



CHAPTER 4

Leadership Tools

CHAPTER 4.1

Surviving and Thriving at the Council Table

*Elected leadership brings with it some unique challenges. It's a rare politician that doesn't take a trip through controversial waters. How to keep a positive dialogue going with the electorate in controversial times? How to work with colleagues on a council or school board when your world view is in the minority? **DONNA McDONALD** has fifteen years experience in local politics in the close knit town of Nelson, British Columbia. Here she offers a succinct toolkit for surviving and thriving as a locally elected official.*

I. TIPS FOR WORKING EFFECTIVELY WITH OTHER ELECTED OFFICIALS WHO HAVE A DIFFERENT WORLDVIEW.

How do you work with others with vastly different worldviews? This is a real leadership challenge. I don't know how many team-building workshops I've been to over the years with different councils trying to answer that very question.

We've built structures with Popsicle sticks to learn to co-operate, done personality tests so we could understand the different ways we each learn and make decisions, and undertaken value-based exercises so we could relate to others' worldviews, or at least comprehend them. Then there was communications

training so that we could listen and talk to each other in non-threatening and constructive ways.

Frankly, none of it lasted more than a month! It's fun, warm, and fuzzy, but of questionable value.

So how do we tackle this challenge? It's a question that needs answering throughout the political arena, but also in our families and workplaces. And it begs for our education system to include conflict resolution and non-violent communication in the curriculum, so that we learn these basic skills that are fundamental to our success as parents, partners, or politicians.

Getting elected and then trying to figure it out doesn't really work because by then you're in an adversarial context. You've gone through an election race with winners and losers; then the winners sit around the table, and sometimes win and sometimes lose when votes are taken. We've structured the political system as a win-lose, majority-takes-all competition. It's a system that doesn't provide space or tools for better ways of decision-making.

And that's really what politics is about—how we live together in our communities, how we set priorities and make decisions without creating painful divisions and controversy. Or, briefly, how we decide who gets what when.

In response to this question, I offer these few tips:

1. Respect the dignity of the other. You may have heard of Dr. James Orbinski, an extraordinary humanitarian and former president of Doctors Without Borders. He talks about the fundamental need to respect the dignity of the other and defines that as seeing the sameness of self in the other. In other words, don't make "the other" an adversary. Try to assume good faith. Exercise patience. See the sameness of self in the other.
2. Don't let grievances pile up and harden your heart or embitter your soul. Keep the air clean. Tell the truth to the person who needs to hear it. Be brave and bold and respectful in the telling.

3. Use humour. Laugh together. Laugh at yourself. Don't take it all too seriously.

2. TIPS FOR KEEPING A POSITIVE DIALOGUE WITH COMMUNITY MEMBERS ON CONTENTIOUS ISSUES.

This situation is even tougher. We're not dealing with a small group around a table, but an amorphous mass out there somewhere, some of which are willing to engage in dialogue, and others that are not. Some it's possible to speak with and some who have made up their minds and that's that, especially when emotions run high.

Once, when I was not on council, I became interested in the idea of public participation. How do we create mechanisms or opportunities for respectful public engagement? Those opportunities exist on a continuum, from direct democracy, or decision-making by referendum, to simple representation, where voting in elections defines citizen participation.

I am currently working on a book based on two impulses—that for greater citizen engagement and that for greater civility. The two are linked, of course. Many people spurn political involvement because of the lack of civility.

But what does civility mean? The Walrus printed a piece by Mark Kingwell called "The Shout Doctrine." In it he makes an argument for civility's central place in political discourse. Civility is much more than politeness.

Kingwell says, "Civility does not mean you never take a stand or disagree with someone else. Civility means that you take those stands and argue those disagreements for the sake of the discourse itself, for its continued openness and vibrancy."

In other words, conversation is not about me and me being right, or about deal-making, or trading favours or insults. It's a commitment to honest exchange, to looking critically at both the other person's position and your own.

So how do we facilitate that community conversation, that positive dialogue? Here are a few ideas:

1. Create places for conversation. There are lots of engagement ideas out there: online at your website, through surveys, by holding conversation cafes, mayor's lunches, or Samoan circles.
2. Provide information. Meaningful dialogue is not possible if people don't have or understand the details of the issue. Too often reaction is based on a shallow understanding of issues. Information can help to deepen knowledge and understanding.
3. Be clear, to yourself and to the community, about how you will use public input. Do the people who show up for a public hearing get to vote and direct council? Or is their input one piece of the considerations before you. People often think if you don't do what they say, you weren't listening. I remember one man phoning me during the annual gay pride parade discussion, and reminding me that I had said I would listen to people. He was telling me that he and others opposed the parade and therefore he expected I would vote against it.
4. Demand and exhibit civility. Most councils have a code of conduct; maybe we need one for the community as well. But lead by example. Setting a respectful and civil tone on council will influence how community members conduct themselves.

CHAPTER 4.2

Engaging Your Community on Climate Change

Climate action in the community means much more than counting and managing greenhouse gas emissions, although this is important. It means adjusting our choices, habits, attitudes, and values. Responding to climate change affects how we live, work, vote, participate in our communities, and plan our shared future. It requires social change and it is impossible for governments to effectively address climate change by themselves.

*In this article **KERRI KLEIN**, provincial facilitator for BC Healthy Communities, offers a tour of some key engagement tools, the community engagement spectrum, and insight into why people become engaged in solving problems.*

CLIMATE CHANGE AND PEOPLE CHANGE

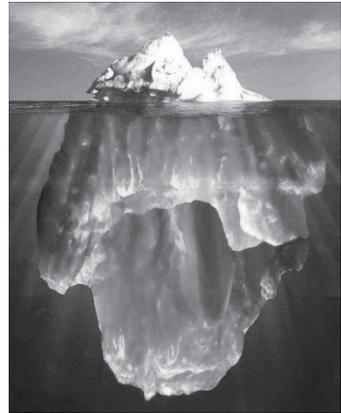
The scope of the changes we face to effectively reduce greenhouse gas emissions means significant systems changes—adapting our community plans, local economies and energy systems, to name just a few areas. Achieving systems change will require strong commitment and support from a diverse public. In other words, it will require social change. Essentially, governments, institutions, and citizens are poised to engage in

the development of a new social contract as we transition to a low carbon future.

We know that the issues around climate change are complex and connected to every aspect of life in our communities. Complex problems require innovative solutions. Governments have a critical leadership role to play in influencing structural change through the legal tools available to them. However, it is impossible for governments to effectively address climate change on their own. Citizens and civil society have a role to play.

Long-term change requires a shift in both our thinking and in our actions. We need to engage communities through approaches that will build shared commitment and capacity for responding to the challenges we face.

It's hard to talk about climate change without talking about its relevance to transportation, the economy, housing, and food. And much of what guides our decisions and behaviours around these issues is hidden, in the realm of motivations, values, worldviews, and culture. We can't see what's beneath the waterline, but it's always influencing how we respond.



Climate action in the community means much more than counting and managing greenhouse gas emissions, although this is important. It means adjusting our choices, habits, attitudes, and values. Responding to climate change affects how we live, work, vote, participate in our communities, and plan our shared future.

INTEGRATED CLIMATE ENGAGEMENT: A WAY TO AFFECT CHANGE

Imagine the year is 2030. Your community has surpassed its target and now emits half of the greenhouse gas emissions it did in 2010. Local quality of life has improved. You are seen as a leader in the province. Why was this community's response so wildly successful? What influences were at play?

Communities are complex systems. It is useful to reflect on our assumptions of what influences personal and social change. The “integral map” is a useful framework to make sure we are paying attention to all the important influences in ourselves, our culture, and our systems. The map organizes influences into four interacting quadrants that look at the realm of individual behaviours, individual experience, community culture, and systems and structures. Together they address the whole person in the whole community.ⁱ

Integrated Climate Engagement:

Psychological Influences
[inner individual]



Physical & Behavioural Influences
[outer individual]



Cultural Influences
[inner collective]



Systems Influences
[outer collective]

“Discrete changes in any of these areas are helpful, but simultaneous change in all four can foster transformational change of a society.”

Integrated Climate Engagement:

Psychological Influences [inner individual]	Physical & Behavioural Influences [outer individual]
<ul style="list-style-type: none"> ▪ Motivations ▪ Experiences ▪ Values ▪ Intentions ▪ Identity <p>“The me you can’t see.”</p>	<ul style="list-style-type: none"> ▪ Personal behaviours ▪ Observable and Measureable ▪ i.e. cycling, voting, home reno’s, going to a meeting, participation in a program <p>“The me you can see.”</p>
<ul style="list-style-type: none"> ▪ Relationships ▪ Shared values ▪ Shared worldviews ▪ Shared stories ▪ Shared goals and visions <p>“The we you can’t see.”</p>	<ul style="list-style-type: none"> ▪ Ecological systems [i.e. climate] ▪ Economic systems ▪ Political systems ▪ Policies ▪ Programs ▪ Institutions <p>“The we you can see.”</p>
Cultural Influences [inner collective]	Systems Influences [outer collective]

Working from these four perspectives provides a way to map out long-term change so that no area is left out. What would happen if we didn’t pay attention to one of these areas? For instance, what if we target behaviours without looking at personal motivations or whether the behaviours are socially acceptable? Different motivations work for different people.

Building common ground is key. To create change we have to reach a critical mass; enough people have to be doing and thinking along the same lines to create new social norms.

THE TERRAIN OF COMMUNITY ENGAGEMENT

There are many ways to describe what community engagement is and means. Building a community's capacity for "responsibility"ⁱⁱ from the inside out is one way of thinking about engagement.

The Tamarack Institute of Canada suggests:

"Community engagement means people working collaboratively, through inspired action and learning, to create and realize visions for their common futures."ⁱⁱⁱ

Community engagement is not one-way communication. It is not about selling your vision to the community. It's about facilitating community dialogue—creating space for the community to come together, to learn from each other, and to build their own vision.

There is familiar resistance to the processes of community engagement. It is often argued that community engagement is costly and takes too much time. It is argued that the same people tend to be involved again and again and that there is just too much apathy or resistance for engagement processes to work. It is also argued that special interest groups may have too much influence.

So what are the arguments for engagement on climate change?

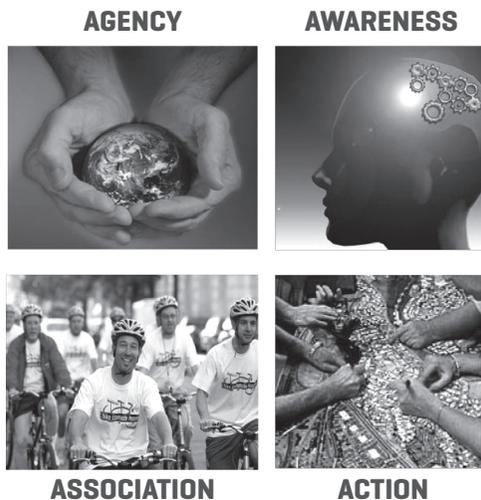
1. Engagement strengthens legitimacy. Involvement means that processes are understood, and solutions are developed and accepted by the community.
2. Engagement improves democracy. Local involvement means the voices of the community are heard and have influence. Citizens are engaged in a form of democracy beyond the ballot box.
3. Engagement builds capacity. Participation leads to new learning and new skills, and it strengthens relationships within the community.

4. Engagement means more perspectives are considered. The diversity of the community can be engaged and better solutions can be found.
5. Engagement means a better chance of success, or there is less chance of success if you don't engage. Better perspective can evolve from the process.

