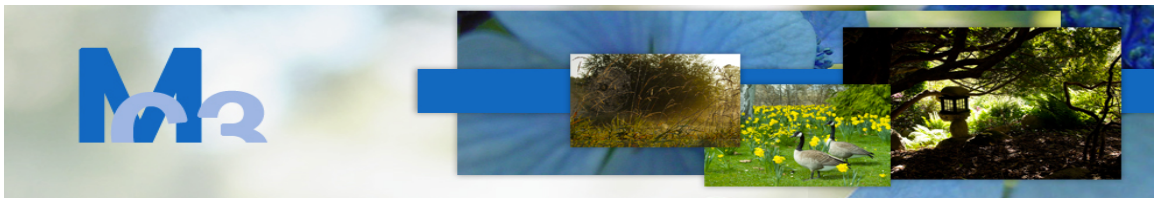

MC^3 FINAL PROGRESS REPORT

July 2, 2011—January 31, 2013

SUBMITTED TO

PACIFIC INSTITUTE FOR CLIMATE SOLUTIONS

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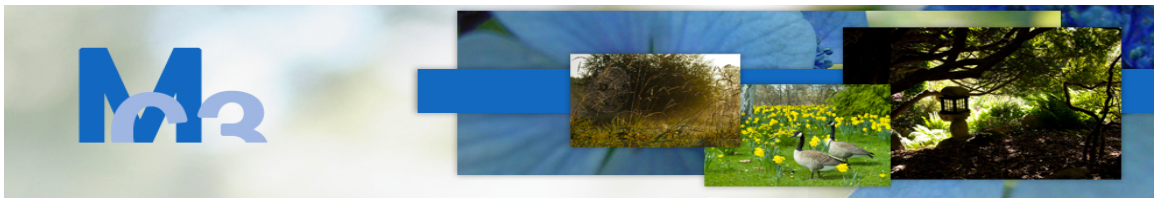


Introduction

The Meeting the Climate Change Challenge (MC^3) research project commenced in July 2011 and ended January 31, 2013, funded initially by PICS for one year and extended for another half year ($140,000). The goals of the project were two-fold; firstly, to identify and investigate innovative municipal approaches to provincial climate policy and document best practices through detailed case studies, and secondly, to spur cross-scale knowledge mobilization and peer-to-peer learning between communities in order to bootstrap innovation diffusion, optimize local and provincial partnerships and lessons from leading communities taking climate action. The dissemination of innovative climate change responses and actions on the ground is critical as other jurisdictions in North America begin to develop active climate policy regimes.

The interdisciplinary research team included eight climate change and sustainability researchers from Royal Roads University, Simon Fraser University and UBC. The trans-disciplinary team included twelve public and private sector partners who engaged in helping to shape the case study selection, broaden and deepen the outreach to different publics and, later on, provided additional funding to increase research outcomes. The team was supported by two research associates, Drs. Sarah Burch and Alison Shaw, and one PICS Fellow student, Freya Kristensen.

Phase 1 of the project involved data collection and comparative analysis of the best practice climate change and sustainable development innovations in BC eleven case study communities. Phase 2 focused on knowledge mobilization strategies designed to enhance social learning and, ultimately, to accelerate action on local climate change mitigation and adaptation.

Preliminary Research Highlights

A number of high-level findings emerged from the data collection and analysis, as well as the knowledge mobilization strategy. These included diverse policy, technological, institutional and social approaches to climate innovation as well as key information about enabling conditions that fostered innovations among the eleven leading case study communities across the province.

Enabling climate innovation
Leadership from the province both supported independent climate actions while also being a critical driver for many local governments. The data suggests that the influence of the Climate Action Charter directly influenced the enabling conditions present in communities. The majority of case studies used the Charter as a way to reinforce climate-related decisions in local government.

Leadership
(i) Provincial leadership: The Climate Action Charter was significant in driving climate innovation. In communities already taking action it became a useful tool to remind decision makers about their commitments to emissions-reducing activities. In other communities, it

stimulated the collection of baseline data in the form of corporate inventories and consideration of expenditure options for reducing emissions versus payment of offsets. In the southeastern part of the province, the Charter spurred a large-scale collaborative effort, referred to as the Carbon Neutral Kootenays, among three regional districts, twenty-nine communities and six First Nations.

(ii) Local government leadership: The evidence confirms that leadership in local governments, particularly among aligned staff and officials, is a significant driver of climate innovation. In many cases, local government staff demonstrated leadership and then forged ahead to build the case for climate action to elected officials. In many situations, the Charter was used as a rationale for action. Climate innovation occurred more quickly in the cases where local officials with decision-making authority demonstrated climate leadership.

Framing: The way climate change activities and innovations were framed within the community was an important determinant for implementation. Those proposals that were called climate change in many, especially rural, communities had an increased likelihood of not being politically supported for funding or implementation. However, as the Dawson Creek case shows, if climate change goals are strategically embedded into existing land-use, transportation and other master plan processes and the framing is aligned with the attitudes or character of the community, there is a far greater chance of support and approval.

Policy integration and alignment

The level of policy integration in local governments was another other key driver. Climate change priorities that were integrated into existing policy and legal frameworks, such as transportation plans or official community development plans, became more embedded into operational and planning structures. For instance, in Campbell River, six planning processes aligned to create a cohesive and integrated role for climate targets in the Sustainable Official Community Plan, the Sustainable Campbell River Framework, the Community Energy and Emissions Plan, Agriculture Now, the Master Transportation Plan, and the Foreshore Assessment and Rehabilitation Plan. This provided an integrated and supported role for real emissions reductions, while also ensuring continuity for climate change implementation under changing political cycles.

The overall ability to implement climate action was also influenced by policy and planning alignment. In a number of cases, the timing of climate change planning aligned with other master planning and/or sustainability planning processes, increasing the likelihood of policy integration among and between departments and/or local and regional governments. Important to note is that the province's integrated community sustainability plan (ICSP) process, initiated from Bill 27, enshrines climate change in the legal framework of the official community plan (OCP) locking-in temporal commitments over 20-30 year time horizons.

Maintaining climate change as a political and budget priority

It is clear that political will to act locally on climate change is intimately bound to whether and how it becomes a priority, on the desks of officials and in their budgets. The number and frequency of reports and briefings on climate change and support among constituents contributes to whether climate change becomes a government priority. Delegating the climate file to a

particular person or department (e.g. sustainability department) in some cases was viewed as a critical way to ensure that climate change remained a priority. In other cases, integrating emissions reductions parameters throughout the entire corporation was seen as a way for all departments and decision-makers to account for climate change in their day-to-day decisions.

Another important consideration is education, awareness-building programs and the participatory engagement of community members on climate change topics and issues. Building a strong climate change constituency keeps the issue a priority and on the radar of local government staff and officials. In addition, continued leadership and even stronger targets from the province was viewed as critical in maintaining climate change as a local government priority.

