions from more than 130 experts as authors and reviewers, and generated significant media coverage in all coastal regions.

Work also continued on the report “Climate Risks and Adaptation Practices for the Canadian Transportation Sector”, led by Transport Canada. This report features six regional chapters as well as a chapter on urban transportation systems, and is expected to be ready for release in spring 2017.

The year also saw launching of the process to deliver the next national assessment, a process that will be more inclusive and transparent than with past reports. It will include more opportunities for stakeholders and the public to provide input. Scoping activities for the new assessment began with two sessions as part of Adaptation Canada 2016 in April, and culminated with a national scoping meeting in Calgary on November 28-29. Based on input received from those events, a twenty person Advisory Committee was established in January with the first in-person meeting of the Committee held March 30-31 in Ottawa. Next steps include agreement on approach and outline, development of an interactive website for the assessment, and writing of the first assessment product, “Canada’s Changing Climate”, led by Environment and Climate Change Canada.

PLENARY

The Plenary is a network of networks. Direct membership includes all provincial and territorial governments, multiple federal government departments, national Indigenous, professional and industry associations, and research organizations. The greater reach includes more than 250 organizations, 190 000 accountants and 290 000 engineers across Canada. This feature is a critical component of the Adaptation Platform communication strategy. Communication priorities include increasing dissemination to targeted audiences, enhancing engagement at senior levels within members' organizations, and making greater use of extended networks to promote inclusion of adaptation as part of day-to-day management practices.

The Adaptation Platform Plenary held two successful meetings in 2016/17 - evidenced by the sustained high level of participation at both meetings. Discussions continued to provide insights on the progress of adaptation in Canada and also to leverage the diverse resources of the group. Plenary continues to expand, with The Assembly of First Nations, represented by Kim Scott, and Inuit Tapiriit Kanatami, represented by Elizabeth Ford, becoming Members in 2016. The Métis National Council has elected to remain an Observer on the Plenary and will be represented by John Weinstein.

The spring meeting was held April 11th, 2016 in Ottawa, Ontario. A total of 49 people participated in the meeting representing 30 member organizations. While Plenary meetings are typically 2 days, this meeting was limited to a half-day as it was held adjacent to [Adaptation Canada 2016](#).

The climate change adaptation funding announced as part of the 2016 Federal Budget and the kick-off of consultations under the Pan-Canadian Framework for Clean Growth and Climate Change were at the centre of many discussions. A total of \$129.5M was announced across seven departments: Indigenous and Northern Affairs; Natural Resources; Standards Council; Health; Public Health Agency; Fisheries and Oceans; and Transport. This funding directly targets adaptation action.

Two other federal budget announcements had strong linkages to climate change adaptation. First, it included \$40M over five years, for a shared initiative between Infrastructure Canada and the National Research Council to integrate climate resilience into building design guides and decision support tools including codes and models for the design of resilient new core public infrastructure. Second \$75M was committed to be provided over five years to the Federation of Canadian Municipalities (FCM) to encourage Canadian municipalities to better prepare for and adapt to the new realities of climate change as well as reduce greenhouse gas emissions through funding, training and information-sharing. The FCM's Municipalities for Climate Innovation Program intends to work with over 600 municipalities over the 5 year lifespan of the program.

It was announced that Matt Parry, Environment and Climate Change Canada) and Todd Dupuis (PEI) would co-chair the Adaptation and Resilience Working Group (ARWG) and that Nick Xenos would be the Federal Government representative under the Pan-Canadian Framework for Clean Growth and Climate Change. It was recognized that the existence of the network established through the Adaptation

Platform and Plenary served as a good foundation to support the PCF consultation process.

Plenary convened for the tenth time November 30th and December 1st at the historic MacDougall Centre in Calgary, Alberta. The event was co-hosted with the Alberta Climate Change Office and Edith Vanderpuye took up the duties as Vice-chair. A total of 60 people participated at the meeting with 34 member organizations represented.

One of the highlights of this Plenary meeting was a field trip to tour some of the neighbourhoods heavily impacted by the 2013 floods in Calgary. The trip was expertly guided by Frank Frigo (City of Calgary), Andrew Wilson (Alberta Environment and Parks) and Yvette Thompson (Alberta Climate Change Office). The tour was centred on the Sunnyside community, located along the Bow River, where we saw examples of “build back better” projects that also incorporated aspects of social resilience. This was complemented by a comprehensive and very interesting overview of the event and details of the Alberta resilience activities. Opportunities for similar excursions will be explored for future meetings.