Community engagement is a challenging discipline that is constantly evolving with social and technological changes and new research results. There are many different frameworks and models that can be used depending on what your intention is (i.e. make a decision, get feedback on a plan, or co-create a solution). It helps to do your research ahead of time to make sure you are using the right approach to achieve the outcomes you are striving for.

WHAT INFLUENCES WHY WE ENGAGE ON CLIMATE CHANGE?

Why do people engage and stay engaged on climate change? Research shows that one is much more likely to become and stay engaged on issues of sustainability when a few other critical conditions are in place.^{iv} Ballard discusses four: awareness, association, agency and action.



from Ballard, 2006

- **Awareness.** “I am aware of the issues and the opportunities to engage.” Information about climate change alone is a poor predictor of whether one will become involved or change behaviour. Information does play an important role in ensuring that individuals understand the problem, the urgency, and the options for taking action. Information can be much more effective as a catalyst for change when the other conditions are in place.
- **Agency.** “I can take action that is personally meaningful to me.” Having agency means that we believe that our participation will make a difference. We have reason to believe that our efforts will matter.
- **Association.** “I am connected to others who are taking meaningful shared action. I am supported in a group.” The single most powerful predictor of whether one stays engaged on issues of sustainability is whether one shares similar values with others. We are influenced by the attitudes, behaviours, and norms of those around us. Association can also help to build personal agency. When we are acting with others we feel more effective than if we are acting alone.
- **Action.** “I am able to take a different action.” Actually doing something and having the ability to reflect on the results increases the likelihood of future engagement. Thus, it is important that there is a pathway for future actions an individual can take.

SINGLE ACTION BIAS^v

Researchers have noted an interesting tendency called single action bias. This refers to the phenomenon of believing that because you have taken one action, such as changing light bulbs or using less hot water, that you have done your part to contribute to the solution. Giving citizens long lists of small actions to reduce emissions can sometimes result in single action bias. Think of creative ways to communicate and frame what

individuals can do. For example, presenting options for taking action in a morning, over a month, or over the next year. This bridges short, simple actions with longer-term goals.

CANADIANS AND CLIMATE ACTION: A PARADOX.

There's another interesting study, with surprising results. Nine out of ten Canadians rank the environment as one of their top concerns. We indicate that we have pro-environmental values, but our actions suggest otherwise. Despite our reported values, we are one of the most wasteful nations in the world.

Why the gap between values and actions? What are the barriers to transitioning towards sustainability?

The research indicates that the most fundamental barrier to action on sustainability is trust, or rather mistrust, of leadership^{vi}. There is a sense of "Why should I bother changing my own lifestyle unless I trust that government and business will do their part as well?" The leadership challenge is critical. Demonstrating and communicating sustained leadership builds trust, credibility, and social values.

Other barriers noted included:

- Structural barriers: it costs more or may be less convenient to do the more sustainable action.
- Mindset barriers: internal assumptions, e.g. "I can't make a difference," and "Everyone is consuming, so my action won't make a difference."
- Information barriers: product labelling/pricing is not transparent or media representation is skewed.
- Isolation: weak sense of community and engagement; you feel like you are acting alone.
- Overwhelm and alienation: complexity of the problems and solutions; you feel like the problem is just too big. "Let's leave it up to the experts to deal with."

Albert Einstein said, "We can't solve our problems at the same level of thinking with which we created them." What can take us to the next level? The good news is that many of these barriers can be addressed with better engagement.

PUBLIC PARTNERS.

We must be involved with the public as partners. This cannot be a top-down exchange, where we push our own agendas. Public values regarding the environment are already in place. They need to be nurtured and activated through stronger engagement. The members of the community are partners when:

- We learn from each other’s perspective. No one has all the answers. This leads to shared ownership, a more informed public, and a more inclusive process.
- We assume the public has an important piece of the answer. In fact, many people without political or administrative status are ready and qualified to play a key role.
- We build opportunities for the public to:
 - work through difficult issues and connect the dots between complex issues.
 - explore multiple points of view.
 - consider the options and tradeoffs.

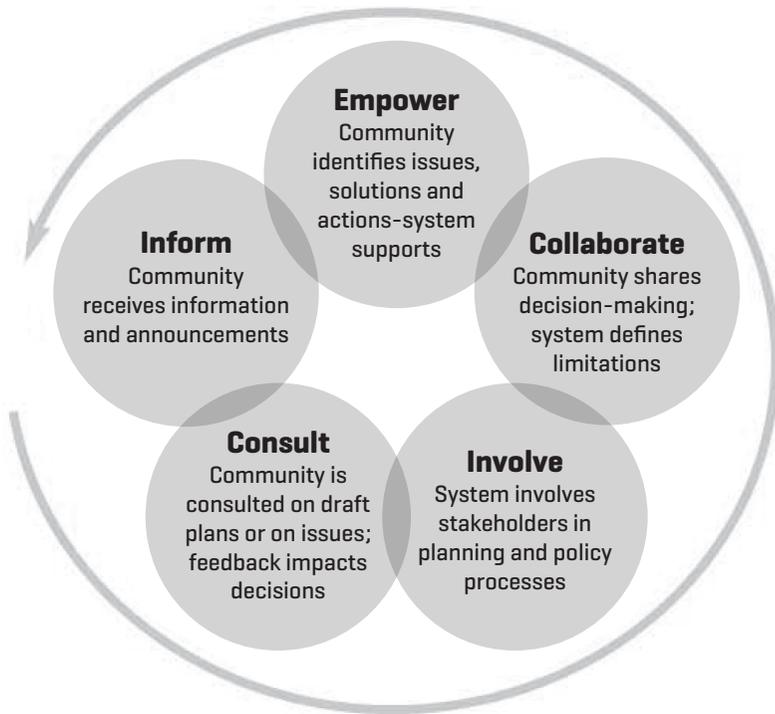
Whistler 2020: Key lessons in Community Engagement

- Define the purpose and scope of engagement from the outset.
- Ensure the leaders of the process understand the community and the audience.
- Use highly skilled facilitators.
- Establish trust and transparency.
- Maintain a balance between broad community engagement and targeted focused groups with ownership over specific issues.

“If you include me, I will be your partner, but if you exclude me I will be your judge.”

THE SPECTRUM OF COMMUNITY ENGAGEMENT

One very useful and commonly used approach to community engagement comes from the International Association of Public Participation^{vii}, fine-tuned by the Vancouver Coastal Health Authority.



- 1. Inform.** One-way communication. Information is a critical component, and must continue to be provided as you undertake deeper levels of engagement.

Goal: Provide the public with information on the issues, opportunities, and announcements.

Forms: Advertising, social marketing, fact sheets, press release, information sessions, and newsletters.

- 2. Consult.** One-way communication. In this phase, the leadership takes the role of keynote listener. You have some ideas or proposals you would like to present to the public for feedback. You are learning what the community thinks.

Goal: Consult the community on draft plans or issues, consider their feedback, and let them know how the feedback was used. This is useful when specific information

is needed. It is important to establish that the consultation is representative.

Forms: Focus groups, questionnaires, public meetings, public forums, surveys, and open house

- 3. Involve.** Two-way communication. This is a deeper level of engagement, used to when we need to learn from each other through dialogue. This level involves specific stakeholders to keep the exchange focused on specific topics.

Goal: Work directly with community stakeholders throughout the process to ensure they are understood and considered.

Forms: Workshops, community mapping, and community dialogue

- 4. Collaborate.** More than only inviting feedback, collaboration indicates you are partnering with stakeholders to identify the problem and co-create the solution. Ownership and accountability is shared. Stakeholders are strategically included so as you have appropriate diversity represented. Other levels of engagement can be used simultaneously.

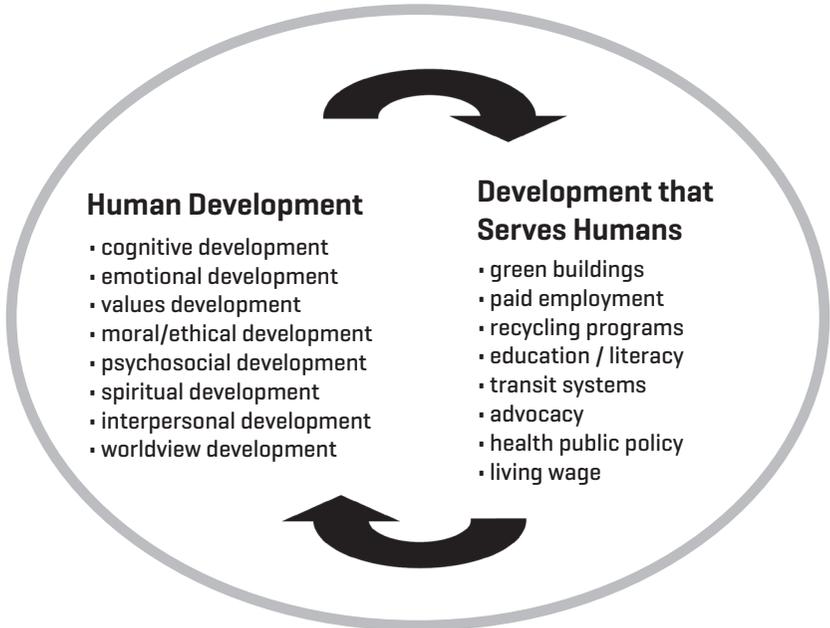
Goal: Partner with the public in each aspect of decision-making, including identification of solutions.

Forms: Advisory council, working groups, round table, think tank, and design charette.

- 5. Empower.** The public has accepted the responsibility of taking ownership over the final decision and possibly the implementation of the solution. The leadership plays the role of key supporter. The public has to be willing and have the capacity to accept the responsibility of decision-making. Leadership has to be transparent.

Goal: Place final decision-making in the hands of the public.

Forms: Funding programs, Citizen Jury, and Citizen Assembly.

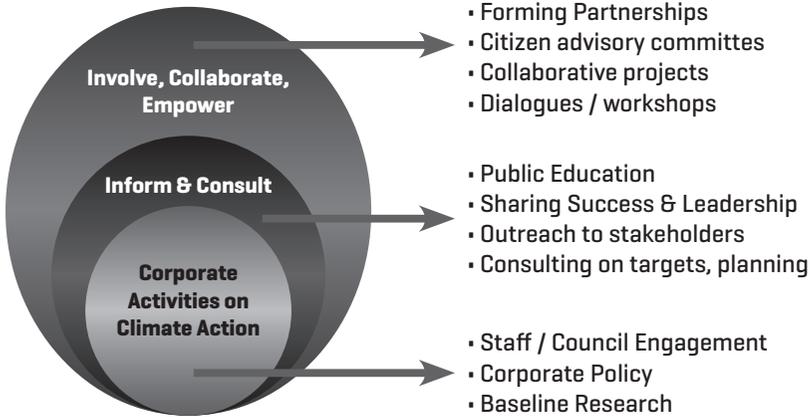


EXAMPLES OF ENGAGEMENT IN ACTION

There are several successful examples of community engagement in action. Many have posted details of their planning and engagement processes online. Four sites that may be useful:

1. Imagine Abbotsford: Visioning and Planning
2. Whistler 2020: Community Visioning
3. Digital Storytelling: 2010 Legacies Now
4. Graphic Facilitation: World Cafe

Where to begin?



So, where to begin in your community?

The easiest, smallest step is to get one's own house in order. Staff and Council become engaged first, internal policies are aligned with climate action, and baseline research can be done.