Quasi-institutional intermediary organizations and other partnerships
Limited human resources and financial capacity were cited as a primary barrier for communities to take action. In this way, quasi-institutional intermediary organizations such as the Fraser Basin Council and Columbia Basin Trust and cross-sectoral partnerships among relevant organizations such as BC Hydro played significant roles in enabling climate innovations. In many cases, access to the financial and intellectual resources provided by these intermediaries helped communities move ahead far more quickly than they would have otherwise been able to. Similarly, consultancies have played a critical role in establishing baseline inventories, developing monitoring and reporting tools and training staff, in many cases, to use provincially developed accounting tools such as the SmartTool. This illustrates the importance of access to resources and partnerships outside the community in enabling and facilitating innovation in communities.

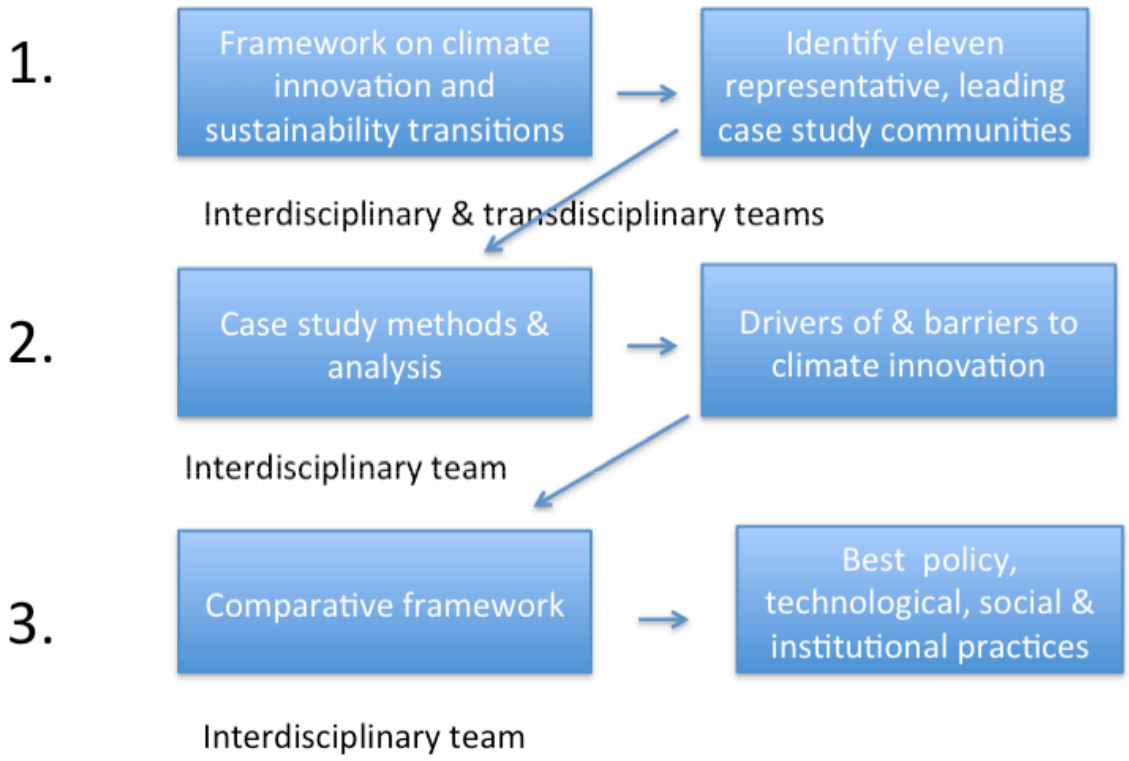
***Cost effectiveness of technology/infrastructure decisions over long-term*:** Return on investment (ROI) was cited as a significant determinant of the support. In small communities in the Kootenays, even the most ardent climate change deniers on Council, supported and approved retrofits and alternative energy options that were framed as cost-effective options over the long-term and that were integrated into other management plans, programs and activities such as transportation or land-use planning. Prince George has employed an Energy Initiatives Supervisor tasked with researching and implementing energy efficient projects throughout the city on the basis of long-term cost-effectiveness, and the city has currently completed approximately 30 lighting and heating upgrade projects including solar heating technology in the Aquatics Centre.

Centralized versus decentralized sustainability: Designating climate change and sustainability responsibility to a particular person or department (e.g. sustainability department) can be viewed as necessary for aligning internal operations and generating innovative solutions to energy and emissions problems. Assigning this work to a specific department or group ensures climate initiatives have local government champions and that a momentum is built through cross-departmental collaboration. An identified risk of this designated responsibility, however, is that it may encourage the compartmentalization of climate change and sustainability within an institutional unit. A mixed model of sustainability being integrated throughout all city operations and having the oversight of a department or employee leading and monitoring this work appears as the most optimal relationship as municipalities explore and implement innovations. The creation of institutionalized responsibility also ensures continuity across electoral cycles.

Integrated decision-making on sustainability, adaptation and mitigation: A preliminary finding is that integration of climate action into broader sustainability goals is essential for communities to reach climate targets and to shift the underlying development paths to support innovations. In specific cases where adaptation, mitigation and sustainability goals were considered in an integrated manner, fundamental design and planning requirements to incorporate these changes into by-law development, stringent building and development codes and integrated transportation planning contributed to further integrated decision-making. Integrated Community Sustainability Plans (ICSPs) provide a means to incorporate climate action in the broader goal of sustainable development and include climate change in longer-term development planning, when these plans are integrated into OCPs. The extent to which this policy integration is transforming the ways day-to-day decisions are made on climate change and sustainability requires further research.

MC^3 Methods and Outputs

Phase 1: Data Collection and Comparative Analysis



Two team workshops, involving the entire team (interdisciplinary and trans-disciplinary), were organized to develop the theoretical framework on climate innovation in BC (Step 1). These workshops took place in July, 2011, and January, 2012. An additional, workshop involving just the interdisciplinary research team was held on September, 2012.

- Workshop 1 (July, 2011): developed research questions, case study selection criteria and the selection of eleven case study communities. In addition, 5 knowledge mobilization channels were identified, and another outcome was the development of a white paper for government.

- Workshop 2 (January, 2012): finalized the methodological approach, interview protocols, and an analytical framework for investigating the cases.

- Workshop 3 (September, 2012): debriefed and discussed the high-level findings from the field.