The regional focus also included sessions on biodiversity and a panel that presented an adaptation lens on the Fort McMurray wildfire from three different perspectives (insurance, impact on environmental and municipal services and the value of applying Fire Smart guidance).

The meeting was rounded out with: presentations on programming being delivered by the Federation of Canadian Municipalities and Indigenous and Northern Affairs Canada; endorsement of a proposal

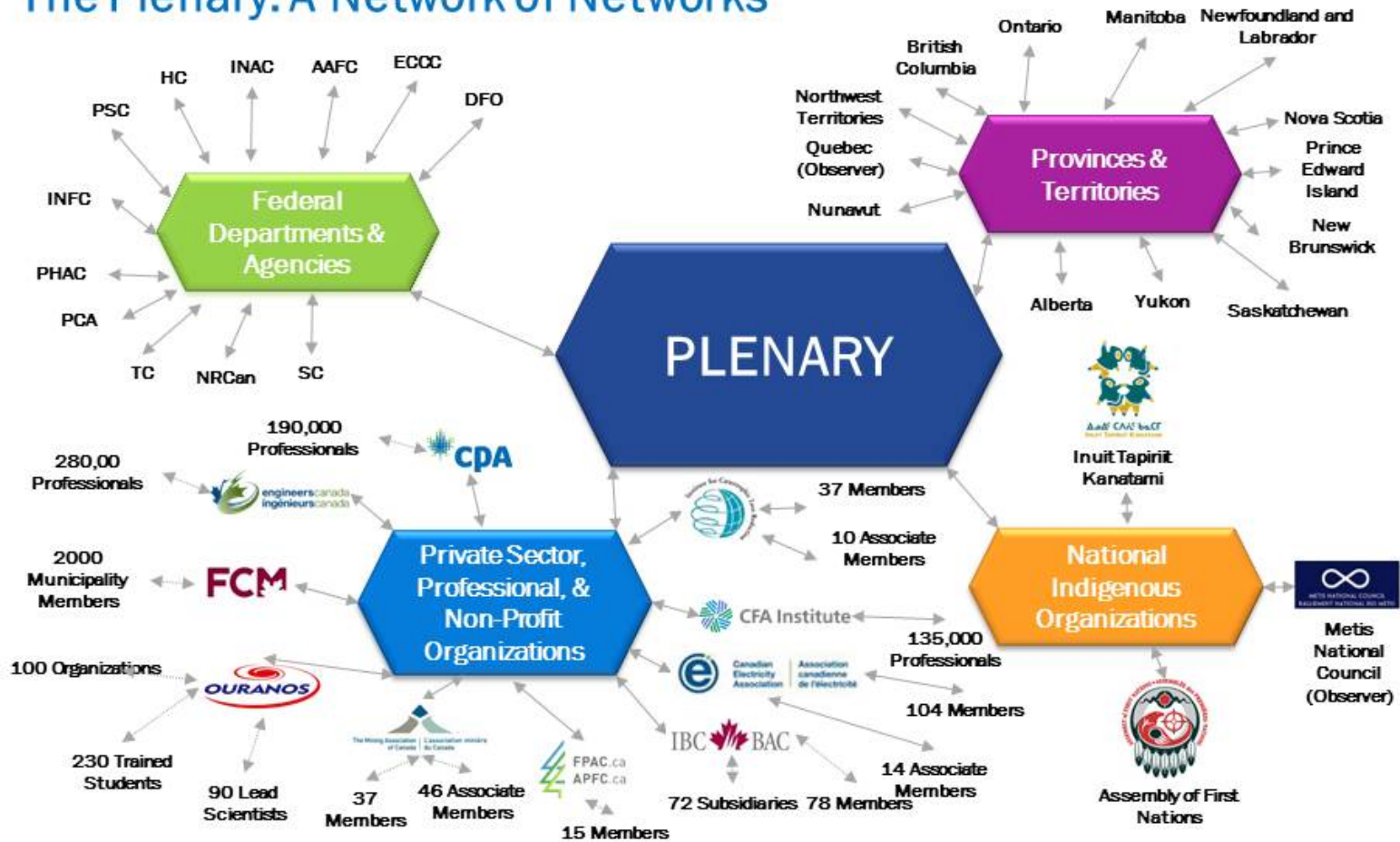
from Parks Canada to establish a Biodiversity Working Group; interactive sessions on activities underway in the Working Groups; a brainstorming session on what a national knowledge exchange might look like; and administrative issues pertaining to the Adaptation Platform.