The next level involves public education, informing, and consulting. Reach out to stakeholders. Consult on targets and planning.

Finally, engage on the deeper levels: involve, collaborate, and empower. This is the foundation of transformational change.

ⁱEsbjorn-Hargens S.

ⁱⁱKoffman, Fred.

ⁱⁱⁱTamarack Institute for Community Engagement (2009)

^{iv}Ballard, D.

^vShome, D., & Marx, S.

^{vi}Rosell, S., & Furth, I. Inc

^{vii}International Association for Public Participation.

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Koffman, Fred. "Conscious Business: How to Build Value Through Values"

Pike, C., Doppelt, B., & Herr, M. (2010). *Climate communications and behavior change, A guide for practitioners*. The University of Oregon: The Social Capital Project

Rosell, S., & Furth, I. (2006). *Listening to the public: Overcoming and understanding barriers to sustainability* San Francisco: Viewpoint Learning Inc

Shome, D., & Marx, S. (2009). *The psychology of climate change communication*. Columbia University,

New York: Centre for Research on Environmental Decisions.
www.cred.columbia.edu/guide

ORGANIZATIONS AND WEBSITES

BC Healthy Communities: www.bchealthycommunities.ca

The Deliberation Network: www.deliberate.ca

The Canadian Community for Dialogue and Deliberation: [www/c2d2/ca](http://www.c2d2.ca)

The National Coalition for Dialogue and Deliberation www.thataway.org

International Association of Public Participation: www.iap2.org

Tamarack Institute of Community Engagement: www.tamarackcommunity.ca

CHAPTER 4.3

Communicating Effectively with Constituents

*Locally elected leaders, who want to take action, need to be able to talk to their constituents in a way that builds support and brings those constituents along. These tips will help you do just that. Environmental psychologist **DOUG MCKENZIE-MOHR** is a leading expert in social marketing and designing programs to promote sustainable behaviour.*

HERE ARE SIX COMMUNICATIONS TIPS from Canada's social marketing guru, Doug McKenzie-Mohr.

- Communicating effectively with constituents is always a two-way street. Knowing what to say is always as much about knowing your audience as it is about knowing your objectives. Understanding your constituents' attitudes, beliefs, and behaviours is key.
- Knowledge about constituents can be gained in many ways, including formal tools like focus groups and surveys, and informal tools like discussion groups and canvassing a neighbourhood coffee shop.
- Your messages always benefit from being vivid, personal, and concrete. People hear and remember what feels real to

them, so abstract ideas are rarely as well-received as concrete examples.

- Make a conscious decision about how you're going to frame your message—will it be framed negatively or positively? Most people try to frame their messages positively, hoping to engage people, but in many instances, explaining the losses that result from inaction has proven to be more persuasive.
- Although emphasizing loss can be persuasive, negative messages should only be used when solutions or messages of hope can also be incorporated into your communications. Avoid messages that encourage helplessness in people.
- To increase the likelihood of action make sure that your messages are specific, concrete, and easy to remember.

REFERENCE

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Public Participation in Resource Management

How do leaders in resource-rich communities stay strong on environmental protection while also looking out for the economic future of their people? What legal tools can be used? How can the public be involved?

*As oil, uranium, potash and other resource-extraction businesses come in to the prairies in growing numbers, many leaders are looking for tools to ensure that there are adequate regulations and watchdogs in place, that existing regulations are followed, and that they can stop developments that are harmful to peoples' health and the environment before it is too late. **LAURA BOWMAN**, Staff Counsel at the Environmental Law Center in Edmonton, AB, outlines these legal tools, and how they can be utilized by local leaders.*

IF SOUND LAWS ARE ESTABLISHED AND PUT INTO PRACTICE, they will protect water quality, ensure good land-use planning, establish sound environmental assessment, and create opportunities for the public to be engaged in decision-making.

The importance of public participation in environmental decision-making was recognized internationally by the Rio Declaration, a result of the United Nations Conference on Environment and Development in 1992. This declaration established several broad principles:

- Environmental decisions are best handled with the participation of all concerned citizens, at the relevant level.
- At the national level, each individual shall have appropriate access to information concerning the environment... and the opportunity to participate in decision-making processes.
- States shall facilitate and encourage public awareness and participation by making information widely available.
- Individuals should have effective access to judicial and administrative proceedings, including redress.

Achieving real public participation ensures that the final decision has legitimacy and some authority with constituents.

WHAT IS AN ENVIRONMENTAL DECISION?

It is important to be clear about what an environmental decision is and what you are doing when you're engaging, or allowing the public to engage, in an environmental decision. There are two fundamental types of environmental decisions:

- **Project approvals.** These are usually given at the discretion of a civil servant. They are focused on statutory approval criteria and are public-interest based. They occur at all levels of government, and sometimes involve public hearings.
- **Environmental assessments.** Assessments examine sustainability and consider whether the environmental effects would be 'significant.' They involve federal and provincial governments. Municipalities may carry out assessments of their own projects.

Public participation in the actual decision-making can mean:

- the quality of decisions is improved
- some conflicts are resolved
- trust and legitimacy are built
- education and information exchange occurs—local knowledge is considered
- decisions are transparent
- consideration of those affected by decisions
- changing perception of the limitations of the democratic processes

Environmental decisions usually have two main components:

- Accurately identifying environmental effects and risks. This should be an objective, scientific process.
- Identifying values. That is, what is important to you. This is a subjective, value-laden process.

It is important to keep these two aspects distinct, but the public needs to play a role in both. Although the public may not have scientific expertise to offer, people often have significant local knowledge to contribute. More importantly, the public needs to be involved because all environmental decisions are value laden at some point. It is all about identifying what is important and what are the appropriate tradeoffs to make.

WHAT ARE THE BARRIERS TO PUBLIC INVOLVEMENT?

The most significant barrier to public involvement is secrecy and lack of access to information about a project. Access is important in establishing trust and building useful relationships between the community and a resource developer. In turn, lack of information limits the value of the public's input.

In addition, there may be other barriers:

- misleading, inaccurate, or partial information
- technical aspects of the information that are a barrier
- timeline and cost constraints
- unresolved legal issues
- disparities in resources (e.g. funding, presentation/research skills)
- unclear rules and expectations

PART I: REGULATORY OPPORTUNITIES AND BARRIERS

ASSESSING REGULATORY BARRIERS

- I. Do the regulations contain objective standards to govern the risky features of the development (for instance a**

resource extraction activity)?

There must be quantitative standards that are easily measurable regarding: air quality, water quality, land use, climate change, wildlife/biodiversity, emergencies, and radiation. The trend is towards risk management and removal of objective standards from many regulations.

Determine if there will be an objective baseline to work from. In other words, does the project have to meet specific given criteria to proceed? Or is it a case-by-case risk-management situation where someone will decide what is or is not safe? There must be consensus on what the baseline is.

2. If there are objective standards, are they enforceable? Are there resources applied to enforcement, or do we need to be concerned about it? Do we need our own mechanism to make sure these are put in place?

Municipalities have all the powers of a corporation or a person. On a technical legal level, municipalities have a lot of authority over environmental issues within their own boundaries. They can regulate some activities; have emergency powers over the environment; can prohibit classes of businesses; can put conditions on activities, and have specific powers about water quality.

3. Is the regulatory framework a barrier or an opportunity?

This is a big question. If you are striving to engage in resource extraction in a way that achieves a balance between economic, environmental, and community needs, you need to look carefully at the regulatory framework that is in place. Does it take an ecological approach?

By an ecological approach I mean one that goes beyond the objective standards that you can use for a common baseline. Does it take into consideration site-specific issues over and above the objective standard? And does it look at the cumulative effect of various things that are on the horizon in your community?

There could be different implications for a project because of its regional location. For instance, there might be a greater

impact in having an oilsand mine near Fort McMurray, where others are already operating. In considering the environmental impact of this case you need to know whether the air quality standards apply specifically to the project at hand, or do they take into account other emitters in the airshed?

Whether the framework takes an ecological approach governs the extent to which your concerns, and your communities' concerns, are relevant. While there may be important factors in the bigger regional context, the regulations may only allow you to consider one project on its own. That will be a game changer in terms of how you can control the project and in terms of how meaningful the public input process is in the decision-making.

Information needs to be complete, accurate, defensible, and understandable.

The first thing to ask is "Do I need to get this report from the company peer-reviewed, and are they willing to pay for it?"

PART II: INFORMATIONAL

Access to information is crucial to environmental participation. It is impossible to have a meaningful discussion about a resource extraction project without the necessary information. Without access to information, people cannot know what the true environmental effects

are likely to be. Information needs to be complete, accurate, defensible, and understandable. It should be reviewed by an outside person who is competent to make an evaluation.

In particular, many northern communities do not have good baseline information—they often do not know what the predevelopment environmental context is. It is very difficult to understand what the long term costs are after the fact. And it makes it impossible to deal with cumulative effects or a higher level of risk management.

The biggest challenge with information is whether it is accurate and defensible. There has been a trend toward consultant reports in which the consultants do not accept liability for their analysis. The consultant may have unknown qualifications.

You may receive a report that has been undertaken by someone unqualified to make those decisions.

If I were a municipal leader or someone involved in negotiation over a resources development agreement, the first thing I would ask myself is, “Do I need to get this report from the company peer-reviewed, and are they willing to pay for it?”

INFORMATIONAL BARRIERS

1. Are all the major risks and costs known?

This is a crucial consideration. At the outset of a project, you will be deciding what the tradeoffs are, especially if you’re looking for economic development in your community. You must ask yourself whether you really have a sense of all of the major risks and costs? Because if you don’t have at least a general sense of what those are, you’re not going to be in a position to find a balance or make a case for getting more benefits for your community.

2. What are the long-term consequences?

It is important to consider the consequences of not just the major known risks and costs, but those of an ‘anything-goes’ approach to resource extraction. Ask yourself, “If I stay out of it and the project goes ahead roughly as planned, what are the long-term consequences going to be?”

Is there going to be a long-term impact on other types of resources, such as hunting, fishing, timber? Timber resources have been a big issue in oilsands development in Alberta. Consider the effects on drinking water. Are there going to be infrastructure costs if the resource extraction goes ahead and results in water contamination?

You should consider:

- Who is responsible for identifying all the major risks and costs?
- How credible is the information?
- Are peer-reviews needed?
- Who has access to the information?
- Are there other/better ways to carry out the project that have fewer environmental costs?

3. The project details matter.

Do not accept vague information during approval decisions or agreement negotiations. The proposal should be complete, including the technical details of engineering, and how all mitigation and emergency plans will be handled. The hidden costs of incomplete information at the time of approval are often significant. Consider, for example, the Syncrude ducks or the BP oil spill in the Gulf of Mexico.

4. Plans to make plans are not information.

The thing that I would be most wary of is a proposal to ‘plan-to-make-a-plan.’ That’s the kind of thing you see often in emergency planning. These plans-to-make-plans usually do not get made. There was a plan to have a waterfowl protection plan that was not carried out in the Syncrude duck deaths. There was a plan to have an emergency plan in the BP blowout. You cannot afford to move ahead with unresolved issues of this kind.

5. Transparency is the big issue!

The decision does not have legitimacy with the community when tradeoffs are hidden or obfuscated.

6. “Balance” is not always possible.

Often one priority must give way to another. Ecology doesn’t always compromise. For instance, when a project impacts a species that is already in decline or at risk. This may be politically uncomfortable for some to come to terms with. We all strive for balance, but sometimes it’s not about balance—it’s about what’s important to you and your community. Don’t ‘fudge’ these tradeoffs.

