HAVING THE CLIMATE CONVERSATION

Strategies for Local Governments

About ICLEI Canada

ICLEI – Local Governments for Sustainability, is an association of local governments worldwide that have made a commitment to sustainability. ICLEI's mission is to build and serve a worldwide movement of local governments to achieve tangible improvements in global sustainability through cumulative local actions.

To act on this mission, ICLEI is represented in all regions of the world. The Canada Office is located in Toronto, Ontario and works with local governments from coast to coast to coast. Having a regional presence in Canada enables us to bring sustainability issues of global significance to the local level. Working through a variety of campaigns and programs, ICLEI engages communities across Canada on issues ranging from climate protection to water conservation to procurement and biodiversity management.

If you would like more information on ICLEI and our work please contact the Canada Office by email: iclei-canada@iclei.org or phone +1-647/728-4308.

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Foreword

In this age of Twitter, Facebook, and Blackberry we are constantly communicating – it is almost impossible to get "out of touch" and easy to get overwhelmed. Personally and professionally we are expected to have the latest information and be ready to share that with our networks. This role of communicator is one more "hat" that municipal staff find themselves wearing on top of their already busy schedules.

Couple this information age with the reality of Canada's changing climate (aging infrastructure, more frequent extreme events, and an increasingly urbanized landscape) and clearly there is a communications effort that requires our attention.

ICLEI is an association of local governments that are committed to sustainability. We work with them to build the capacity of municipal staff and elected officials to fulfill this commitment. We empower the local level with the knowledge, power, tools and resources they need to address environmental issues. This resource will help staff with the various aspects of communication, from identifying their audience to developing their message to delivering it successfully. *Having the Climate Conversation* doesn't present a one-size fits all solution but rather offers strategies for how to tackle this sometimes overwhelming topic.

Take the strategies outlined over the coming pages and <u>have</u> the conversation in your community! Talk it, tweet it, or write it – but be sure to tailor it to your audience and your local context. And, of course, always share your experiences with ICLEI so we can promote your successes and share your lessons learned.

Megan Meaney
Director, ICLEI Canada
*@meganmeaney*

About This Resource

ICLEI has a long history working with local governments on climate change issues. Based on this experience, and from the feedback we continue to receive from municipalities, it has become clear that communication is an integral part of any municipal climate change strategy. Effective communication enables local governments to engage community stakeholders, build partnerships and solicit support, educate and raise awareness, motivate action, and inspire behavioural changes throughout the community. Although the concept of climate change communication is well documented in the academic literature, there are surprisingly few resources that discuss these issues in relation to municipal climate action and what options are available to local governments.

Having the Climate Conversation: Strategies for Local Governments will assist municipal staff with the imperative task of communicating an understanding of climate change and highlights what can be done to protect communities from the impacts of a changing climate. There is no one-size-fits-all approach to climate communication. Communicators need to identify their audiences, carefully develop their message, and deliver it using appropriate and effective communication tools and methods. This resource is meant to help local governments with the various aspects of communicating climate change, focusing on the *WHY, WHO, WHAT, WHEN,* and *HOW* municipal practitioners can best inform and educate stakeholders within the community.

- The *why* section discusses the importance of communicating this issue.
- The *who* section highlights the need to identify an audience and understand their perceptions of climate change, and examines some of the different audiences that local governments are likely to encounter.
- The *what* section explores the idea of framing issues through lenses such as health, risk, and interconnectivity, and discusses the importance of language and clarity.
- The *when* section focuses on the importance of timing, looking particularly at how to capitalize on "teachable" moments.
- Finally, the *how* section examines several communication techniques and instruments and discusses where these strategies might be used most effectively.

This resource also includes a section on *challenges*, which identifies some of the main roadblocks facing municipal climate communication and how these can be overcome. Case studies, spotlights and other additional resources further assist local governments by highlighting best practices and outlining how climate change communication strategies have been applied successfully in other communities.
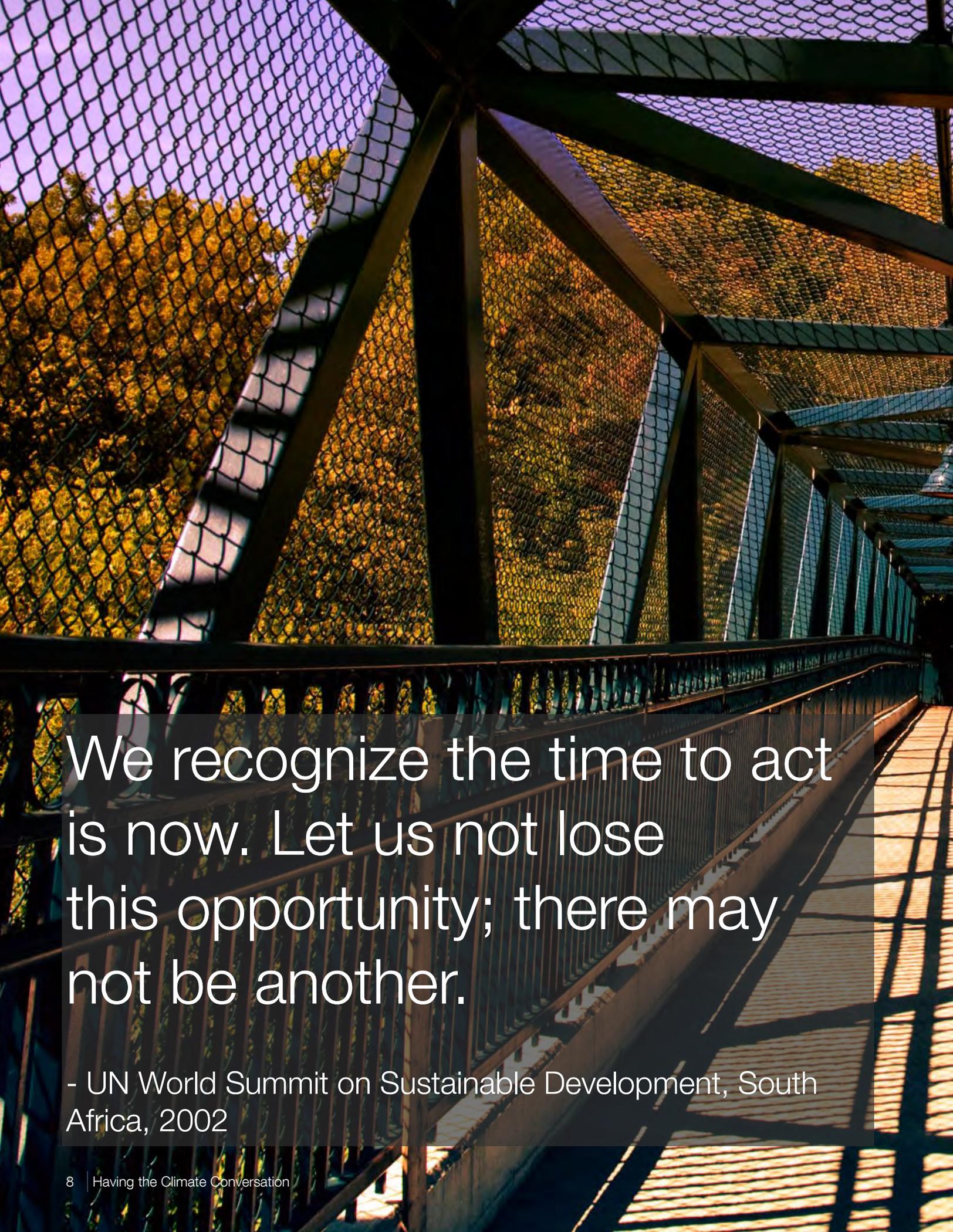
We recognize the time to act is now. Let us not lose this opportunity; there may not be another.

- UN World Summit on Sustainable Development, South Africa, 2002

WHY
COMMUNICATE

WHY COMMUNICATE

"I understand the government faces fiscal challenges right now, but the costs of adjusting to climate change in the future will only continue to increase if we don't take action now. The government [of Ontario] itself has indicated that the cost of extreme weather events could rise to $5.66 billion per year by mid-century."

– Gord Miller, Environmental Commissioner of Ontario[1]

WHY DO WE NEED TO COMMUNICATE THIS ISSUE?

The year 2011 was the 35th consecutive year since 1976 that annual global temperatures were above average.[2] While there is always natural variability with global climate, this statistic is staggering and cannot be ignored. Climate change is one of the defining issues of our age, and it is already having a significant impact on our lives in Canada. We know that:

- The increasing frequency of extreme events is threatening homes, businesses, and municipal infrastructure while costing municipalities hundreds of millions of dollars in insurance claims.
- Climate change threatens jobs and hundreds of millions of dollars in lost revenue across many different economic areas - from tourism and agriculture to natural resources and the other sectors that depend on them.
- Whole communities are at risk from the impacts of climate change, including northern communities that rely on winter roads for transportation, coastal communities that are threatened by rising sea levels and storm surges, and agricultural communities suffering from harsh drought conditions.
- Human health is being compromised by increased summer heat stress, poor air quality and changing habitats for disease vectors.[3]

In Canada, recent projections by the National Round Table on the Environment and the Economy noted that climate change will cost the national economy $5 billion in 2020, and will rise to between $21 and $43 billion by 2050.[4] Clearly, this is an issue that requires our attention.

Despite the now readily available body of scientific information that exists nationally and internationally, many people and communities as a whole seem unwilling to admit that climate change will impact them. Even those that do acknowledge the realities of climate change seem unprepared for the coming climatic changes. This is, at least in part, due to a general lack of public understanding of climate change issues and effective response strategies. If we are to move toward more resilient, carbon neutral communities, something needs to be done to address this disconnect between the reality of what is happening and how communities perceive this critical issue.

In light of the complexities involved in understanding and acting on climate change, local governments have a significant role to play in mitigating the causes of and adapting their communities to the effects of a changing climate. As part of these practices, there is a need and a responsibility for municipal practitioners to communicate how climate change will affect both residents and businesses within the community and the steps that are being taken locally to mitigate and adapt to these changes. Communication must play an essential role in mobilizing and sustaining local action on climate change.

Communication is defined as the exchange of information between people by means of speaking, writing, or using a common system of signs or behaviour. It is a process that involves various elements, including a sender, message, channel, receiver, and feedback.

Borrowing from the notion and practice of *participatory communication* – which suggests that experts and the rest of the public are equally involved in a dialogue over challenging issues and can pose their own definitions of problems and solutions – climate communication should focus on shifting social norms, policies, and culture and empowering communities to take proactive action.[5] It is difficult to see how vulnerability can be reduced and adaptive capacity increased without such active involvement of those most directly concerned.

Engaging a variety of stakeholders in the decisions and actions that directly affect them has been shown to have a range of practical benefits that can lead to improved policy design and implementation. These benefits include: broadening and deepening local input; securing community buy-in and maintaining local support; developing locally-tailored actions and solutions; heightening the trust, transparency and credibility of decision-making processes; and improving social networks and connectedness.[6]

> *Increased understanding of the broader systems and context in which climate change occurs allows individuals, communities, policy makers, and thought leaders to adapt their understanding and behavior to new realities.[7]*

Why is Communicating Climate Change so Important for Local Governments?

It is often challenging for people to think about a global issue, like climate change, in a way that seems relevant to them. As the level of government closest to residents, municipalities have the unique ability to connect the big picture to the real, local picture, and can emphasize the connection between the community and the effects of climate change. Municipalities are well-positioned to inspire individuals and organizations to take action on climate change and play a crucial role in educating the community and building support for local action.

Municipalities are the level of government residents turn to first for information and guidance on issues that relate to the health, safety, and prosperity of the community. In these capacities, local governments can use communication strategies to educate the community and gain support for climate change plans, policies, and visions. Communication can also be used to build and foster trust between local governments and the wider community. Having effective, transparent, and accountable governance requires well-designed and well-implemented communication efforts. The ability to develop and deliver these efforts lies within local governments of all shapes and sizes, from villages with a few hundred people to metropolitan regions with millions of residents. Municipalities have an intimate understanding of the social values of the community and what residents care deeply about, and can target their approaches to those characteristics when communicating climate change. Well managed communication can both engage and galvanize the public into action.

> *Reducing the risks of dangerous climate change will require well informed, rapid, co-ordinated and decisive action at global, national, regional, local and household levels; and a democratic and equitable approach to this challenge involves maximising the opportunities for informed discussion and citizen participation in climate change mitigation and adaptation actions.[8]*

Municipal Practitioners as Communicators

While not every municipality will have dedicated communications staff or formal communications policies, all municipalities have a role and responsibility to communicate with their residents. In many cases, the task of communicating issues like climate change is assigned to municipal staff with strong knowledge of the subject matter but relatively little experience in areas of communication. This resource is meant to assist municipal practitioners from communities of all shapes and sizes with the complex and sometimes overwhelming task of communicating climate change to a variety of audiences. The guidance and resources provided will help practitioners from any municipality communicate climate change using the capacities and skill sets available to them.

> *While governments are critical in setting priorities and policies, and in modeling the new behavior, civil society is absolutely indispensable in bringing about this profound change.[9]*

ENDNOTES

1. Miller, G. (2012). *Ready for Change? An assessment of Ontario's climate change adaptation strategy*. Special Report to the Legislative Assembly of Ontario, March 2012. Toronto, ON: Environmental Commissioner of Ontario. Retrieved from http://www.eco.on.ca/uploads/Reports-special/2012-Adaptation/Ready-for-Change-bookmarked.pdf

2. Gleick, P. (2012, Jan. 22). An Illustrated Guide to Climate Change in 2011. *Think Progress* blog. Retrieved from http://thinkprogress.org/romm/2012/01/22/408846/illustrated-guide-to-climate-change-in-2011/

3. Miller, G. (2012). *Ready for Change? An assessment of Ontario's climate change adaptation strategy*. Special Report to the Legislative Assembly of Ontario, March 2012. Toronto, ON: Environmental Commissioner of Ontario. Retrieved from http://www.eco.on.ca/uploads/Reports-special/2012-Adaptation/Ready-for-Change-bookmarked.pdf

4. National Round Table on the Environment and the Economy. (2011). *Paying the Price: The Economic Impacts of Climate Change for Canada*. Retrieved from http://nrtee-trnee.ca/climate/climate-prosperity/the-economic-impacts-of-climate-change-for-canada/paying-the-price

5. Tufte, T. and Mefalopulos, P. (2009). *Participatory Communication: A Practical Guide*. (World Bank Working Paper No. 170). Washington, DC: The World Bank. Retrieved from http://siteresources.worldbank.org/EXTDEVCOMMENG/Resources/Participatorycommunication.pdf

6. Wiseman, J., Williamson, L., and Fritze, J. (2010) Community engagement and climate change: learning from recent Australian experience. *International Journal of Climate Change Strategies and Man*agement2 (2), 134-147.

7. Forest, S. and Feder, M.A. (2011). *Climate Change Education: Goals, Audiences, and Strategies: A Workshop Summary*. National Research Council of the National Academies. Washington, DC: The National Academies Press. Retrieved from http://www.nap.edu/catalog.php?record_id=13224

8. Wiseman, J., Williamson, L., and Fritze, J. (2010) Community engagement and climate change: learning from recent Australian experience. *International Journal of Climate Change Strategies and Man*agement2 (2), 134-147.

9. Moser, S. and The Canada Institute of the Woodrow Wilson Center. (2008). Communicating climate change motivating citizen action. M.L. Walser (Ed.). Encyclopedia of Earth. Retrieved from http://www.eoearth.org/article/Communicating_climate_change_motivating_citizen_action

As mayors…we don't have the luxury of simply talking about change but not delivering it…In every corner of the globe, cities are at the forefront of climate change action.

- Michael Bloomberg, Mayor, New York City
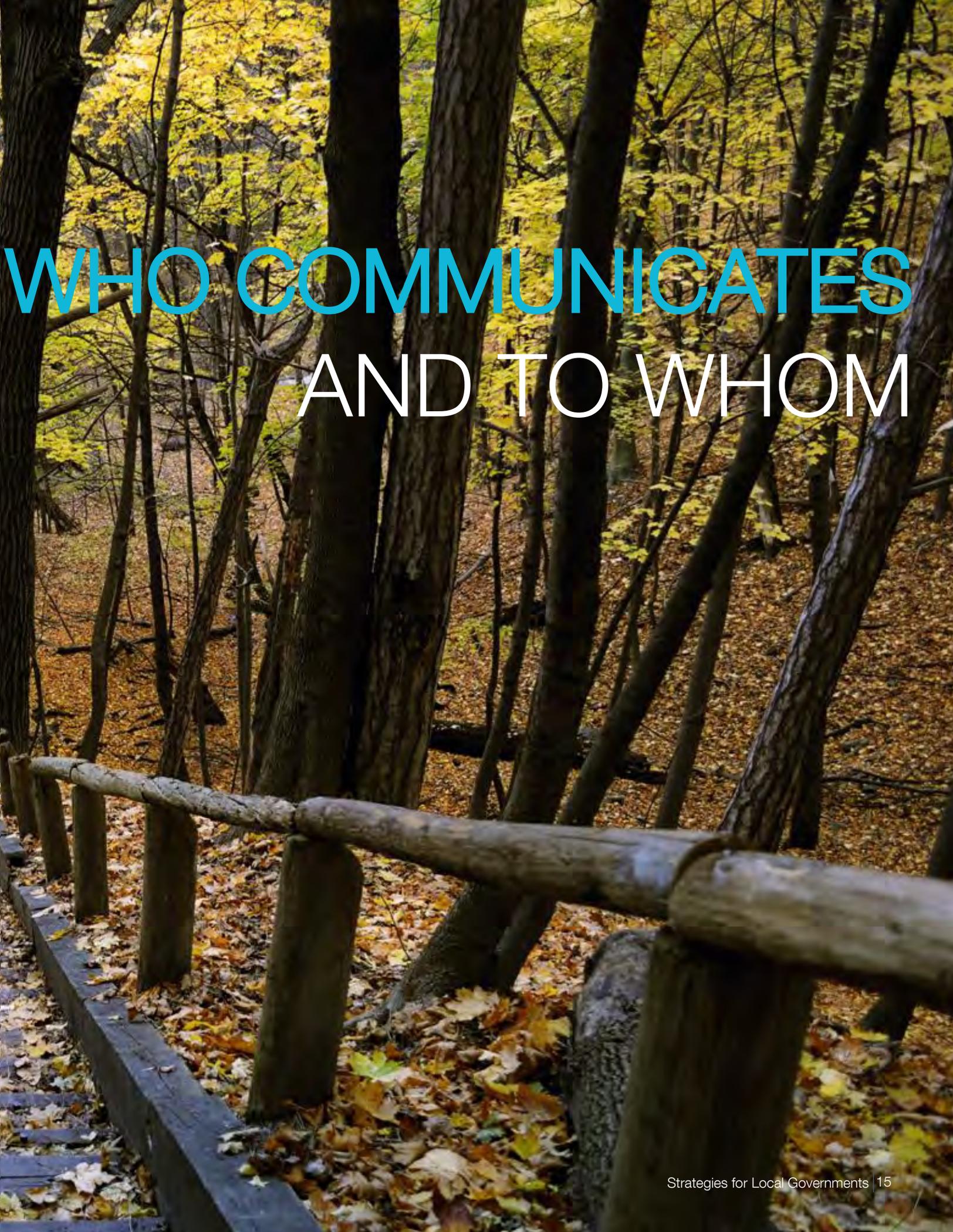
WHO COMMUNICATES
AND TO WHOM

WHO COMMUNICATES AND TO WHOM

The most effective communication is targeted at specific people. You need to know who your audience is in order to communicate a message that resonates with them. Identifying an audience will determine which messages, methods, and techniques to use and can help to avoid communicating message which are less relevant or potentially abstract.

Developing an understanding of your audience and what their interests are is a crucial component of any communications effort. The following section explores some of the different audiences that will likely be encountered and highlights the importance of assessing an audience's perception of an issue. This section also discusses a few key considerations when selecting a messenger, the person (or people) who will be delivering your climate change messages to the audience.

IDENTIFYING THE AUDIENCE

It is important to know to whom you are targeting your message, a sometimes difficult and daunting task. This can be made easier by identifying an audience's role in the process.

Consider whether you want your audience to:

- Provide input into a plan, policy, or vision.
- Support the climate change work being done in the municipality.
- Adopt climate-friendly practices or actions.
- Collaborate on the planning and implementation of climate change actions.
- Become partners for future climate work.

Whether you are looking to gauge the community's interest in climate change or you are ready to develop a formal climate change adaptation plan, identifying an audience's role can be a helpful step for determining who to engage.

If you already have a good sense of who you want to communicate with then you may want to skip to *Communicating to Different Audiences* on page 17, which talks more about what you can expect from each audience and strategies that can be used to communicate with each one.

An audience's role can be determined by their interest in climate change issues, as well as their ability to influence policies and strategic decision making.

The following matrix can be used to identify which stakeholders need to be targeted.[1] Consider those high interest, high influence stakeholders that might fall into the bottom right cell. Be sure to also consider stakeholder groups that would be beneficial to involve but which may or may not fall into the high influence, high interest category.

	Low Influence	High Influence
Low Interest	Stakeholders with a low priority of involvement. Require minimum participation and control efforts.	Stakeholders who can be influential in strategic decision-making but may not have a strong interest in the issue. Should always be kept informed. Could also influence other influential stakeholders.
High Interest	Important stakeholders with a strong interest in the effects of the process. They are generally passive, but can suddenly emerge as active participants due to unforeseen circumstances or events; progressively increasing their influence on decision-making processes.	Stakeholders essential to the process and whose involvement is a high priority. They are both influential as well as interested in the development and communication of the issue at hand. Having them involved should be an important consideration.

You may also want to consider ways to encourage potential stakeholders to self identify as interested parties. Self-identification empowers people and allows those individuals or groups with experience or a vested interest in the issues to get involved and support the work being done locally. This process will often occur naturally but increasing exposure on the project will expedite it. Exposure can be achieved through websites, social media, or via handouts that advertise community engagement opportunities such as open houses, workshops or public comment periods.

With a better idea of who you should speak to, you can now start thinking about some of the different audiences you may encounter or want to target throughout your communications effort.

COMMUNICATING TO DIFFERENT AUDIENCES

The group of stakeholders that have now been identified will be made up of a variety of audiences. Each of these audiences has different priorities and can be targeted in different ways. While any given message may have multiple target audiences, it is useful to tailor a message and the communication strategies used to fit each one. The following explores a few potential audiences.

Local Government Staff and Elected Officials

Any municipal climate change work will involve various local government staff and elected officials as. Both groups work to serve the community and both have a direct say in the decisions that are made at the local level, which is why they can have a significant impact on the outcomes of a climate communications effort.

Local government staff can be extremely influential in affecting municipal behaviour and policy. They are the ones on the front lines making municipalities run - from the maintenance of existing infrastructure to the planning, design and construction of new buildings, roads, and other amenities such as recreation, health services, and public safety. Municipal staff play critical roles in all departments that will be affected by climate change, and as such, communicating with this diverse group, including both individual staff and entire departments, will be important to the success of your climate communications effort. Staff members who support what you are communicating can also act as champions and can help disseminate your message more widely among colleagues, stakeholders and other segments of the public.

As you prepare to engage this group, be sure to speak to what staff know best (addressing infrastructure design with engineers, etc.). However, be mindful that climate change is an issue that crosses municipal departments and should not remain within the parameters of just one department to "solve". As such, consider integrating learning opportunities, staff training, and regular check-ins with staff from all areas of the municipality to ensure that each department is familiar with the wide-ranging impacts of climate change and to encourage a more coordinated and collaborative approach. Keep staff updated on your municipality's climate change plans and be sure to provide ample notice when introducing any new programs or initiatives. This can be done using flyers, email and website updates, or by making announcements at staff meetings.

Elected officials are also an important audience to engage. Having political allies or champions can be hugely influential in the uptake and dissemination of your message. Elected officials care about their political platform, their constituents, and their roles and responsibilities as representatives of the community. As public leaders, these individuals have assumed responsibility for the health, safety and welfare of local residents. Efforts to communicate with this group should focus on good governance, sound business practices, and the preservation of essential community services. Be sure to consider this audience's interest in certain issues (transportation, green space, etc.), as well as their own legacy in the community as potentially proactive and innovative leaders. Messages that tap into these interests are more likely to resonate with mayors and councillors.

Other Levels of Government

Other levels of government can also be important audiences to target. Many collaborative and funding opportunities are available through provincial and federal government bodies. In fact, provincial bodies have been known to act as catalysts for local action and often have similarly aligned priorities.

In 2007, for example, the Province of British Columbia worked with the Union of British Columbia Municipalities to develop the Climate Action Charter, an initiative that has spurred municipalities across the province becoming carbon neutral by 2012. Marketing the work of the community to this audience can help to ensure financial and political support for current and future projects. If you have pre-existing contacts, a phone call, newsletter or email may be appropriate. If not, you can invite other levels of government to community workshops, exhibitions, or conferences, and use these opportunities to build beneficial long-term working relationships.

The Community

The community is made up of many different stakeholder groups, and people may fall into several based on their work and personal commitments. The most prominent stakeholder groups in a municipality are residents, business and industry, academia, and non-governmental organizations. Each audience has its own priorities and concerns, and should be targeted as such. An overview of these different community groups is provided below.

Residents

Engaging residents is an important part of any planning process. Messages to this audience should use accessible language and visuals that convey the importance and urgency of the issues. Generally speaking, community engagement can be deemed a success if it does one (or more) of the following:

- Educates.
- Encourages community involvement.
- Motivates individuals, businesses, or community groups to take action.
- Promotes inclusive and vibrant communities.