Group photo from December 2016 Plenary meeting in Calgary

Plenary Meeting Reports are posted on the Adaptation Platform workspace or available upon request from adaptation@NRCan.gc.ca.

The Plenary: A Network of Networks



AAFC: Agriculture and Agri-Food Canada, DFO: Fisheries and Oceans Canada, ECCC: Environment and Climate Change Canada, HC: Health Canada, INAC: Indigenous and Northern Affairs Canada, INFC: Infrastructure Canada, NRCan: Natural Resources Canada, PCA: Paris Canada Agency, PHAC: Public Health Agency of Canada, PSC: Public Safety Canada, SC: Standards Council, TC: Transport Canada

WORKING GROUPS

Products that put the information and tools in the hands of the people implementing climate change adaptation are typically produced under the guidance of the Working Groups. Like Plenary, Working Groups are a network of networks. Typically co-chaired by members from different organizations, Working Groups bring together people with expertise and common interest in specific issues or sectors. Participants collaborate to define, and then work towards achieving, their climate change adaptation objectives. Terms of reference are developed for each Working Group and a program of work is developed and brought to Plenary. The program of work is revisited on a timeline established by each Working Group, but often follows government funding cycles. Many of the Working Groups develop a State of Play document that serves as a reference tool when identifying and discussing initiatives to be undertaken.

Members of a Working Group may contribute by providing funding, expertise and information from their organizations; writing and reviewing documents; acting as advisory committee members on projects; or hosting meetings. Working Groups meet primarily by teleconference, and some carry out work using the online workspace. Working Group activities are carried out by member organizations as well as through calls for proposals and contracted work. Priorities for funding would be identified based on the mandate of the potential funder, which could include any Plenary member organizations.

Highlights of the activities undertaken between April 2016 and March 2017 by of each of the Working Groups are presented below.

Please consult the following national sites for access to products produced under the Adaptation Platform.

- [Natural Resources Canada](#)
- [The Adaptation Library](#)

Regional dissemination is also undertaken in partnership with Regional Adaptation Collaboratives and the Northern Adaptation Partnership:

- [British Columbia](#)
- [Prairies](#)
- [Ontario](#)
- [Quebec](#)
- [Atlantic](#)

Agriculture

Co-chairs:

Drew Black, Canadian Federation of Agriculture

Jamie Smith, Agriculture and Agrifood Canada

Over the past year, the Agriculture Adaptation Working Group (AAWG) closely followed the development of the Pan-Canadian Framework on Clean Growth and Climate Change and the potential impact this could have for investments in adaptation. At the same time, Federal, Provincial and Territorial (FPT) governments have been in negotiations for the next 5-year FPT agricultural policy framework, during which the environment and climate change has emerged as a priority. The AAWG played an important role in sharing of information and perspectives as these two policies have moved forward over the past year.

Furthermore, the AAWG has agreed to explore development of a State of Play report that would gather information on the current status of adaptation in Canadian agriculture. Development of the State of Play report will continue over the next year and be informed by details of FPT policy on adaptation for agriculture.

Biodiversity Adaptation

Co-chairs:

*Scott Parker, Parks Canada Agency
Position available / vacant*

A proposal to form a biodiversity working group was presented and endorsed at the Fall 2016 Plenary. Parks Canada is serving as the initial chair and membership currently includes representatives from fourteen other government, private sector, Indigenous and not-for-profit organizations. The working group is finalizing its operating Terms of Reference and has established a sub-committee to develop a “State of Play” report. This will report on the effects of climate change on biodiversity in Canada, potential adaptation actions and priorities for the working group to consider in its program of work.

Coastal Management

Co-chairs:

*Mary-Ann Wilson, Natural Resources Canada
Erin Taylor, Climate Change Secretariat, Prince Edward Island
Department of Environment, Labour and Justice*

The initial suite of projects completed under the Coastal Management Working Group (CMWG) were completed in 2016/17, including [Atlantic Coastal Adaptation Community Decision Tree Tool](#). This project was coordinated by the University of Prince Edward Island. It was designed to offer Atlantic rural coastal communities a variety of adaptation options to respond to coastal erosion and flooding informed by the responses provided through the Decision tree. The tool will also help decision-makers match the best adaptation options with local environmental conditions.