The case study data collection in the eleven case study communities occurred in the summer of, 2012, to the Fall. The case study analysis and preliminary findings were completed by December 2012. In July 2012, prior to entering the field, the research associates led a qualitative and case study methods workshop for all MC^3 case leads, three supporting students, and PICS Fellow, Kim Lau. The case study methods and analysis included the following.

i) *Contextual analysis*: document analysis of each case

ii) *Case study instruments*: RRU ethics approval, interview template, interview request documents, interview consent forms, case study protocols for information management, secure UBC site for all data collected, data transfer protocol

iii) *Case study methods*: interviewee selection (including snowball sampling), scheduling, face-to-face interviews with ±8 officials, leaders, staff in each community, coded and discreet storage of data to maintain anonymity

iv) *Case study analysis*: data triangulation and a case study protocol to analyze each of the eleven case communities; consistent case study protocols, common interview questions and a comparative coding framework contributed to cross-comparative analysis of the eleven cases, resulting in high-level findings

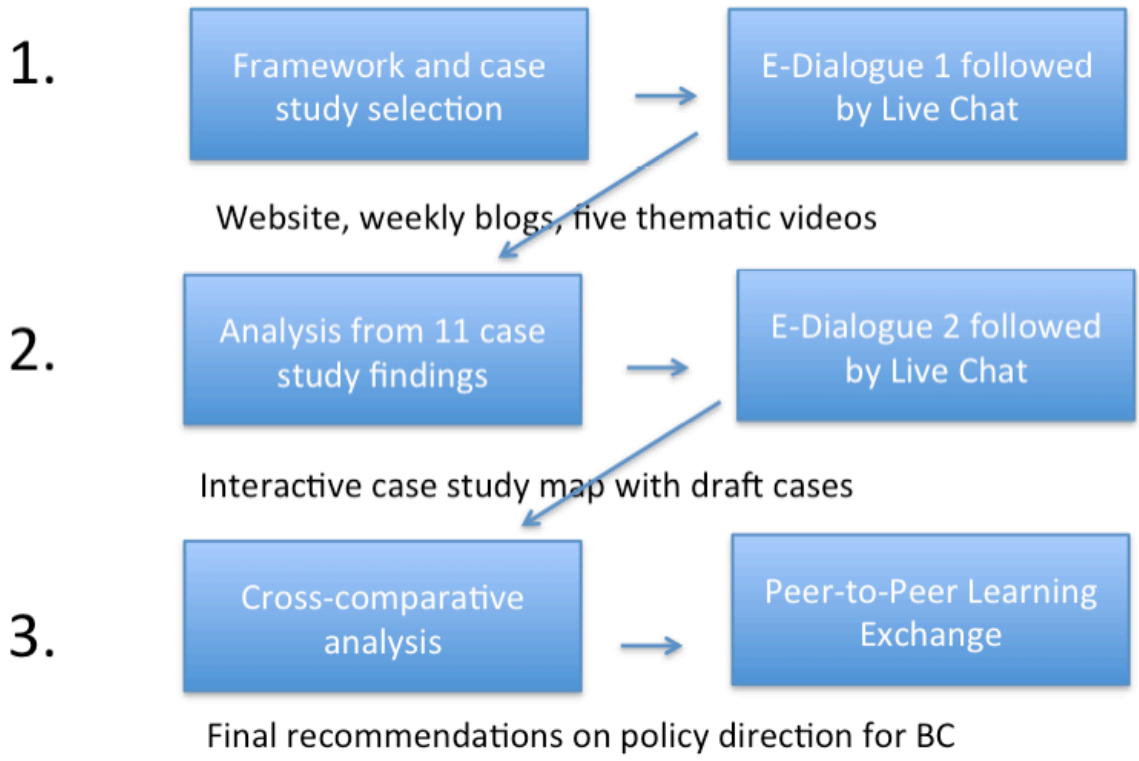
v) *Data collection*: face-to-face and virtual interviews until conceptual saturation was reached

vi) *High-level summaries*: published on the website (commencing late October 2012) using a staggered approach of one per week using the principal investigator's on-line case study tool template

In September, a debriefing meeting was held. During this meeting the interdisciplinary team discussed the highlights of the case studies, how best to coordinate the analysis and synergize individual case analyses to address overarching MC^3 questions. Comparative case study analysis

will continue as an ongoing project as members of the team continue to publish significant findings.[1]

Phase 2: Concurrent Knowledge Mobilization Strategy



Given the project's knowledge mobilization objectives, the research team began disseminating research results as quickly as possible from the field, commencing with the launch of its website, mc-3.ca, followed by summaries of the MC[3] cases and background research in September 2011. Additional knowledge mobilization included regular blogging of emerging trends and research, provincially, nationally and internationally. MC[3]'s six-pronged knowledge mobilization strategy began in May 2012 and, though the project ends January 2013, accepted conference presentations and publications will extend into June 2013.

The knowledge mobilization strategy used six channels essential to research dissemination, broader knowledge mobilization, and public outreach—a website; on-line real-time e-Dialogues; educational tools; popular videos; peer-to-peer learning exchange; traditional academic publications and conference presentations. Pre- and post-surveys were used to evaluate self-reported learning through the use of engagement tools that facilitated exchange among researchers and practitioners (i.e. e-dialogues; live chats) and among practitioners themselves (face-to-face learning exchange).

[1] Additional funds have been secured from two of our research partners to continue funding the research manager until the end of May, 2013.

Research Outcomes

The research outcomes iterate between phases 1 and 2 and, in general, with concurrent timing. These outcomes include the following.

1. Website launched September 2011 complemented with weekly blogging, tweeting, Facebook posts (see Appendix C for analysis of MC^3-related Facebook traffic), including an interactive case study map
2. Real-time on-line researcher/practitioner e-Dialogues moderated by the Principal Investigator (see Appendix D for statistics on online dialogue participation).

    - May 23, 2012, e-Dialogue, Climate change response and sustainable development paths: Unmasking the synergies
    - June 11, 2012, Live Chat Follow Up
    - October 2, 2012, e-Dialogue, Climate innovations in BC communities
    - October 5, 2012, Live Chat Follow Up

3. Educational Tools

    - July 2012: Case study training workshop, attended by 15 students working on the project and 2 PICS Fellows
    - To be finalized: MC^3 directed studies course approval at RRU - Local Climate Action: Turning Research to Practice. Leads: Professors Ann Dale and Leslie King.
    - November 2012- April 2013: MC^3's, Dr. Alison Shaw, and Climate Action Secretariat, Ben Finkelstein, is working with five of Dr. Nancy Oleweiler's SFU Masters of Public Policy students. Their action research project will use MC^3 case studies to perform interviews with local government actors across the province to identify strategies and tools to effectively communicate climate innovation and best practices to local government decision makers in BC.