Business and Industry

Communicating with the business community provides a unique opportunity to engage and create partnerships with local stakeholders. Businesses and local industries play significant roles in the community and can greatly influence awareness levels, political will, and the overall preparedness of the municipality. By responding to climate change risks and opportunities, businesses can also:

- Avoid costs, manage liabilities and build resilience by addressing climate risks throughout operation and value chains.
- Expand market share and create wealth in the community by developing and disseminating new products and services that help people adapt.
- Access new opportunities to collaborate with the public sector.
- Build a positive corporate reputation and exercise good corporate citizenship.[2]

According to a recent report, 86 percent of businesses described responding to climate risks or investing in adaptation as a business opportunity.[3] The report goes on to show that 83 percent of respondents felt that climate change impacts pose a risk to their product chains and ability to deliver services to their customers.[4] Businesses that are first to address risks and develop innovative strategies to adapt and prepare for a changing climate can gain a competitive edge moving forward. In fact, the competitive nature of businesses can be used to build support for your efforts by creating challenges and friendly competitions between businesses. Recognition is a great way to foster support within the business community; campaigns structured to provide recognition, awards, or positive press to businesses that participate are generally quite successful. Consider creating a business awards program that allows *prepared businesses* – businesses that have taken steps to become more resilient to climate impacts – to display emblems in store windows demonstrating their compliance with the award program.

Communication efforts focused on this community should emphasize and give examples of businesses saving money or avoiding high future costs (damage to property, insurance premiums, etc.). Remember to highlight that they can enhance their corporate image by creating or re-inventing themselves as highly adaptive and prepared organizations that can continue to provide their services in the longer term. This kind of positive marketing can be a very powerful tool.

For communities with a small business base, opportunities exist for more targeted communication, outreach and engagement. For municipalities with a larger commercial or industrial base, it may be advantageous to work with a local Chamber of Commerce or the trade press to achieve widespread dissemination of a particular message.

Successful mediums to engage the private sector can include: one-on-one consultations, exhibitions or conferences, galas with well-known speakers, messaging in local newspapers, high-profile challenges (such as those issued by the Mayor) and press events.
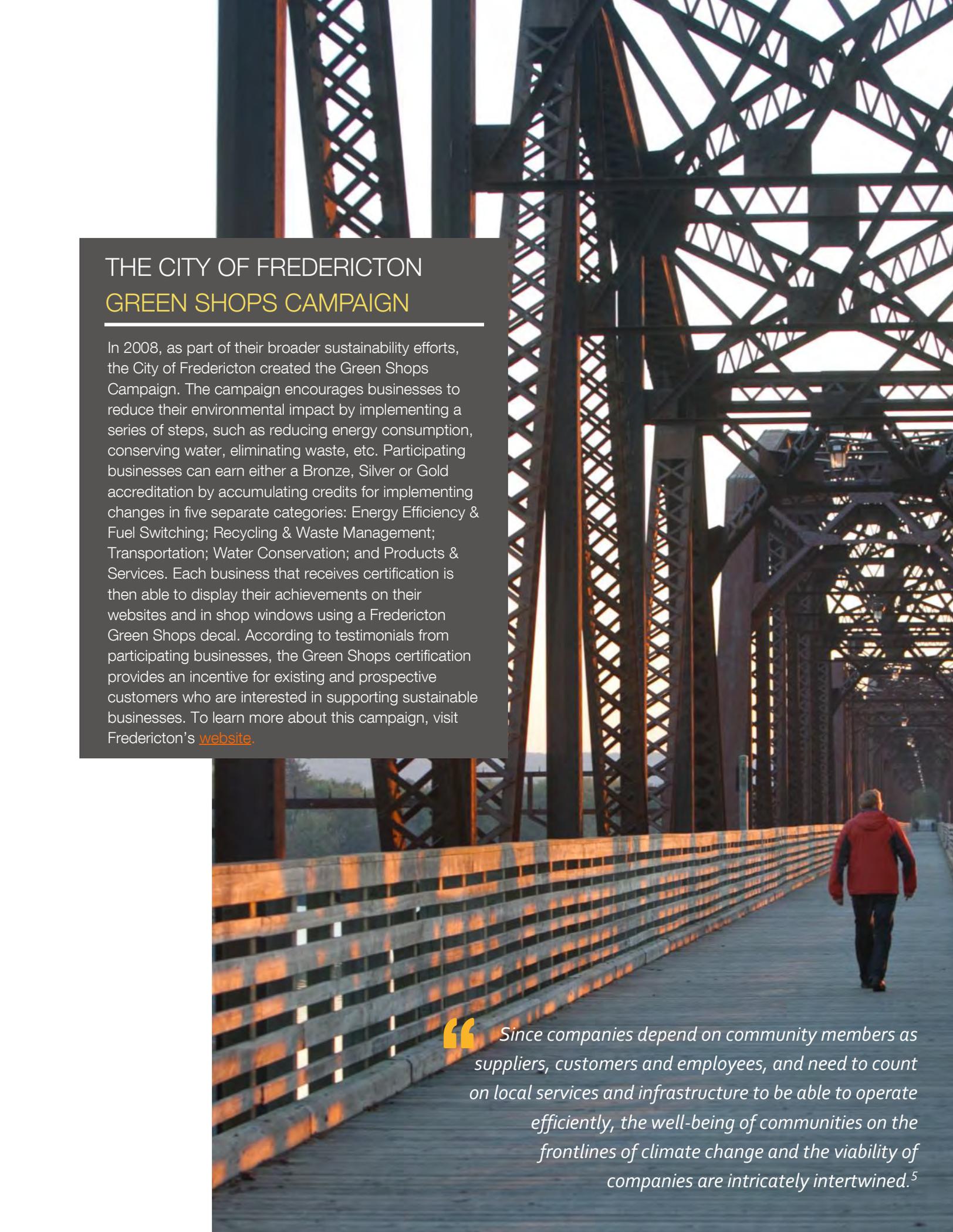
THE CITY OF FREDERICTON
GREEN SHOPS CAMPAIGN

In 2008, as part of their broader sustainability efforts, the City of Fredericton created the Green Shops Campaign. The campaign encourages businesses to reduce their environmental impact by implementing a series of steps, such as reducing energy consumption, conserving water, eliminating waste, etc. Participating businesses can earn either a Bronze, Silver or Gold accreditation by accumulating credits for implementing changes in five separate categories: Energy Efficiency & Fuel Switching; Recycling & Waste Management; Transportation; Water Conservation; and Products & Services. Each business that receives certification is then able to display their achievements on their websites and in shop windows using a Fredericton Green Shops decal. According to testimonials from participating businesses, the Green Shops certification provides an incentive for existing and prospective customers who are interested in supporting sustainable businesses. To learn more about this campaign, visit Fredericton's website.

Since companies depend on community members as suppliers, customers and employees, and need to count on local services and infrastructure to be able to operate efficiently, the well-being of communities on the frontlines of climate change and the viability of companies are intricately intertwined.[5]

Academic Institutions

Academic institutions take pride in being centers of intellectual advancement. Local governments often have opportunities to collaborate and create highly productive partnerships with universities, colleges and other institutions in their communities and surrounding areas. Students, professors, and other academic experts can also act as effective messengers and catalysts for change. The proliferation of knowledge can happen quickly in an academic institution, and by targeting this audience you may be able to engage an otherwise untapped resource.

As academic institutions are continuously looking for ways to advance themselves, their researchers, and their students, they are often inspired by opportunities to better their community, enhance their image in the community, and conduct hands-on research. In fact, universities are often the catalysts for research projects, community initiatives and communication efforts. Be open to partnering with them to further mutual goals around communicating climate science, data or impacts. You may also want to consider how to engage existing student groups, relevant departments, student newsletters or courses offered at the university or college to reach an even broader audience. Lectures, workshops, newsletters, and flyers can be effective ways to communicate with this audience. Social networking sites may also be useful tools for engaging students. More information on these techniques can be found in the HOW section of this resource (page 62).

### *Non-Governmental Organizations and Community Groups*

Non-governmental organizations (NGOs) and community groups can be instrumental to a government's climate change strategy and communication efforts. Many local NGOs are already working with residents, businesses, and municipal staff to support research and build capacity to address climate change. These organizations are important resources for local governments in that they can help create opportunities for people to take action and connect with municipal climate change initiatives. NGOs also tend to have considerable experience communicating with the public (via campaigns, newsletters, petitions, etc.), which can be used to generate support, disseminate knowledge, and secure buy-in. Building partnerships with these groups can help to capitalize on existing community initiatives and the work that is already being done.[6]

An NGO's mandate, vision, or programming will provide insight into the type of work the organization engages in and whether there are opportunities for collaboration. Given that many of these organizations are run by concerned or active members of the community, efforts focused on community improvement will likely resonate with this group. Workshops, exhibitions, or conferences can provide an informal avenue for reaching out to NGOs. Face-to-face dialogue in the form of "lunch and learns" or office meetings can also be effective.

ASSESSING AUDIENCE PERCEPTIONS OF THE ISSUE

You may only get one chance to communicate your message. Inevitably, this means that you will be selective in the information you choose to communicate. By knowing your audience, and understanding their perceptions of the issue you intend to communicate, you will be better equipped to determine what to include and what to omit, thereby ensuring the most effective and efficient use of everyone's time.

The following three concepts can be helpful when assessing an audience's perception of an issue. The first concept uses spheres of influence and concern to develop a basic understanding of what an audience considers more immediately relevant and how this affects their perception of climate change. The second concept refers to the notion of finite worry and emphasizes the importance of balancing information and emotional triggers when communicating climate change. The third concept identifies three broad categories of audiences that local governments are likely to encounter and the prevailing perceptions of climate change within each of these.
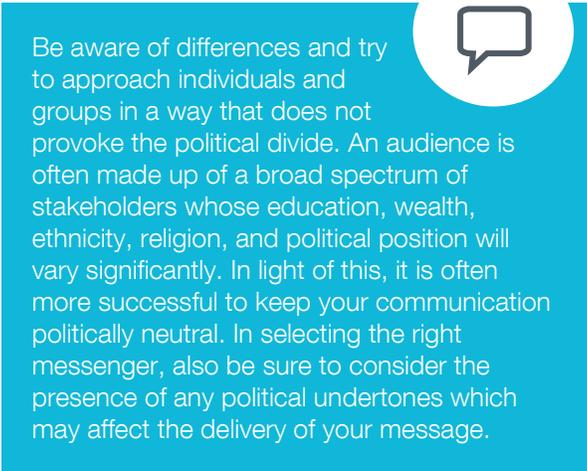
Be aware of differences and try to approach individuals and groups in a way that does not provoke the political divide. An audience is often made up of a broad spectrum of stakeholders whose education, wealth, ethnicity, religion, and political position will vary significantly. In light of this, it is often more successful to keep your communication politically neutral. In selecting the right messenger, also be sure to consider the presence of any political undertones which may affect the delivery of your message.

Spheres of Influence and Concern

A conceptual way of looking at and assessing an individual's understanding of an issue is to look at his or her spheres of influence and concern. An individual's sphere of concern is generally very broad and can include everything from problems at work, world debt, or nuclear war. This sphere often includes things that most of us have little direct control over but can also extend into more everyday worries. Issues in an individual's sphere of concern tend to be perceived as complex or intractable, and as such, we tend to accept a certain lack of control over many of the things that fall within this sphere. At the same time, each individual also has a sphere of influence containing issues that he or she can control and affect more directly.[7] This sphere can include issues relating to our personal health habits, the way we use energy, our choice of transportation, the brands we buy, and so on.

Exhibit 1

Sphere of Concern

Sphere of Influence
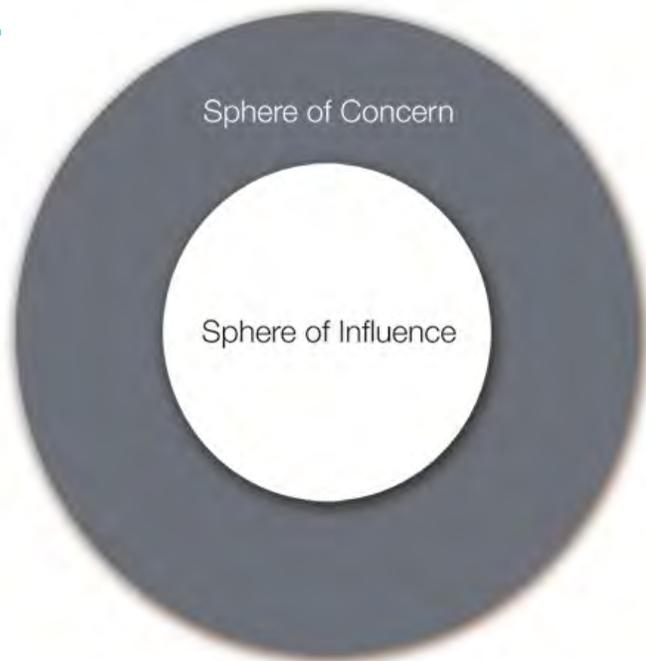
Depending on an individual's perception, issues surrounding climate change can fall into both of these spheres. When presented as a complex global problem, climate change tends to fall into an individual's sphere of concern—images of melting ice caps, bush fires, and species extinction may concern us deeply, but as individuals we don't perceive our actions as having a direct or immediate impact on the situation. Conversely, when climate change is discussed in the context of local impacts and actions that can be taken closer to home, an individual may locate climate change within his or her sphere of influence, perceiving the issue as something that he or she can affect more directly. In this context, an image of a local neighbourhood, bridge or school that has been flooded out may have more immediacy and relevance for a resident, and may be more effective at motivating action.

Finite Pool of Worry

Research has shown that people have a limited capacity for worrying about an issue; in other words, they have a finite pool of worry. There are only so many things a person can worry about at one time, and as concern for one issue increases, concern for others often lessens. People are generally unable to retain a high level of interest without being given strong reasons to continue their engagement that extend beyond emotions. Climate communication has traditionally relied on emotional appeals to encourage interest and action, however, these appeals only work in the short term. In fact, emotional numbing can occur as a result of repeated exposure to emotionally draining situations, like stranded polar bears or melting ice caps. Finding a balance between high level emotional appeals that attract attention and the local impacts of weather events is a considerable challenge when communicating climate change.

To avoid these responses, try to:

- Prioritize which issues are most urgent and which will best resonate with the audience—focus on these.
- Balance information with emotional triggers, whether local or global in nature.
- Acknowledge the importance of other issues and create connections between these and climate change.
- Identify the degree to which your audience may be numbed to certain issues. Have them self-identify this and make them aware of the effects of it, but encourage your audience to consider the message despite of this.

Three Audiences

Below are three different audiences that climate communicators are likely to encounter, these include: skeptics, opportunists, and believers. These are conceptual categories that have been created for the purpose of this discussion and while these classifications are over-simplified, and many people will fall in between these groups, looking at each group helps to illustrate the value of knowing your audience and how this understanding can shape your message.

Consider the qualities of each audience and their perception of climate change as outlined below.

Exhibit 2: Three Audiences

The Skeptics
- Are not receptive to "climate change" discourse
- Argue there is dissent amongst scientists about the causes and realities of climate change
- Do not see how climate change could affect them personally or at the community level
- View action on climate change as unnecessary spending and not a priority, particularly during periods of fiscal restraint

The Opportunists
- Are cautious and do not have a sense of urgency on the issue
- Believe climate change is real but a geographically-distant threat
- Advocate environmental action when opportunities arise (favourable market conditions, etc.)
- Support actions to prepare for climate change when these are "win-win" and local benefits can be shown

The Believers
- See climate change as a priority and local action as a necessity
- Understand that climate change is a serious threat and caused by human activities
- Put their trust in climate science and projected changes to temperature and precipitation
- Environmental action considered a priority, with funds allocated accordingly
- Believe actions to mitigate and prepare for climate change should be integrated into/across municipal operations and planning

> *Climate change has become a highly politicized topic in the policy arena and in education, and people's willingness to be educated or to learn depends on their attitude toward the issue itself.*[8]

Understanding an audience's perception of the issue at hand allows you to more effectively tailor the message to them. Although it can be difficult to assess an audience before you have met and interacted with them, it is often possible to use participant information obtained beforehand to make certain inferences and assumptions about the character of the audience (e.g. local farmers will likely be interested in longer growing seasons). Likewise, if you have personal experience or familiarity with members of the audience, you can use this to inform the content and delivery of your message. Either way, there is considerable value in making an assessment of an audience's understanding and perception of an issue before you engage them.

Listening to the Audience

Listening to an audience can provide important insights into their impressions of climate change issues and the ways in which they feel they could make a difference. How your audience talks about climate change and the language they use can help you identify the common ground on which to base your communication. For instance, if the audience is made up of local fishermen that tend to discuss the gradual disappearance of low-tide, you can frame your discussion of sea level rise around this observation. Listening to the audience and engaging them on climate change discussions can provide valuable information to you as a communicator which can then enhance the relevance of your message and acceptance of it by your target group.

Exhibit 3: The Dos and Don'ts

The Skeptics	The Opportunists	The Believers
TAP INTO:	TAP INTO:	TAP INTO:
• Risk aversion and management	• Co-benefits	• Ecological stewardship
• Protection of assets	• Entrepreneurialism	• Civic engagement
• Past weather events	• Innovation	• National and global consciousness
	• Market mechanisms	
	• Local impacts	
AVOID:		AVOID:
• Focusing on costs	AVOID:	• Infrastructure only solutions
• Increased taxation/'big' government	• Alarmist language	• Focusing exclusively on technological solutions
• Ecological stewardship	• Far removed impacts	• Only top-down solutions

UNCONVENTIONAL ALLIES
THE HUNTING AND ANGLING COMMUNITY

In the United States, the National Wildlife Federation (NWF) developed an approach to engage and encourage leaders in influential communities to become voices for action on climate change. In the United States, 35 million people are part of the hunting and angling community. However, this community's characteristics, namely their conservative political views, made them a difficult audience to engage on issues surrounding climate change. Despite these barriers, the NWF developed a training program with workshops that specifically targeted this audience. Each training workshop had three goals:

- Educate key members on the basic science of climate change.
- Familiarize them with solutions to the problems of greenhouse gas emissions and natural resource adaptation.
- Win their support for taking action on climate change, both personally and in terms of policy reform.[9]

By using local examples, focusing the message strictly on habitat and wildlife, and allowing workshop participants to describe their own observations and experiences, the NWF workshops were a great success. Following the training, organizations that had been reluctant to support climate change legislation or admit that climate change was a problem started to become advocates for action on climate change. Based on this success, the NWF has continued to develop training workshops that are aligned with cultural sensitivities, conceptual frames, and the informational needs of their target audience. The campaign has been extended to several other audiences, including environmental and civic activists, conservative faith-based organizations, business leaders, and university groups.

SELECTING THE RIGHT MESSENGER

A significant influence on an audience's perception of an issue is their evaluation of a messenger's credibility and trustworthiness. Be sure to consider what or who your target audience looks to for information about important issues like climate change. For instance, do they consult newspapers and if so, which ones do they read most frequently? Are there certain community members that they turn to with questions about climate change? Where does that person get their information and where do they stand on climate change issues? Can you engage these individuals or perhaps partner with them to deliver your message? Asking these questions will help you discover your audience's sources of information and determine who an appropriate messenger might be.

Selecting a messenger is an important component of any communications effort and should be given significant thought. Having a trusted source deliver your message can be as important as the message itself. If an audience does not trust or relate to the messenger, they will be far less likely to listen to what he or she has to say. Therefore, finding the right messenger can be crucial to the success of a communications effort.

A good messenger:

- Is trustworthy and credible.
- Uses familiar language.
- Is respected.
- Can relate to the values and priorities of the audience.
- Can engage and empower groups of people.

Depending on your target audience, an appropriate messenger could be a community leader, elected official, engaged citizen, or local business leader. Remember to reach out to non-traditional leaders as well, especially those not necessarily associated with climate change work within the community; this can also be an opportunity to identify new leaders and foster cooperation among various sectors of the community.

A messenger does not have to be an individual; it could be a group or organization as well. You may even want to create a group of messengers; however each one should still be trusted by the audience and is someone who can speak from an unthreatening and relatable perspective. Consider teaming up with local organizations, schools, or municipal employees that people know and trust to help get your message to resonate with specific audiences. If the municipality has a communications department, make sure to use them as a resource as well.

TAKE HOME MESSAGES

→ Effective communication is targeted communication.

→ Listen to your audience and value their experiences, observations and participation.

→ Consider your audience's values and sources of climate change information and leverage these.

→ Use the right messenger, as people have a tendency to listen to someone they already know, trust and agree with on other issues.

→ Remember to reach out to non-traditional leaders, particularly those not associated with environmental work in the community.

ENDNOTES

1. Energy Actions & Systems for Mediterranean Local Communities (EASY). (2009). *Tools and Concepts for Local Energy Planning: Methodological guidelines for the development of Sustainable Energy Communities and Systems in urban decentralized areas of Mediterranean Region*. M. Cardinaletti (Ed.). Intelligent Energy Europe: The European Commission. Retrieved from http://eaci-projects.eu/iee/fileshow.jsp?att_id=8446&place=pa&url=Overall%20EASY%20Model_EN.pdf&prid=1510

2. United Nations Global Compact, United Nations Environment Programme (UNEP), Oxfam, and World Resources Institute (WRI). (2011) *Adapting for a Green Economy: Companies, Communities and Climate Change. A Caring for Climate Report.* UN Global Compact. Retrieved from http://www.oxfam.ca/sites/default/files/Caring%20for%20Climate%20Report_Adapting%20for%20a%20Green%20Economy.pdf

3. Ibid.

4. Ibid.

5. Ibid.

6. Pike, C. Doppelt, B., and Herr, M,. (2010). *Climate Communications and Behavior Change: A Guide for Practitioners*. The Climate Leadership Initiative at the University of Oregon. Eugene, OR: University of Oregon. Retrieved from http://climlead.uoregon.edu/node/156

7. Adaptation Scotland. (n.d.) Climate change adaptation: Who's listening? Thinking about the needs and interests of your audience. As part of the Scottish Government's Climate Change Adaptation Toolkit. Retrieved from http://www.sccipcommstoolkit.org.uk/index.php?option=com_content&view=article&id=17&Itemid=16

8. Forest, S. and Feder, M.A. (2011). *Climate Change Education: Goals, Audiences, and Strategies: A Workshop Summary*. National Research Council of the National Academies. Washington, DC: The National Academies Press. Retrieved from http://www.nap.edu/catalog.php?record_id=13224

9. Ibid.

It is not enough for people to know about climate change in order to be engaged; they also need to care about it, be motivated and able to take action.

- Lorenzoni, Nicholson-Cole, and Whitmarsh, 2007

WHAT TO COMMUNICATE

WHAT TO COMMUNICATE

Communication is not about winning debates; it is about building relationships and stimulating dialogue. It is a tool that can be used to define complex issues, share knowledge and experiences, and build trust between individuals and groups within the community.

TARGETING THE MESSAGE

When communicating something like climate change, the purpose is not to manipulate or to deceive an audience. Rather, the intention is to enhance the audience's general understanding of climate change issues, while providing accessible resources for more detailed and credible information. Once you have identified who your audience is, you will need to determine how to engage them.

The ways in which climate change is filtered, or *framed*, greatly influences an audience's response to the information being presented. People are not generally motivated by global, abstract, or intellectual issues. They are motivated by issues that resonate personally and emotionally. Therefore, in order to effectively communicate, it is important to target the message to your audience so that it becomes personally relevant.

This section explores concepts such as goal setting and framing, as well as issues surrounding language and accessibility. Also discussed are ways to refine a message and methods for sustaining communication.

Setting a Goal

Communication goals will help to flush out expectations and can provide a clear direction for your communications effort. A goal is a high level statement about the intention or end point towards which your communications effort is directed. Once a communication goal has been set it becomes easier to craft and tailor an effective message.

Broadly speaking, there are two types of goals that have emerged in climate communications. These are *knowledge goals* and *behaviour-influencing goals*. The first reflects a desire to educate and increase awareness of climate change issues, while the second focuses on changing behaviours and motivating action. Both are important and worthwhile goals that, if identified ahead of time, will help in selecting and applying an appropriate communication strategy. It is important to note that these goals are not mutually exclusive. Indeed, your communications effort may encompass both goals as part of a two-step process to educate and inspire action.

With these two options in mind, consider what you want your message to achieve. Do you want it to:

- Inform the audience?
- Create behaviour change (short or long term)?
- Inspire action?
- Engage the community?
- Build capacity?
- Invoke a sense of community and responsibility?

Each of these goals can be achieved through effective communication. As noted in the WHO section of this resource, understanding your audience's perceptions and interests in the issue will help you select an appropriate communications strategy to achieve your desired goals or outcomes.