7. Project follow-up, monitoring, and enforcement are extremely important!

8. The purpose of an agreement is to verify that the project is being carried out as proposed, with the same environmental costs that were deemed acceptable.

9. The purpose should not be to speculate that solutions are discovered in the future, but to implement known solutions.

10. Are the outcomes verifiable?

How will these outcomes happen? Who pays if it doesn't work out as planned?

PART III: PUBLIC PARTICIPATION—WHAT IS OUT THERE?

LEVELS AND TYPES OF PUBLIC INVOLVEMENT:

- Agreements and consensus-based negotiations. These may involve industries, governments, aboriginal groups, and NGOs.
- Information and comment. For example, PowerPoints, fact sheets, or comment forms
- Hearings, quasi-judicial proceedings. This includes administrative tribunals, courts, and governments
- Provincial and Federal Government processes—elections, committee hearings, and legislative debates

I. ENVIRONMENTAL AGREEMENTS

Environmental agreements can clarify the expectations of the community and the willingness of the proponent to meet those expectations. However, they should not be relied on extensively, as they are usually not enforceable. These agreements often do not contain clear standards, and therefore it is difficult to hold the parties accountable. Also, an environmental agreement may not compensate for hidden costs, for instance the value of lost environmental services or cleanup. Transparency in agreements varies and public participation may be undermined if full transparency is not possible.

TYPES OF ENVIRONMENTAL AGREEMENTS:

Agreements may be specific and rigorous in detail, resulting in a formal document such as a memorandum of understanding or letter of agreement between a community and a proponent. They may also be consensus-based, which is typically less formal and more descriptive of general principles. They may be developed as:

- Environmental group-company agreements. An example is the Canadian Boreal Forest Agreement.
- Aboriginal group or local government-company agreements. Most municipalities and bands have powers to make environmental agreements under legislation or as a corporation; however there may be limits to this power, for instance under Saskatchewan's Northern Municipalities Act

ENVIRONMENTAL JUSTICE AND AGREEMENTS: ADVANTAGES

- there is potential for agreements to be more “bottom up”
- there can be building of relationships and shared goals
- information sharing
- more local control
- shared benefits and access
- where regulations are weak, limited other choices may be available.

ENVIRONMENTAL JUSTICE AND AGREEMENTS: DISADVANTAGES

- agreements can undermine public participation in regulatory processes. The diversity of community voices and dissent may be undermined. Or the agreement may define the public interest based only on the interests of the parties, not on the interests of everyone.
- a lack of transparency can make agreements unacceptable as a public participation mechanism. Negotiations are usually confidential, and there may be no public or community consultation.
- questions of legitimacy. Who has the authority to decide to agree to an agreement, and on whose behalf?

- lack of fairness. Disparities in capacity will usually favor the proponent in negotiation.
- agreements may be unenforceable. Contracts may not be valid. They may cover issues that neither party has control over. Or there may be no legislation making them ‘work.’
- unclear relationships with other legal rights: ‘duty to consult,’ treaties, contractual rights, rights under environmental legislation
- when written before an environmental assessment, an agreement may be based on incomplete information.

CONSENSUS-BASED AGREEMENTS

- have value in trying to come to common perspectives on the majority of issues.
- can be more interest-based
- can become the ‘lowest common denominator’
- not everyone is included—design is usually top-down
- not always public or democratic
- require a formal framework, must be voluntary

In Alberta, a lot of agreements are done on a consensus basis. It is a good process for coming to an agreement on less important issues. But, it also has transparency and legitimacy drawbacks—it is not inclusive. The people who come to a consensus table are often people who can make or break a deal, which can cause problems in the long run. Moreover, there can be issues with how representative people sitting at the table actually are. It can become a process of wearing down opposition, rather than genuinely trying to reach consensus.

2. SUBMISSIONS IN REGULATORY PROCESS

SUBMISSIONS IN REGULATORY PROCESS: ADVANTAGES

These submissions may be given in public hearings and consultations or through an environmental assessment process.

- They are important tools for access to information on environmental effects.
- In some cases, public comments must be considered by the decision-maker.
- They give an opportunity to provide information relevant to decisions.
- They may result in an enforceable condition. Enforceability is the most important aspect of protection.

SUBMISSIONS IN REGULATORY PROCESS: DISADVANTAGES

The value as a participatory decision-making tool depends on whether the process is robust. There must be an ability to test the environmental evidence, to have clear expectations outlined, and opportunity for full participation.

The value is also dependent upon:

- the capacity of those participating.
- there being an independent decision-maker. Will the decision be primarily political, or will it be a decision based on mandatory criteria?
- transparent value judgments and tradeoffs.
- whether the process is very limited in scope. Is the decision based simply on whether the applicant does or does not meet specific criteria? Not all concerns may be accepted as relevant within the scope of the process.

Opportunities to participate in regulatory processes are in decline. There are fewer public hearings and more discretionary or political decisions.

SUMMARY

You, the local leaders, are in charge. Your community has resources that people want, and you are the key to obtaining those resources with social license. Take the long view. Keep your focus on sustainability, not short-term benefits.

Inform yourself. Do your homework if a new resource-extraction proposal is presented to your community. There are credible non-profit organizations, for instance Mining Watch Canada, that can help with answers to some of those first questions that come up. Don't accept the report by the company's consultant team at face value or make it the basis of your decisions without further investigation.

Choose wisely. Once the deal is made and the economic advantages are on the table, it is unlikely there will be any further meaningful scrutiny of the details of the project. You have to be well-positioned to be able to say no, and you have to be willing to walk away. Be willing to wait for the right proposal from the right proponent with the right technology and approach.

Public participation can make a difference. Once your community's objectives and the bottom line of environmental costs are clear, use all available tools to make yourself heard. Each tool has its advantages:

Take the long view. Keep your focus on sustainability, not short-term benefits. Inform yourself. Choose wisely.

Regulatory tools lead to enforceable conditions.

Environmental/consensus agreements lead to shared understanding and goals.

Democracy and voting power determine values.

Remember that an environmental agreement is not normally going to be enforceable, no matter how well-written. You must have the backing of regulations.

Think long-term about what your values are and what's important to you. If you go into the processes with that perspective and you realize what advantages each type of process has, then you can succeed in getting a good deal for your community.

CHAPTER 4.5

The Natural Step

*Nestled in the Coastal Mountain Range of British Columbia just North of Vancouver, Whistler is gifted with spectacular scenery and the people who live here feel close to nature. The town has developed a culture that is strongly supportive of environmental stewardship. Avid skier and mountain biker **KEN MELAMED** first met Natural Step founder Dr. Karl-Henrik Robèrt on the ski slopes of Whistler. This fortuitous meeting led to Whistler's leadership as the first municipality in North America to use the Natural Step framework for community planning. What follows is an introduction to the framework from Mayor Ken Melamed, integrating stories and lessons from Whistler's journey.*

SUSTAINABILITY IS THE CHALLENGE OF OUR TIME. North Americans are the leading culprits of stress on the planet. We have no excuse for dragging our feet. Sustainability is the challenge of finite resources, threatened ecosystems, and seven billion inhabitants. Today, 80% of the world's resources are consumed by 20% of the population. Emerging societies covet the lifestyle of the developed world and will eventually achieve it. Canadians should embrace a move to social justice and to solving this global challenge.

Whistler is a poster child for unsustainability. We depend on two million visitors a year, many from far-flung places—our eco-footprint is massively beyond our share of what the planet can afford. Our challenge is to correct our course to a pace that is acceptable and affordable to the community. Whistler has been practicing sustainability using *The Natural Step Framework* on our journey to create a new future. Progress has been made on resident housing, First Nations partnerships, habitat protection, and transit, but we have much more to do. Our intention is to lead by example and inspire others to join the movement.

Whistler is the first community in Canada to use *The Natural Step Framework*. As mayor, I have had the good fortune to study informally with Dr. Karl-Henrik Robert, founder of The Natural Step (TNS). Developed in Sweden 20 years ago, TNS is growing as an open-source operating system—a system available to all. The Framework has been used extensively by corporations and businesses, as well as by non-profits and local governments. Based on science, TNS sets out the *system conditions* for a sustainable society. There are basic scientific realities of our environmental challenges that are universally true. With common understanding of these realities, people can find areas of agreement and reach consensus for action.

For too many sustainability is still a mystery. *The Natural Step Framework* addresses the greatest sustainability challenge of all: the need for competent leadership. Becoming a competent leader requires practice in making decisions within our complex system. The Framework addresses this. For effective activism this competence must also exist at the grassroots level.

If we are to be effective, there must be a ‘robust operational definition of sustainability’ in place. Within a scientific context, we need to know what our end goals are—that is, what sustainability means in our own community. To paraphrase Dr. Karl-Henrick Robert,

To be strategic about the complex endeavour of sustainability, leaders need to know how to define the endpoint. The case for sustainable business goals, defined in a robust way, provides an unexploited opportunity for ‘doing well by doing good’

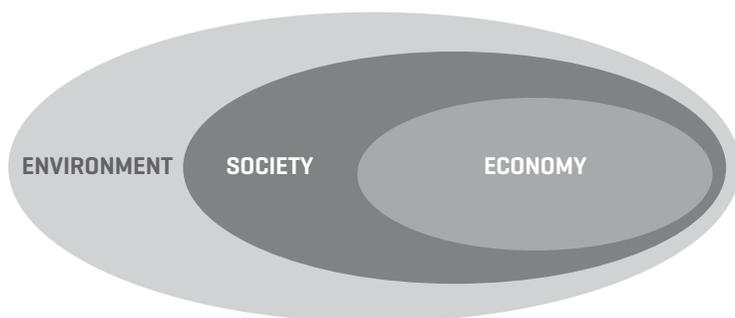
in business, and thereby allowing business leaders to merge seemingly disparate ideas.

The Framework helps us choose where we want to go and the rules or guidelines to get there. It is non-prescriptive and allows ample room for creativity. Working from shared values, scientific principles, and inclusive processes, communities, businesses, and organizations can move forward in stepwise actions.

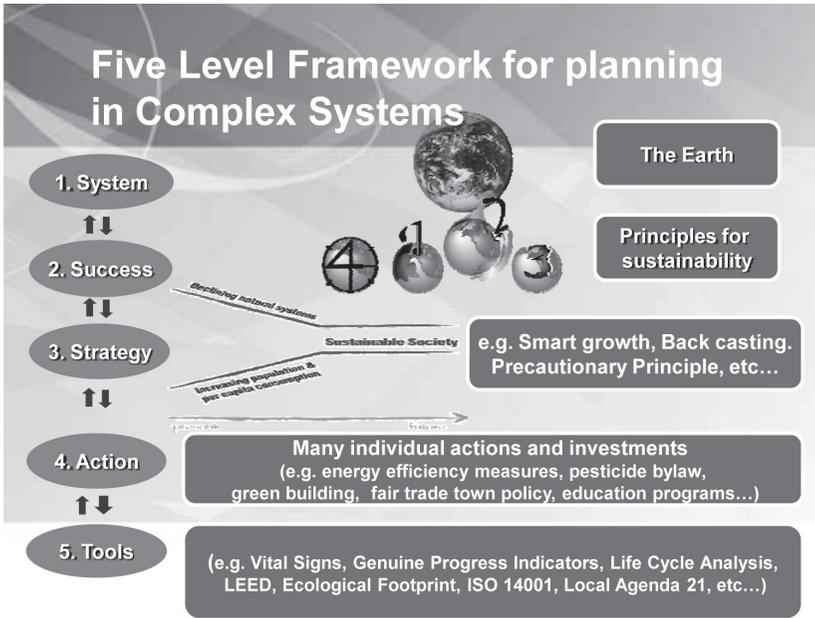
KEY TNS CONCEPTS

THE NESTED HIERARCHY

Language and communication must be used carefully as motivators for behaviour change. We can move farther faster by letting go of outdated concepts and models, which limit and channel our thinking. New mental models are being created to replace the ones protecting the status quo. This graphic, the nested hierarchy, is a better representation of interdependent systems than the more traditional overlapping circles or ‘three-legged stool’ models.