4. Publication of the 11 case study communities weekly on the website, from November 2012 to February 2013

5. Public videos for public outreach (publication began on October 2012) (see Appendix E for statistics on video outreach)

    - *Inertia, Meeting the Climate Change Challenge (MC^3) Video Series*
      http://youtu.be/Hh004wJguC8
    - *Dr. Sarah Burch on Sustainable Development Pathways*
      http://youtu.be/z3pAeeYSAN4
    - *Victoria Smith on Community Engagement*
      http://youtu.be/CHaz-Yht65o
    - *Dr. Azim Shariff on the Moral Imperative*
      http://youtu.be/PbzPFd7LJYA

6. MC^3 Peer-to-Peer Learning Exchange: Innovations and new paths forward for BC climate action, held January 18th 2013 at the Centre for Dialogue, Royal Roads University (see Appendix F for workshop details)

7. Conference presentations

Dale, A., A. Shaw, F. Kristensen, K. Hanna and C. Ling. Joint MC3 and NMAP Research Project Outcomes. 2013. *The Potential of Local Climate Innovation for Transforming Development Paths*. Congress of Humanities and Social Sciences, June, 2013. Victoria, BC (accepted) Panel Session

Dale, A., A Shaw, F. Kristensen, and C. Ling. 2013. *The Potential of Local Climate Innovation for Transforming Development Paths*. Association of American Geographers Annual Meeting, April 9-16, Los Angeles California, (accepted) Panel Session

Burch, S., A. Shaw, A. Dale and J. Robinson. 2013, *Accelerating the sustainability transition: Exploring synergies between adaptation and mitigation in British Columbian communities*. International Studies Association Annual Conference, April 3-6; San Francisco, USA, paper presentation

Burch, A., A. Shaw, A. Dale and J. Robinson. 2013. *Accelerating sustainability in British Columbia: Enablers of transformative multi-level governance in eleven case study communities*. Earth System Governance Conference, January 28-31, 2013; Tokyo, Japan, paper presentation

Burch, S., J. Robinson, A. Dale. 2012. *Cities and Climate Change Experimentation: Drivers, Dynamics, and Consequence. Meeting the climate change challenge (MC3): multi-level climate change action and social mobilization on climate change in British Columbian communities*. Association of American Geographers Annual Meeting, New York, New York. Panel session

S. Burch, Y. Herbert and J. Robinson. 2012. *Meeting the climate change challenge: A scan of greenhouse gas emissions in BC*. Earth System Governance Conference, April 18-20; Lund, Sweden

8. Ongoing academic publications (including meta-case analysis)

- Burch, S. A. Dale, A. Shaw and J. Robinson. *Cities and Climate Change Experimentation: Drivers, Dynamics, and Consequence. Meeting the climate change challenge (MC3): multi-level climate change action and social mobilization on climate change in British Columbian communities*. .
- Burch, S., Y. Herbert and J. Robinson. *Meeting the climate change challenge: A scan of greenhouse gas emissions in BC*
- Shaw, A. A. Dale, R. Newell. *A Social Learning Experiment: Lessons Learned from Canadian Case Studies in Climate Change Adaptation and Mitigation*
- Dale, A., A. Shaw and F. Kristensen. *The Potential of Local Climate Innovation for Transforming Development Paths*.
- Burch, S. A. Dale, A. Shaw and J. Robinson. *Accelerating sustainability in British Co-*

lumbia: Enablers of transformative multi-level governance in eleven case study communities.

- Shaw, A., S. Burch, A. Dale, J. Robinson and F. Kristensen. Community-scale climate innovation and transformative sustainability: Sustainability, adaptation and mitigation linkages in eleven BC communities.
- Kristensen, F. A. Dale and A. Shaw. *Meeting the Climate Change Challenge: An experiment in research and policy network formation.*

9. A final 'state-of-the science' report on BC climate change adaptation and mitigation is now being written and will be widely disseminated to decision-makers in the province by the end of March, 2013. Intended audiences include political and government decision-makers, policy-makers and non-government organization leaders.

Knowledge mobilization and public outreach

MC^3 initially developed a website through which relevant climate change information is communicated. This involves a weekly blog, tweets, an interactive case study map and four climate-relevant videos released in October and November of 2012. The goal is to provide exposure to the project and, importantly, interactive engagement between the research team and broader networks and communities in an iterative way throughout the research process. E-dialogues, live chats and face-to-face meetings were used to facilitate these exchanges. These strategies, used over the course of the project, developed a momentum in participation throughout the project.

Traffic to mc-3.ca has increased steadily from its launch in September 2011, and the highest levels of web traffic occurred in the most recent months of the project (see Appendix A). The most dramatic increases in website visits were observed in October 2012 and January 2013, and these months correspond with the beginning of case studies releases and the announcement of the peer-to-peer learning exchange to be held on January 18, 2013. Further analysis shows that case studies and webpages related to case studies comprised a significant portion of total visits to the website over the year and a half duration of the project, even though case studies were released only during the last three months of the project (see Appendix B). What these observations show is that MC^3 research outcomes are being reviewed and shared, demonstrating an increasing coalescence around climate innovation in the province and considerable engagement with the MC^3 site as a knowledge dissemination channel. In addition, a significant proportion of MC^3's website traffic is directed to MC^3 news and blog feeds (see Appendix B), and this has been (and continues to be) important in terms of keeping constant contact with the public and parties interested in the research, as news and blog items are posted on a regular basis.

Two e-Dialogues, inviting participants from across the province and the country to participate in MC3 research development and exchange about findings, acted as both an introduction to MC^3 goals and objectives and an exchange about enablers of local scale climate innovation and implications for transforming underling sustainable development pathways. Participation in the e-Dialogues almost doubled from the first to the second, from twenty-five to forty-one. Momentum in level of interest and participation has been steadily building in the project, particularly with increased exposure and relevance of findings. Both e-Dialogues were followed

up with a Live Chat in order to facilitate even greater exchange among participants interested in asking questions or commenting. Conversation records of and related information to the e-Dialogues and LiveChats are available from their webpages, and these resources are continually referred and linked to when releasing MC^3 news and materials.

MC^3 has connected with the general public through the use of popular social media forums. Four videos have been released on YouTube, which address a range of climate change related issues including social barriers to engaging climate action and community engagement strategies. The videos were designed to be both informative (through expressing ideas of researchers and practitioners in the field) and publicly engaging (through the use of animation), and these videos have received a steady level of viewer traffic since release (see Appendix D). Facebook was used to notify the public about video releases, published case studies, and upcoming events (using the CRC in Sustainable Community Development's, MC^3 partner program, Facebook page). Facebook posts automatically appear in the news feeds of those who have indicated a 'Like' for their respective page, and this was useful for connecting the general and wider public to MC^3 research, especially in terms of case study publications (see Appendix C) as each case study release was noted on Facebook with brief information on the particular case.

MC^3 has been referred to as a network of networks. Through the use of strategic partnerships, MC^3 has been able to access our partners' online networks and others interested in MC^3, throughout the research process. A network map is currently being crafted to identify key players in the province and areas of overlap among MC^3 organizations and leaders engaged in climate innovation at the local scale.

Peer-to-Peer Learning Exchange

Attended by 45 researchers and multi-scale, multi-sectoral practitioners, this event attracted key participants in climate innovation from across the province, including planners, sustainability planners, economic development officers, and city engineers. Participation from non-leading communities was underrepresented, although dedicated recruitment attempts were made. Participants were exposed to MC^3's high-level findings about climate innovation occurring in the province and the drivers of and barriers to these innovations.