During 2016/17 the scope of the CMWG was expanded to include the Great Lakes and St. Lawrence River in addition to marine coasts. It was noted that the Great Lakes / St. Lawrence system has been subject to significant environmental changes that have important social-economic implications to Canada, and that are similar to changes affecting other large Canadian lake ecosystems. Coincident with the expanded scope, working group membership was refreshed and now includes 33 members.

To assist in the development of the new program phase consultants were contracted to produce a State of Play report for coasts and climate change adaptation. The report, developed in consultation with working group members, was finalized in March 2017 and covers Canada’s marine coasts and the Great Lakes / St. Lawrence River region.

The report builds on existing work and:

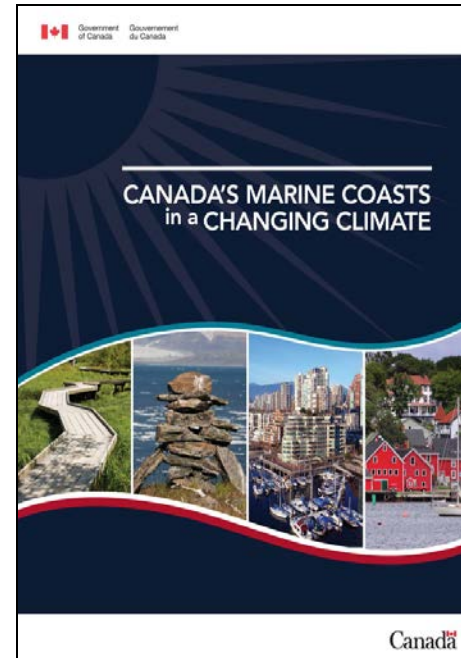
- provides a brief summary of the social, economic, and ecological conditions across Canada’s coastal regions;
- summarizes the cross-cutting and unique climate impacts, risks and opportunities that serve as the motivations to prepare for the impacts of climate change;

- summarizes the current state of practice and range of activities in support of coastal adaptation that have occurred since 2012 (the date of the last State of Play report); and
- includes a detailed analysis of adaptation activities, key findings, future needs and opportunities for collaborative work to increase climate resilience in coastal regions.

The State of Play report will inform development of the Working Group’s program of work for 2017-2021. It could also serve as an input to decisions made by organizations represented in the Coastal Management Working Group for the next four years.

An infographic was also developed to illustrate some key elements of the State of Play report and serve as a communication tool.

Additionally, [four webinars](#) were delivered to transfer the learning and results from projects across Canada to interested parties. One webinar was on “Understanding Climate Change Risks in Canada’s Coastal Regions: From Infrastructure to Ecosystems” while the other three were a series presenting the findings of the Coastal Assessment “[Canada's Marine Coast in a Changing Climate](#)”.



Economics

Co-chairs:

Pam Kertland, Natural Resources Canada

Position available / vacant

With completion of the initial program of work (2013-2016), efforts of the Economics Working Group (EWG) focused on production of a new State of Play report to inform the next phase of working group activities. Developed collaboratively by working group members and consultants, the report has produced a State of Play (SoP) Report that includes an overview of developments related to the economics of impacts and adaptation, the use of economics for adaptation decision-making, and provides an in-depth look at the state of the financial sector adaptation and key opportunities for advancing adaptation.

Canada's financial sector is increasing its focus on climate change risks, in particular on physical risks. In the SoP, the definition of "financial sector" includes private and public asset owners (for example pension funds), asset managers, banks and insurance companies. The role of the public sector was captured not just as a regulator, but also as an asset manager and self-insurer. The report highlights potential to work with the financial sector to develop guidance on incorporating adaptation in their investments and operations. The SoP Report will be used to develop a new program of work for the EWG.

Energy

Co-chairs:

Mary-Ann Wilson, Natural Resources Canada

Position available / vacant

The Working Group's first program of work (2012 to 2016) wrapped up with 20 projects completed. Information about the projects is available on the [website](#). Additionally, the Working Group delivered a webinar on Energy and Climate Change Adaptation - How Industry Leaders Tackle the Challenge which presented information about several products developed through the program.

As part of the work to promote integrated approaches and collaboration, the Working Group, along with the International Energy Agency and the U.S. Department of Energy, hosted the 6th Forum on the Climate-Energy Security Nexus: Emerging Best Practices and Lessons for North America in Enhancing Energy Sector Resilience. The event helped accelerate the sharing of knowledge and best practices to address key issues and build resilience in the energy sector in North American.