The health of the economic and social systems is entirely dependent upon the health of the environmental system. Success should happen in all of these spheres: economy, society, and environment. The Framework teaches us how to manage tradeoffs and improve our decision processes. For example, which is better wind, coal, or nuclear power?



THE NATURAL STEP FRAMEWORK

TNS Framework can be applied to any complex planning endeavour in any system. At every scale from buying a bicycle to space travel, the process is universally applicable. The wording, however, is not user friendly, so take a breath.

THE FOUR SYSTEM CONDITIONS FOR SUSTAINABILITY

These rules should be as commonly known as the rules of soccer. It is not necessary to memorize them, just know that they are available. The great news is that they are complementary and compatible with all other sustainability tools and approaches.

“CARE INSTRUCTIONS FOR SOCIETY”

In a sustainable society:

- I. People are not subject to conditions that undermine their ability to meet their basic human needs.

2. Nature is not subject to systematically increasing:
- concentrations of substances extracted from the Earth's crust
 - concentrations of substances produced by society
 - degradation by physical means

Another way of expressing these conditions is as the four root causes of un-sustainability. The “cowboy version” of this, from Calgary, is: we dig stuff up too fast, we poison the system with too many chemicals, we overload the engine, and there is widespread mistrust because people cannot meet their needs.

WHISTLER four root causes of **un-sustainability** the NATURAL STEP

1 We dig stuff (like heavy metals and fossil fuels) out of the Earth's crust and allow it to build up faster than nature can cope with it.

2 We continuously damage natural systems and the free services they provide (including climate regulation and water filtration) by physical means (eg. over-harvesting and paving wetlands).

3 We create man-made compounds and chemicals (like pesticides and fire retardants in carpet etc.) and allow them to build up faster than nature can cope with them.

4 We live in and create societies in which many people cannot meet their basic needs (eg. to find affordable housing or earn a living wage).

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WHISTLER2020

TRANSDISCIPLINARY ECONOMICS FOR SUSTAINABILITY

Manfred Max-Neef, a Chilean economist, has provided very important and powerful insights into what is called the social system condition. The planet doesn't care and will carry on nicely without us, so sustainability is inherently a social imperative.

POSTULATES FOR A TRANSDISCIPLINARY ECONOMICS FOR SUSTAINABILITY.

1. The economy is to serve the people, the people are not to serve the economy.
2. Development is about people and not about objects.
3. Growth is not the same as development, and development does not necessarily require growth.
4. No economy is possible in the absence of the ecosystems services.
5. The economy is a subsystem of a larger and finite system, the biosphere, hence permanent growth is impossible.

We must redefine growth and quality of life, and the broken economy. In order to bring more collaborators on board it is important to frame sustainability as an economic opportunity and a path to continued prosperity.

NINE HUMAN NEEDS: SYSTEM CONDITION #4

Max-Neef has identified nine human needs, offering new perspectives on the classic work of Bruntland and Maslow. Apart from basic subsistence, these needs are not hierarchal. Missing three or more indicates a condition of poor health. Note the need for idleness (leisure)!

By rebuilding trust between emerging and established countries, we can create more equal societies. We know that our work does not end at clean water, food and shelter for all.

Need ¹	Example	Satisfiers ^{2,3}
1. Subsistence	Food, housing, work	Affordable housing program, urban gardens
2. Protection	Insurance, rights, family	Insurance system, medical system, preventative medicine, police
3. Affection	Friendships, relationships	Family dinners, life partners, caring for pets, writing letters, telephone calls
4. Understanding	Education, literature, news, life-long learning	Book clubs, work training, school system, preventative medicine
5. Identity	Habits, work, social groups	Jobs, volunteer opportunities, religions, sense of place, participating in neighbourhood organizations
6. Creation	Abilities, skills, work	Entrepreneur programs, art programs, cooking groups, decorating, writing, workshops, dance
7. Participation	Responsibilities, social groups	Direct democracy, festivals, cooking groups, pot lucks
8. Leisure	Sports, peace of mind	Skiing, meditation, gardening, cooking groups, dance
9. Freedom	Equal rights	Direct democracy, Charter of Rights, transportation systems

Adapted from Ekins, Paul and Manfred Max-Neef [edt.] [1997]

HOW EASY IS SUSTAINABILITY?

How easy is sustainability? My theory is that sustainability is complex, so get over it and on with it. Go past top 10 lists and seconds only acts. Let's ask people to challenge themselves and step up, and use price signals for the others. Small early wins build confidence toward the next steps, and champions will drive change by example and courage.

The Lapland Sami people herded reindeer, but indigenous cultures should not be confused with sustainability. Sustainability is a New Age challenge. Seven billion people cannot go back to living off the land. Cities and population density are necessary to protect habitat for species diversity and land for agriculture.

The planet is finite and needs care. Humans are the cause of ecosystem declines and we are all responsible for correcting these trends. Everyone is in the game—no one gets a pass. The danger is that the developing world is copying our broken model. That's all the more reason for us to get busy and break the cycle.

Behaviours can be challenged, and change effected. Upstream preventative actions are the most cost-effective. The anti-smoking shift, for instance, was finally achieved with scientific and medical research. If we base our decisions on science and systems thinking, and attend to the 'care instructions' for the health of the planet, we will choose actions that compel us to respect ecosystem function and each other.

Canada is now leading the world in applying *The Natural Step* at the community level. TNS Canada has condensed the approach into a one-hour web-based course. This strategic approach has the power to transform quickly. The more we apply it, the more competent we become. We can make wiser investments for the long-term, protecting future generations and reducing the risk of stranded investments. We can have success by doing good and have fun creating a new order. Practice makes perfect, so let's get busy!

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Max-Neef, Manfred. *Human-Scale Development*, 1991.

The Natural Step Canada: www.naturalstep.org/canada

Whistler Centre for Sustainability: www.whistlercentre.ca

Resort Municipality of Whistler: www.whistler.ca



CHAPTER 5

Ideas Whose Time Has Come

CHAPTER 5.1

Conservation Offsets

*Conservation offsets offer a new revenue source for local governments wanting to meet climate action targets and increase natural areas for parks and watershed protection. **BRIONY PENN**, from the Land Trust Alliance of BC, describes how projects conserving natural areas in danger of destruction through changing land use—so that they are permanently protected as carbon sink— qualify as carbon offset. British Columbia is an early adopter in North America and provincial protocols governing conservation offsets are now drafted and projects are underway.*

CONSERVING NATURE REMAINS ONE OF THE SAFEST and fastest ways to mitigate and adapt to climate change. The world's leading scientists recommend that we make it a top priority to conserve and restore forests and other carbon-rich ecosystems. In addition to conserving existing natural carbon sinks such as forests, grasslands, and wetlands, there is an urgent need to restore as many damaged areas as possible back to a natural state. Natural ecosystems are more resilient than artificial ones, enabling species to move and adapt better and to carry the genetic material for successful evolution.

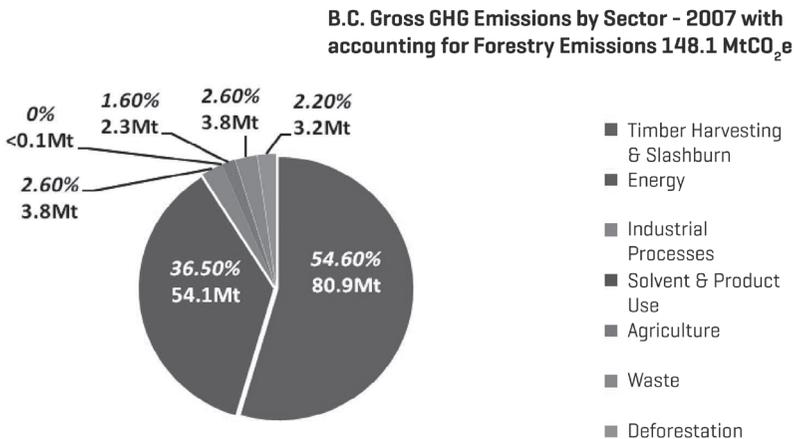
Scientists believe that the world is in the midst of a biodiversity crisis on par with historical mass extinction events—some 17,000 species are now threatened with extinction. This abrupt decline in plants and animals threatens not only ecosystem health, but also the health and wellbeing of human communities that are dependent upon the ecological goods and services that nature provides.

The United Nations identifies four benefits from protecting natural areas:

- pulling greenhouse gases out of the atmosphere and storing them in plants and soils;
- preventing emissions due to deforestation and degradation of ecosystems;
- providing resilience to adapt to climate change (adaptation);
- protecting ecosystem services (clean air, water, and other necessities of life).

In British Columbia, our ecosystems have already been impacted by human settlement, resource extraction, and land conversion.

In our province, over half of all greenhouse gas emissions are due to degradation of forests, a result of timber harvesting and deforestation from development. When natural areas are heavily degraded by human land use, much of this stored carbon



is released back into the atmosphere as carbon dioxide. In the 2007 BC Greenhouse Gas Inventory Report, the most recent one, these two sectors account for 57% of our gross emissions, which exceeds all other sectors combined—even outstripping the energy associated with transportation.

Currently, the BC government measures emissions for timber harvesting, but doesn't include these figures in their overall carbon budget, as Canada opted out of accounting for land use changes in 2006 when it backed away from meeting its commitments to the Kyoto Protocol. Land use in Canada and in BC is a significant source of greenhouse gases. Opting out of accounting and therefore avoiding political and public recognition of land use changes clearly has huge consequences for the atmosphere. Internationally, it is recognized that conserving and restoring carbon-storing natural areas is a counter to emissions from degradation or land use change. This creates an overlooked opportunity for communities, local governments, land trusts and First Nations.

To achieve conservation and restoration, all sectors of society need to engage in land stewardship. The 2007 Copenhagen Accord established an urgent priority to conserve nature through a variety of legislative and financial tools, such as carbon offsets for conservation or conservation offsets.

I. THE CASE FOR CONSERVATION OFFSETS

WHAT IS A CONSERVATION OFFSET?

A conservation offset is a financial instrument aimed at reducing greenhouse gas emissions through conserving natural ecosystems or increasing greenhouse gas removal from the atmosphere through restoring natural ecosystems.

The term “to offset” is used to describe the act of mitigating a damaging activity like destruction of habitat or carbon emissions. Conservation offsets are linked to two major land issues: conversion, that is, loss of natural areas through development, and degradation of natural areas through consumptive, that is, unsustainable, use such as clearcutting.



Above: There might be more value in a standing tree than a downed one.

One example of a conservation offset to mitigate ecosystem damage is the Columbia Basin Trust's policy of buying habitat to offset the destruction of land by the dams built on the Columbia River. BC Hydro is considering implementing conservation offsets for all future damage caused by hydro projects. The United States has practiced wetland offsets to mitigate wetland destruction for years.