The peer-to-peer learning exchange consisted of two panel discussions, moderated by the PI. The morning panel, *MC3: What did we learn?* consisted of a panel exchange among MC3 researchers discussing high-level MC^3 findings with input from a lead researcher from the National Municipal Adaptation Project. The lunch-time panel, *Tools, techniques and innovations,* consisted of provincial and local government representatives, Ben Finkelstein and Isabel Gordon, from the BC Ministry of Environment's Climate Action Secretariat and the City of North Vancouver respectively discussing diverse strategies and tools available for climate action. Dr. Stephen Sheppard was included in this panel to highlight innovative visualization tools that have been successful in spurring community climate action (see Appendix F for Learning Exchange Agenda and panelist details).

Participants were assigned policy round tables and encouraged to discuss best practice innovations, and the drivers of and barriers to climate action. A rapporteur from each table

presented what they collectively viewed as the top climate innovations in the province and associated key lessons in and priority strategies for accelerating climate innovation across the province.

Note-takers were placed at the round tables during these discussions and pre- and post-workshop surveys were used to determine whether and to what extent self-reported learning had taken place. All of the twenty-five respondents stated they learned something, with the majority reporting a fair amount to a lot of learning.

The feedback from the exchange identifies an appetite among local governments in the province to learn from one another in a more routine way. Many reported that the learning exchange began a network-building process that is fruitful and energizing. One respondent noted the effectiveness of the learning exchange and also the desire for greater, more detailed exchange into the future.

> *"This peer learning exchange really helped to refuel my batteries. It's great to bring together researchers and practitioners and learn from one another and remember why we do this work. I would like to have more opportunity to learn from those who could provide examples or a "checklist" of steps that we can take in our municipalities to accelerate the climate change agenda".*
>
> *(Anonymous 2013).*

Highly Qualified Personnel

MC^3 has attracted a considerable amount of interest with respect to the practical implications of the research (as outlined above). The project has also attracted interest due to its cutting-edge nature in terms of explorint the best and current innovations and its grounding in transformative change theory. These aspects of the project have attracted contributions and high-levels of skills, knowledge and expertise to the project including, but not limited to the following.

1. University of Texas professor and pending Fulbright Scholar, Jeff Howard, to coordinate his research on local government action on climate change in Connecticut with MC^3 research with goal of strategizing for inter-jurisdictional comparability.

2. PICS Fellow, Freya Kristensen, to help with case studies and to continue to develop the network component of MC^3 over the next 2 years, if successful with the new SSHRC application.

3. 2012 Banting Fellow, Sarah Burch, included MC3 as part of her application for the Banting award, included her ongoing participation on this research project two days a week.

4. Meg Holden has released two of her students to assist with her MC^3 case studies, Eric Brown and Hedieh Rashidmalekshah, supported by a small PICS grant.

5. In addition to acting as Principal Investigator, Professor Ann Dale has donated the time of her research associate, Robert Newell, who has led the website development, video production and assisted in case study research, as well as on-line survey development.

6. An innovative research collaboration has occurred through cross-fertilization of the Principal Investigator as a co-researcher on another very complimentary research project, led by Dr. Kevin Hanna, Wilfrid Laurier University. This project, the National Municipal Adaptation Project (NMAP), has just completed a survey of over 4500 municipal planners across the country on climate change adaptation. Joint presentations have now been planned, combining our data, and potential joint academic papers are now being explored. This unique collaboration will also help to optimize future grant applications, although the inability to fund research managers through SSHRC is still problematic.

7. The PICS funding has been essential in allowing this project to engage a highly qualified research manager, Dr. Alison Shaw, who was instrumental in managing the data collection and management process, the cross-comparative framework and analysis and enhancing knowledge mobilization phase of the project.

Research Proposal Development

Throughout the duration of MC^3, the MC^3 team submitted two major SSHRC grant proposals, an Insight Grant and a Partnership Grant. Both were declined on the basis of limited grant funding. The Insight Grant was ranked successful, but did not score highly enough for funding. Thus, we reapplied for funding for a 2-yr duration and will be presented with the decision at the end of April.

Success Indicators

There are a number of indicators that suggest MC^3 is generating momentum and interest in cutting-edge research and local climate innovation in BC communities.

1. Organizations, local government staff and community leaders are collaborating around MC^3 efforts to identify strategic opportunities for moving forward on climate change and sustainability. This includes working with the Ministry of Community, Sport and Cultural Development to incorporate MC^3 case study data into their on-line Climate Action Toolkit.

2. Conference presentations continue to be accepted and well-attended suggesting international interest in the analysis of innovative multi-scale governance arrangements occurring in BC's unique regulatory environment and its implications for sustainable development pathways.

3. Interest in collaborating with MC[3] is regularly expressed. For instance, integrating case study findings in other areas of research and practice has been discussed with affiliates such as the Community Energy Association, the School of Regional and Community Planning (UBC), National Municipal Adaptation Project, Federation of Canadian Municipalities, Sustainability Solutions Group, Climate Action Secretariat (BC MOE), Ministry of Communities, Sport and Cultural Development and Sustainable Cities International.