Clarity and Focus

You may have your audience for a day, an hour, or only ten minutes. With so much to say about climate change and its impacts, it can be tempting to try to cover as much as possible in a limited amount of time. However, an audience's attention span has its limitations. A short and concise message is often the most effective. If a message is too broad or hidden within other issues you will likely lose the audiences' interest or inadvertently confuse them.[1]
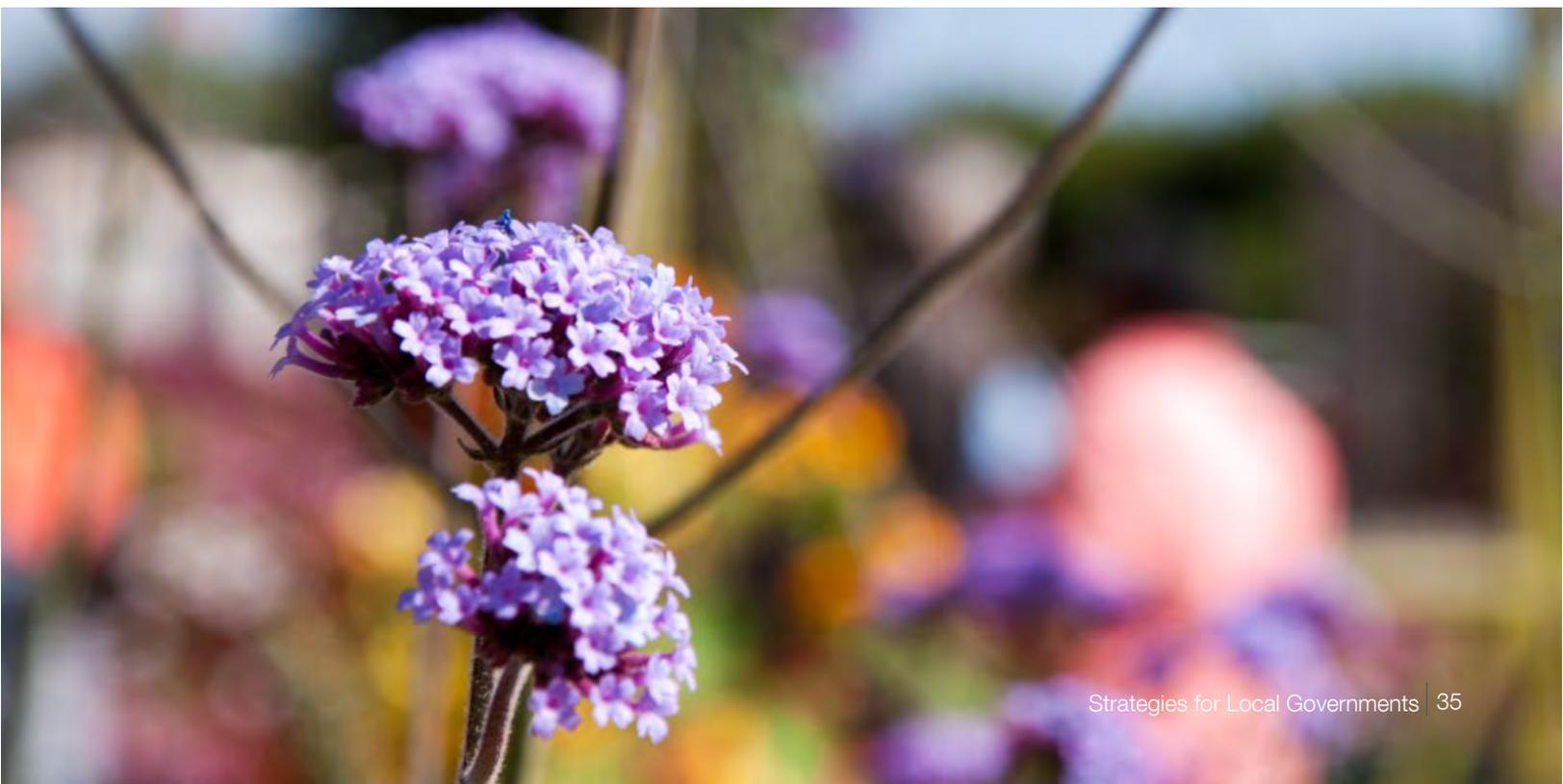
When preparing a message, there are three questions that every communicator should ask themselves:

- What do I want to say?
- Is it as simple and concise as possible?
- Is it focused on the message I want to convey?

The key message needs to be clear and prominent; keep it targeted, and focus on the content that really matters. In cases where it is necessary to provide additional information, consider distributing backgrounders or other supporting documents to the audience before or after an interaction.

WHAT IS FRAMING?

Frames tailor an issue to a specific audience. They are conceptual tools that we use to render events or occurrences meaningful and can be used to present an issue in terms that will resonate with an audience and mobilize action. Frames can also be used to help us diagnose a situation and discover who or what the problem is and what needs to happen in response to that problem.

FINITE POOL OF WORRY
Recall from the WHO section that people's capacity for concern is limited. In the context of climate communication, this means that people are unlikely to maintain their concern for climate change when a different problem – such as job loss, economic hardship, or personal emergencies – comes along. One concern simply replaces the other as a result of our limited capacity to cope and comprehend. To help combat this, climate change needs to be made real, personal, and locally relevant, which can all be done using frames.[2]

> *Framing is not simply messaging; it is a conceptual exercise that involves tying ideas together into a comprehensive picture that makes it easier for people to organize information and sort out its relevance to their lives.*[3]

We unknowingly and subconsciously use frames all the time when we communicate.[4] For example, a child who wants a new toy may unwittingly use a different frame to communicate that desire to her mother than she would when communicating it to her father. The child might frame the toy as a reward for good grades with the parent who values academic achievements, while presenting the savings that could be had from buying the toy when it is on sale to the more financially frugal parent. To communicate climate change effectively, we need to acknowledge which frames to use for which audience.

Frequently, approaches to communicating climate change assume that simply providing information to people will change the way they think and behave. As will be discussed, framing illustrates how the provision of information alone is often insufficient to create change. In order to effectively communicate knowledge about climate change, it needs to be properly framed; "to communicate a complex fact or a complex truth, one must choose one's words carefully to activate the right frames so that the truth can be understood."[5]

Why Use Framing?

Framing can occur through all forms of communication. It shapes the goals we seek to be fulfilled, the plans we make, and the way we act.[6] Our personal experiences and knowledge provides us with a system of frames that gives context to words, ideas, and issues. For that reason, the manner in which information is presented greatly influences an audience's understanding and ability to relate to an issue.

With frames, communicators can effectively target a climate message, making it personally relevant and less threatening to an individual's worldview.[7] Framing an issue by building a strong, personal narrative that speaks to the audience is one of three main things that communicators can do to create successful messages. The other two strategies are: knowing the audience and what they care about (see the WHO section) and providing clear, actionable takeaways.[8]

USE MULTIPLE FRAMES
Effective communication is about finding the strategies that work. As you begin your communication effort, you may find a frame that works in one situation may not work in another. Be prepared to use different frames or even multiple frames for any given audience. Try different combinations to find those that will be most effective.

Using Frames

There are a variety of frames that can be used to help communicate information on climate change. The table on the following pages outline several different options for framing climate messages.

Frame	Key Considerations	Audience	Example
Timescale	What timeframe will be most relevant to your audience? Be sure to define short- medium- and long-term timeframes. Short-term impacts of climate change are often more effective to emphasize, as people have a better concept of how such changes will impact their daily lives. Maintain a balance between climate change concerns that are relevant now and those that may be relevant later.	The opportunists The believers	For short-term timescales, acute extreme events such as storms or torrential downpours can be used to help frame climate change. For longer-term timescales, focus on things such as warmer summers and winters, differing precipitation patterns, anecdotal evidence from community elders, and shifting phenomena (such as tides) that people have observed as having changed over their lifetimes.
Location	Connect the global concern of climate change with the local or regional picture. People are familiar with their neighbourhoods, towns, cities, and regions and have likely already experienced some local effects of climate change. Don't be afraid to connect to global issues/events (where appropriate).	The skeptics The opportunists The believers	Focus on the individual neighbourhood when talking to residents' groups; the city when talking to municipal officials; and the region when talking to conservation groups or other organizations.
Interconnectivity	Climate change will affect the lives of residents in a variety of ways and will have implications for the daily tasks and responsibilities of municipal employees. Connect climate change and its impacts to what is already being done within the municipality (i.e. risk management, infrastructure maintenance, future planning, etc.). Highlight some of the simpler ways adaptation can be integrated into existing priorities and work plans and emphasize that not all adaptation actions will be novel nor do they have to be too onerous or drastic How will climate change affect infrastructure, social services, the economy, and so on?	The opportunists The believers The skeptics	Focus on actions or priorities already familiar to your audience and demonstrate how climate change is or can be part of those. For example, when updating an Official Community Plan, or replacing a specific piece of infrastructure, climate change should be considered as a current and future influence.
Stewardship	Environmental stewardship can be a strong motivator for those who are supportive of the common good. Stewardship focuses on the shared community responsibility for addressing climate change.	The believers	Focus on longer-term timescales and on our responsibility to the global community and future generations.

Frame	Key Considerations	Audience	Example
Health	Connect the impacts of climate change with human health. Extreme heat, air quality, and changing distribution of vector-borne diseases will have impacts on human health, particularly in vulnerable populations.	The opportunists The believers	Use the increasingly familiar instances of climate-related health concerns (i.e. asthma, infectious diseases, heat stroke) to illustrate the connection between climate change and health. When meeting with members of the community talk about how climate-related health impacts have already been felt and can be prevented through adaptation actions.
Risk	Municipalities and local governments manage risks on a daily basis. They are familiar with risk management practices and strategies to protect and minimize harm to property, services, employees and the community. Climate change simply adds one more layer to existing risk management strategies.	The skeptics The opportunists The believers	When planning for a 1 in 10, 1 in 50, or 1 in 100 year storm, there are various levels of risk and risk tolerance that are acceptable for these weather events, particularly if you are speaking to an engineering audience. Highlight how climate change will increase the frequency and severity of these occurrences.
Business Case	Investments in infrastructure, equipment, and services can cost municipalities millions if not billions of dollars annually. Protecting those expensive assets makes good business sense. It becomes pragmatic to minimize the severity of and the costs associated with climate change by doing all that is possible to protect these investments. The business frame can be effectively used to make a case for protecting natural assets, the economy, and the people who live and work in a municipality.	The skeptics The opportunists The believers	Frame adaptation as the basic protection and conservation of the investments a municipality has already made (i.e. infrastructure assets). Being proactive on climate change can also be used to promote positive press and generate revenue, and can be appealing from a marketing perspective.
Financial and Legal Liability	Climate change may present considerable financial impacts for municipalities and stakeholders. Expenditures for prevention now may prevent larger costs of recovery later. Municipalities also have a legal responsibility of due diligence. Acting now may prevent future costly lawsuits and legal action if the municipality is found liable for damage or harm as a result of impacts from weather events that could have been prevented.	The skeptics The opportunists The believers	Focus on gains versus losses, where cost effective adaptation considerations could result in the avoidance of considerable costs in the event of an extreme storm.
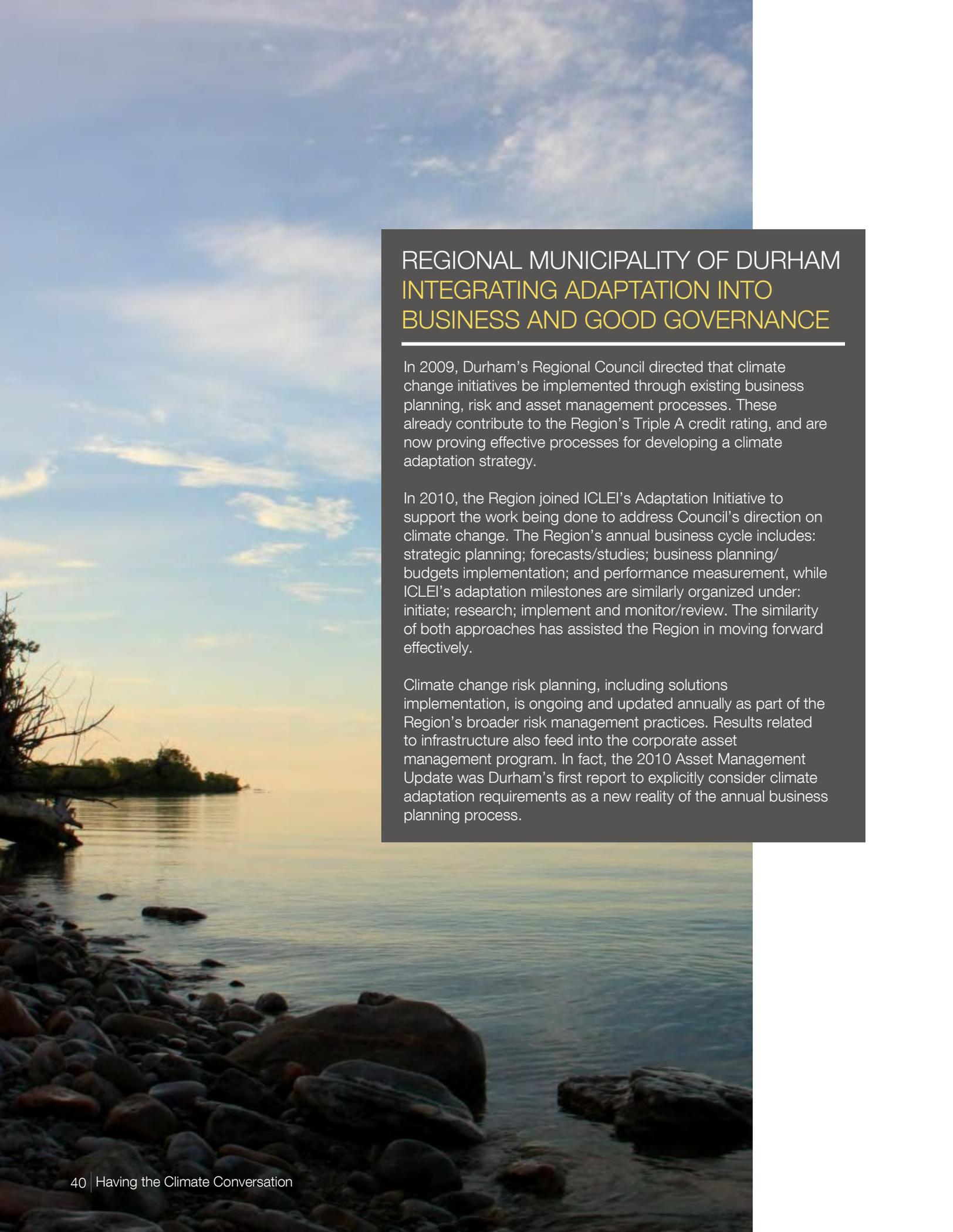
REGIONAL MUNICIPALITY OF DURHAM
INTEGRATING ADAPTATION INTO BUSINESS AND GOOD GOVERNANCE

In 2009, Durham's Regional Council directed that climate change initiatives be implemented through existing business planning, risk and asset management processes. These already contribute to the Region's Triple A credit rating, and are now proving effective processes for developing a climate adaptation strategy.

In 2010, the Region joined ICLEI's Adaptation Initiative to support the work being done to address Council's direction on climate change. The Region's annual business cycle includes: strategic planning; forecasts/studies; business planning/ budgets implementation; and performance measurement, while ICLEI's adaptation milestones are similarly organized under: initiate; research; implement and monitor/review. The similarity of both approaches has assisted the Region in moving forward effectively.

Climate change risk planning, including solutions implementation, is ongoing and updated annually as part of the Region's broader risk management practices. Results related to infrastructure also feed into the corporate asset management program. In fact, the 2010 Asset Management Update was Durham's first report to explicitly consider climate adaptation requirements as a new reality of the annual business planning process.

ACCESSIBILITY

Many attempts to convey the immediacy and even the existence of climate change have fallen short. This is an issue of accessibility and is due, in large part, to the difficulty associated with translating climate change into a short-term danger that can be thought about in the same way as other imminent societal and personal threats.[9] The visuals that are frequently used to communicate climate science are limited in their ability to inspire the sense of urgency that is often needed to act. This may be due to the fact that the human brain is not designed to immediately react to future threats like climate change. People are constantly balancing long-term risks with more immediate concerns, and most of the time, it is our immediate concerns that take precedent.[10]

Facts, statistics, and scientific data can be useful tools for providing information, however, they often fail to instill a sense of urgency, inspire action, or provide an emotional connection to the issue.[11] The human brain has two distinct processing systems: *the experiential processing system,* which controls survival behaviour and is the source of our emotions and instincts; and the *analytical processing system,* which controls the analysis of information.[12] Evidence from the social sciences suggests that the *experiential processing system* of the brain is better at motivating action, as this system is the one that controls survival behaviour and is the source of emotion.[13]

AVOID THE DEFICIT MODEL

The "deficit model" places the focus on increasing individuals' understanding of how and why climate change occurs. This model is inherently flawed as increased public understanding of climate change will not by itself lead individuals to consider climate impacts in their decisions and actions.[14] Climate communication needs to extend beyond a technical understanding of climate science. It should empower, enable, inform and motivate an audience using the social, ecological and economic dimensions of climate change, in addition to the scientific ones.

When trying to influence behaviour or to inspire action on climate change, it is important to maintain a balance between these two kinds of information. Considerable evidence has shown that storytelling is one of the most successful ways to cultivate an audience that is both engaged and passionate. Personal and anecdotal experiences can evoke strong emotional responses in individuals while helping to instill a sense of urgency that "it can happen here, too". These strategies can create more memorable communications, even if they come from strangers.[15] Personal experiences should be used in combination with scientific visuals and other forms of data.

Knowledge alone is unlikely to lead to changes in attitudes, decision-making, or behaviours. In fact, in some cases, action on climate change is done in isolation from knowledge or direct concerns for climate change. Financial reasons are often a big motivator, and come with considerable emotional weight. When communicating climate change it is important to speak the language that your audience will understand and which may or may not directly refer to "climate change". Consider the fact that people are also motivated by energy savings or insurance premiums, among other things, not only climate change considerations or environmental stewardship.

CASE STUDY: PLACEMAKING

The resiliency of a community comes when people are emotionally, socially, culturally and financially attached to it. In 2008, Gallup and the John S. and James L. Knight Foundation launched the *Knight Soul of the Community* project. After interviewing close to 43,000 people in 26 communities across the United States, the study found that three main qualities attach people to place. These are: social offerings, such as entertainment venues and places to meet; openness (how welcoming a place is); and the area's aesthetics (its physical beauty and green spaces).[16]

Just as actively engaged employees are more productive and committed to the success of their organizations, highly-attached residents are more likely to actively contribute to a community's sustainability and prosperity.[17] In fact, according to this research, a community's ability and willingness to identify and solve issues like climate change are directly related to the degree to which residents are attached and invested in the place where they live.

Community attachment is an emotional connection to a place that transcends satisfaction, loyalty, and even passion. A community's most attached residents will have strong pride in it, a positive outlook on the community's future, and a significant sense of belonging.[18] As such, communities with attached residents are often ones that are both willing and motivated to proactively tackle something like climate change.

The concept of 'placemaking' suggests that a strong sense of community and social connection to a particular locale creates a unique place identity that can be highly influential when trying to inspire action or solicit different behaviours. According to the *Knight Soul of the Community Project,* there are direct benefits to a community when people feel more invested in their place. These include, among others, increased social capital, local economic growth, tourism, and civic involvement. When people have a strong sense of place they are more willing to take actions to protect, preserve, and promote the community. If your community has a strong identity and the residents have a strong sense of place, you can draw on these sentiments to generate awareness and inspire action on a variety of issues, including climate change.

If your community does not have a strong sense of place, or residents are not particularly attached to the community, consider trying to generate a community narrative and a greater sense of place with residents. A community narrative focuses on the identity of a place – what makes your community unique? What are its advantages? How can this be harnessed to generate attachment?

Try to create opportunities for positive social interaction where residents can participate in and use entertainment infrastructure (one of the three main qualities that attach people to place) while also experiencing the civility of people in the community (for example, how people treat each other in these entertainment areas). Transportation is also an important consideration—getting people from place to place within the community and from places outside the community—as is the natural and created beauty of a place. Together these ideas can help to create a positive community outlook that not only inspires attachment among residents, but also attracts young talent from outside the community.

To find out more about placemaking, visit the Knight Soul of the Community Project website.

Macon Money is a community-wide social game designed for the residents of Macon, Georgia. Using a new local currency with a fun twist, the game builds person to person connections throughout the community while supporting local businesses.

Translating the Science

Climate change is a complex issue that requires an understanding of scientific models and forecasts. As such, municipal practitioners often need to assume the role of *translator* as well as communicator.

When translating scientific information, it is important to integrate a variety of communication and experiential tools. Analytic products, such as trend analyses, forecast probabilities, and ranges of uncertainty can be valuable tools as they can help people absorb information and put things into context, particularly when they are required to make big decisions. However, this kind of information alone is generally insufficient to compel people to take action to address climate change, and can even elicit undesirable responses in the audience (e.g. assuming that climate change is not an urgent issue because carbon dioxide has been building up in the atmosphere over many years).[19] As non-scientists, it is our job to integrate these scientific methods of presenting data with non-scientific ones.

Consider using the following in conjunction with scientific data:

- Vivid imagery, in the form of film footage, metaphors, personal accounts, real-world analogies, and concrete comparisons.
- Messages designed to create, recall, and highlight relevant personal experiences and elicit emotional responses.[20]

Managing Uncertainty

There is uncertainty in all aspects of life. We seek to reduce that uncertainty to a manageable level by acquiring information about the physical world and the people with whom we interact.[21] While it is not guaranteed that the sun will rise tomorrow, we can predict with a high level of certainty that it will based on our past experience and our current understanding of the planetary system. Nevertheless, decisions involving risks, cost estimations, and benefits are made all the time. We have learned to manage with the information we have available because the cost of ignoring these decisions can be very high and can result in unwelcome surprises.[22] As humans we have developed a capacity to work with uncertainty, and this capacity can be applied to all decision making processes, including those relating to climate change.

As with any field of scientific study, there are uncertainties associated with the science of climate change. However, this does not imply that scientists lack confidence in many aspects of climate science. Scientists are able to make predictions based on the best available data, quantifying the uncertainties associated with those predictions.[23] In fact, the scientific community is unanimous and virtually certain that climate change is happening and that it is caused primarily by human activities. The climate science currently available is perfectly capable of providing sufficient information to make informed decisions and take action to adapt to climate change. Scientific data can also be supplemented using anecdotal and historical data to create an even clearer idea of the vulnerabilities a community is faced with and the actions that can be taken to reduce climate related risks.

When communicating climate change, it is important to acknowledge uncertainties while simultaneously avoiding over emphasizing the unknown. In fact, it can be useful to talk about confidence as opposed to uncertainty. You can frame the discussion using more positive language and emphasize the known instead of the unknown.

For more information on managing scientific uncertainty, refer to the CHALLENGES section on page 94.

Language Use

As noted in the previous section, technical and scientific language is not always the most effective vehicle for communicating climate change. When refining and presenting a message, consider whether an educated, yet uninformed, person would understand what is being said and if the message is both simple and clear. Try to avoid using scientific terms that your audience may misinterpret. In cases where a scientific term is the best and most effective way to get a point across, be sure to properly define it and use examples wherever possible.[24]

It is equally important to clarify content, define terminology, and to differentiate between concepts when communicating a message. Try to avoid using terms interchangeably, as this can confuse the audience. Global warming, for instance, is a frequently misunderstood term, as is the difference between climate and weather. If it is really cold for a few days, for example, people start to doubt whether climate change exists. This is why it is important to make distinctions between potentially confusing terms.

THE TERM 'ADAPTATION'
?
Although relatively new, the concept of climate change adaptation has gained considerable currency among sustainability practitioners. Outside of climate dialogues, however, the notion of adaptation may not be widely known. You may find that using terms like 'resilience' or 'preparation' in your municipality, or with certain audiences, gains more traction and is more effective at communicating the messages you want to deliver. Regardless of the term you choose to use, be consistent and remember not to use too many terms interchangeably.

Refining the Message

In order to change behaviours, beliefs, or assumptions related to the environment, economy or well being, communicators will likely have to overcome a number of subconscious reactions that are present within the audience. The table on page 45 highlights a few common subconscious reactions and offers suggestions for how to address them.

By tailoring the message to a target audience you are ensuring that the correct information is presented and is done so in a manner that will resonate with the group. Though climate change has far reaching effects for individuals in Canada, these effects may not seem directly relevant to the lives of audience members. People have a tendency to take action if they believe their lives will be impacted. By presenting your message to the audience in a way that is tied to their priorities and concerns, you are helping to ensure that it hits home.

Subconscious Reactions and How to Address Them	
SUBJECT BIAS—People tend to look for evidence that confirms their existing beliefs and rejects contradictory information, (e.g. cold winters contradict the idea of global warming).	Have a convincing messenger and be sure to lead with what you want your audience to know and remember. It is not necessary to mention or point to the existing beliefs you hope to change.
MEDIA BIAS—People have a tendency to trust certain sources of information over others (e.g. a particular newspaper or radio show).	Diversify sources. Illustrate the value of multiple sources of information, particularly when trying to get the full picture of an issue.
MESSNEGER BIAS—Many people will only believe people who share their views (e.g. political leanings, age, religious beliefs).	Choose a messenger that your audience is likely to listen to, someone who they can relate to and trust.
MISPLACED CONFIDENCE—It is easy to assume that the future will be similar to the past.	Point to examples in the recent memory of your audience that illustrate how things are changing.
BELIEF POLARIZATION—Some people tend to believe favourable outcomes are more likely to occur than undesirable ones. Others are generally more pessimistic and expect the worst.	Be realistic. Know your audience and try to distinguish between the desire for a positive outcome and the reality of a potentially harmful situation, and try to find a balance.

Focus on Solutions

Try to avoid using rhetorical language, clichés or fearful tones that tend to lead to despair and apathy. The reality of climate change can be overwhelming as it threatens our daily lives and many of the lifestyle choices we take for granted. To help combat negative emotional responses, such as helplessness, fear, shame, or despair, it can be very effective to frame climate change discussions in terms of solutions. Many people fail to take action as a result of uncertainty about the best course of action or a feeling that they are incapable of targeted action.[25] As communicators we want to avoid this kind of apathy in audiences while promoting solutions-based responses.

"Fear-based appeals, especially when not coupled with a clear solution, can backfire and undermine the intended outcome of a message;"[26] therefore, a climate change message should be empowering. When starting a dialogue, lead with strengths and solutions instead of deficits, which can create deflating conversations. Focus on the strengths that give residents the most pride in their community as well as the qualities and characteristics they want to foster into the future. Build off these strengths and aspirations to encourage actions that address the climate change challenges facing your community. Be sure to balance urgency with relevance, and explain to your audience how they can make a difference.