The newest conservation offsets are a type of carbon offset, where ecosystems with carbon stored in the trees and plants are

permanently protected to offset the equivalent amount of carbon emissions released elsewhere. The first conservation offsets were developed in California, a member state of the Western Climate Initiative, through their climate action strategy. An energy company aided the conservation of a mature redwood forest by a land trust with the first acquisition of conservation offsets. Several other case studies are given in the Land Trust Alliance of BC's report, *Credible Carbon Offsets for Natural Areas in British Columbia*. Living Carbon is assisting the Capital Regional District in British Columbia's first local government/land trust conservation offset project.

WHY SHOULD LOCAL GOVERNMENTS BE INTERESTED IN CONSERVATION OFFSETS?

There are now considerable opportunities to use conservation offsets to meet carbon neutrality goals and as a long-term revenue source that will help enable many projects while safeguarding the ecosystem services requirements.

With the Green Community Initiative, local governments have been given tools to generate revenue through setting up their own forest carbon projects, which can:

- offset their own internal emissions
- be sold to another local government to offset their emissions
- be sold to the Pacific Carbon Trust or other markets to generate general revenue.

The development of a local forest carbon offset project has the benefit of investing locally in the preservation of forested land. Developing a project locally, with community groups holding legally binding covenants, will maintain control of the project. It could lead to the creation of green jobs, enhancement of community sustainability, and greater public awareness regarding climate change through land being converted to community forest, watershed, green space or parkland. By placing these areas under protection, financed through offset purchasing, local governments can offset their corporate carbon

liability while also supplying other local buyers and partnering parties of BC's Climate Action Charter with a source for offsets.

WHAT IS LOCAL GOVERNMENT'S ROLE?

Local governments in BC have been securing and conserving natural areas since Stanley Park was first created in 1886. Recently, local governments are recognizing their role in conserving forests for additional climate benefits such as reducing emissions and improving nature's ability to adapt. A great deal of both carbon rich and ecologically important land is within regional boundaries and privately owned.

With the passing of Bill 27, the Local Government (Green Communities) Statutes Amendment Act, in 2008, local governments are required to open up their Official Community Plans and provide targets for the reduction of greenhouse gas emissions, with policies and action to achieve those targets. Almost all local governments have also signed onto the Climate Action Charter. The charter confirmed the understanding reached by the province and the Union of BC Municipalities to take action on reducing greenhouse gases, and committed them to voluntarily become carbon neutral. The Zero Net Deforestation Act, passed in 2010, will also be significant for local governments as the conversion of land from forestry to subdivision takes place.

Local governments now have greater legislated opportunities to be innovative on climate change and may:

- use appropriate provincial legislationⁱ, land use zoning, and legislative mechanisms such as tax incentives and bylaws to aid the conservation of natural areas;
- account for emissions from degradation and deforestation through land use change;
- offset their own unavoidable emissions from the energy sector through land conservation, and;
- work with land trusts to capitalize on conservation offsets to help finance this work.

WHAT IS THE LAND TRUST ROLE IN CONSERVATION OFFSETS?

Land trusts provide a long-term stewardship role. They help local government to acquire lands, and provide additional revenue stream through foundations and donations. Land trusts have been conserving land for decades in British Columbia. To date, they have protected more than a million acres.

Land trusts hold covenants, which guarantee permanency for 100 years, and provide the necessary legal instruments, oversight, and monitoring role that is required under the protocols for offsets. Currently, land trusts and other government agencies are legally enabled to register and monitor these covenants. Land trusts have an established history of preparing baselines and ecological inventories, and of monitoring covenanted sites on an annual basis, all of which are essential criteria of conservation offsets. Land trusts often co-hold covenants with local governments, adding arms-length credibility and professional expertise. With a covenant on an offset project, the deductions for risk of reversal are much less, giving a 25% increase in credits, as well as providing the necessary eligibility requirements.

Land trusts are also a vehicle of community commitment and continuity of place, and are able to supply buyers of offsets. They also pool the risk of liability from losing the banked carbon to an ecosystem disturbance by amalgamating properties and acquiring a range of ecosystems.

II. THE OFFSET SYSTEM

The international community established carbon offsets as a financial instrument aimed at reducing greenhouse gas emissions. Carbon offsets are measured in metric tonnes or carbon dioxide-equivalent (CO₂e) and may represent six primary categories of greenhouse gases. One carbon offset represents the reduction of one metric tonne of carbon dioxide or its equivalent in other greenhouse gases. To generate a carbon credit, a deliberate action is taken that reduces the release of that carbon into the atmosphere or increases the removal of carbon from the atmosphere through sequestration. These actions are

called carbon activities and can include scrubbing smoke stacks, reducing gas consumption, or conserving and restoring forests.

ARE OFFSETS SIN OR SALVATION?

Offsets have been challenged on the grounds that they are similar to the medieval practice of paying a priest to forgive a sin. This controversy over offsets arose during the initial Kyoto Protocol negotiations. Many people were concerned that coal-powered electricity plants would just buy credits for reforestation that might have happened anyway, and use this as an excuse to not undertake the difficult capital investments to retrofit or change their technology to alternative energy.

In other instances, tree planting or reforestation credits, which have little immediate atmospheric benefit, were being sold in advance of when the real benefits kicked in. In contrast, the conservation of standing natural forests, which has the most immediate atmospheric benefit, was being ignored and instead standing forests were being converted into biofuel-offset projects.

Environmental organizations and others have successfully advocated for projects to pass rigorous standards, have atmospheric benefit, and safeguard biodiversity and cultural values. Offsets are designed to be a transitional tool only, because the conservation and restoration of natural systems for all for its many values will eventually become a fully integrated part of accounting the human economy.

Offsets work by creating financial incentives to reduce emissions by encouraging people, businesses, and industry to reduce the overall amount of greenhouse gas emissions than in a business-as-usual scenario. Carbon credits are subjected to various tests, which help to determine whether they lead to a net reduction in emissions in the atmosphere.

- I. How does this activity differ from business-as-usual activities (baseline) and generate carbon credits in addition to what would have happened if that action hadn't taken place (additionality)?

2. Will this activity lead to a leakage of carbon emissions elsewhere? For example, if conserving a forest results in increased logging elsewhere, the project has to take into account the impact of this leakage. The leakage may also be offset. For example, one innovative idea is to work with local companies using displaced forest volume from neighbouring forests to switch to recycled paper and reduce demand by an equivalent amount of carbon that results from conservation leakage.
3. How does the project assure that this carbon will be stored permanently for the next 100 years (permanence)?

CONSERVATION OFFSETS SPECIFICS

The fundamental principle of carbon accounting for conservation offsets is that units of living carbon can be stored or released in ecosystems and these units can be measured and valued in exactly the same manner that units of ancient carbon are stored in or released from fossil fuels. Living carbon is stored in various pools of ecosystems, e.g. trees, foliage and litter, other plants, dead structural material on the forest floor, roots, and the soil.

There is a range of activities that could generate conservation offsets. At one end of the scale, there are ecological restoration projects on lands that were degraded, where the carbon is slowly captured, for example by restoring the forest. At the other end is the conservation of a mature forest, such as the Capital Regional District watershed project, by placing a conservation covenant prohibiting harvesting and development on the land.

In between the two project types of restoration and conservation, there is enhanced or improved forest management. For instance clearcutting can be changed to longer rotations where fewer trees are harvested, e.g. Forest Stewardship Council-certified ecoforestry. Many projects include all three activities, such as the Nature Conservancy of Canada's Darkwoods Project in southeastern BC.

Whenever living carbon is being actively conserved, the project is referred to as conservation offsets.

WHO REGULATES CONSERVATION OFFSETS AND WHO CAN INITIATE THEM?

Not all offset projects are created equal. For this reason, quality standards require third party validation and verification that emission reductions are real, permanent, non-reversible, additional, and achieve this climate benefit without trading off social and local environmental wellbeing.

Conservation offsets, like all carbon offsets, must be regulated by registries like the California Climate Action Reserve (CAR) or in BC, the Pacific Carbon Trust (PCT) or the international Verified Carbon Standard (VCS). These organizations set the standards and project developers implement them on a project basis. Each registry has their own standards, which attempt to practically meet or exceed the international standards set through the United Nation's Framework Convention for Climate Change (UNFCCC). Registries divide projects into land use sectors, e.g. energy projects and forest projects. Conservation offsets can typically be found in forest and agriculture projects. A company, local government, or a land trust can become a project developer.

Each registry has a set of tools or protocols to assist the project developers in calculating, reporting, and verifying the emission inventories. For example, in the international scene methodologies have been developed to comply with the UNFCCC for conserving natural areas. These protocols require a series of measurements to be taken that quantify the avoided carbon emissions or increased carbon removals from protecting or restoring the natural area. The methodologies follow the standards developed to comply with a framework of legislation that allows the buying and selling of carbon for that particular activity, e.g. conserving natural forests.

Once a project is initiated, it has to pass many tests including those for permanence, leakage, and additionality before being verified and validated. Then, carbon credits are issued and can be sold in either voluntary or compliance markets to offset the emissions of a government, organization, or individual. Carbon credits in the compliance markets have registered serial numbers,

similar to money, so there is an ability to resell the same credits but it is impossible to double-account the credits.

WHAT ABOUT THE MARKETS?

Offsets and credits for emissions can be bought and traded on both compliance and voluntary markets. In an evolving carbon economy, there is large discrepancy in the standards of offset marketsⁱⁱ.

- Informal voluntary markets have no valuation or recognized standards; the investor trusts the agency offering the offset.
- Formal voluntary markets are policy-based offsets that comply with international/national standards protocols and valuation, e.g. VCS (Voluntary Carbon Standard)
- Compliance markets with general standards have simple valuation and standards
- Compliance markets with high standards adhere to international standards such as those required by UNFCCC or they comply with strict regional standards such as British Columbia's Forest Carbon Offset Protocol (FCOP)

Compliance markets are typically created under cap and trade systems. BC is set to establish a cap and trade system and has already set carbon neutral targets for their provincial public sector organizations under Bill 44.

The province has established the Pacific Carbon Trust to buy and sell offsets in the energy, waste management, and forestry sectors. The Forest Carbon Offset Protocol has just been introduced for forestry. It includes conservation, restoration, and improved forest management. Local government, land trusts, and First Nations will continue to play a critical role in advocating for high standards in this protocol.

Offsets are now not only available on private lands. The government of BC is developing the criteria by which creditable projects can be developed on crown land (which comprises 95% of BC). The Zero Net Deforestation Act provides financial mechanisms to conserve lands that would otherwise be

deforested, that is, converted from forest to urban development. Prices of a carbon offset on the PCT range from \$8 to their sale price of \$25.

In the smaller voluntary market individuals, companies, or governments purchase carbon offsets to mitigate their own greenhouse gas emissions from transportation, electricity use, and other sources. For example, one might purchase carbon offsets to compensate for the greenhouse gas emissions caused by personal air travel. The informal voluntary carbon market has existed for well over a decade in British Columbia with a range of standards.

Recently, the formal international Verified Carbon Standard registry began accepting North American projects, including the Nature Conservancy of Canada's Darkwoods project. The VCS has the highest standards internationally and works closely with the Climate Action Reserve standards. Although the prices of VCS offsets are not currently as high as those in the CAR standards, they still represent a market of very high standards. Prices fluctuate between \$3-\$15/tonne in these markets.