Final Remarks

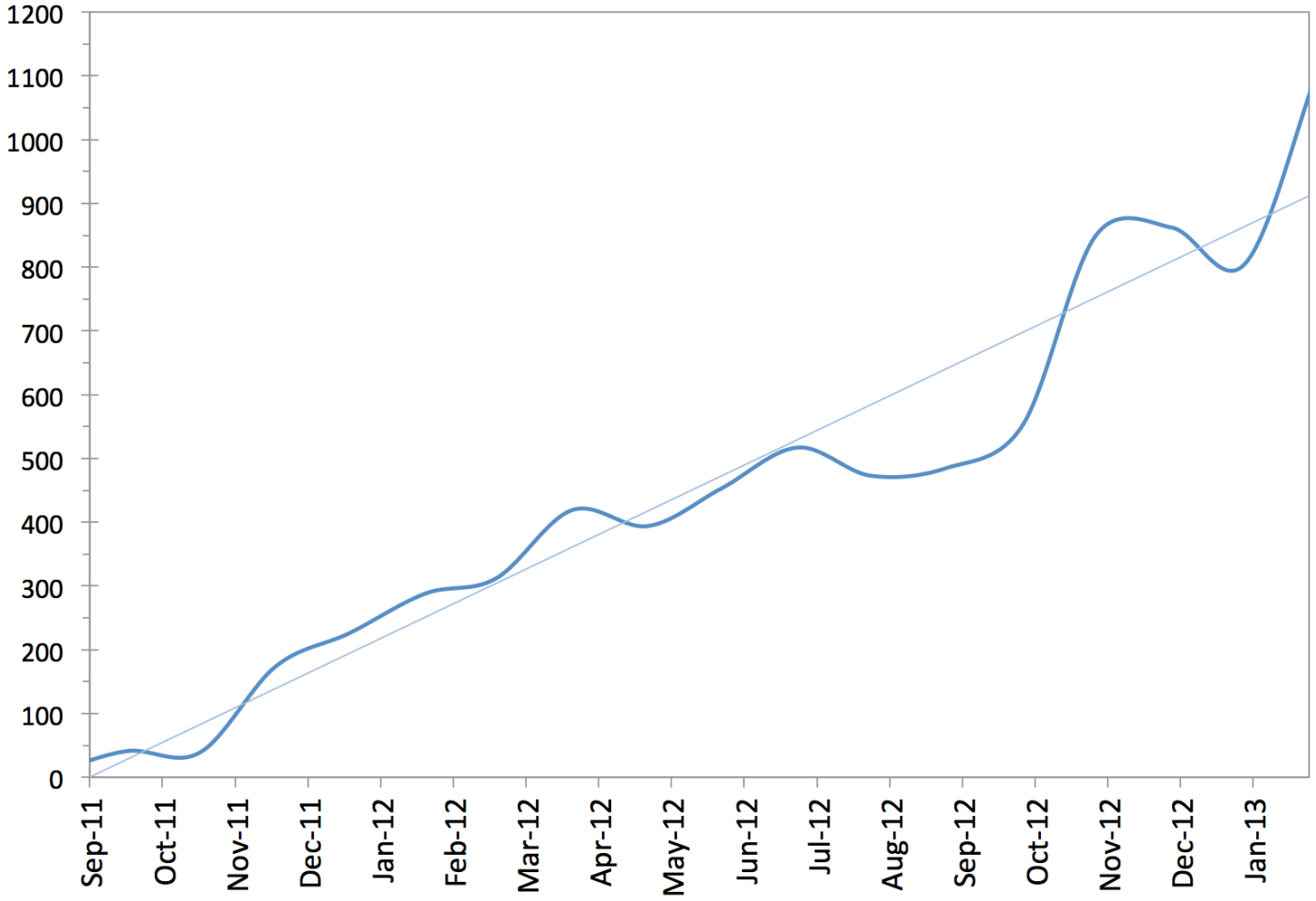
MC[3]'s cutting-edge research provides detailed analysis, knowledge dissemination and exchange and social learning on best practices for local climate innovation. Its research methods, outputs and mobilization strategies, examine the drivers of climate action and innovation at the local scale. Through the research process, MC[3] contributed to building new researcher-practitioner and peer-to-peer networks in BC, engaging cross-sectoral and interdisciplinary exchange among relevant actors, organizations and multiple scales of government. This network formation is critical for building capacity and exchange that will continue into the future. MC[3]'s knowledge dissemination and mobilization strategy has raised awareness both locally about enabling conditions that have fostered innovation in BC and nationally and internationally about the critical leadership role that the Province of BC is playing in regards to climate action. The mobilization of this knowledge at international conferences, in publications and through social media and website traffic is increasing the attention on climate action in BC, with its unique regulatory environment and local innovation cases. These underlying innovations and network building efforts may prove, upon further analysis, to be transitioning the BC communities to more sustainable development pathways.

Acknowledgements

We would like to acknowledge the support we have received from all levels of Royal Roads University in the administration and organization of this project—Dr. Mary Bernard and her Office of Research, Dr. Steve Grundy, Academic Vice-President and Ms. Evelyn Goedhart, Finance and Administration. In addition, the support of Victoria Smith, Ben Finklestein and Ted Sheldon from the Climate Action Secretariat has been instrumental in our knowledge mobilization strategies.

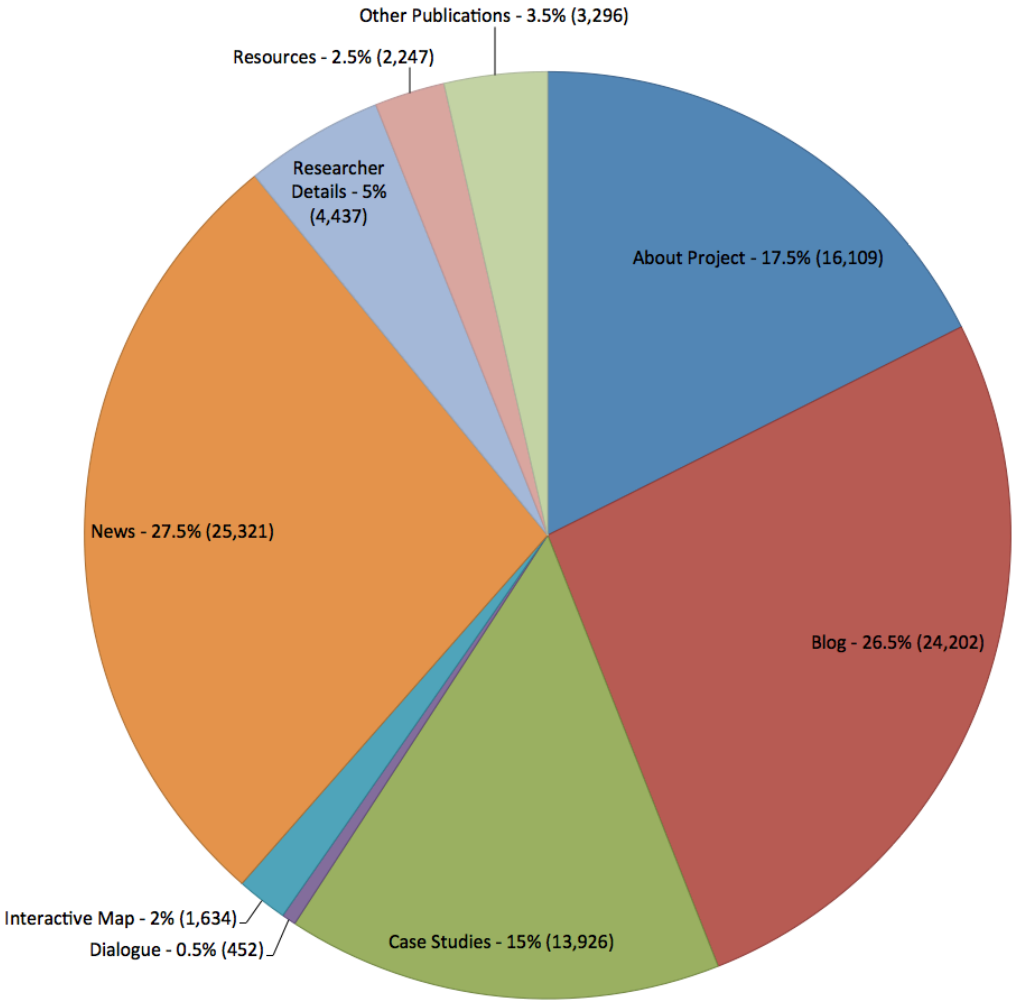
Appendices

Appendix A: Unique Visits to mc-3.ca in the Period of September, 2011, to January, 2013