It is also valuable to provide examples of what other communities have done to adapt to climate change, sharing these success stories and highlighting relevant accomplishments. Point to leaders like the City of Vancouver, which recently implemented British Columbia's first *Extreme Hot Weather Response* Plan in preparation for increasing summer temperatures. Information about what others are doing can be both informative and inspirational and it lets people know they are not working is isolation. Concrete examples of the ways in which specific communities are adapting to climate change in a proactive and positive way can motivate people in your community to do the same.

AVOID THE SHOULD CLAIMS, FOCUS ON THE POSITIVE INSTEAD

It can be tempting to tell your audience what they should care about, or what they should do. However, this is often ineffective. In addressing an audience, try to avoid mixing facts and values as this tends to give your audience an excuse not to listen. In many ways, communication is a battle for attention and with this in mind you want to speak directly to your audience's aspirations and beliefs, without using morally laden "should" claims.[27] When communicating, instead of pointing to deficits or negatives, start from a place of strength and present to your audience what they do well and how this can be leveraged to do better in other areas.

Consider engaging your audience on notions of emerging technologies or long-term business and employment opportunities. Channel the discussion on adaptation around the things that are being done, both locally and elsewhere, as opposed to the things that should be done. Framing climate change in terms of solutions can make the message more accessible, enhance perceptions of self-efficacy, generate support for further action, and can help motivate people and organizations to learn more or take action.

SUSTAINING COMMUNICATION

Communication is not a one-time checkbox; rather it is an iterative process that must be structured and maintained.[28] Effective communication requires a consistent and comprehensive set of messages. It is a multi-directional process that often involves many different roles and actors. To ensure the sustainability of your communication efforts, there should be ongoing assessment of your approach to determine whether or not it is successfully communicating the right message to the right audience.

Follow up. Consider testing different strategies and making adjustments based on these findings. There is always room to integrate lessons and improve your approach. If a frame did not work, try another one. Find what works best and celebrate successes by connecting actions to outcomes in a positive way.[29]

TAKE HOME MESSAGES

→ Create simple and concise messages.

→ Framing is just one part of a good strategy.

→ Avoid using fearful tones and content.

→ Speak to people's values and make it real.

→ Use accessible language.

→ Build relationships and create dialogue with the audience.

→ Show results, celebrate success and reinforce accomplishments.

ENDNOTES

Cover: Lorenzoni, I., Nicholson-Cole, S. and Whitmarsh, L. (2007), "Barriers perceived to engaging with climate change among the UK public and their policy implications", Global Environmental Change, Vol. 17, pp. 445-59.

1. Chadwick, I. (2012). *Politically Speaking: Media Relations & Communication Strategies for Municipal Politicians*. Union, ON: Municipal World.

2. Shome, D. and Marx, S. (2009). *Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public*. Center for Research on Environmental Decisions, Columbia University. Retrieved from http://guide.cred.columbia.edu/

3. Pike, C. Doppelt, B., and Herr, M,. (2010). *Climate Communications and Behavior Change: A Guide for Practitioners*. The Climate Leadership Initiative at the University of Oregon. Eugene, OR: University of Oregon. Retrieved from http://climlead.uoregon.edu/node/156

4. Lakoff, G. (2010). Why it Matters How We Frame the Environment. E*nvironmental Communication: A Journal of Nature and Culture 4* (1), 70-81.

5. Ibid.

6. Ibid.

7. Cook, K. and Lewandowsky, S. (2011) *The Debunking Handbook*. St. Lucia, Australia: University of Queensland. Retrieved from Http://sks.to/debunk

8. Forest, S. and Feder, M.A. (2011). *Climate Change Education: Goals, Audiences, and Strategies: A Workshop Summary*. National Research Council of the National Academies. Washington, DC: The National Academies Press. Retrieved from http://www.nap.edu/catalog.php?record_id=13224

9. Shome, D. and Marx, S. (2009). *Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public*. Center for Research on Environmental Decisions, Columbia University. Retrieved from http://guide.cred.columbia.edu/

10. Ibid.

11. Ibid.

12. Ibid.

13. Ibid.

14. Sherrie Forest and Michael A. Feder, Rapporteurs; National Research Council (2011). Climate Change Education: Goals, Audiences, and Strategies: A Workshop Summary

15. Shome, D. and Marx, S. (2009). *Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public*. Center for Research on Environmental Decisions, Columbia University. Retrieved from http://guide.cred.columbia.edu/

16. Knight Soul of the Community website. Retrieved from http://www.soulofthecommunity.org/

17. Gallup and Knight Foundation. (2010). why People love where they live and why it Matters: a national Perspective - Knight Communites Overall report. Retrieved from http://www.soulofthecommunity.org/sites/default/files/OVERALL.pdf

18. Ibid.

19. Shome, D. and Marx, S. (2009). *Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public*. Center for Research on Environmental Decisions, Columbia University. Retrieved from http://guide.cred.columbia.edu/

20. Ibid.

21. Rowe, W. D. (1997). Managing Uncertainty. In *Risk-Based Decision Making in Water Resources VIII*. Santa Barbara, California: ASCE.

22. Ibid.

23. Shome, D. and Marx, S. (2009). *Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public*. Center for Research on Environmental Decisions, Columbia University. Retrieved from http://guide.cred.columbia.edu/

24. Ibid.

25. Sherrie Forest and Michael A. Feder, Rapporteurs; National Research Council (2011). Climate Change Education: Goals, Audiences, and Strategies: A Workshop Summary

26. Global Warming Warnings Can Backfire. (2010). Association for Psychological Science Observer 23 (10). Retrieved from http://www.psychologicalscience.org/index.php/publications/observer/obsonline/global-warming-warnings-can-backfire.html

27. Ward, B. (2012, January 25). Better Understanding and Improving Climate Communications. The Yale Forum on Climate Change & The Media. Retrieved from http://www.yaleclimatemediaforum.org/2012/01/better-understanding-improving-climate-communications/

28. Chadwick, I. (2012). *Politically Speaking: Media Relations & Communication Strategies for Municipal Politicians.* Union, ON: Municipal World.

29. Forest, S. and Feder, M.A. (2011). *Climate Change Education: Goals, Audiences, and Strategies: A Workshop Summary*. National Research Council of the National Academies. Washington, DC: The National Academies Press. Retrieved from http://www.nap.edu/catalog.php?record_id=13224

If this strange and severe weather was once hard to imagine,
it's now hard to ignore.

- Maclean's Magazine

WHEN TO COMMUNICATE

WHEN TO COMMUNICATE

Timing can make or break communication. Good timing is about acting upon teachable moments or opportunities to initiate a dialogue on climate change and what can be done to adapt.

TEACHABLE MOMENTS

Although timing is only one aspect of good communication, it is a hugely important one as bad timing can result in a good message being lost. If you are talking to people in the community about climate change on the coldest day of the year, the message is likely to fall on deaf ears. In contrast, having a conversation after an extreme rainfall or heat occurrence can offer an opportune time to discuss the effects of a changing climate – such as the extreme weather events that have just occurred. Fortunately, improving timing in communication is not a difficult thing to do; it simply requires advanced planning and patience.

Good timing is about understanding the interests of the audience and knowing what is going on in the community. From there, you can gauge the degree to which an audience would be receptive to your message, and tailor your message to suit the timing and evolution of a climate change conversation.

To be effective, you want to take advantage of the opportunities and 'teachable moments' that arise. A teachable moment is a period of time when learning about a particular topic becomes possible and beneficial, both for the audience and for the communicator. These moments often occur at the societal level - as the result of extreme weather events or issues that gain salience in the media, such as the Fukushima Daiichi nuclear disaster in Japan that triggered a slew of conversations on nuclear power – however they can also occur more locally in light of concerns for rising insurance premiums, annual budget or work planning cycles, or even newspaper stories.[1] These types of events can lead to information-seeking behaviour, where audience members seek out information on a topic on their own. This behaviour happens even in cases where an individual or group did not experience an event directly, which is exactly what happened with the Fukushima disaster. This kind of behaviour can benefit communication as it generates interest and a demand for information and can trigger teachable moments at the local level.

Extreme Events

Extreme weather events can provide very effective teachable moments where climate change messages become highly relevant to the experiences of an audience.[2] Whether experienced first-hand or remotely in other areas of the world, these events tend to be vivid and dramatic. They also tend to receive considerable attention in the press, which can be used to spark interest and trigger dialogue. Such events can include floods, heat waves, ice and wind storms, or forest fires. These events make it easier to envision a warmer, wetter, and more extreme world, and to anticipate some of the environmental and economic impacts that such a future would bring. As such, extreme events can be effective catalysts for changing behaviour and initiating a dialogue on the need for more adaptive and resilient communities. That being said, caution must be taken to treat these particular teachable moments with sensitivity as they can be catastrophic events for individuals who may have suffered tremendously. Be careful not to turn teachable moments into "told you so" moments.
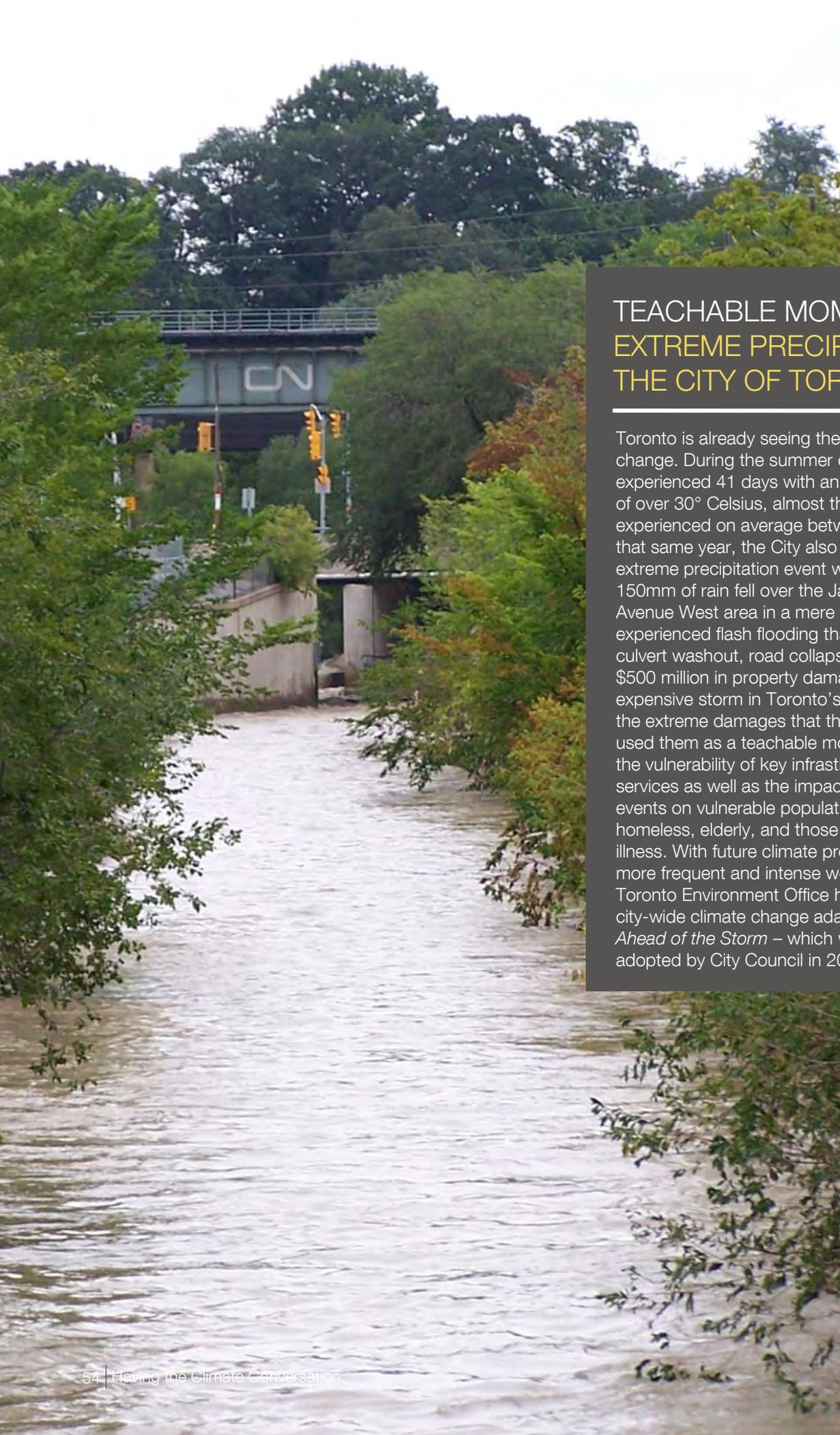
TEACHABLE MOMENTS
EXTREME PRECIPITATION IN THE CITY OF TORONTO

Toronto is already seeing the effects of climate change. During the summer of 2005, the City experienced 41 days with an average temperature of over 30° Celsius, almost three times the number experienced on average between 1961-1990. In that same year, the City also experienced an extreme precipitation event where more than 150mm of rain fell over the Jane Street and Finch Avenue West area in a mere three hours. The area experienced flash flooding that resulted in a major culvert washout, road collapse, and an estimated $500 million in property damage (the most expensive storm in Toronto's history). The City took the extreme damages that this storm wrought and used them as a teachable moment to understand the vulnerability of key infrastructure and city services as well as the impact of extreme weather events on vulnerable populations, such as the homeless, elderly, and those suffering from mental illness. With future climate projections indicating more frequent and intense weather patterns, the Toronto Environment Office has since developed a city-wide climate change adaptation strategy – titled *Ahead of the Storm* – which was unanimously adopted by City Council in 2008.

WHEN TIMING IS A LUXURY

For those that are passionate about the need to act on climate change, the question of when to communicate can be answered simply: now! However, as might be expected, this simplistic answer does not account for the nuances of opportunity and unfortunately, good timing can sometimes be a luxury. Timelines or deadlines often align with budgetary and planning cycles instead of opportunities or interest levels. Nevertheless, time considerations should be part of any good communications effort.

Patience is also an important component of communication. Waiting for the right moment can take a long time and often requires a balancing of immediate priorities and long term interests; the key is to be ready when opportunities present themselves so that you are able to deliver your message at the right time and place.

In cases where it is not possible to wait for the right moment, the rest of this resource outlines a variety of communication strategies that can be utilized to ensure you are making the best use of the time you have been given.

Remember to:

- Focus on solutions.
- Use stories that will resonate.
- Include visuals.
- Start with strengths; deficits can be counter productive.
- Know your audience and tailor your message to them.

SHELF LIFE
Every issue has a limited lifespan. In most cases, local issues have a two-week period of immediacy, after which they become less pressing and/or relevant.[3] To act upon this shelf life, messages often need to be formulated within a fairly short time frame, before your audience has a chance to move on to other issues. Think of shelf life as an opportunity and be sure to act as quickly as possible. Planning in advance will allow you to move quickly when these opportunities present themselves.

In the absence of teachable moments, ongoing communication can also be an effective strategy to maintain interest levels. Newsletters, websites and email updates are great ways to keep an issue on your audience's radar and can provide a solid foundation to build off of when a teachable moment does arise. Ongoing communication will also help you build a sense of progress and provides an opportunity to celebrate successes.

For more information on strategies for refining a message and on communication techniques, refer to the WHAT and HOW sections of this guide.
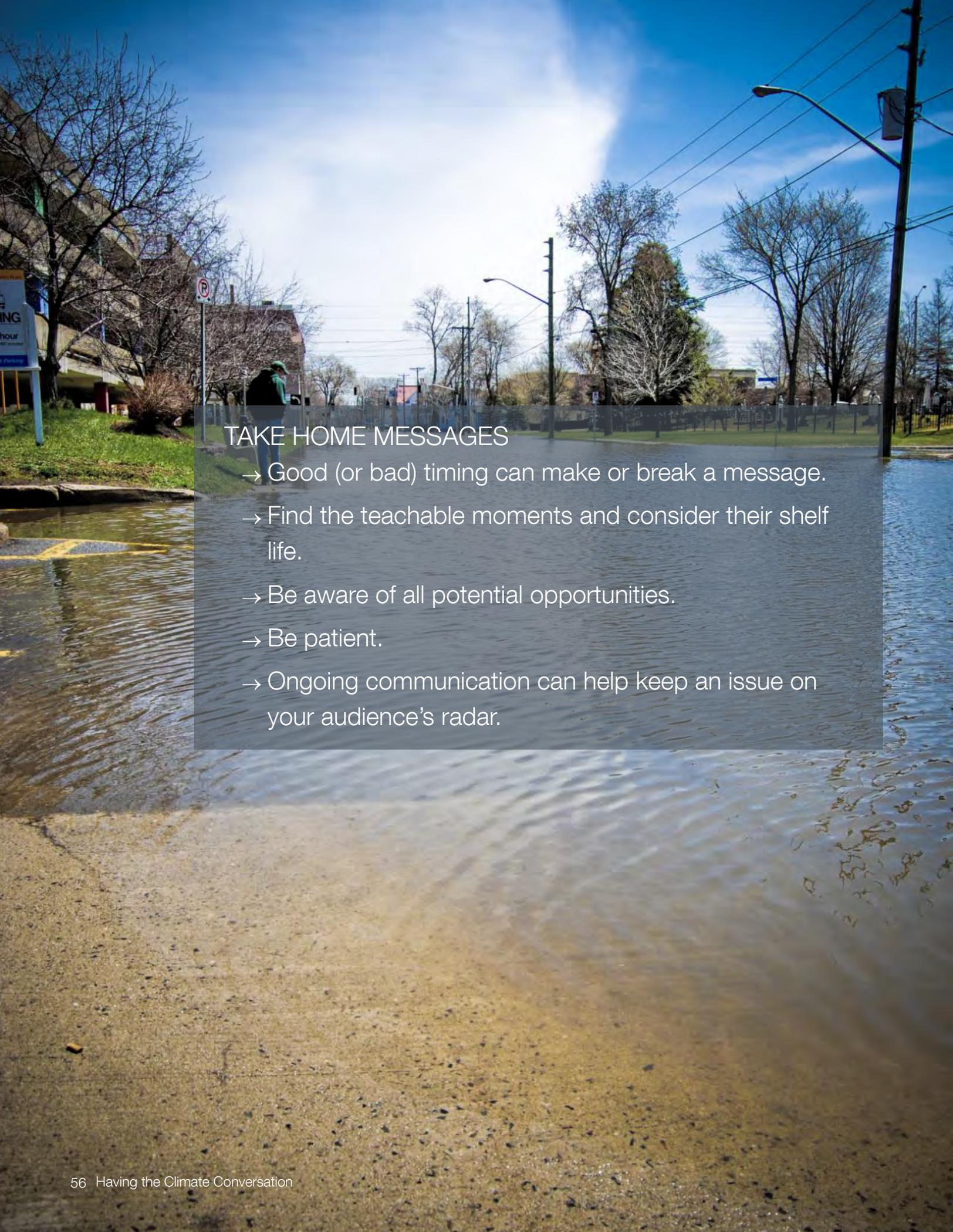
TAKE HOME MESSAGES

→ Good (or bad) timing can make or break a message.

→ Find the teachable moments and consider their shelf life.

→ Be aware of all potential opportunities.

→ Be patient.

→ Ongoing communication can help keep an issue on your audience's radar.

ENDNOTES

Cover: Gulli, C. and Henheffer, T. (2010, September). Extreme Weather Warning: Fires. Floods. Freak storms. Droughts. Why it's only going to get worse. *Maclean's*. Retrieved from http://www2.macleans.ca/2010/08/24/extreme-weather-warning/

1. Hart, P.S., and Leiserowitz, A. A. (2011). *Finding the Teachable Moment: An Analysis of Information Seeking Behaviour on Global Warming Related Websites during the realease of The Day After Tomorrow. Environmental Communication: A Journal of Nature and Culture 3* (3), 355-366.
2. Shome, D. and Marx, S. (2009). *Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public*. Center for Research on Environmental Decisions, Columbia University. Retrieved from http://guide.cred.columbia.edu/
3. Chadwick, I. (2012). *Politically Speaking: Media Relations & Communication Strategies for Municipal Politicians.* Union, ON: Municipal World.
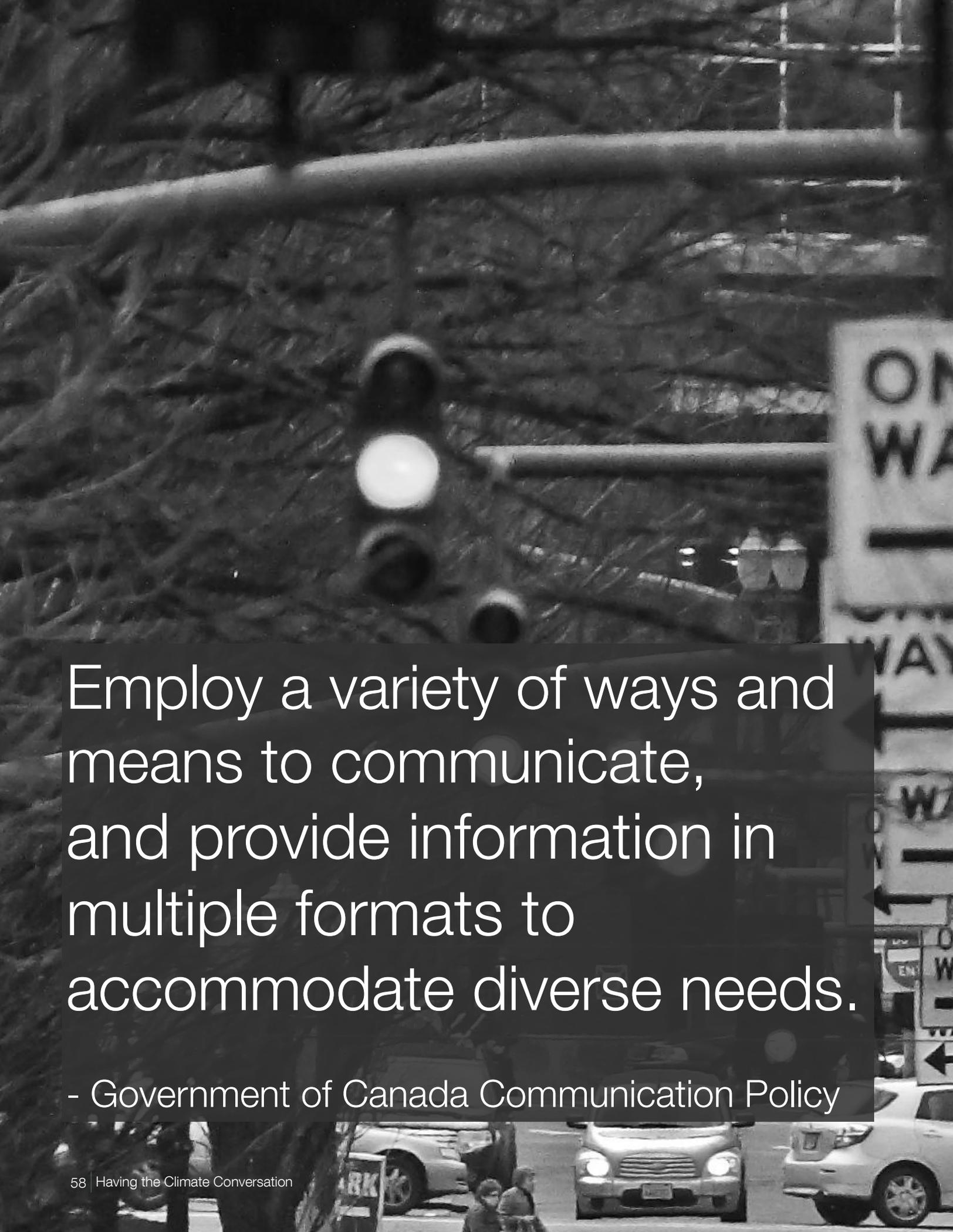
Employ a variety of ways and means to communicate, and provide information in multiple formats to accommodate diverse needs.

- Government of Canada Communication Policy

HOW TO COMMUNICATE

HOW TO COMMUNICATE

After identifying the *who*, *what*, *when*, and *why*, the next step is to determine *how* your intended message should be disseminated and delivered to your audience. There are many different ways to communicate a message, and it is important to recognize that no medium is effective for all messages or audiences.

This section highlights a variety of ways municipal practitioners can communicate to the public, to elected officials, to other departments and business units, and amongst each other. Detailed examples are provided throughout the text along with rationales and tips to make the most of your communications effort. Examples have been drawn from a wide variety of local governments in order to highlight their real-life application and to provide a source of inspiration and guidance as you develop your own communications efforts.

> *Modern government requires the capacity to respond effectively over multiple channels in a 24-hour, global communications environment.[1]*

As you read through the different communication techniques below, remember to keep in mind your audience and the message you are delivering. Consider answers to the following questions before selecting a specific communications technique:[2]

- Is there something unique or particularly advantageous in using this type of communication technique?
- Does my target audience have familiarity with and easy access to this communication technique (e.g. a twitter account, email address, etc.)?
- What technique best "localizes" the message I am trying to deliver?
- What is feasible – with regard to cost, time, and ability?
- How will this particular technique reinforce other techniques that are currently being used or that could be used in the future?

Communicating a broad, complex topic like climate change will require a combination of various forms of media and communication techniques. There may be dozens of groups of stakeholders to educate, decision-makers to persuade, and colleagues to develop action plans with. An overlap of communication techniques – whether these are specific images, social media or more immersive ways of engagement – is necessary to reach as many people as effectively as possible.

VISUAL COMMUNICATIONS

It is said that a picture is worth a thousand words. Psychologists tell us that upwards of two-thirds of all communication falls within the visual realm. Using visual elements as tools can therefore be a very efficient way of getting across an idea or point. Where a description of a process, outcome, or concept can take a few paragraphs, the use of a single visual can provide the same information in a fraction of the time. Because the 'seeing' part of the brain is much more efficient and quick than the 'thinking' part of the brain, visual communication can reduce complexity while still maintaining the integrity of the message.