Both voluntary and compliance markets are converging over standards and prices as world markets adjust to an emerging carbon economy. Regardless of whether the voluntary or compliance market is chosen, projects must have credible, accountable, affordable, and trackable methods that widely meet accepted standards so that projects can be assessed and ranked, and their progress evaluated.

The unregulated markets will provide attractive short-term opportunities but there will be serious risks of credibility, declining opportunities for unregulated offsets, and forgone future opportunities in regulated markets by not starting with verified offsets.

If projects are done through formal project accounting to the highest standards, such as the provincial standard of FCOP, local government will:

- Get a head start in building new value in land-use decision models.
- Secure the highest long-term value in the markets for carbon.

- Avoid liability and risk as regulations increase for carbon accounting.
- Prevent negative publicity by not accepting low standards.
- Secure long-term benefits of carbon as benefits flow for 100 years.
- Provide an opportunity for modified management opportunities—from community forests to urban forest restoration.

III. WHERE ARE WE NOW WITH CONSERVATION OFFSETS?

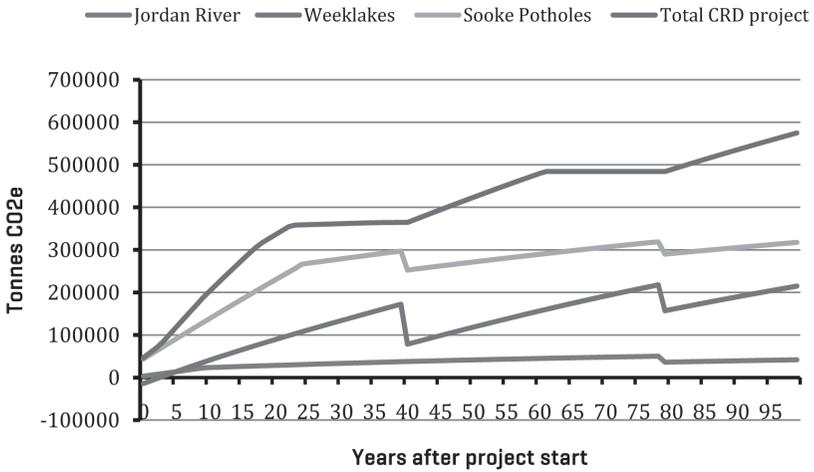
In British Columbia we have a conservation offset system in place. Conservation offsets have local appeal because they involve community groups and provide natural area conservation with multiple benefits—carbon uptake, protection of species and other ecosystem services including water quality, flood control, and cultural and recreational values. Conservation offsets provide an understandable and charismatic face to help communities adapt to climate change.

Challenges in setting up conservation offsets include:

- carbon measurement is technical
- many standards have strict requirements
- they cost money, up to \$100,000
- assigning monetary value is difficult
- there are no BC compliance projects yet
- they are currently too expensive for small projects under 300 hectares
- they risk offsetting partial or full failure

However, landowners, local governments, land trusts and First Nations groups can work together to make projects feasible by pooling knowledge and projects to increase benefits. Land trusts offer the legal mechanism for registering and monitoring conservation covenants—meeting the criteria of permanence—and provide the long-term commitment to the stewardship of land, arm's length from political influences. Local governments can work together with land trusts to acquire, hold, and secure

Total CRD cumulative Credits using CAR



conservation covenants on lands for which they want to generate conservation offsets. First Nations can create their own land trusts or work with existing land trusts to secure the permanence needed to meet international standards.

There are several partnership models emerging including the recent collaboration of the Capital Regional District and the Land Conservancy of British Columbia in acquiring forested lands with projected revenue deriving from a combination of conservation offsets, regional park tax levies, and private sector donations.

Living Carbon is in early development stages with a conservation offsets pilot project, one of the first in Canada. It has attracted investors committed to purchase one million credits, and is currently working on Phase 1 of evaluating ten or more properties from around BC, including ones with local government. The Land Conservancy of BC is working on a project involving 2350 hectares of Western Forest Products lands in Sooke. Saleable offsets amount to 500,000 tonnes. Carbon revenues are part of the funding equation: 65% park levy, 25% carbon, and 10% donation.

Initial pilots suggest that revenues derived from conservation offsets might provide up to a quarter of land costs, even with

Living Carbon is an enterprise arm of the Land Trust Alliance of British Columbia and was established as a one-stop shop for developing conservation offsets for land trusts, First Nations, and local governments. Because it was established by a non-profit for the benefit of carbon stewardship, it seeks to generate the highest value and the greatest returns for conservation and to set the highest standards so that problems encountered with offsets in other jurisdictions are avoided. Living Carbon also acts as a long-term insurance provider for conservation offsets. By amalgamating properties into one project and banking pools of different ecosystems over time, the risk of liability from losing the banked carbon to an ecosystem disturbance is pooled and reduced. This union reduces the overall costs of development and registration, maximizing returns to the participating land trust, landowners, and local governments.

a conservative estimate of \$10 to \$15 per tonne, once the costs of valuation and registration are factored in. With decreasing funding from governments, foundations, and private donors, the conservation offset revenues will provide a critical revenue stream that may make all the difference for successful acquisition and management of natural areas.

It only takes creativity, willingness, and the partners and tools to successfully conserve natural areas, watersheds, and community resilience. Conservation offsets are a valuable new tool to help us mitigate and adapt to climate change through the conservation of nature, protecting our communities, our economies, and our future.

ⁱSpecies at Risk Act, Wildlife Management Areas, Natural Area Protection Tax Exemption Program

ⁱⁱSee Carbon Offsets: the Real Deal? Columbia Institute.

APPENDICES

Principles and Language

Additionality: Refers to the net reduction in emission or increase in sequestration compared to baseline; that is, what is different from business as usual with the project.

Baseline: The predicted carbon dioxide emissions trajectory if no project takes place.

Conservatism: Use lower offset amount, rather than the optimum.

Default values: Proxy values where there is no measured data. Usually less than measured on conservation lands.

Leakage: Refers to the increase or decrease of carbon dioxide emissions that occur as a by-product of a project, for example displaced logging or a shift in grazing.

Project: Refers to an area or areas with fixed boundaries; there can be a variety of properties in one project. Projects greater than 1,000 hectares are large enough to pay for development and registration.

Permanence: The longevity of a carbon pool, usually based on a minimum of 100 years with no reversal. Solve permanence criteria by placing a conservation covenant on the land with a legally binding commitment to manage land for carbon into the next 100 years. You need a land trust to do this.

Standards: Methods used in measuring, calculating, and reporting carbon.

Resilience: The capacity of an ecosystem to absorb disturbance, undergo change, and still retain essentially the same function, structure, identity, and feedbacks.

RESEARCH PAPERS

Three recent reports have highlighted the need to increase the rate of conservation of natural areas for climate change mitigation and adaptation, and the potential role of rigorous, internationally accredited forest carbon offsets.

1. *New Climate for Conservation: Nature, Carbon and Climate Change*. Dr. Jim Pojar [www.landtrustalliance.bc.ca/docs/New Climate for Conservation.pdf](http://www.landtrustalliance.bc.ca/docs/New%20Climate%20for%20Conservation.pdf)

2. *Credible Conservation Offsets for Natural Areas in British Columbia - Summary Report*, 2009. Dirk Brinkman and Dr. Richard Hebda. www.landtrustalliance.bc.ca

3. *Managing BC's Forests for a Cooler Planet: Carbon Storage, Sustainable Jobs and Conservation*. Ben Parfitt. CCPA, BC Government and Service Employees' Union; Communications, Energy and Paperworkers of Canada; David Suzuki Foundation; Pulp, Paper and Woodworkers of Canada; Sierra Club BC; United Steelworkers District 3 - Western Canada; and Western Canada Wilderness Committee. www.policyalternatives.ca/newsroom/news-releases/woodworking-unions-and-environmentalists-propose-bold-new-plan-protect-forest

4. *Staying the Course, Staying Alive - Coast First Nations Fundamental Truths: Biodiversity, Stewardship and Sustainability*. Frank and Y. Kathy Brown, Biodiversity BC

OTHER REFERENCE

Carbon Offsets: the Real Deal?, 2008. Columbia Institute.

Municipal Finances: Looking for Fiscal Balance

“There’s no question that things are pretty bad for cities right now. The consensus among people who work in the municipal environment is that things are getting worse, not better.” (Gaëtan Royer, 2011)

To achieve their potential, Canadian towns and cities need new resources and powers. They need money to fix crumbling bridges and upgrade rusting water pipes. They need to invest in public transit, develop their economies, and use resources more sustainably. Canadian towns and cities need new powers to deal with festering social issues, global changes, migrant populations, and criminal activity.

*In this article, city manager and author **GAËTAN ROYER** says that subtle doesn’t work. He calls for cities to market the concept of fiscal imbalance and the fact that inequities exist.*

DISTRIBUTING THE WEALTH

THE BIGGEST DIFFICULTY MUNICIPAL LEADERS FACE is that Canadians don’t realize that there is a problem. Most Canadians know that 35% to 45% of their income goes to taxes of various forms. Few know how the total tax burden gets distributed and how little of it benefits their city.

Canadians hear about huge provincial and federal surpluses coming from rapidly growing urban economies. They know that governments ride economic downturns by running temporary deficits, which they recover by draining economic gains in urban economies. With 80% of Canadians now living in urban areas, each hour worked in our cities results in additional payroll taxes, each transaction generates 12% in sales tax. Few realize that property tax is not tied to the economy. For decades now, cities have had only lean years.

It is not for lack of trying that cities can't seem to make their case. Municipalities get very little attention in the provincial and national media. Mayors are not household names outside their communities. The body that speaks on behalf of cities from a national perspective, the Federation of Canadian Municipalities (FCM), has far less prominence than provincial and national leaders, yet it represents all Canadians who live in a village, town, or city: that's every one of us. FCM's announcement of the municipal infrastructure deficit, estimated at \$123 billion a few years ago, received little coverage and had little impact on Canadian policy.

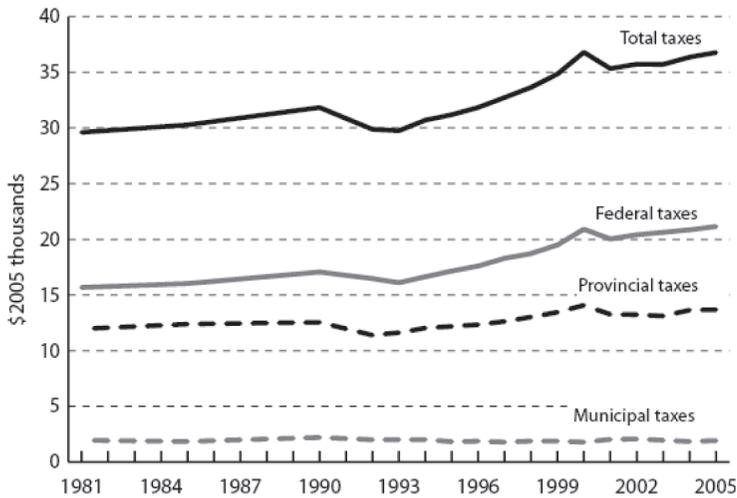
Think about all that your city does for you every day. Roads, arenas, pools, libraries, parks, waste collection, police. Your city provides you with clean water, fire protection, plowed streets, and much more. With only eight cents out of every tax dollar collected, cities manage to have an enormous influence on your daily wellbeing, security, ability to earn a living, and other basic needs.



Figure 1. Tax Freedom day. Source: Fraser Institute.

Tax Freedom Day each January brings attention to the dire situation that cities are in.