To support the next Program of Work for 2017 to 2021, the Working Group commissioned an Energy Sector Adaptation State of Play report ("2016 State of Play Report"). This is an update of the previous State of Play report completed in 2012. The report drew from several sources including: projects from the first program; literature reviews of national and international papers; the Carbon Disclosure Project (a comprehensive collection of self-reported environmental data); and informal interviews with key stakeholders in the private sector (oil and gas and electricity), government, non-profit, professional associations, consulting, and academia. The 2016 State of Play Report focused on many of the same topics of the

previous report (e.g., the Canadian energy sector profile, climate stressors to the sector) with an added lens assessing the state of leadership from the top and the framework for climate change adaptation shown below.



Structure of questions for the Energy Sector Adaptation State of Play, 2016 Report

The main conclusions from the 2016 State of Play Report found that while there is a high level of awareness of the issue there remains a need for building capacity, establishing the business case and more support to implement adaptation measures.

The recommendations from the 2016 State of Play Report, along with the expertise and networks of the Working Group, will guide projects and initiatives to continue to advance adaptation in the energy sector over the next 4 years.

Forestry

Co-chairs:

Vincent Roy, Natural Resources Canada

Position available / vacant

The Forestry Adaptation Working Group (FAWG) developed a State of Play report on Adaptation in forestry in Canada. The report outlines current or recent forestry adaptation initiatives across Canada, such as projects, policy initiatives, and forestry management practices that have attempted to deal with future climate change. It also identifies gaps and opportunities for moving adaptation from theory to practice in the forest sector. The State of Play report was supported via a contract through the Canadian Forest Service Adaptation program.

The FAWG organised a side-event at the Adaptation 2016 conference to share US-Canada practices in adaptation and discuss tangible means for increasing collaboration on climate change adaptation in forestry. The 18 participants captured a list of ideas that could be explored by the participants through additional future discussions.

Infrastructure and Buildings

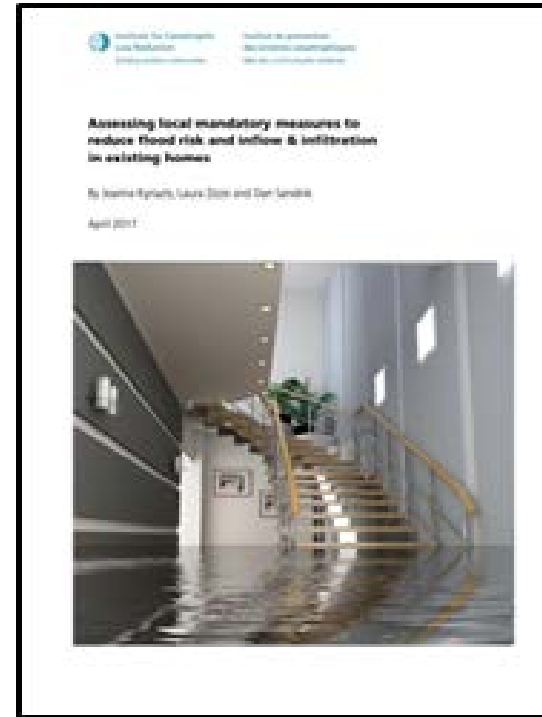
Co-chairs:

David Lapp, Engineers Canada

Paul Kovacs, Institute for Catastrophic Loss Reduction

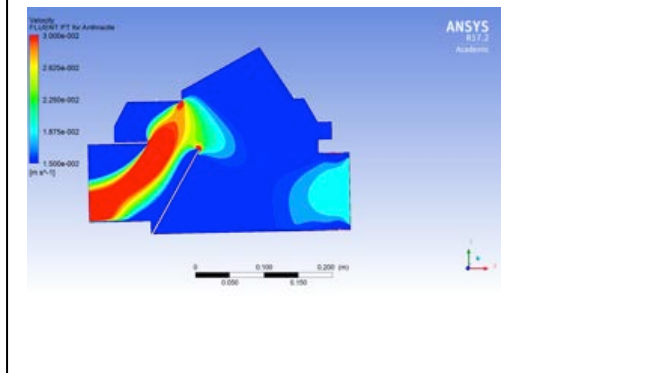
The Infrastructure and Buildings Working Group (IBWG) completed work on a national State of Play report, which provides a comprehensive overview of the state of climate change adaptation for the infrastructure and buildings sectors, with a focus on municipal infrastructure. The report further focusses on the state of adaptation for engineered and non-engineered buildings in Canada, and will serve as a foundational information source for IBWG projects focussed on buildings and infrastructure adaptation for the coming years. This work was led by the IBWG secretariat at the Institute for Catastrophic Loss Reduction (ICLR) and Engineers Canada.