> *The human brain has upwards of 20 billion neurons dedicated to analyzing visual information, acquired by sight through approximately 70% of our total sense receptors that are in our eyes, more than through all of the other four senses combined.[3]*

In cases where data is communicated without the use of visuals, an individual must rely on the analytical processing system of the brain in order to grasp and process the information being presented. In contrast, visual data promotes the use of visual perception and sight. Visuals can stimulate cognitive, motivational and social facets, thereby triggering a range of emotions, thoughts and perspectives that other communication methods cannot reach as easily. As such, adding a visual component to your communications effort can be an important way to convey climate change information.

The intent of visual communication is to educate, inform, or persuade an audience through instruments such as photographs, maps, charts, illustrations, graphics, signs, or typography. The types of visual communication that will be discussed throughout this section are those that can be used for presenting data and information to an audience to help increase awareness and generate action on climate change.

Climate change can be communicated visually through...

Diagrams — The Greenhouse Effect. Some sunlight that hits the earth is reflected. Some becomes heat. CO_2 and other gases in the atmosphere trap heat, keeping the earth warm.

Graphs — Global Temperature Changes from the 20th Century Average (degrees C)

Photos

Videos
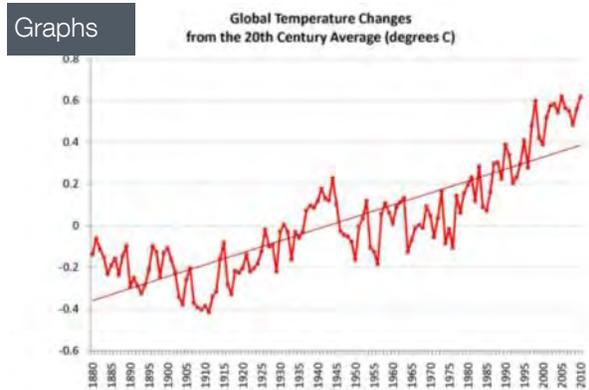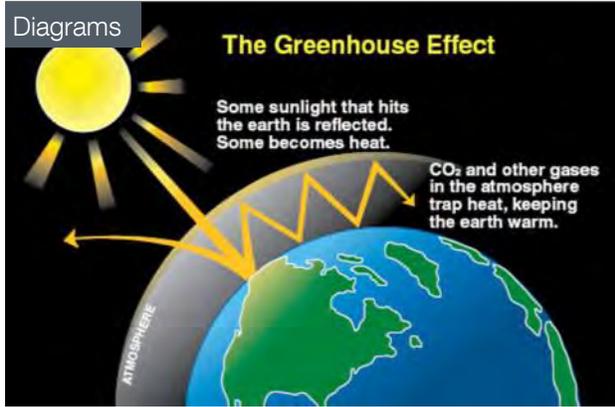
The Value of Visuals

The value of including visuals in a communications effort is considerable. People often think in terms of images, not words, so visual communication techniques can help people recall and retain information better than words can.

For example, the use of visual data or imagery can:[4]

- Attract people and help hold their attention.
- Facilitate the comprehension of data – diagrams, charts, models and figures summarize a lot of information in a small space.
- Draw attention to findings and trends that were not anticipated.
- Expose problematic elements not only about the data but also with regard to the way in which it was collected. This is why visualizations are useful for quality control.
- Facilitate an understanding of general and more precise details from the data.
- Assist in hypothesis formation – people can take the information and generate predictions.

As discussed earlier, people are not programmed to immediately react to threats that are perceived to impact the future or that are presented in a strictly analytical way. As a result, many of the images that are commonly used to illustrate climate change – especially scientific graphs and charts – do not bring about the same urgency as photos, maps and visuals that depict tangible impacts involving places and people familiar to the audience.

In a 2007 study, researchers at the Center for Research on Environmental Decisions (CRED) looked at how audiences reacted when climate information was presented analytically, with scientific graphs and statistics, and visually, with photographs, video and local news stories. They found that people retained more factual information, found the threat amplified, and were more willing to take action on climate change when they were presented with photos, videos, and news stories.[5]

In order for visual communication to be effective, the tools must be efficient and to the point. It is important to begin by refining the message. By first understanding what you are trying to communicate you create the base upon which to build your communication efforts (refer to the WHAT section on page 34). Selecting the appropriate visual will help ensure your message is properly communicated.

Know Your Audience

With visual communication there is a lot of room for subjective interpretation and information processing. Your audience will interpret the images, diagrams, or maps based on their personal perspective. Having an understanding of who your audience is will help determine the type of visual data to use and how it should be presented in order to best target your audience. For example, if you are communicating to a group of residents that coastal erosion will take place in their community as a result of rising sea levels, employing complex mathematical diagrams would not be an effective way to communicate this information. Using a more general map displaying the consequences and what areas of the community would be affected might be more suitable. A word of caution: while effective, you must be careful that the visuals you show in instances like this do not elicit undue fear or panic among the audience as this may trigger undesired or counter-intuitive response such as emotional numbing.

Limits to Visual Communication

While visual communication tools have significant value and should not be shied away from, it is important to note their limitations. There are three main limitations relevant to this discussion:

- The potential to mislead people. Visual communications can misrepresent information, making it appear more convincing and technically sound than the data truly is.[6] This is a form of manipulation, and can be done inadvertently or deliberately.
- Visualizations can have multiple meanings, which can result in unclear interpretations of the data.[7] Having multiple messages in visual communication may obfuscate the message you are trying to convey.
- Reliance on interpretation. The effectiveness of visualization strongly depends on the audience's previous experiences and visual literacy.[8] The interpretation of the message can be subjective and may vary from individual to individual.

Many of these limitations are the result of improper use of visual communication methods. Showing maps, for instance, without context can be misinterpreted and turned into hysteria if audiences identify their own homes or neighbourhoods within those maps. Knowing when and how to properly incorporate visuals can avoid many of these pitfalls.

The following provides some quick tips for communicating visually:

- Convey only what is relevant to your message. Do not display information that is not directly related to your message, which can dilute the information you are trying to show.
- Be sure to include all information that would be required for a viewer to understand your message.
- Mix different forms of visual communication (where appropriate).
- Visual differences in an information display such as different colours in a bar graph are perceived by audiences as a difference in meaning, only use these when you intend to display a difference in meaning.
- Your audience will pay most attention to aspects of a visual display which are the most prominent. The elements of visuals that are the most pronounced should display the information which is most relevant to your message. Secondary information should be displayed in a less obvious way to avoid confusion.

MARYLAND AT RISK
USING VISUALS

Divided by the Chesapeake Bay, the State of Maryland has more than 5,100 kilometres of coastline, almost as much as the State of California. Given its geographic position, the state is particularly vulnerable to sea level rise and storm surges that rush up the bay from the Atlantic Ocean.

Maryland's Department of Natural Resources (DNR) is taking concrete actions "to reduce the vulnerability of Maryland's people, homes, investments and wildlife" to the impacts of climate change.[9] One of the ways the DNR is taking action by developing highly visual educational and policy resources for local communities (see the image below). These resources, developed by the department's Chesapeake and Coastal Program, draw on a variety of communication strategies—they are eye-catching and locally relevant, and they focus on the information that needs to be conveyed.

The result is a highly-successful communications effort that has engaged residents, municipalities, and other stakeholders on issues surrounding the state's vulnerabilities to climate change and what might be done to address them.

From Coast-Smart Communities: Adapting to Climate Change in Maryland presentation[10]

Photographs show three sea level rise scenarios in two Maryland locations. Each scenario helps to visualize the risk those areas face.

CASE STUDY: VISIONING

The Corporation of Delta lies just south of the City of Vancouver, in British Columbia's Lower Mainland where the Fraser River empties into the Georgia Strait. It is surrounded by water on three sides and is very low-lying, with the majority of the municipality situated between 0 and 2 metres above sea level. To protect the area from tidal and storm surge flooding, the Corporation is surrounded by 60 km of dikes.

With the threat of rising sea levels, Delta, in conjunction with the Collaborative for Advanced Landscape Planning (CALP) at the University of British Columbia, completed a Local Climate Change Visioning Project (LCCVP) in 2010.[11]

The Delta LCCVP used 3D visualization techniques and participatory processes to examine a range of climate change impacts, including the potential for overland flooding. These techniques use computer-supported, interactive, visual representations that improve communication and understanding.[12,13] Key attributes of these types of visualizations include increased realism, the ability to interact with the visual, and the ability to show animation.

Project findings were presented to two stakeholder groups. The first group was shown the 3D images of future climate change scenarios. The second group was presented with the data using more traditional media, such as maps, graphs, and diagrams. To assess the effectiveness of each presentation model, stakeholders in each group were given a questionnaire prior to the presentation to evaluate their level of knowledge on climate change. These questions were then repeated following the presentation to determine how the audience's knowledge and views had evolved as a result of the information presented. Perhaps not surprisingly, the group that was shown the interactive visualizations displayed notable increases in:

- Understanding of climate change information and concern for impacts that could adversely affect the community. Only 8% of the non-visualization group declared that they learnt something new from the presentation while 29% from the visualization group felt they had. From the visualization group, 89% said that they were more willing to support local government in GHG reductions and adaptation to climate change, versus a mere 18% from the non-visualization group
- Empowerment to act on climate change and belief that personal actions could reduce climate change impacts. Only 56% from the non-visualization group said they were more motivated to act following the presentation, while 74% of the visualization group were motivated to take action.

Based on the questionnaire and responses from stakeholders it is clear that these computer-aided visualizations significantly assisted in the transmission of information about climate change impacts and the importance of action to mitigate and adapt to these impacts.

Broadly speaking, these visualizations produced by CALP, like most forms of visual communication, helped facilitate public consultation and involvement, improved environmental awareness and understanding, and lead to broader research insights. Perhaps most importantly, this process helped start conversations around climate change adaptation that go beyond the outputs of the visualizations themselves.

Using these and other visualizations, CALP developed a series of recommendations to improve Delta's current bylaws, design guidelines, and local area building and zoning plans. Recognizing the severity of potential climate change impacts if no action is taken, the Corporation of Delta is now taking concrete steps to address local vulnerabilities.

The top image is a representation of Delta as it currently exists, while the image below is a representation of the municipality in the coming decades during a flood event and without any additional flood protection added.

INFOGRAPHICS
USING VISUALS

One of the ways in which data is increasingly being conveyed is through 'infographics', a portmanteau (or merger) of the words "information" and "graphic". Infographics are generally a mix of images, text, and numbers, organized around a particular theme or message. The graphic aspect of an infographic is particularly important; a cleverly-designed infographic presents complex data in a visually-appealing and eye-catching way that allows the viewer to understand the message quickly and clearly. The following infographic was created for the 2011 *Partners for Climate Protection (PCP) National Measures Report* and shows the balance between the use of colours, numbers, visuals and text (limited to the most pertinent words).

Quick tips for effective infographics:[14, 15]

- Use reputable data sources.
- Clearly organize your information and data.
- Tell a visual story in a way that the idea can be understood from a quick glance.
- Use imagery and iconography that viewers understand and can relate to.
- Keep things clean and simple. Create a strong focal point so that only the information and data necessary to understanding the message stands out.


PCP National Measures Report Infographic
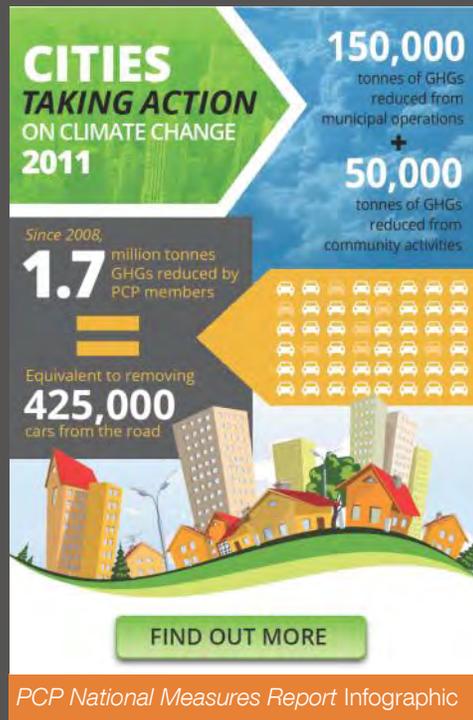
MAPPING

Maps can be powerful visual tools. They allow for documentation and awareness building that is needed when discussing climate change – an issue that has very real spatial outcomes. Although they are a form of visual communication, maps are key components of a climate communication strategy and therefore warrant a dedicated discussion.

As models of reality, good maps communicate spatial information efficiently and to a level of detail that is required to make informed choices. Maps can be used to highlight relationships between various (spatial) elements, such as places, regions, themes or populations. They can also be used to record important community information, such as the location of community cooling centres or neighbourhoods that are likely to experience particular climate change impacts.

Maps can vary considerably in terms of complexity and the level of detail conveyed. A geographic information system (GIS), for instance, is a system designed to capture, store, analyze, and present all types of geographical data. While GIS-based maps have gained considerable popularity in climate change planning, they can be relatively complex. Simple maps are also effective and are great for certain messages. What you use will depend on your audience and the availability of geographic information and other relevant resources. The images (right) show the vast array of maps that can be employed to communicate any given message.
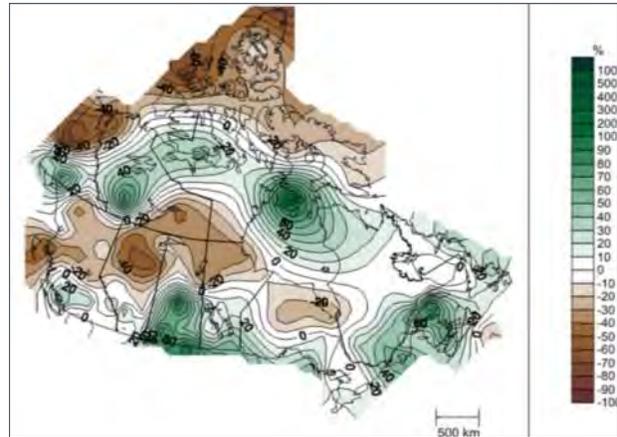
Climate data maps can show the extent that climate varies nationally.

Site plan maps show a representation of a small piece of land in great detail.

Benefits of Using Maps

There are many benefits to using maps. Among the most important for climate change planning are the following:

1. Maps can communicate practically any type of information, whether geographical, social, political, cultural, or economic.
2. As representations of space, maps allow you to organize information, contemplate scenarios, and plan for the future.

Community and collaborative mapping exercise can engage stakeholders. See Page 70 for more information.
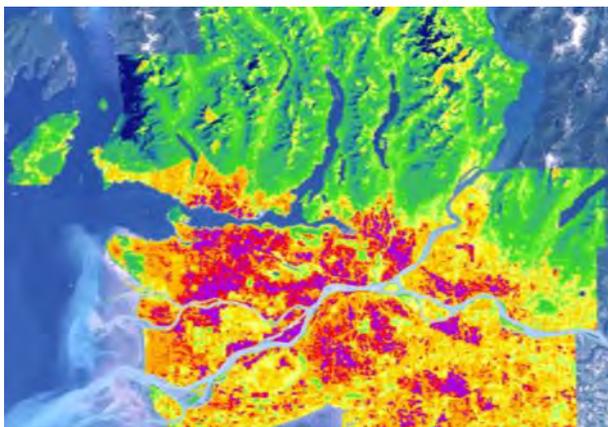
Heat island maps rely on satellite data overlayed onto a base map to show spatial patterns.

3. Maps generally do not require a lot of text and are often understood by a wide audience, including non-native English speakers. A single map or series of maps can then be used to communicate to a wide range of people.

4. By depicting a neighbourhood, town, or region, maps help to personalize a message and increase its resonance with an audience.

5. Maps show spatial patterns and, when similar scales are employed, can be easily compared and used for future planning.

How to Create Effective Maps

All maps should have a purpose. Maps can be used for navigation (a road map or topographical map), for reference (a country map in an atlas), or for identifying patterns and themes (a weather map showing precipitation across an area over a given period of time). While it may be tempting to include several types of data in a map, it is best to keep them simple and focused on one purpose. Trying to communicate too many messages with a single map often causes confusion.

It is also important to consider your audience. A general rule for what information to include on a map and how to design it is to tailor the

> Maps should be as simple as possible, elegant in form and design, and easy to read and understand.

map to the person in the audience who is least likely to understand it.[16] Maps designed for an audience of technical experts will be very different than maps prepared for the general public. Consider whether specific terminology will be understood and if the audience shares the same cultural perceptions of symbols and colours that might appear on a map.

The scale and size of maps are very important considerations as these will determine the amount of information and the number of features that can be included. It is difficult to enlarge or shrink a map once it has been created, so be sure to consider the format and size that will be best suited to its intended use.

Last but not least, colour and layout are important considerations. Warm colours like reds and yellows, as well as black, stand out and are often used to highlight important features. Cooler colours like blue and green are often used in background areas; however, depending on the purpose of the map, these colours might take on an important significance, when focusing on areas of potential flooding (marked by a blue line) or areas of tree coverage (marked by shaded green areas) for instance. Much like warm colours that draw the eye to them, the centre of a map is the area first focused on by a viewer. Therefore, be sure to align the map with the most important areas near the middle of the page, surface, or screen which will be used to view the map.
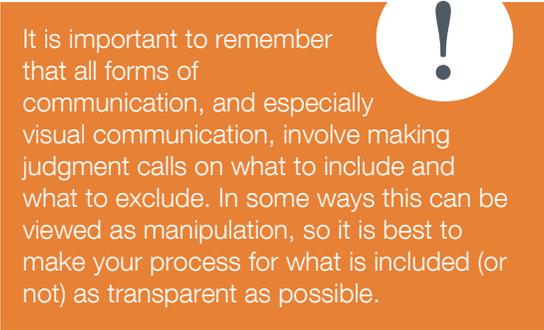
> **!**
> It is important to remember that all forms of communication, and especially visual communication, involve making judgment calls on what to include and what to exclude. In some ways this can be viewed as manipulation, so it is best to make your process for what is included (or not) as transparent as possible.

Collaborative and Community-Based Mapping

Collaborative or community-based mapping is a process that brings together various community stakeholders to determine features, assets, and vulnerabilities are in the community. This process can be used to develop an informed understanding of where climate change impacts will be most imminent and what interventions can help mitigate their effects.[17]

When collaborative or community-based mapping is used as part of a larger planning process, the first step is to create or obtain a base map of the study area and highlight key community features, resources or other sources of information. Several copies for each climate change impact or vulnerability topic should be printed and distributed amongst gathered stakeholders. In an exercise that looks at the effects of sea level rise for ocean-front communities, for example, the elevation of coastal areas would be an important feature to include on the map. Alternatively, in an exercise that looks at the health impacts of heat, you may want to identify local hospitals, community centres, or health clinics on the map. In all situations, orienting the map by including major roads, rivers, and other important landmarks is crucial to orient users.

With stakeholders, discuss the impacts that have been identified, asking "in which areas are we most concerned about flooding, urban heat island effect, landslides, sea level rise, and so on?" Have stakeholders mark up the maps with their answers and begin to identify trends or areas of specific concern. Try to determine indicators and thresholds for impacts and where they will be measured.

Along with any additional information that can help inform decision-making around climate change, identifying specific locations, what or who is at risk, and how these vulnerabilities can be guarded against will be an important part of developing an understanding of your community's adaptive capacity.
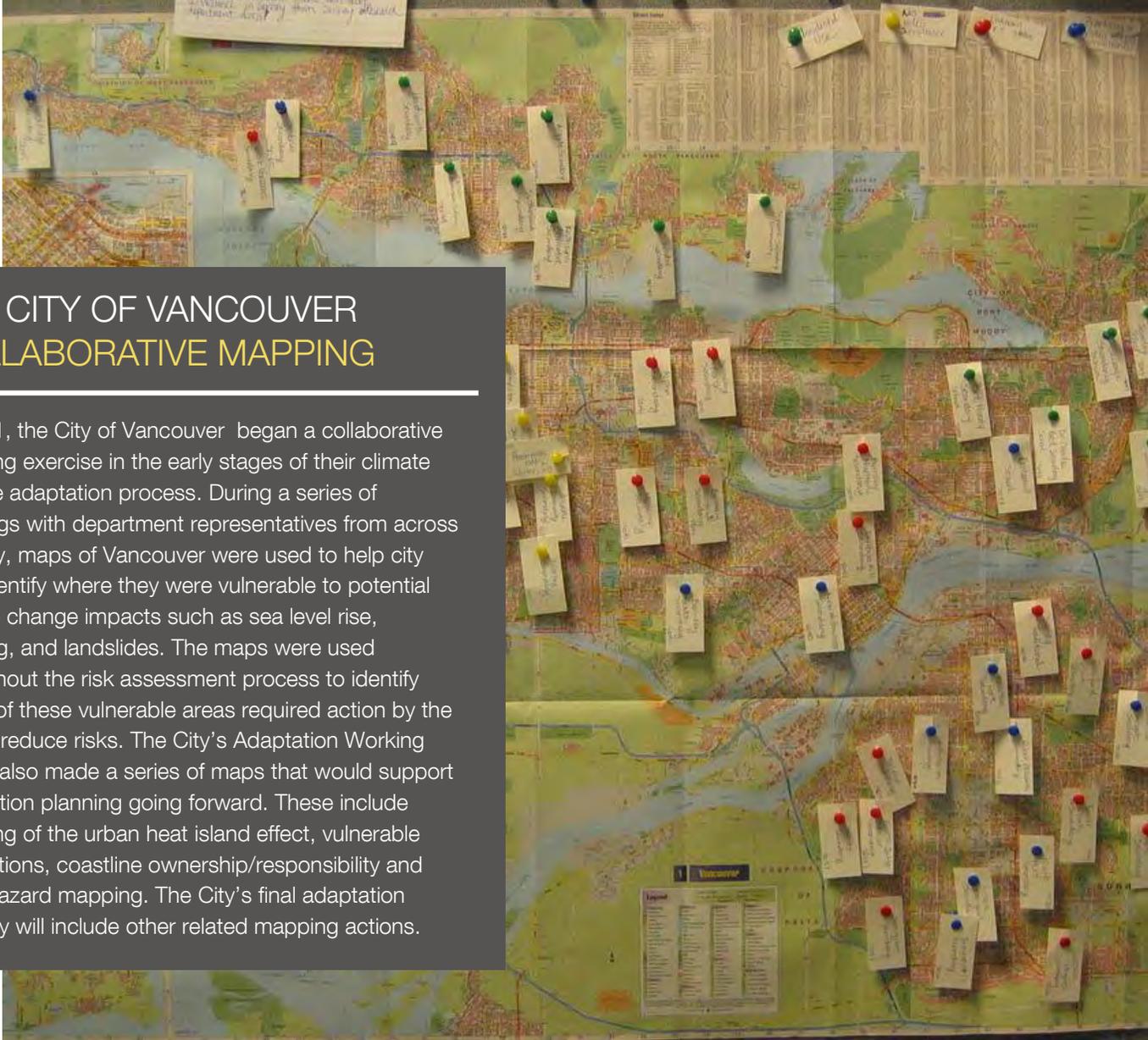
THE CITY OF VANCOUVER
COLLABORATIVE MAPPING

In 2011, the City of Vancouver began a collaborative mapping exercise in the early stages of their climate change adaptation process. During a series of meetings with department representatives from across the City, maps of Vancouver were used to help city staff identify where they were vulnerable to potential climate change impacts such as sea level rise, flooding, and landslides. The maps were used throughout the risk assessment process to identify which of these vulnerable areas required action by the City to reduce risks. The City's Adaptation Working Group also made a series of maps that would support adaptation planning going forward. These include mapping of the urban heat island effect, vulnerable populations, coastline ownership/responsibility and flood hazard mapping. The City's final adaptation strategy will include other related mapping actions.

WRITTEN COMMUNICATION

The written word is a valuable tool for reaching a wide range of people, and can be tailored as needed to effectively deliver a message. Writing and written publications help fill in the blanks that may be left by images, maps, or graphs. They can be physically tangible, taken away, and referred to at any point, unlike face-to-face communication. Written communication can refine a message, give context, and persuade the audience in ways that are often needed to make decisions. And, perhaps most importantly for municipal staff, reports, memos, and other written communications between colleagues and decision-makers are a fundamental and required part of public service.

As with other communication methods, written communication should be:

- Purposeful and developed with the reader in mind.
- Clear and concise.
- Objective, accurate, and complete. Your argument or message should be well-articulated and based on available evidence.
- Contextualized and situated in relation to the goals and objectives of the government or municipal department.

Like all communication, effective written communication involves targeting your audience, focusing your message, framing your message in a way that is most relevant, and enlisting trusted messengers to deliver it. However, there are a few tips that are more applicable to written communication than to other techniques.[18] These are:

- Level of writing – While you do not want to dumb down a message by leaving out complex terms or ideas, it is generally best to write at the level of an 8th grade student when developing materials that will be read by the general public. This level and style of writing can be altered if you are writing primarily for elected officials, managers or technical experts. The aim should be to discuss climate change in a language that your audience will be familiar with.
- Language – Depending on your community's demographics, it may be useful to translate key documents, or summaries of key documents, into the dominant languages spoken in the community. This will extend your message further and help engage more of the population in the planning and implementation process.
- Message delivery – Depending on the type of written material or publication, it may be useful to break up the main messages into several separate publications. For example, a general factsheet on climate change adaptation may not be as easy to digest as several issue-focused factsheets, such as climate change adaptation and infrastructure, health, or natural ecosystems. That way, readers can focus on the message or topic they are interested in at that moment.
- Page layout – Too much writing on a page can be daunting for a reader. Break up text-heavy sections with images, maps, charts, or white space to make the document easier to get through. Important text should be highlighted, written in bold font, or placed in a separate text box to draw the reader's attention.