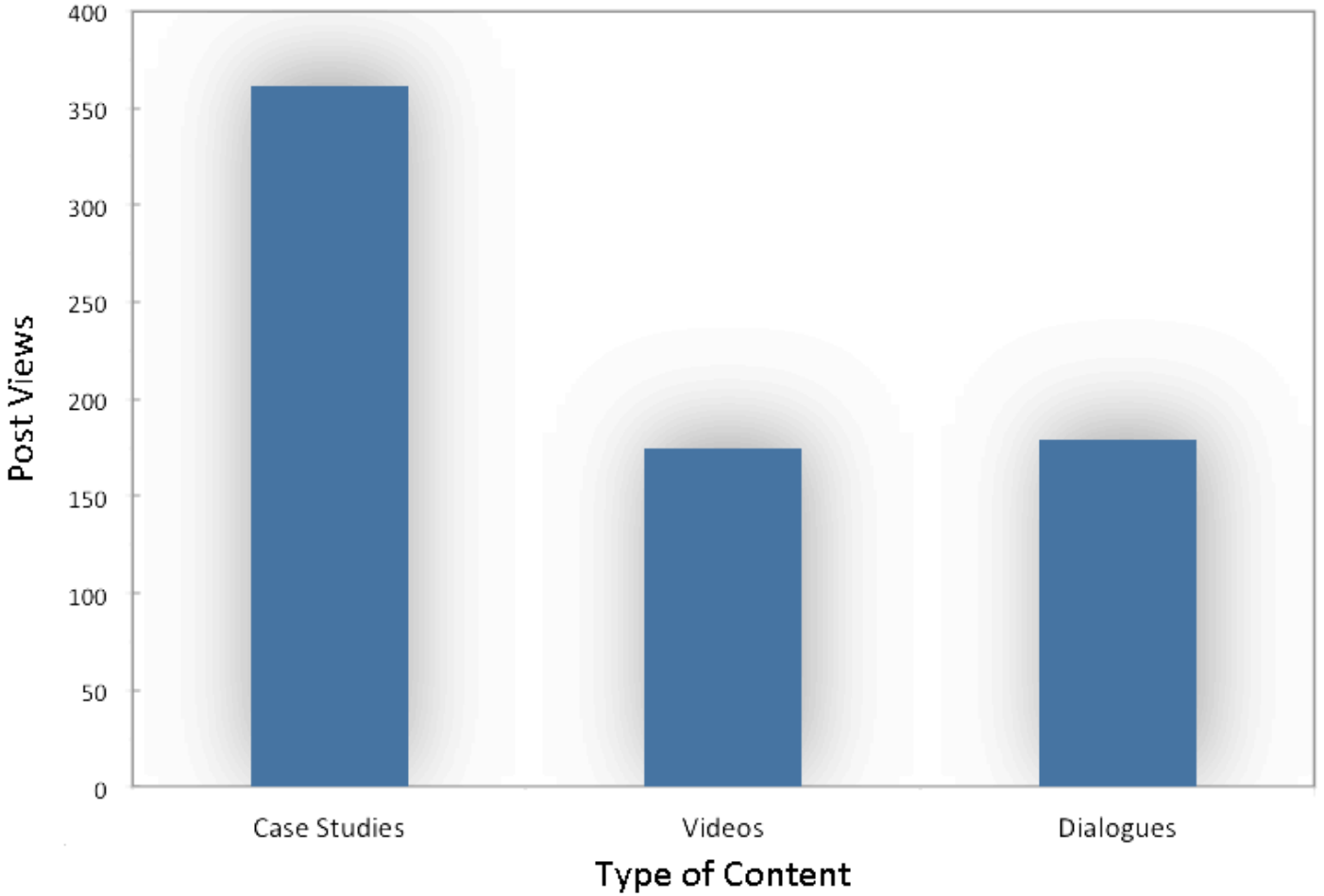
The figure above displays trends in monthly data for unique visits of MC[3] website material. Unique visits refer to views of MC[3] material originating from a different IP address than that of the other views for a given month. A linear trend line of the unique view data has been plotted in light blue, and the regression produced an R^2 value of 0.923.

Appendix B: Proportions of Web Traffic Destinations for mc-3.ca in the Period of September, 2011, to January, 2013



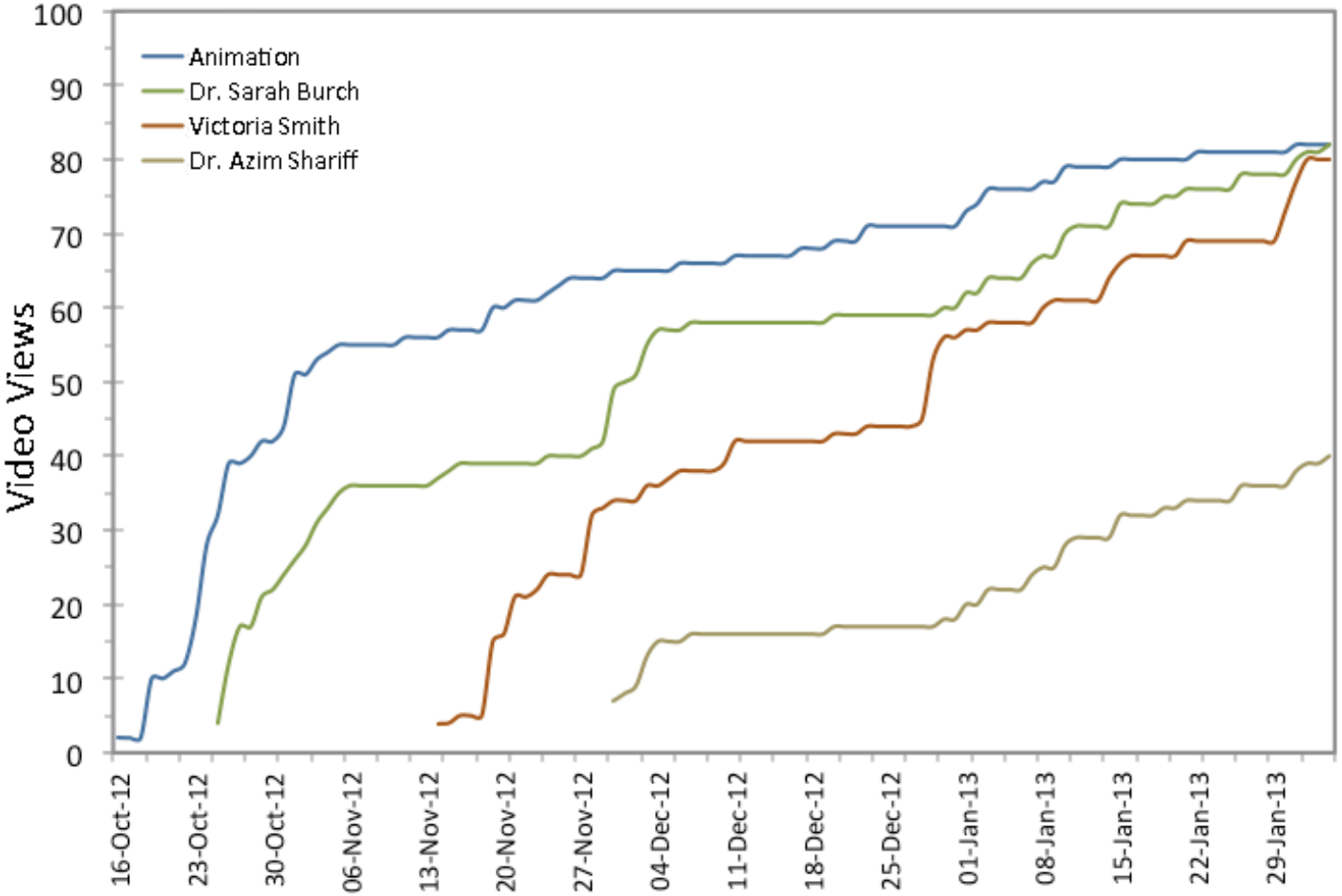
The figure above displays the relative levels of web traffic for different MC[3] pages, categorized by content type. Each category of content type is displayed with total webpage views and percentages of total views. "About Project" refers to content that explain the project details and operations (including the front page). "Researcher Details" refers to researcher biographies and contact details. "Resources" refers to links to other websites and materials displayed on the page. "Dialogue" refers to material concerning the Peer-to-Peer Learning Exchange, LiveChats, and e-Dialogues. "Case Studies" refer to material concerning MC[3] case studies. "Other Publications" refers to materials concerning books and academic articles related to the project. "News" and "Blogs" refer to their respective types of posts. "Interactive Map" refers to views of the MC[3] interactive map of cases.