Municipal governments across Canada have struggled with the implementation of urban/basement flood risk reduction on private properties. Despite education programs and financial subsidy programs, installation rates of household level measures for flood protection is typically below 10%. To respond to this challenge, ICLR developed the report “[Assessing Local Mandatory Measures to Reduce Flood Risk and Inflow & Infiltration in Existing Homes](#)”. The paper identifies and assesses legal tools that can be applied to require homeowners to engage in key basement flood risk reduction activities.



A research program designed to better understand long-term performance and maintenance issues associated with private-side urban/basement flood protection technologies has been further developed. This program is currently focussed on understanding backwater valve performance under a variety of installation and operation scenarios. Part of this work has involved development of a backwater valve testing/calibration physical lab, located at the University of Guelph. The project led by ICLR and University of Guelph will increase the ability of urban flood risk managers to quantitatively assess failure rates and reliability for basement flood protection technology, and will assist in the creation of new flood protection measures installation and maintenance guidelines aimed at homeowners, contractors, municipalities and insurers.

Image: Modelling performance of backwater valves, designed to reduce basement flood risk



An on-line backwater valve installation protocol was recently released (www.backwatervalueinstallation.com). The backwater valve protocol was motivated by stakeholder engagement work conducted to support the ICLR-led project on basement flood risk reduction technologies. Specifically, stakeholders discussed frequent occurrence of improperly installed backwater valves, and identified a need for standardized advice for homeowners, insurers, contractors and municipalities to help ensure that backwater valves are installed properly. The website discusses issues associated with selection of appropriate contractors (e.g., ensuring that contractors are licenced and therefore eligible for municipal subsidy programs), ensuring that home sanitary sewer connections are in good repair before backwater valves are installed, providing information to homeowners so they can independently check the quality of backwater valve installation, and tips on backwater valve maintenance.

Mining

Co-chairs:

*Pam Kertland, Natural Resources Canada
Position available / vacant*

The Mining Working Group (MWG) membership was refreshed and expanded to 18 members.

To support their work planning, the Working Group commissioned a State of Play report for mining and adaptation. The report, which was finalized in March 2017, focuses on the impacts of climate change on the mining sector in Canada and the adaptation activities undertaken by the private and public sectors to address the impacts. The report is based on the findings of the studies conducted as part of the 2012-16 program; grey literature from government, industry and academic sources; and on interviews with different stakeholders.

The objectives of the report are to:

- assist the Working Group to develop a common understanding of the state of action on climate change adaptation in the mining sector;
- provide an updated snapshot of the work that has been underway within the mining sector on adaptation in the past five years (2012-2016); and
- identify gaps and needs to help advance on key issues in adaptation and inform the development of the MWG program of work for the next four years (2017-2021).

Additionally, the results of the projects undertaken during the previous program phase (2012 to 2016) continue to be disseminated both within and outside Canada at events such as the Adaptation Canada 2016 conference in Ottawa in April 2016 and the Adaptation Futures conference in Rotterdam in May 2016.

Northern Adaptation Partnership

The Northern Adaptation Partnership which is replacing the previous Northern Working Group is still to be created. In 2016/2017, activities related to this new partnership focussed instead on 1) getting information from northern stakeholders on their priorities around climate change and climate change adaptation in the North and 2) how we can improve collaboration on adaptation in the North amongst the federal, territorial, provincial and regional governments and Indigenous and northern communities and organizations.

Throughout fall 2016 and winter 2017, Indigenous and Northern Affairs Canada in collaborated with Health Canada, Environment and Climate Change Canada and other partners to host climate change adaptation engagement sessions in the three territories, Nunavik and Nunatsiavut. The objective of these sessions was to better understand what has been done related to climate change adaptation, what we are doing, and where we want to go and how. The information collected will contribute to the development of a Northern Adaptation Strategy which is a commitment under the Pan-Canadian Framework on Clean Growth and Climate Change. Once created, the Northern Adaptation Partnership will support the development and the implementation of the Northern Adaptation Strategy.