Most written materials, especially those geared toward the general public, will incorporate elements of visual communication. In this sense, it is important to also remember the strategies for effective visual communication outlined in the previous section.

THE TOWN OF THE BLUE MOUNTAINS
GREENHOUSE GAS REDUCTION GUIDE

Located on the shores of Georgian Bay, the Town of the Blue Mountains is a tourism and agricultural community of approximately 7,000 permanent residents. Winter tourist activities such as skiing attract visitors from across the province and create a seasonal population upwards of 19,000. Since its formation in 2001, the Town has been progressive in its environmental initiatives surrounding waste and greenhouse gas emission reductions. In 2009, after an impressive community-based social marketing campaign, the Town released a guide called Your Community, Your Planet: A Guide to Reducing Greenhouse Gas Emissions that highlights ways in which the Town, its businesses, and its citizens can take action to reduce greenhouse gas emissions.

The guide is a well-laid out and attractive plan that uses easy-to-understand language which inspires action among residents. Tips and actions are organized using a categorization scheme—"easiest", "easier", or "easy"—that frames climate action as accessible and within the reach of the average citizen. The guide also features several local success stories, well-defined terms and concepts, and a variety of design elements (images, colours, fonts) that give the document high visual appeal. The result is a very successful document that demonstrates how a community can take collective action to reduce greenhouse gas emissions and create a cleaner, more attractive, and more sustainable place to live, work, and play.

Government Documents and Publications

Local governments produce a large number of documents, usually intended to guide future government policy, planning, and operations, or to inform and educate the community. In many instances, these documents serve to do both. Balancing accurate and complete information with the needs and limitations of your reader can be a considerable challenge. However, doing so can give life to a document and can help to ensure it is embraced widely.

In order to be effective mechanisms for communicating issues, processes, or plans, government documents should have several characteristics that allow them to become well-known and well-used resources.

A government document should:

- Have objectives, goals, and a well-laid out implementation schedule.
- Be clearly written – while background information and technical reports may be necessary to give context for proposed actions or describing successes, they should not be the focus of a broader plan. Use information annexes or appendices to make relevant information stand out from background information.
- Provide good descriptions of methodology and terminology so that readers know how desired outcomes were or will be achieved.
- Illustrate proposed or completed actions, objectives or goals with well chosen and illustrated case studies. Focus on successes achieved *within* your municipality for completed actions, though for proposed actions, it may be necessary to highlight projects completed elsewhere.
- Use images, colours, and shapes throughout the plan to provide visual breaks in long blocks of text and to highlight particularly important pieces of information.

THE CITY OF WHITEHORSE
SIMPLYFYING ADAPTATION PLANS

Like many government publications, climate change adaptation plans face the challenge of providing large and detailed amounts of information without overwhelming the reader. The City of Whitehorse experienced this issue first-hand when it began developing its first community climate change adaptation plan. Developed in collaboration with the Northern Climate ExChange at Yukon College, the Whitehorse Community Adaptation Project (WhiteCAP) is an extensive document that describes future climate projections for the city and their associated risks, how the adaptation process proceeded, and what options the City will undertake to mitigate both current and future risks. Though informative, the document was quite lengthy (roughly 80 pages) and at times difficult to read.

Recognizing this inaccessibility, the Northern Climate ExChange developed a Plain Language Summary that, in 16 pages, summarizes the highlights from the full plan and presents these in a less technical way. The summary document also incorporates design elements that enhance visual appeal and create a much smoother reading experience.

Brochures and Handouts

Brochures and pamphlets are among the most popular ways that organizations communicate information. This is largely because they are easy to put together, cheap to print, and easy to distribute. Oftentimes, however, these are not used to their full potential – many brochures are too fact-laden, visually bland, or uninspiring. Fortunately, there are many opportunity for municipalities to use brochures and pamphlets effectively.

The following are several features and tips to keep in mind when writing and designing brochures (adapted from *Visual Communication: A Writer's Guide*[19]*).*

Features to consider:

- Purpose: to publicize an issue, program or organization.
- Lifespan: about one year or longer.
- Readers and setting: a targeted group who can benefit from the program or organization, such as those attending a meeting or residents in a given neighbourhood.
- Intended goals: to have the audience understand the details of the program or organization's mission, and key activities.

INSURANCE BUREAU OF CANADA
ARE YOU PROTECTED?

The Insurance Bureau of Canada publishes a series of brochures outlining the risks facing property-owners as a result of climate change. Brochures have been developed on a variety of themes, including water, hurricanes, tornadoes, severe storms, wild fires, and winter storms. The purpose of these brochures is to provide basic information that can assist home - and property - owners in taking action.   They offer background information on the issue, many tips for what homeowners can do, and contact information for further reference. Though simple in design, the brochures incorporate colour and large thought-provoking headings ("ARE YOU PROTECTED?") that are effective at capturing the readers' attention.

Tips for brochures and handouts:

- An attractive layout and design are key features which entice readers to pick up and scan a brochure.
- Colour and boldness are important, as is balancing visuals and text with an appropriate amount of white space. Remember that you are potentially competing with dozens of other brochures and flyers that readers receive. Many will be subconsciously evaluating your design before deciding to read the brochure.
- Place contact information prominently and provide a reason for interested parties to use it.

Press Releases

Another avenue to communicate information on a plan, project, or event is through the media. Press releases are an important aspect of a government's communication strategy, and are a relatively simple way to get the word out.

An example of a press release (see right) that received a considerable amount of uptake by local media (including a local radio station and the major daily newspaper in Victoria, BC) is the one issued by the City of Victoria on December 21, 2011.[20]

CITY OF VICTORIA
KING TIDES PRESS RELEASE

VICTORIA, BC — What are the impacts of climate change projected to look like in Victoria by 2050? The higher water levels brought on by the King Tide this week help illustrate one of four main expected impacts.

The King Tide, an especially high tide that results when the sun and moon are in alignment, is approximately 3.1 meters. Current winter tides are typically in the range of 2.1 - 2.6 meters. It is projected that by 2050 Victoria will experience an estimated sea level rise of 45 centimeters that will be most visible during winter high tides. In 2050 the winter high tides will be more like our current annual King Tide.

A second projected impact of climate change is an increased frequency and intensity of storm events by as much as 15 per cent by 2050. Larger storm events mean more "storm surges", a rise in water that can be pushed onshore by high winds. It is the combination of higher sea levels and winter storm surges that will produce one of the largest challenges, localized flooding.

A third projected impact for 2050 will be warmer temperatures with an increase of 1.0 to 2.3 Celsius and an increase in days over 30o Celsius. Wetter winters and drier summers are the fourth expected impact, with up to a 14 per cent increase in winter precipitation and drier summers with up to a 32 per cent decrease in summer rainfall.

The City of Victoria is taking a leadership role to adapt our community to be more resilient to the impacts of climate change and minimize the effects of human activities by reducing energy use and greenhouse gas emissions. The City's Climate Action Program is working with other community stakeholders to produce a climate change adaptation plan and to reduce community-wide greenhouse gas emissions by 33% by 2020. The City of Victoria is also striving to make city operations carbon neutral by the end of 2012. For more information visit www.victoria.ca/climateaction.

To write an effective press release, consider following these broadly accepted rules:[21,22]

- Grab the reader's attention with a headline and answer as many of the who, what, where, when and why questions as you can in the first paragraph.
- Write in the inverted pyramid format, with the most important information at the beginning of the release and the least important or background information at the bottom.
- Give solid facts but be brief. The press release should be no more than two pages and ideally *just one*.
- Use language that will excite readers and give them interest to continue reading and follow up with the project.
- Use quotes and ensure they are attributed to senior management, elected officials, or other respected sources.
- Include a contact name, website, or phone number for people to follow up with further questions

The ultimate goal of a press or news release is to provide enough interesting content to entice an editor or a writer to cover the story.

Websites

One area of written communication that is often forgotten is websites. Today, much of the information people receive about their governments is through the Internet, and therefore the content that is displayed online should be given careful consideration. While content is the most important part of any website, how it is written should nonetheless follow the same basic rules as any other written government document. It should be easy-to-read, clear and understandable, and it should capture the reader's attention. More web-focused aspects of writing include:

- Limiting the amount of words on a page and the number of sentences in a paragraph to no more than six in a paragraph.
- Text should be used conventionally, with upper-case letters to start sentences and proper nouns, and lower-case for the rest.
- Emphasis should be indicated by bolding or italicizing words as opposed to using all upper-case letters, as in internet parlance, this indicates shouting or yelling and can be off-putting to a reader.[23]

The United States government has a website called Usability.gov that offers an astonishing 250 pages of information for developing usable and user-centred government websites. It breaks down all aspects of government website design, from user centred optimization, accessibility, layout, navigation, graphics, images and multimedia, and writing web content.
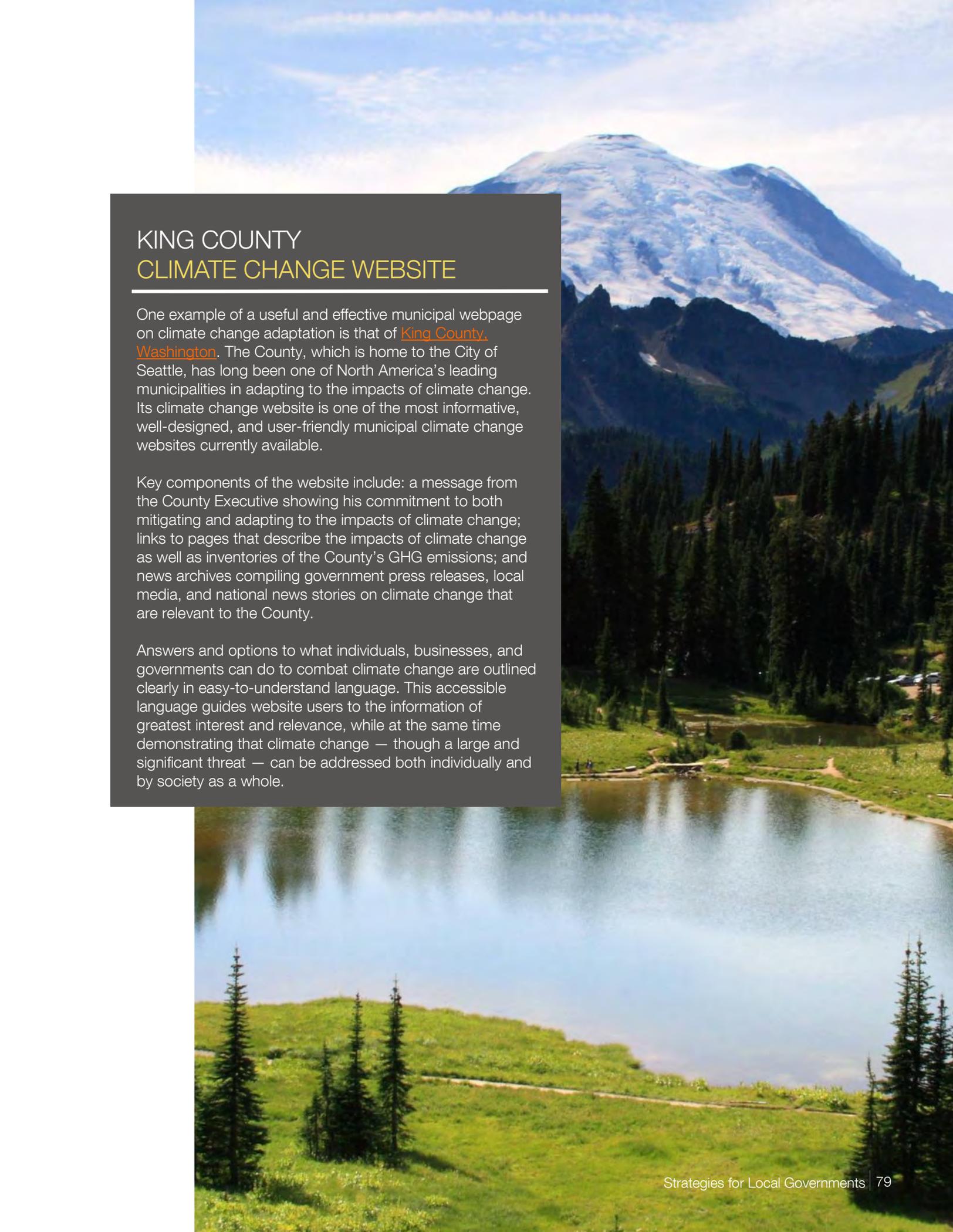
KING COUNTY
CLIMATE CHANGE WEBSITE

One example of a useful and effective municipal webpage on climate change adaptation is that of King County, Washington. The County, which is home to the City of Seattle, has long been one of North America's leading municipalities in adapting to the impacts of climate change. Its climate change website is one of the most informative, well-designed, and user-friendly municipal climate change websites currently available.

Key components of the website include: a message from the County Executive showing his commitment to both mitigating and adapting to the impacts of climate change; links to pages that describe the impacts of climate change as well as inventories of the County's GHG emissions; and news archives compiling government press releases, local media, and national news stories on climate change that are relevant to the County.

Answers and options to what individuals, businesses, and governments can do to combat climate change are outlined clearly in easy-to-understand language. This accessible language guides website users to the information of greatest interest and relevance, while at the same time demonstrating that climate change — though a large and significant threat — can be addressed both individually and by society as a whole.

ORAL AND IN-PERSON COMMUNICATION

Oral communication can take place through one-on-one interviews, group meetings, presentations, or workshops. By packaging information on climate change into concise sound bites, you can considerably advance climate change knowledge within the corporation and more broadly in the community. Because of the many nuances of language, a speaker's range, pitch, volume, enunciation, pronunciation, infliction, tone, as well as body language, will determine how a message is received by an audience and how they respond to it. It is important to understand what effect speech, and non-verbal communication, will have on audiences.

There are several key tips that can help people prepare for effective speaking engagements. Presentations occur constantly throughout all aspects of local government, and being prepared to deliver them is a key skill, especially when the topic involves potentially difficult, technical or contentious subject matter.[24] A good presentation is usually a "robust mix of visual and verbal elements."[25]

Steps for Giving Effective Presentations:

1. Be prepared – a good presentation often unfolds as if the speaker is having a casual conversation with the audience. This means both rehearsing the presentation several times before giving it, but also knowing the content to which you are speaking.
2. Use cues if necessary, but a script should never just be read. Employing a colleague, friend or family member to watch a rehearsal presentation can alert you to distracting mannerisms that may take away from the presentation itself. These are usually borne out of nervousness, and the surest way to combat one's nerves is to know your material.
3. Organize your thoughts carefully ahead of time and focus the presentation on topics the audience wants and needs to hear about.
4. The introductory part of the presentation is important, as it has to hook the audience and sets the tone for the rest of the presentation.
5. When bridging topics, try to create smooth transitions to ensure the presentation has a good pace and flow.
6. The conclusion and summary should re-emphasize the main points while offering next steps or recommendations for further action.
7. Be prepared to answer questions after your presentation. If you cannot answer a particular question, offer to follow up with the individual after the presentation.
8. Come prepared with discussion questions you can pose to the audience. This will help stimulate dialogue and may trigger additional questions.
9. Stay calm. The presentation will flow better if you are relaxed and confident.
10. Develop PowerPoint slides with care. They should offer visual support for the verbal elements of the presentation and be presented in a format that everyone in attendance can see and read. They "should not reproduce the speaker's notes word for word but instead orient the audience, keep them interested, and visually clarify complex information".[26]

Group Dialogue and Stakeholder Engagement

Presentations are effective educational tools, however they are generally one-sided with the presenter speaking to the audience. To promote more interactive and ongoing dialogues between staff, stakeholders, and other interested parties it can be helpful to engage stakeholders in a smaller group setting.

Communicating to stakeholders in group settings requires an understanding of how audiences and groups interact and how information is most effectively presented to achieve desired goals. It is critical that group cooperation and collaboration is facilitated in such settings. A good facilitator will assist in establishing rules and procedures for the meeting or discussion, will ensure that communication by stakeholders is effective and fair, and will make sure the group maximizes its productivity and participation.

The following are key things to keep in mind when facilitating group discussions:[27]

- Clarify meeting expectations and what role, if any, the group will have in making decisions.
- Be inclusive by inviting as many people, or as many representatives of stakeholder groups, to meetings while still keeping the group manageable (ideally under 20) and giving everyone the opportunity to speak.
- Ensure all viewpoints are represented and respected.
- Ensure all who want to participate are able to do so.
- Use group meetings and discussions to generate local solutions to problems, as this will help focus stakeholders and keep them positive.

Like with all communication techniques, knowing and relating to your audience is essential for effective oral communication. Be sure to speak in a way that is well understood by members of the audience. The use of technical terms and jargon may work in some instances, but their overuse in public settings can create participation barriers for members that are not as familiar with these terms.

Engaging Stakeholders on Adaptation: Lessons Learned

In 2007, a survey was conducted of climate change adaptation actions undertaken by six leading cities (London, U.K., New York City, Halifax, Greater Vancouver, and King County, Washington). Based on survey findings, researchers identified the following as key lessons for engaging municipal and community stakeholders on issue surrounding climate change adaptation. Several of the points echo key themes and messages discussed throughout this resource.

" *Stakeholders who feel like they were part of the decision-making process are more likely to support the outcome.[28]*

According to survey findings, it is helpful to keep the following points in mind when engaging municipal and community stakeholders on climate change:[29]

- Key stakeholders come from all sorts of places and can include departments from the municipality and surrounding regional governments, utilities, regional transportation and conservation bodies, and other community groups identified as being impacted or having a role to play in the climate change planning process.
- Understanding how climate change may impact cities and regions, what adaptation strategies are available, and building support for their implementation requires the engagement of these key stakeholders.
- Events designed around the topics of climate change impacts and adaptation can galvanize stakeholders to take action, however you also need to plan ways to keep them engaged afterwards.
- Understanding the general goals and concerns of stakeholders and investigating the ways in which climate change could affect these is important.
- Engaging with mid-level stakeholders is crucial to the ongoing success of adaptation efforts, as these people are more likely to participate in the adaptation process on a consistent basis than senior levels of management.
- To sustain engagement, it is helpful to have regular interactions and face-to-face meetings.
- Appropriately allocating time and resources is essential for sustaining communication with stakeholders over the long term.
- To build and maintain momentum, it is important for stakeholders to take ownership of the process.
- Speak in familiar terms that your stakeholders will understand. Overly technical reports will often reduce the level of engagement.

CASE STUDY:

ENGAGING COMMUNITIES

Released in 2008, the City of Chicago's Climate Action Plan (CCAP) outlines five broad strategies that the City, its businesses, and residents can undertake to combat the causes of climate change and adapt to its coming effects. The five strategies are: energy efficient buildings; clean and renewable energy sources; improved transportation options; reduced waste and industrial pollution; and adaptation. Given the scope of these strategies, success will require significant uptake by residents as well as concerted action by a range of community stakeholders.

One of the ways the City is working to engage community stakeholders is through the Environment, Culture, and Conservation (ECCo) branch of the Field Museum of Natural History, a non-profit museum in Chicago. Commissioned by the City's environmental department, ECCo has been working with community partners to implement the CCAP neighbourhood by neighbourhood across the city.

ECCo's city-wide approach involves an ongoing series of ethnographic studies, conducted in nine diverse neighbourhoods across the city, in order to identify specific beliefs and neighbourhood-level practices that can complement and strengthen the City's approach to climate change. Led by anthropologists, municipal staff, and leaders of community-based organizations, the approach can be described as participatory action research. It is grounded in the theory that in order to create positive change, an approach should understand and capitalize on a community's strength and assets, rather than focus on its needs or inherent weaknesses.

In Chicago, this approach has focused on the following neighbourhood assets:

1. *Awareness and knowledge of climate change;*
2. *Environmentally-friendly practices and values;*
3. *Community concerns that link environment to*
   quality of life;
4. *Key stakeholders and their processes for working together and with outside groups;*
5. *Innovative programs and practices related to CCAP strategies;*
6. *Creative models for mobilizing residents;*
7. *Communication and dissemination networks and strategies.*[30]

Neighbourhoods were chosen based on their geographic, racial, and socioeconomic diversity. By studying different groups of people, researchers were able to "identify ways in which cultural values and traditions might facilitate or hamper participation in climate change strategies".[32]

Based on the outcomes of this research, a series of community-specific recommendations were proposed. These included: communication through existing community channels, working through neighbourhood organizations that residents trust, and building on existing assets, such as community gardens or after-school programs. These recommendations were forwarded to the City's Department of Environment as well as the community-based organizations that helped assemble them. Implementation of the CCAP soon followed, with all engaged stakeholders working together to address the causes and impacts of climate change.
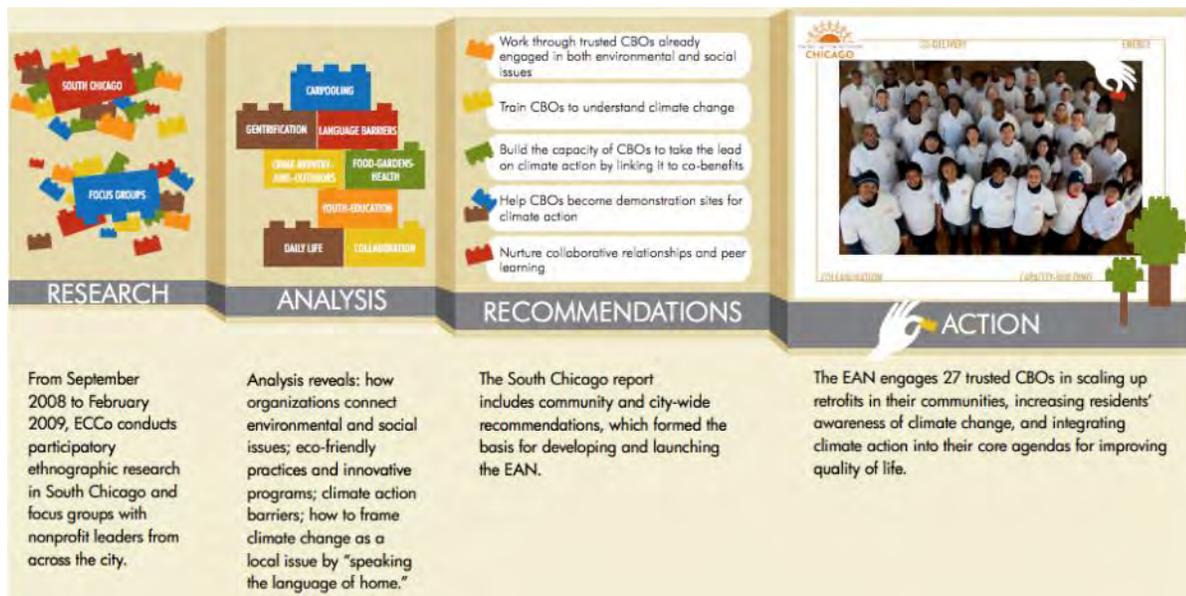
Specific example of the engagement process in Chicago's South Chicago community.

SOCIAL MEDIA

The ways in which people communicate and source information has evolved considerably in the past decade. More and more people gather information, read the news, do business and interact online through social media and other forms of digital communication. Although social media has emerged as a powerful tool across the globe, its use by public administrations has been much slower and is still in a state of relative infancy.

People are drawn to social media and digital communications for a variety of reasons. As a form of communication, it has very few costs and the potential to reach a very large audience. It is also remarkable in its ability to create communities, or networks, of people with shared interests and a common purpose. Perhaps most importantly, using social media puts your information where people, namely your audience, already are. While social media in many ways 'shrinks' the world, making it easy to instantaneously communicate with someone in another continent, there is often a very strong local component to the use of social media. The ability to connect with these networks of people nearby represents an important aspect of its use, or potential use, by local governments.

The United Kingdom's Central Office of Information noted that social media can help governments do the following:[32]

- *Increase a government's access to audiences and improve the accessibility of government communication.*
- *Enable government to be more active in its relationships with citizens, partners and stakeholders.*
- *Offer greater ability to adjust or refocus communications quickly.*
- *Improve the long-term cost effectiveness of communication.*
- *Benefit from the credibility of non-government channels.*
- *Increase the speed of public feedback and input.*
- *Reach specific audiences on specific issues.*
- *Reduce government's dependence on traditional media channels and counter inaccurate press coverage.*

Social media platforms can be used in three complementary ways:

- Social media sites can be used for promotion. For example, the presence of municipalities on Facebook, where members are allowed to join their groups or "Like" them, showcases and promotes what they can offer residents by way of certain programs, projects, or services.
- Social media sites and other online digital communication tools such as listservs (email list management tools) can be used by a municipality or department to communicate climate change news or other content to a large audience very quickly.
- In cases where the distributed content is particularly relevant or interesting, social media can provide a platform for users to comment and discuss their experiences and insights on the subject matter.[33] This two-way dialogue can enhance and complement the message, as well as help foster efficiency, innovation, and genuine accountability within the local government.[34]

CASE STUDY: LIVESMART BC

Governments in general, from small municipalities to the federal government, collect a tremendous amount of data. With the new ubiquity of the Internet and the ability to store and distribute information cheaply and easily, many governments are moving to what is termed an "e-democracy" model of information access. Instead of having to ask for particular data, a member of the public can search for it themselves as more of it gets uploaded to governmental websites and servers.[35] Called "open data", raw governmental information can then be used by members of the public as they wish.

One such government that has taken open data seriously in recent years has been the Province of British Columbia. Through its DataBC website, hundreds of datasets are made available "to help you make informed decisions, inspire change or develop ideas to improve government policies". In 2010, the BC Ministries of Environment and Citizen Services, one government agency, GeoBC, and eight private sponsors opened a competition called "Apps for Climate Action". Web developers were tasked to use any of the hundreds of datasets available from the

province to develop web-based or mobile applications that "raise[d] awareness of climate change and climate action issues by making the data more accessible and understandable to the general public".