Appendix C: Number of Views of Facebook Posts Containing MC^3 Content



The above graph displays total numbers of visitors that have interacted Facebook posts containing content related to the MC^3 project. *Case Studies* refer to posts announcing released case studies and case summaries, *Videos* refer to posts announcing new videos, and *Dialogues* refer to posts on e-Dialogues, LiveChats, and the peer-to-peer learning exchange.

Appendix D: Cumulative Views of MC[3] Videos from Release to Current



Video URLS

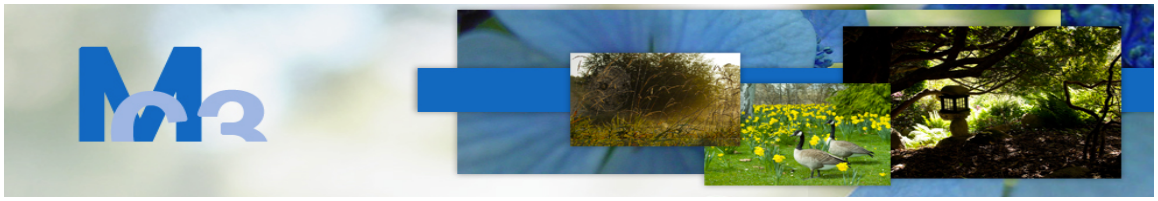
Inertia, Meeting the Climate Change Challenge (MC[3]) Video Series - http://youtu.be/Hh004wJguC8
Dr. Sarah Burch on Sustainable Development Pathways - http://youtu.be/z3pAeeYSAN4
Victoria Smith on Community Engagement - http://youtu.be/CHaz-Yht65o
Dr. Azim Shariff on the Moral Imperative - http://youtu.be/PbzPFd7LJYA

Appendix E: E-Dialogue and LiveChat Participation

e-Dialogue Details			e-Dialogue			Follow-up LiveChat	
Conversation Number	Conversation Title	Date	Participants	Page Views	Unique Views	Interactions	Replays
1	Unmasking the Synergies - Climate change response and sustainable development paths	May 23rd, 2012	25	253	157	19	17
2	Climate Innovation and Implementation in BC Communities	October 3rd, 2012	41	228	153	24	18

The table above displays values for participation in the online conversations aspect of the MC^3 Project. *Participants* refer to the number of people in the e-Audience. *Page Views* refer to the number of visits to the e-Dialogues' respective webpages, and *Unique Visits* refer to the number of people. *Interactions* refer to the number of clicks on the LiveChat widget while the LiveChat was in session (these values are not referred to as 'people' because they could consist of repeated clicks). *Replays* refer to the number of times a LiveChat conversation was viewed after the session completed.

Appendix F: MC3's Peer-to-Peer Learning Exchange Agenda



MC^3 - MEETING THE CLIMATE CHANGE CHALLENGE

www.mc-3.ca

MC^3 PEER-TO-PEER LEARNING EXCHANGE
Friday, JANUARY 18TH: 11am – 5pm
Learning and Innovation Centre, Room 407
Royal Roads University, Victoria B.C.

10:30-11:00	**Registration and refreshments**
11:00-11:10	**Introduction** Principal Investigator, Prof. Ann Dale
11:10-11:40	**MC^3: What did we learn?** **Ann Dale (Moderator)** Canada Research Chair in Sustainable Community Development, School of Environment and Sustainability, Royal Roads University **Prof. John Robinson** Associate Provost, Sustainability, Centre for Interactive Research for Sustainability, University of British Columbia **Dr. Meg Holden** Associate Professor, Urban Studies, Department of Environment, Simon Fraser University **Dr. Sarah Burch** Banting Scholar | Research Associate, Centre for Interactive Research for Sustainability, University of British Columbia **Dr. Alison Shaw** MC^3 Research Manager | Associate, School of Environment and Sustainability, Royal Roads University **Dr. Chris Ling,** National Municipal Adaptation Project, Professor, School of Environment and Sustainability, Royal Roads University
11:40-12:25	**Policy Round Tables** Pre-assigned round tables to exchange and prioritize top 3 climate innovations in the province (including policy, organizational, technological, financial and social innovations).
12:25 -1:00	**Lunch will be served**

1:00-1:40pm	**Tools, Techniques and Innovations** **Smart Tools for Climate Action: Ben Finkelstein** Manager, Green Communities, Climate Action Secretariat **Financial Planning Instruments: Isabel Gordon** Director of Finance, City of North Vancouver **Visualization Techniques: Dr. Stephen Sheppard** Professor | Director of Collaborative for Advanced Landscape Visualizations, University of British Columbia
1:40-3:00pm	**Learning exchange: Nuggets of gold** Each round table identifies one leading climate innovation that reduces emissions and builds local resilience, and discusses the following questions for reporting back: • What was the key driver that made it work? • What was a barrier that needed to be overcome? • What is your innovative solution or policy change recommendation that emerges from this example?
3:00-3:30	**Reporting back**
3:30-3:45	**Concluding remarks** Complimentary drink coupon for filling out the post-survey on the iPad at your table.
3:45- 5:00	**Reception** Appetizers will be served

MC^3, a collaborative project between Royal Roads University, University of British Columbia & Simon Fraser University, wishes to gratefully acknowledge funding from BC Hydro that makes this peer-to-peer learning exchange possible. The MC^3 research project is funded by the Pacific Institute for Climate Solutions.