In total, 15 apps were submitted for entry into the competition, including a mobile phone application that maps the City of Vancouver's bike routes, an educational application for students called MathTappers: Carbon Choices (designed to help middle and high school students become more aware of the amount of CO_2 equivalent pollution produced by daily activities such as bathing, commuting and eating), and a web application (www.waterly.ca) that uses BC water management precincts and daily climate data to answer the question "should I water my lawn today?"
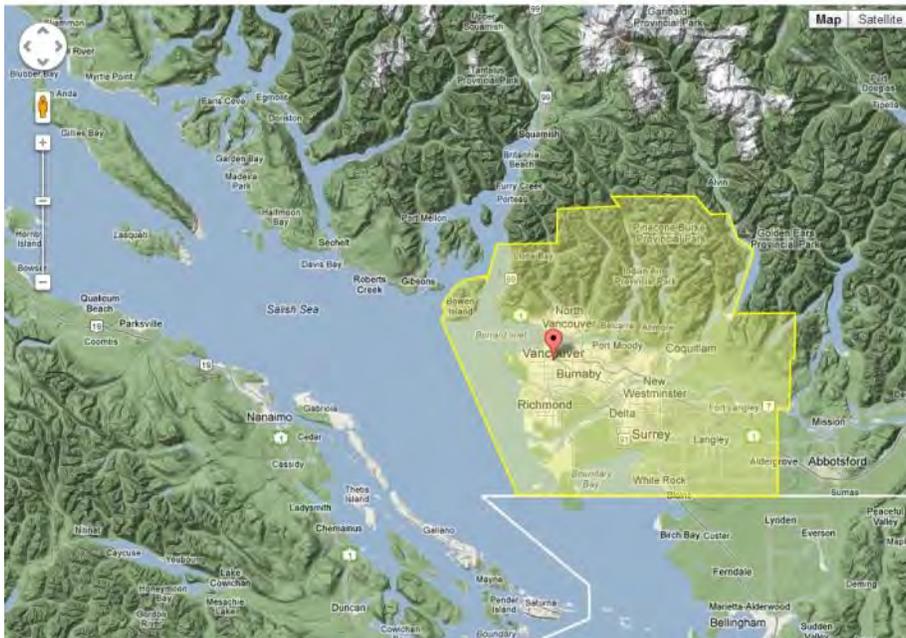

This screenshot of the Waterly application indicates that, for a location in Vancouver, it is not advisable to water your lawn as it has rained enough in the past week.

Popular Social Media Tools and Terms

Blog	An online journal that is updated regularly and can be used by politicians or municipal staff to discuss upcoming events, news, or offer commentary on municipal issues.
Facebook	The most popular social networking site in the world, it allows users with individual profiles to connect with each other. Municipalities have used it to create groups that people can join based on a particular subject (e.g. engagement around the updating of a community plan), municipal department, or the municipality as a whole.
Flickr	An online photo-sharing website that allows users to upload their photos and share these with others.
geotagging	A process that allows users to add location data to their content (e.g. indicating where a particular photo was taken).
open media	Online media that the creators have indicated is free for others to share, often through the Creative Commons license.
RSS feed	Real Simple Syndication is a way for creators to publish or syndicate their content, allowing users to subscribe to it and ensuring that they receive notifications when there is new content. Notification can be done through email or a content aggregator program (e.g. a news reader like Google Reader) that "pushes" new content to the user.
Twitter	A social network that is based around the concept of sending and reading short (no more than 140 characters) messages, or "tweets". Users send messages to their followers that often contain real-time news information, links to articles or webpages, or other content. Users can also reply directly to a message, creating conversations around a particular issue or subject. Journalists frequently use Twitter to disseminate information, and politicians have adopted it as a way to communicate directly with constituents.
Web 2.0	The current "second generation" of the Internet that allows anyone to create content and distribute it, regardless of technical knowledge or programming skills. Blogs, social media, and content sharing websites are all part of Web 2.0. An important component of this is the ability to integrate many of these services and tools with each other.
wiki	A collaborative website that anyone can edit directly using specialized software. The online encyclopedia, Wikipedia, is the largest wiki, with millions of articles.
YouTube	A video hosting website that allows users to upload their own videos and share them with others, including "embedding" them on other websites. It has proven useful in the municipal world for multi-media-based communications strategies that benefit from having video as a component.

In practice, reaching full interactive involvement through social media has not yet come to fruition, but that does not mean that social media and digital communications have failed as communication tools for municipalities. Consider, for example, the potential of social media during severe weather events:

> *A negative event, such as a large storm, will cause rapid increases in these numbers [of followers] as people seek ways to get information about restoration. Your followers/likes increase when the public needs something from you – when they know they can get that via social media, you'll experience more rapid growth.*[36]

The Harriman, Utah example (see right) illustrates the real advantage of social media: the ability to communicate to your residents at a time when they need information most.

CASE STUDY: HARRIMAN, UTAH

On September 19th, 2010, a wildfire was ignited during a live ammunition training exercise by the Utah National Guardsmen at Camp Williams, located approximately 40 kilometres south of Salt Lake City and just outside the suburban city of Herriman. The surrounding brush and forested areas were quite dry as a result of the summer season; when the wind picked up, the fire spread quickly, threatening more than 1,500 homes on the outskirts of Herriman. The Herriman City Emergency Preparedness Committee's Twitter feed, @BeReadyHerriman, became a vital source for real-time information on the City's firefighting efforts, evacuation notices, and disaster relief measures. Tweets sent over the course of the event were used to communicate important information regarding evacuation routes, news items, and public service announcements (see image right).

Use of the 'hashtag' word "#Herrimanfire" allowed anyone with a Twitter account, including members of the public, to submit additional fire-related information (photos, real-time accounts of the fire, and warnings). All of this information was linkable, which meant it could be easily aggregated and read in one place. In short, Twitter became a one-stop shop for citizens looking to get an overall picture of where the fire was burning and how to find aid or additional information.

In total, the Machine Gun Fire (as it became known) burned more than 1,760 hectares, destroyed three houses, and forced 1,600 people to evacuate the area. Twitter provided an effective and much-needed platform for the City to communicate with its residents, workers, and the media, allowing the City to control the flow of information and circumvent more traditional news outlets, such as radio or television, which would have been limited in their ability to get information out in real-time. Although it only took five days to fully contain the fire, roughly 200 individual tweets were sent out by the Emergency Preparedness Committee during this time. As of early 2012, this number still represents more than half of the City of Herriman's official tweets. The City continues to use its Twitter account in the aftermath of the fire, offering advice to residents on where to get services, how to make claims, and how to donate to those who lost their homes or property in the fire.

BeReadyHerriman Be Ready Herriman
Best estimate 1250 homes have been evacuated south of 142nd and west of 6400 W. Over 100 firefighters and 30+ units on scene.
19 Sep 10

BeReadyHerriman Be Ready Herriman
Police are trying to clear main thoroughfares for #Herrimanfire. Please stay out of the area!
19 Sep 10

BeReadyHerriman Be Ready Herriman
West bound 13400 South at 5600 West is now being shut down. #Herrimanfire
18 Sep 10

BeReadyHerriman Be Ready Herriman
Mayor Mills has signed a declaration of State of Emergency. #Herrimanfire
19 Sep 10

BeReadyHerriman Be Ready Herriman
Confirming: Everything on Rose Canyon Road is a MANDATORY EVACUATION. Herriman High School 11917 S 6000 W is the shelter location.
19 Sep 10

BeReadyHerriman Be Ready Herriman
CERT Teams: If you have not specifically been activated, please stay home and off the roads.
19 Sep 10

BeReadyHerriman Be Ready Herriman
MEDIA: Please advise to STAY OUT of HERRIMAN and off the roads unless they are being evacuated.
19 Sep 10

BeReadyHerriman Be Ready Herriman
Media: Please request everyone stay OUT of Herriman. There are few routes in and out and congestion is now becoming a problem.
19 Sep 10

Twitter has emerged as a leader in this type of rapid information dissemination and is now used widely by politicians and government spokespeople to connect with their constituents, answer questions, and respond to concerns.[37] Mayor Cody Booker of Newark, New Jersey received accolades for his 'tweeting' after a late-December 2010 blizzard, using his Twitter platform as a way to respond to calls of snow bound streets.[38] The City of Toronto actively uses Twitter as a platform for its municipal 311 services (www.twitter.com/311Toronto), responding to residents' complaints of missed garbage pick-up and potholes, and providing quick information or weblinks when needed.

> **Six quick tips for engaging with the public online. Be:**
> - Helpful
> - Humble
> - Not overly promotional
> - Positive
> - Productive
> - Interesting

These examples speak volumes to the power of social media. However, digital communication is not without its risks. Before proceeding with any social media communications effort, it is important to be aware of the following:[39]

- Low participation —it is difficult to get people involved generally, and especially online, where there are plenty of other entertainment and social attractions. Simply setting up a Facebook page, for example, does little to encourage active participation and engagement.

- Lack of representation and diversity — those active on social media and Web 2.0 often tend to be younger, more educated, and of higher socio-economic status than general populations as a whole.

- Lower quality contributions and 'noise' — it can be difficult to find and sift through good quality information online.

- Loss of control of the message — improper use of government channels by both government communicators (such as posting sensitive or incorrect information) and the public as commenters (such as overt negativity, or 'trolling') can disrupt communication efforts. A local social media communication strategy can help lay out guidelines for posting and moderating online discussions.

Don't put all of your communication efforts and eggs into one social media basket. The use of these tools can reach new people and engage those who may not normally get engaged with municipal issues, but they should not be used at the expense of more traditional forms of communication and engagement (as outlined earlier in this section).

TAKE HOME MESSAGES

→ Communication techniques should be memorable, relevant and understandable.

→ Be clear with your message, do not obscure it with excess information.

→ Choose techniques that are most suited to the information being communicated and the audience.

→ Avoid misleading people as much as possible by addressing both the content of a communication method and what it is lacking.

→ Be realistic with your communication methods and choose those that are feasible.

→ Use a combination of communication techniques to reach as broad an audience as possible

ENDNOTES

Cover: Treasury Board of Canada Secretariat. (2006). *Communications Policy of the Government of Canada*. Retrieved from http://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=12316&section=text

2. OECD. (1999). Environmental Communication: Applying Communication Tools Towards Sustainable Development. Paris: OECD. Retrieved from http://www.oecd.org/dataoecd/8/49/2447061.pdf (February 23, 2012)

3. Ware, C. (2004). *Information Visualization* (2nd ed.) San Francisco, CA: Morgan Kauffmann.

4. Ibid.

5. Shome, D. and S. Marx. (2007). The Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public. Center for Research on Environmental Decisions (CRED), Columbia University. Retrieved from http://www.cred.columbia.edu/guide/pdfs/CREDguide_full-res.pdf

6. Bresciano, S. and Eppler, M.J. (2008) *The Risks of Visualization: A Classification of Disadvantages Associated with Graphic Representations of Information*. University of Lugano Institute for Corporate Communication, Lugano Switzerland.

7. Ibid.

8. Ibid.

9. Griffin, J.R. (n.d.). "Fighting Climate Change to Secure a Sustainable Future for Maryland." Maryland Department of Natural Resources. Retrieved from http://www.dnr.state.md.us/climatechange/

10. Shaugnessy, G. (2009). Coast-Smart Communities: Adapting to Climate Change in Maryland. Presentation at NOAA 2009 Northeast/Mid-Atlantic Virtual Regional Coastal Zone Management Meeting. Retrieved from http://coastalmanagement.noaa.gov/news/archivedmtgdocs/2009neregmtg/welcome.html

11. Tatebe, K., A. Shaw, S. Sheppard. (2010). Technical Report on Local Climate Change Visioning for Delta: Findings and Recommendations, Version 1.0. Report prepared for the Corporation of Delta. Retrieved from http://www.calp.forestry.ubc.ca/wp-content/uploads/2010/02/Delta-Technical-Report_V1-0.pdf

12. Card, S.K., Mackinlay, J.D., Shneiderman, B.. (1999) *Readings in information visualization: using vision to think*. Morgan Kaufmann Publishers Inc. San Francisco, CA, USA.

13. Eppler, M.J. (2004) Facilitating Knowledge Communication through Joint Interactive Visualization. *Journal of Universal Computer Science*, 10 (6), 683-690.

14. Arafah, B. (2010, May 21). Huge Infographics Design Resources: Overview, Principles, Tips and Examples. Retrieved from http://www.onextrapixel.com/2010/05/21/huge-infographics-design-resources-overview-principles-tips-and-examples/

15. Johnson, J. (2011, September 20). 10 Tips for Designing Better Infographics. Retrieved from http://designshack.net/articles/graphics/10-tips-for-designing-better-infographics/

16. Frye, C. (2001). Making Maps That Communicate. *ArcUser*. Retrieved from http://www.esri.com/news/arcuser/1001/files/bettermaps.pdf

17. UN Habitat. (2011). *Planning for Climate Change: A Strategic, Values-based Approach for Urban Planners*. Retrieved from http://www.unhabitat.org/pmss/listItemDetails.aspx?publicationID=3164

18. EPA. (2002). *Superfund Community Involvement Toolkit.* Retrieved from http://www.clu-in.org/cihandbook/CIOCpage/

19. Hilligoss, S. and T. Howard. (2002). Visual Communication: A Writer's Guide. 2nd Edition. Pearson Education Inc. (Publishing as Longman Publishers). Retrieved from http://www.ablongman.com/mycomplab_content/pdf/long_hilligoss.pdf

20. City of Victoria. (2011). *King Tide Offers a Look to the Future* Press Release. Retrieved from www.victoria.ca/contentmanager/press/111221_mr.pdf

21. FEMA. (n.d.). *Tips for Writing an Effective Press Release*. Retrieved from http://www.fema.gov/pdf/government/grant/resources/hbt_ii_9.pdf

22. EPA. (2002). *Superfund Community Involvement Toolkit.* Retrieved from http://www.clu-in.org/cihandbook/CIOCpage/

24. Rupnow, J.H., J.W. King, L.K. Johnson. (2001). Thinking Verbally: Communication Tips for Technical Presentations. *Food Technology 55* (1), pp. 46-48. Retrieved from https://www.am-fe.ift.org/pdfs/ThinkingVerballyFoodTech2001CommunicationTips.pdf

25. Ibid.

26. Hilligoss, S. and T. Howard. (2002). Visual Communication: A Writer's Guide. 2nd Edition. Pearson Education Inc. (Publishing as Longman Publishers). Retrieved from http://www.ablongman.com/mycomplab_content/pdf/long_hilligoss.pdf

27. Shome, D. and S. Marx. (2007). The Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public. Center for Research on Environmental Decisions (CRED), Columbia University. Retrieved from http://www.cred.columbia.edu/guide/pdfs/CREDguide_full-res.pdf

28. Ibid.

29. Penney, J. and I. Wieditz. (2007). *Cities Preparing for Climate Change: A Study of Six Urban Regions.* Toronto: Clean Air Partnership.

30. The Field Museum (2012). *Engaging Chicago's Diverse Communities in the Chicago Climate Action Plan*. Retrieved from http://fieldmuseum.org/explore/department/ecco/engaging-chicago-communities-climate-action

31. Ibid.

32. United Kingdom Central Office of Information. (2009). Engaging through social media: A guide for civil servants. Retrieved online from http://coi.gov.uk/documents/Engaging_through_social_media.pdf

33. Maibach, E., Nisbet, M., and Weathers, M. (2011). *Conveying the Human Implications of Climate Change: A Climate Change Communication Primer for Public Health Professionals.* Fairfax, VA: George Mason University Center for Climate Change Communication. Available at:

34. World Economic Forum. (2011). *The Future of Government: Lessons Learned from around the World*, p. 27. Retrieved from http://www3.weforum.org/docs/EU11/WEF_EU11_FutureofGovernment_Report.pdf

35. Davies, A. and D. Lithwick. (2010). *Government 2.0 and Access to Information: 1. Recent Developments in Proactive Disclosure and Open Data in Canada*. Retrieved from http://www.parl.gc.ca/Content/LOP/ResearchPublications/2010-14-e.htm

36. Thomas, G. in Ressler, S. (2012, January 30). More than Fans, Followers and Likes: Measuring Social Media in Local Government. Huffington Post. Retrieved from http://www.huffingtonpost.com/steve-ressler/local-government-social-media_b_1241445.html?ref=tw

37. Schorr, J. and A. Stevens. (2011, June 2). Local democracy strengthened by new social media platforms. Retrieved from http://www.citymayors.com/marketing/social-media-cities.html

38. Gregory, S. (2010, December 29). Cory Booker: The Mayor of Twitter and Blizzard Superhero. *Time Magazine U.S.* Retrieved from http://www.time.com/time/nation/article/0,8599,2039945,00.html

39. Osimo, D. (2008). Web 2.0 in Government: Why and How? European Commission Joint Research Centre and Institute for Prospective Technological Studies. Retrieved online from http://ftp.jrc.es/EURdoc/JRC45269.pdf

Courage doesn't always roar. Sometimes courage is the little voice at the end of the day that says I'll try again tomorrow.

- Mary Anne Radmacher

COMMUNICATION
CHALLENGES

COMMUNICATION CHALLENGES

Due in large part to the complexities of climate change and conveying these to your audience, effective communication is often a process of trial and error. To prevent these challenges from becoming barriers, it can be helpful to anticipate what you are likely to encounter and develop strategies for overcoming any such challenges.

The intention of this resource is to inform, educate and motivate municipal practitioners to communicate and engage municipal staff and stakeholders, as well the members of the community, on climate change issues. However, despite the diversity of communication tools and strategies available to municipal practitioners – many of which have been outlined in the preceding sections of this resource – there will still be challenges along the way and it is important to know how to most effectively deal with these.

The following table highlights the changes in attitudes, perceptions, and knowledge that need to happen in order to fully meet the challenge of preparing for a changing climate.[1] They are tough, but through effective communication strategies, they can be overcome and a more fruitful conversation about municipal climate change can begin.

Where We Are		Where We Want to Be
People aren't clear what causes climate change and don't understand what needs to be done to tackle it.	→	People understand climate change and what is causing it.
People think that climate change won't affect them personally.	→	People see the impact it may have on their lives.
People don't include climate change as an important issue when making decisions	→	People include climate change when making their decisions and embrace the positive changes that result.
Climate change is a depressing and negative issue	→	People feel empowered and positive about tackling climate change.

As illustrated in the quote below, public agencies already face considerable challenges when communicating; add to this the complexity of climate change, and the task becomes even more difficult.

> " *The crucial importance of communication, and the highly varied and dynamic nature of communications...means that this area should be approached in a strategic, anticipatory, planned, and coordinated manner. To state that this objective is difficult to accomplish in practice qualifies as a gigantic understatement. Planning for, structuring, conducting, and coordinating communications in a wide range of specialized and complicated policy environments, across numerous departments and agencies, in an era of evolving digital technologies, at a time when there is growing insistence on greater transparency, proactive disclosure, and accountability, and when public trust and confidence in governments is low, all combine to give rise to a challenging new era in public sector communications.* [4]

While we are used to weather fluctuating, we are generally quite certain about the climate and what it is supposed to bring on a seasonal basis. With the slower pace at which climate changes, it may be tempting to wait for more pronounced climatic changes to take effect and respond to them then. But this is a passive approach, one that dismisses each extreme weather event as 'natural variability', and which fails to pick up on the long-term trend of a changing climate.[2] This attitude poses real challenges when dealing with climate risks, because it creates a perception that the greatest climate risks will only occur several years into the future.

CHALLENGE #1—BUILDING EFFICACY

In order for people to take action on climate change, they need to care about the issues and be motivated to take action. The Climate Leadership Initiative out of the University of Oregon identified five main challenges to building efficacy – that is, a sense that one has the capacity to affect real change.[5] They are:

The Kitchen Sink Environmentalism Challenge: argues that when people are faced with an all-encompassing issue like climate change, which seems to touch on everything, they have difficulty knowing what to think about or which solutions to support.

The Leaders Are Taking Care of It Challenge: suggests that people often feel overwhelmed by how large an issue like climate change is, and think that they cannot do anything about it. They believe that it is a national and international issue that is being dealt with by leaders at those scales.

The Little Things Make a Difference Challenge: emphasizes the role of individual actions, such as changing light bulbs or recycling household waste, which can obscure the need for broader policy and community changes.

The Perfection Challenge: claims that many people want to be active in environmental initiatives, but are paralyzed by a perception that any action they take won't be good enough.

The Environmental Overload Challenge: argues that 'sustainability' and 'green' have become buzzwords that are used ubiquitously by organizations as selling points, which means that real messages of action are lost in the crowd.

Helping people understand that they, and the rest of society in which they live, have the skills, knowledge, and tools to address climate change and make a difference is difficult for climate leaders. Building this efficacy around climate change involves:

- Communicating real-world examples on how climate change is being addressed.
- Emphasizing how individuals (or the municipalities they work for or represent) can make a difference themselves.
- Connecting climate change to other priority issues.
- Focusing on tangible and lasting solutions.
- Giving the audience – whether it is residents, businesses, or government – a clear role to play in the process of addressing climate change.

In some ways, climate change adaptation may be an easier message to communicate than climate change mitigation, because the impacts of the global phenomenon are manifest locally and directly, where people can see (and are affected by) them on a regular basis.[6]

CHALLENGE #2—THE ART OF CONVINCING

During extensive consultations with municipal practitioners across the United States by the Climate Leadership Academy, practitioners have repeatedly said that they need help in persuading their colleagues, elected officials, and residents to take action on climate change. They note that much of the resistance has to do with a lack of understanding of the risks of climate change, and that the greatest of these risks will be felt years into the future.[7] A significant amount of forward thinking and planning is thus required.

Also challenging can be the use of technical jargon or other language barriers that make it difficult for those receiving the messages to understand them. Climate change has significant "entry costs" – that is, the information involved in fully understanding the issue is complex and challenging.[8] So, as has been mentioned several times throughout this resource, messages have to be crafted for their intended audiences. Failure to do so can render attempts at communication meaningless.

Along with overcoming economic, social and structural barriers to climate change adaptation and mitigation, governments also have to overcome many of the barriers identified during the communication process in order to facilitate the widespread uptake of climate change principles and actions. A process for doing so could include elements of the following actions:[10]

- A base level of climate change knowledge or information should be provided to stakeholders, decision-makers and the public through messengers they know and trust.

- Use local examples and downscale your information as much as possible – a two degree increase in the world's average temperature by a future date does not mean much to anyone, but 20% more rain annually in a specific municipality does.

- Sustain communication in appropriate ways so that the issue does not fall off the radar. Remember, people perceive an issue as being important when they are subject to more news and information on it, but be aware that this has a shelf life.

- The important information should be communicated in a way that is meaningful and linked to the concerns of those receiving the information: if it is legal liability, it should be framed in a legal context; if it is cost, it should be framed as a financial issue; if it is social-wellbeing, it should be framed as a societal issue.

- Emphasize the individual benefits of climate change adaptation and mitigation and make it personally relevant to improve buy-in from the audience.

- As there is often limited success in changing the values which underpin sustainable behaviour using strictly regulation and economic measures, long-term citizen education that creates community values and environmental stewardship is required to get long-term buy-in.

- Follow up with your audience and their perspective on climate change on a regular basis, exploring their understanding of these issues regularly. This can help inform policy development and implementation by keeping it relevant to their needs and circumstances.

CHALLENGE #3—TIME COMMITMENT

Often, an audience will respond to a call to action with concerns about time commitments. Municipal staff are especially stretched and cannot comprehend adding something else, like adaptation planning, to their work portfolio. To help combat this response, it can be valuable to spell out the varying degrees to which their involvement or action will be required. Highlight, through techniques outlined in this resource, the many intersections that their core activities have with climate change adaptation and mitigation. For example, health workers may already be dealing with the public during extended heat waves or educating them about vector-borne diseases that may be exacerbated by shifting climatic zones. Making these connections to their daily work can significantly increase the capacity of municipal staff to implement potential climate change impacts into their working routines and knowledge bases.

The National Resource Defense Council (NRDC) in the United States suggests a "Minute, Morning, Month" approach to help citizens determine what type of positive environmental action they are able to take, depending on their availability or type of time commitment required. This approach could be modified for climate change adaptation or for municipal officials who are already overwhelmed with the amount of work they have on the go. For example:

- *Minute* – switch to more energy-efficient lightbulbs
- *Morning* – organize an inter-departmental meeting to discuss municipal climate change vulnerabilities
- *Month* – draft a strategy and council resolution for moving forward on developing a climate change adaptation plan

CHALLENGE #4—CLIMATE CHANGE UNCERTAINTY

The perceived uncertainty around climate change is one of the main reasons why there is contention around action and buy-in. The earth's climate and the forces that govern it, both natural and anthropogenic, is infinitely complex. Climate science, like any other branch of science, is based around degrees of confidence that have within them certain levels of uncertainty. These are unavoidable, and despite the fact that scientists have a fairly good grasp at how the climate system functions and what affects it, they can never have 100% confidence in their projections.[11]

Three main areas of uncertainty exist when making climate change projections:[12]
1. The lack of complete knowledge of how climate works;
2. Natural variability in the climate system; and
3. The inability to predict what humans will do in the future that has impacts on the climate.

The first area of uncertainty will lessen over time as further climate science research is done. However, natural variability will always be there, and predicting future climate outcomes based on assumed future human behaviour will not ever be an exact science. What scientists can do is work with the best information available and continuously update data sets with new information as it becomes available.

Humans, however, have a natural affinity for predictability, making this information on uncertainty difficult to hear. This is the communicator's problem: how to communicate the realities of climate science when there is nothing that is 100% certain.

The IPCC has developed a confidence terminology to communicate uncertainty in layman's terms, where confidence is defined as the level of confidence in scientific understanding.[13]

Confidence Terminology	Degree of confidence in being correct
Very high confidence	At least 9 out of 10
High confidence	About 8 out of 10
Medium confidence	About 5 out of 10
Low confidence	About 2 out of 10
Very low confidence	Less than 1 out of 10 chance

Similarly, the IPCC has developed a likelihood terminology to describe the likelihood of expected outcomes.[14]

Likelihood Terminology	Likelihood of the occurrence/outcome
Virtually certain	> 99% probability
Extremely likely	> 95% probability
Very likely	> 90% probability
Likely	> 66% probability
More likely than not	> 50% probability
About as likely as not	> 33 to 66% probability
Unlikely	< 33% probability
Very unlikely	< 10% probability
Extremely unlikely	< 5% probability
Exceptionally unlikely	< 1% probability

This type of language is relatively accessible, and while there are issues with the interpretations of these words and values by the public,[15] when coupled with the precautionary principle (see below), they can be effective ways to communicate the confidence and likelihood of projected climate changes and their impacts.

Precautionary Principle

The precautionary principle is often used when absolute certainty is not known or cannot be determined. It states that the burden of proof should not be on proving that an action *will* cause human or environmental harm, but instead on proving that it *will not* cause harm. Climate change is one arena where the precautionary principle can be applied. The 1992 United Nations Conference on Environment and Development produced the United Nations Framework on Climate Change (UNFCC), which invoked the precautionary principle in this way, stating that governments should "take precautionary measures to anticipate, prevent or minimize the causes of climate change and mitigate its adverse effects. Where there are threats of serious or irreversible damage, lack of full scientific certainty should not be used as a reason for postponing such measures..."[16]

What this ultimately means is that if there is a reasonable chance that something harmful will happen, there is no reason not to take measures that will reduce harm.

This can be likened to taking out insurance on a house or vehicle or doing regular maintenance and upkeep on your car to keep things in good working order. You do not want something damaging to happen and you hope that nothing will occur, but there is no way to reduce the probability of something occurring to zero. So, you keep up regular maintenance and you take out insurance to help offset potential harm should anything unexpected go wrong. Taking measures to adapt to climate change acknowledges that future climate will likely affect municipal services and infrastructure, and that reasonable steps should be taken to lessen or prevent their impacts, and make recovery easier.

CHALLENGE #5—DEALING WITH SKEPTICS AND DENIERS

Skepticism is a natural and healthy part of any scientific discipline, however climate change skeptics and deniers criticize evidence that supports man-made climate change. When communicating climate change and scientific uncertainty with a skeptical audience, it is important to remember a few things:

- Address stated inaccuracies with facts and do not let errors stand unchallenged.
- Keep conversations civil and calm.
- When appropriate, acknowledge what you do not know and promise to follow up with them when you have the answer at hand.

If you are faced with trying to explain something complex or contentious, there are several excellent resources online that can help with particularly difficult questions or issues:

- Grist, a long-running online environmental news and commentary website, offers a Special Series called "How to Talk to a Climate Skeptic: Responses to the most common skeptical arguments on global warming" that lists dozens of the most typical arguments skeptics bring up.
- Skeptical Science is another great online resource that answers hundreds of questions and offers summaries of peer-reviewed science and how these can be used in rebuttals to skeptical arguments. It has even developed smartphone applications for those needing to answer skeptics on the go!

- Finally, the Climate Science Rapid Response Team is a group of 135 enlisted university or government laboratory-based scientists around the world that have made themselves available to quickly provide accurate scientific information to government representatives and journalists on all aspects of climate change. Questions are submitted through an enquiry form on the website (image below), four 'matchmakers' forward it to the most appropriate scientist, and a response is returned much more quickly than through more traditional channels.
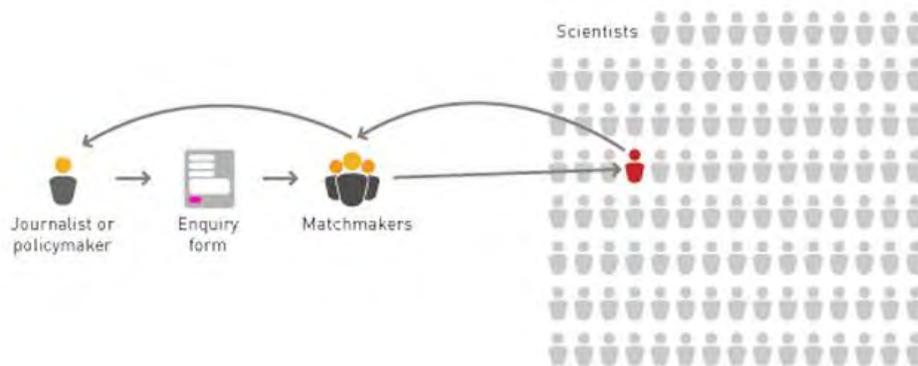
As was discussed in the WHAT section, framing climate change in a way that is most appropriate for your audience is a crucial step in any climate communications process. This process becomes particularly important when decision-makers are themselves skeptical about climate change or the need to adapt locally to its effects. A few of the main arguments against climate change action are presented below, where answers are provided to help aid the conversation with climate change skeptics.

How to Respond to Climate Change Skeptics[17,18]

Skeptics' claim: It is abnormally cold today in my city, where is this global warming?

Weather and climate, while connected, differ by a function of time. We experience weather every day, but it is the aggregated collection of weather over a long period of time (usually at least thirty years) that determines climate. The term "global warming" can also be misleading, as colder than average days (or months, or even years) do not necessarily say anything about a location's climate. And while the aggregate temperatures on the earth may be rising, some parts of the world are getting colder, and thus "climate change" better articulates the point.

Skeptics' claim: Scientists do not agree on climate change, so it can't be real.

Answer: All of the world's authoritative scientific bodies agree wholeheartedly that climate change is occurring, that it is anthropogenic (human-caused), and that there are dire consequences if it is left unabated and not adapted to. Science speaks in the language of probabilities – no scientist will say that any theory is absolutely, 100% certain, but for all intents and purposes, when the vast majority of scientists say that an issue is "very likely" and "strongly indicated", it essentially means that it *will* occur.

There is a very small handful of fringe scientists who may disagree with the overwhelming consensus on climate change, but their conclusions are based on spurious science and are often funded by groups who have a vested interest in keeping policy and action business-as-usual. The science is less certain on how quickly climate change will occur, although evidence suggests that it will likely happen more quickly than initially thought. Despite these uncertainties, "no rational human being rushes headlong into an unknown when there is even a 10 percent chance of death or serious injury. Why should we demand 100 percent certainty before avoiding this danger?"[19]

Skeptic's claim: Warmer weather may be good for Canadian municipalities.
While there may be some opportunities that come as a result of climate change for select Canadian regions and municipalities, including longer growing seasons and less harsh winters, these will likely come with other variables and unknown extremes that are not currently accounted for. Ecosystems develop around a specific climate, and infrastructure and economies are similarly developed according to climate. Though these can adjust somewhat to new opportunities, rapid change to the climate can have serious impacts on the natural and built environments of regions and municipalities in Canada and around the world.

Skeptics' claim: Acting on climate change is unaffordable.
Climate change is one of the biggest issues facing the world today, and addressing both its causes and effects will be expensive and challenging. However, not addressing the causes and effects of climate change will be even more costly. The *Stern Review on the Economics of Climate Change*, prepared for the British Government in 2006, states that climate change, unabated, will result in a global loss of between 5-20% of GDP "now and forever".[20] At the same time, there is currently considerable opportunity for economic development in clean energy technology and adapting to changing climates, as is outlined in the National Round Table on the Environment and the Economy's 2011 report *Paying the Price: The Economic Impacts of Climate Change for Canada*.

Reframing the Issue

Mayor Michael Bloomberg of New York said in 2009 that "planning for climate change today is less expensive than rebuilding an entire network after a catastrophe. We cannot wait until after our infrastructure has been compromised to begin to plan for the effects of climate change now."[21] In large part because of Mayor Bloomberg's leadership, New York City is a leader in planning for and adapting to climate change in North America. Unfortunately, not all municipalities will have such a strong leader on the climate change adaptation file.

Because greenhouse gases and the atmosphere know no political boundaries, climate change is often seen as a global issue that requires widespread cooperation and planning for global solutions.

In many ways, it is why we have seen considerable international effort through the United Nations Framework Convention on Climate Change and the Kyoto Protocol. However, the effects of global climate change manifest themselves as very real impacts at the local level, where adaptation actions will be required.

The duty to responsibly manage the risks facing a community, its residents, and its assets are one of the main roles that elected officials and senior management must play. The notions of legal liability and the protection of assets are extremely important considerations, regardless of the reasons for any weather event that results in disruptions, damages, or injuries. Ultimately, echoing Mayor Bloomberg, a responsible municipality cannot put off planning for a catastrophic weather event until after the event has occurred.

A risk-based approach to business planning at the municipal level can provide good common ground on which to meet and work towards becoming more climate-adaptive.[22] If we acknowledge that climate and weather events can impact how the municipality is run, preparing for uncertainties and making decisions to address them can be win-win situations. Decisions can be made that will help ensure the long-term viability of infrastructure, programs, departments or even municipalities while being fiscally prudent. For a municipality, the timeframes that should be considered and planned for depend on the weather event, its projected severity, and how vulnerable the municipality is to its impacts.
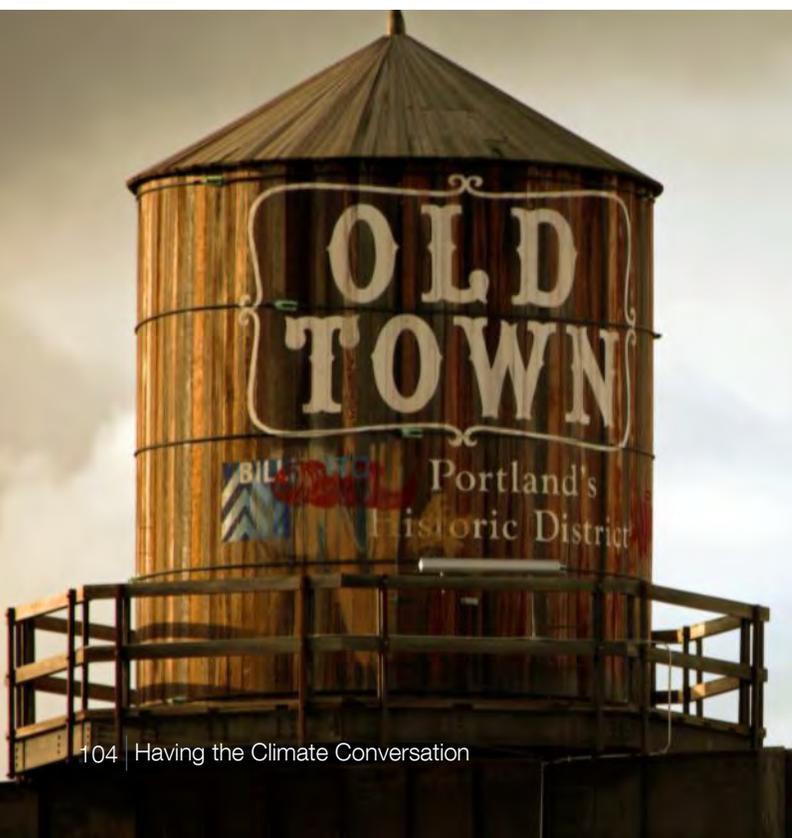
GENERAL CHALLENGES WITH COMMUNICATION

There are still general concerns that many municipalities and their employees will have.[23] These may include:

- The perception that municipalities spending tax dollars on advertising and communication is unwise, prompting nervous directors and public officials to provide fewer resources to communicating municipal issues, services and programs.

- Communication by municipal staff on specific issues is often hindered by the political process whereby councils have to vote prior to formal communication taking place.

- There is often a disconnect between communications professionals and other departments in the municipality, leading to lost opportunities for communicating specific programs and services as they unfold.

- The lack of ability to firmly or accurately measure the return on investment for communication can make it difficult to justify appropriate budgets or staff resourcing.

Your municipality may experience some or all of these challenges. Each municipality will have slightly different ways of finding solutions to these challenges, but a couple of options exist that are well worth exploring.

One is to branch out of the traditional view of government communication that, more often than not, is based around one-way communication from the top down. Instead, begin to facilitate two-way communication, both internally and externally with the public and stakeholders (see the HOW section on page 60).

The second option involves bringing those who communicate on behalf of the government – larger municipalities often have separate communications departments – into the decision-making process at the departmental level so that they understand issues which they are talking about.[24] Bringing these people into decision-making processes early and embedding the importance of ongoing communication (both internally and externally) throughout the development and implementation of any particular adaptation plan, service or measure can be very effective in overcoming some of the above mentioned challenges. However, as discussed in the WHO section of this resource, even where there are communications departments, everyone working on climate change at the municipality needs to see themselves as a communicator.

ENDNOTES

1. Department for Communities and Local Government. (n.d.). Climate Change Communication Strategy: A West Sussex Case Study. for e-space - European Planning: Adapting to Climate Events. Retrieved from http://www.espace-project.org/part1/publications/reading/WSCCClimateCommunications%20Strategy.pdf
2. United Kingdom Climate Impacts Programme (UKCIP). CLARA: Climate Adaptation Resource for Advisors. Retrieved from http://www.ukcip.org.uk/clara/
3. Pike, C. Doppelt, B., and Herr, M,. (2010). *Climate Communications and Behavior Change: A Guide for Practitioners*. The Climate Leadership Initiative at the University of Oregon. Eugene, OR: University of Oregon. Retrieved from http://climlead.uoregon.edu/node/156
4. Thomas, P.G. (2009). Who Is Getting the Message? Communications at the Centre of Government. In C. Forcese (Ed.). Public Policy Issues and the Oliphant Commission: Independent Research Studies. Prepared for Commission of Inquiry into Certain Allegations Respecting Business and Financial Dealings Between Karlheinz Schreiber and the Right Honourable Brian Mulroney, pp. 77-136. Retrieved from http://publications.gc.ca/collections/collection_2010/bcp-pco/CP32-92-1-2010-eng.pdf
5. Pike, C. Doppelt, B., and Herr, M,. (2010). *Climate Communications and Behavior Change: A Guide for Practitioners*. The Climate Leadership Initiative at the University of Oregon. Eugene, OR: University of Oregon. Retrieved from http://climlead.uoregon.edu/node/156
6. Lorenzoni, I., S. Nicholson-Cole, L. Whitmarsh. (2007). Barries perceived to engaging with climate change among the UK public and their policy implications. *Global Environmental Change 17*, 445-459.
7. Pike, C. Doppelt, B., and Herr, M,. (2010). *Climate Communications and Behavior Change: A Guide for Practitioners*. The Climate Leadership Initiative at the University of Oregon. Eugene, OR: University of Oregon. Retrieved from http://climlead.uoregon.edu/node/156
8. Roser-Renouf, C. and E. Maibach. (2010). Communicating climate change. In Susanna Priest (Ed.) *Encyclopedia of Science and Technology Communication*. Sage: Thousand Oaks, CA, pp. 141-147.
9. Ibid.
10. Lorenzoni, I., S. Nicholson-Cole, L. Whitmarsh. (2007). Barries perceived to engaging with climate change among the UK public and their policy implications. *Global Environmental Change 17*, 445-459.
11. Shome, D. and S. Marx. (2007). The Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public. Center for Research on Environmental Decisions (CRED), Columbia University. Retrieved from http://www.cred.columbia.edu/guide/pdfs/CREDguide_full-res.pdf
12. Ibid.
13. Solomon, S., D. Qin, M. Manning, Z. Chen, M. Marquis, K.B. Avert, M. Tignor, and H.L. Miller (eds.). (2007). Contribution of Working Group I to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change, 2007. Cambridge, UK and New York: Cambridge University Press. Retrieved from http://www.ipcc.ch/publications_and_data/ar4/wg1/en/ch1s1-6.html
14. Ibid.
15. Shome, D. and S. Marx. (2007). The Psychology of Climate Change Communication: A Guide for Scientists, Journalists, Educators, Political Aides, and the Interested Public. Center for Research on Environmental Decisions (CRED), Columbia University. Retrieved from http://www.cred.columbia.edu/guide/pdfs/CREDguide_full-res.pdf
16. United Nations. (1992). *United Nations Framework Convention on Climate Change*. Retrieved from http://unfccc.int/essential_background/convention/background/items/1355.php
17. The Pembina Institute. (n.d.). *Communicating Climate Change Fact Sheet: Why Communication Counts*. Retrieved from http://pubs.pembina.org/reports/communications-factsheet.pdf
18. Beck, C. (2009). How to Talk to a Climate Skeptic. Retrieved from http://grist.org/series/skeptics/
19. Ibid.
20. Stern, N., S. Peters, V. Bakhshi, A. Bowen, C. Cameron, S. Catovsky, D. Crane, S. Cruickshank, S. Dietz, N. Edmonson, S.-L. Garbett, L. Hamid, G. Hoffman, D. Ingram, B. Jones, N. Patmore, H. Radcliffe, R. Sathiyarajah, M. Stock, C. Taylor, T. Vernon, H. Wanjie, and D. Zenghelis (2006). S*tern Review: The Economics of Climate Change Summary*. HM Treasury, London. Retrieved from http://www.hm-treasury.gov.uk/d/CLOSED_SHORT_executive_summary.pdf
21. Cohen, S. (February 27, 2009). Adapting to Climate Change in New York City. *New York Observer*. Retrieved from http://www.observer.com/2009/02/adapting-to-climate-change-in-new-york-city/
22. United Kingdom Climate Impacts Programme (UKCIP). CLARA: Climate Adaptation Resource for Advisors. Retrieved from http://www.ukcip.org.uk/clara/

23. Killingsworth, C. (2009). Municipal Government Communications: The Case of Local Government Communications. *The McMaster Journal of Communication 6* (1), Article 5.
24. Ibid.

Final Thoughts

Climate change is impacting Canadian communities from coast to coast to coast. It is creating added pressures on cities through: more frequent and intense droughts and inland floods that compromise local water supplies; increasingly common heat waves that threaten the health of the young and the elderly; and for those communities on the coast, enhanced sea level rise and storm surges that affect residents as well as essential infrastructure, property, and ecosystems.

In light of these effects and the complexities involved in acting on climate change, local governments have a significant role to play in communicating how climate change will affect residents and institutions in the community. Communication will play an essential role in mobilizing and maintaining action on climate change as well as empowering communities to take a proactive, long-term approach.

Having the Climate Conversation: Strategies for Local Governments offers tools and techniques for developing and implementing successful climate change communications efforts. These strategies are geared toward municipal staff, focusing on the WHY, WHO, WHAT, WHEN and HOW of communicating climate change. This resource is not meant to provide a one-size fits all solution to climate change communication but rather a variety of approaches for how to embark upon this sometimes overwhelming topic. Case studies, solution spotlights and other resources have been presented to highlight best practices and to showcase how communication strategies have been successfully implemented in other communities.

In moving forward with your community's communications efforts, consider the following key messages.
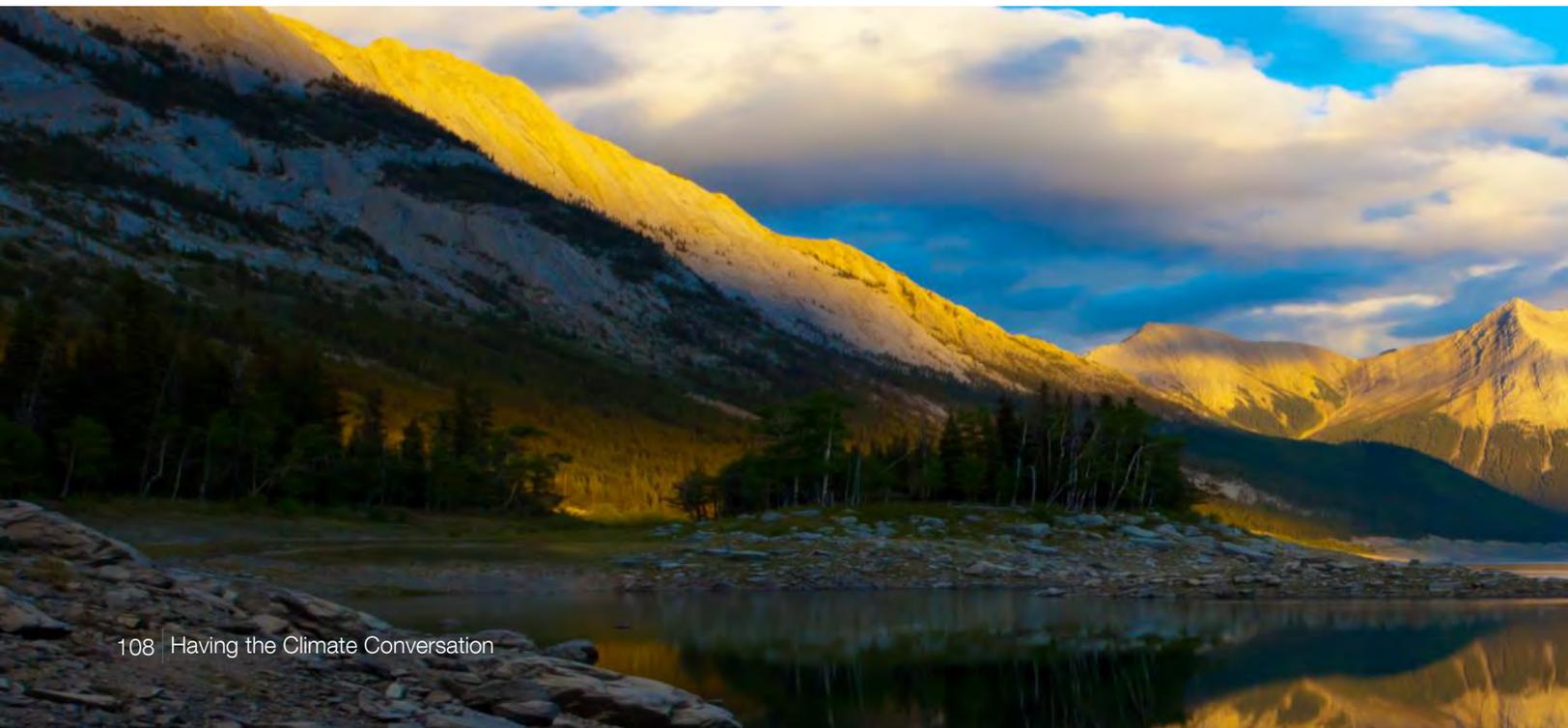
An image of a polar bear may draw on emotions and create a general sense of concern; however, images of local neighbourhoods, storefronts, and schools flooded out will have more immediacy and relevance, and may be more effective at motivating action. Making climate change real by tying your messages to people's everyday lives and talking about how climate change will affect daily habits will be a critical first step in any communications effort.

Be aware of how people's values shape their beliefs on climate change
Providing information is not enough. The images and graphs that are frequently used to communicate climate science are limited in their ability to inspire the sense of urgency that is often a prerequisite for action. As a communicator you will need to understand how values and beliefs shape opinions. When speaking to a Board of Trade or Chamber of Commerce, you may want to focus more on economic messages rather than ecological ones. Communication is not about winning debates, it is about building relationships, and you will build relationships when you understand your audience and speak to their values and priorities. When you build better relationships, you make more progress.

To capture your audience's attention, talk about climate impacts in local, immediate terms
People are most familiar with their local neighbourhoods, towns, and cities and many people have already experienced changes to the climate in recent years. This is why listening to your audience and engaging them on things they do day-to-day can be very helpful at building a better understanding of climate change. A good communications effort builds on local experiences and connects them to global climate change. It is not difficult to get people talking about the severity of storms or how early warm temperatures arrive in the spring. Framing climate change in these local and immediate terms is particularly effective at bringing citizens and stakeholders together around to the need to mitigate and adapt to these changing conditions.

Emphasize the power and practicality of local climate solutions, especially community preparedness
Climate change is a large and complex issue with potentially dire consequences, but it is important not to focus exclusively on the threats it poses to our daily lives and lifestyles. Doing so can lead an audience to feelings of despair, helplessness, and apathy. Instead, try to communicate climate change in terms of solutions that are positive and empowering. Point to what other jurisdictions have done to provide inspiration, and tap into local talents and leadership to build a sense of efficacy that will generate workable solutions. Remember that people can take great pride in where they live. Messages that balance the urgency to act with the hope of bettering the community can motivate people and organizations to take action.

Address climate science in a simple, compelling way, and stress the certainties of what we know
The science surrounding climate change and its future impacts is very complex and not fully understood, leading to uncertainties that can turn people away from the issue. While this is a significant challenge for any communicator, it is not without its workable solutions. It is important to stress that there is overwhelming agreement within the science community on the causes – and impacts – of climate change. By translating technical and scientific language into more widely-understood statements, you can communicate these scientific facts without necessarily dumbing down the message you are trying to convey. Images, graphics, and local experiences appropriate to the audience can be very helpful in further driving the message home. There are a variety of resources, many of which have been outlined here, that offer very helpful tips at translating the complexities of climate science into usable, everyday communications efforts.

So it is time to stand up and have the climate conversation in your community! Make it local, make it real, and make it accessible. Emphasize solutions and give examples of ones that are already working. Be confident in the knowledge that many local governments from across the country have already begun to do so and are experiencing the direct practical benefits of engaging their communities: broadening and deepening local input, securing community support, and developing locally-made solutions. And while you as local governments are essential in setting the direction for the community and leading the charge against climate change, it is through dialogue with the broader community – residents, businesses, and organizations alike – that the required changes will be brought about.

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