According to the Fraser Institute, Tax Freedom Day is the day when Canadians stop paying taxes to the government and begin working for themselvesⁱ. In 2008 that day was June 20th. But January 14, 2008 was when Canadians had finished working to pay their municipal taxes! After ‘City Tax Freedom Day,’ the average Canadian still had to work another five months just to pay taxes to provincial and federal governments.



Source: The Fraser Institute's Canadian Tax Simulator, 2005

Figure 2. Federal, provincial and municipal taxes collected from the average Canadian family, 1981-2005 [\$2005]

In fact, municipal taxes are not going up in relative terms. As a percentage of total taxes, property taxes have actually gone down. In 2004, Canadian cities received twelve cents out of every tax dollar. Six years later it was down to a meagre eight cents from each tax dollar.

Another way to make the comparison is to look at the GDP. While provincial/federal taxes doubled relative to Canada's GDP, property taxes have flat-lined, staying almost the same over the last 40 years.

Compared with the steadily increasing tax appetites of senior governments, our appetite in local government has been more than reasonable over the years.

WHAT'S WRONG WITH THE WAY CITIES COLLECT TAXES?

If a pattern can be drawn from countless stories of Canadian cities coping with their own decay, it is the abject inadequacy of the property tax system. Let me give you two examples that demonstrate how the tax system got so lopsided.

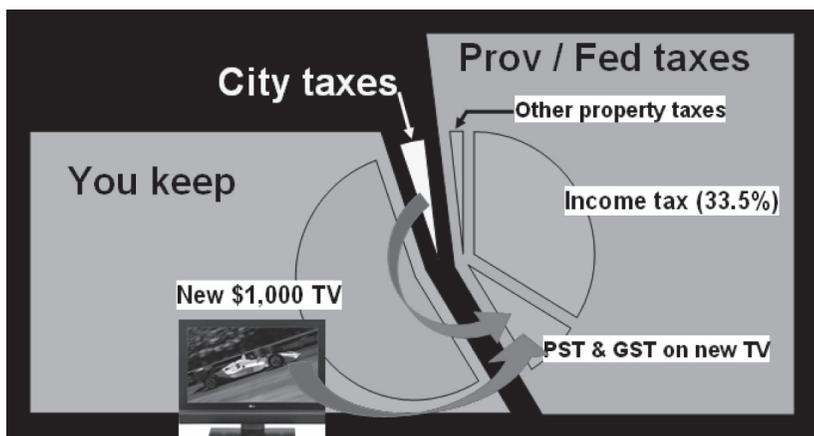


Figure 3. What happens to a \$2,000 wage increase? One third is deducted at the source. Then another 13% goes to the provincial and federal government when whatever is left gets spent.

Suppose a family receives a \$2,000 wage increase. Little more than half of this increase is at the disposal of the wage earner. The lion's share is deducted at the source through income tax. Between \$30 and \$80 covers the annual property tax increase (\$65 in the above example). When this family actually spends the rest, another 13% goes to senior governments through the PST/GST (HST in some provinces). And to add insult to injury, of the little sliver that actually goes to boost municipal taxes, a portion is paid by cities as tax to senior government whether they purchase a pencil or a fire truck. No wonder cities keep falling behind. No wonder they have to beg for grants.



Another example comes from municipalities where leaders take the courageous decision to partner in commercial ventures. Two case studies analyzed are restaurants: one in a Port Moody park and one near Vancouver’s Kitsilano Beach. In an atmosphere of charged political debate, these cities gave up precious land to generate income from land lease and profit sharing. While both cities increased their overall revenue, the concurrent amount generated for senior governments worked out to be four to five times what these cities have taken in. Municipal revenues from these joint ventures pale in comparison to payroll taxes from every job created, PST and GST on every transaction, corporate tax, and other forms of provincial and federal revenues.

The narrow tax framework that cities work within is no match for the broad set of tools available to senior governments. The gap keeps widening. Tax distribution between levels of government needs to be fixed.

As if the limitations of the antiquated property tax system were not enough, provincial governments in all provinces interfere with the property tax system in a variety of ways: exemptions, caps, fixed rates, and exclusions further limit municipalities’ ability to raise revenues in a fair and sustainable manner.

These new rules imposed by government always feel like inadequate improvisation at the local level. And while provinces rewrite the rules at will as a result of lobbying by specific industrial sectors, property tax remains the only control available to local politicians to speed up or slow down an inevitable outcome.

When faced with a troubled economy, municipal leaders can choose between business retention (lessening the tax burden) or collecting the funds necessary for a town’s basic needs and recovery (increasing the tax burden). A small town that lost a major employer needs to both lessen the tax burden and spend more in order to attract other employers. This is exactly what governments have been doing to alleviate the impact of the financial crisis since 2008: tax less and spend more to stimulate the economy. But municipalities simply can’t tax less and spend

more; provincial laws force them to choose. Our archaic property tax system is the wrong tool to influence employment and the economy. The right tools have not been delegated to cities.

Meanwhile, industry accuses cities of gouging them during a downturn. Industry and business leaders call for a lower property tax rate. Why do they focus on the mil rate? It goes like this. In the last few decades, there has been a tremendous leap in the value of residential properties. Consequently, the residential mil rate is lower. This keeps the actual amount of tax collected the same. Meanwhile, commercial property values increased, but not quite as much. Therefore, to keep taxes the same for the commercial sector, the mil rate is higher. Comparing mil rates gives a flawed picture because residential values went up much more than industrial and commercial land values. In fact, the present reality is that, in all major urban areas, more of the tax burden has shifted to the residential sector.

Another way to see how property tax is disconnected from the economy is to imagine two identical commercial buildings side by side. One is vacant, the second accommodates a thriving bank. The first generates no economic activity and therefore no revenues for senior governments. The bank on the other hand generates taxes from every single transaction, with limitless potential for senior government revenue. But for the municipality, both buildings generate exactly the same amount in property tax. The vacant building does not get a break. The bank does not share its wealth with the community.

The bottom line is that Canadian cities have no legal means of becoming partners in the economy. Cities try to engage in economic development without access to proper tools. In other countries, many tax instruments exist in urban toolboxes. Canadian cities' toolboxes are locked. The provinces hold the key.

DOWNLOADING AND THE GRANT SYSTEM

Many examples show that when the federal government downloads programs and services, provinces get the money and cities get the problems. Governments pass a crushing burden onto cities and charities.

Over the years, senior governments have shrugged off areas of responsibility, often creating a grant system to replace direct involvement. Passing on responsibilities to cities would be a good policy as long as resources are downloaded as well. Downloading is bad policy when it is just passing the buck without any of the bucks actually being passed.

Like many of our kids who move back home, senior governments are getting someone else to cover their expenses. The homelessness issue in Canada is a case in point. Environmental protection also stands out as an area where systematic downloading has caused significant harm to cities, residents and, of course, the environment itself.

One-time grants offered by senior governments to help cities cope with downloaded responsibilities are always preceded by a complex grant application process and on-your-knees lobbying that place civic leaders in competition with one another. The grant process often duplicates efforts on the part of local government. It is so complex that experts peddle their skills to help navigate the system. Grants create winners and losers among municipalities.

Senior governments are addicted to grants. The announcement, and re-announcement, of a one-time grant to a city always comes with a carefully timed media fanfare and photo opportunity that are nothing short of an insult to every municipal leader's intelligence. Courageous public policy is not some kind of gift-wrapped surprise at the end of the fiscal year when there's money left over. Public policy, public programs, and public services are public responsibilities, not election goodies.

Increasingly we seem to be running our business this way. What do we replace grants with? There isn't a magic solution. We need to find a formula that applies to each problem. Funding for certain programs could be on a per capita basis. Funds could be weighted for rural areas and smaller communities. Whatever the formula, the distribution of funds in a stable, predictable, and logical way would be far more effective than arbitrary grants.

SO HOW DO WE BEGIN TO RESOLVE THESE PROBLEMS?

Individual cities' lobbying results in a lot of voices speaking in the dark. The classic way of working for change has been to adopt council resolutions and forward them to the Union of British Columbia Municipalities (UBCM) and the Federation of Canadian Municipalities (FCM). Writing letters and meeting with cabinet ministers are also traditional forms of exerting influence.

However, sending resolutions to each other is something of a time warp. Begging for support from ministers invites continued funding through unfairly distributed grants. Cities need to engage the public and explain the system's deficiencies. Cities need to market the concept of fiscal imbalance and the fact that dire inequities exist. Subtle

doesn't work. We need to use dramatic ways of selling the idea that there has to be a better way. Let's go from sandwich board to billboards.

We also need to refuse to participate in the grant system, even if it means turning down grants. I submit that it would take one region to trigger an unstoppable movement. One region needs to tell its provincial government: "Listen, if you wish to implement any provincial priority through us and attach your name to projects in our communities, the only way we will accept funds is in the form of predictable, sustainable funding distributed equitably in our region. We're not taking grants any more. We're no longer competing with each other. We're off the grant treadmill."

Another way to create change is to partner with business. The Conference Board of Canada has recommended a 1% value-added tax levied by cities. The logic is simple. Homelessness hurts business. Water interruptions hurt business. Traffic congestion hurts business. Business needs services and wants solutions. We



need to expose the ineffectiveness of governments that “do not want to waste a good election promise by keeping it.” Businesses have to question the value of staff paid to administer grant programs rather than to resolve actual problems. The business community could be our most powerful ally in influencing tax reform

WHAT ARE THE NEXT STEPS TOWARD FISCAL BALANCE?

Canadians pay enough taxes. Encouragingly, there is a growing consensus around the idea that cities need a bigger share of these taxes. Revenues need to be better shared through stable tax transfers. There are logical steps to be taken:

1. Set the aim to redistribute existing taxes rather than levying more.
2. Establish clarity first. People who are governing, let alone the governed, need and deserve clarity to know who is responsible for doing what for which customers and with what resources.
3. Conduct a vertical core service review to establish clear allocation of responsibility among governments, determine clear accountability, and create complementary rather than duplicated programs.
4. Delegate powers to match responsibilities.
5. When cities venture in wealth redistribution (social work, poverty, homelessness) they must do so using taxes tied to the economy. i.e. from personal income and corporate income.
6. All levels of government need to work together to develop an inclusive tax reform process.

As residents of our province, we need to engage the provincial government in tax reform. Planning to address a long-term issue using improbable, intermittent, and arbitrary grants is like having no plan at all. We need to get together, better define our problem, and market it to make sure the public understands our issues. And we need to team with business, leverage the power

of major business lobby groups, and have industry working with cities, not against them.

Cities are very much part of the solution to many of the issues that Canadian society is facing. Cities are nimble organizations with a strong sense of purpose and identity. Given the proper authority and resources, cities would react quickly to today's syncopated rhythm of social change, for the benefit of the entire country. Time for cities will have arrived when Canada and its provinces hold a constitutional conference on the status of cities. It is time for cities to be an order of government.

⁴Reference to the Fraser Institute's Tax Freedom Day does not imply concurrence with the institute's philosophy or policies.

REFERENCE

Royer, Gaëtan. *Time for Cities*, City Forum Press, Port Moody, BC. 1999.

CHAPTER 5.3

The Case for Watershed Governance

*There's nothing like water to get people stirred up. It's essential to our survival and passionate discussions go with the territory. North Saskatchewan River Basin Council founder **MURRAY BALL** gives an overview of the global context, emerging water issues and Canadian prairie water issues in particular. Ball concludes that community leadership can lead the way through progressive infrastructure management and shared water governance within watershed NGO's.*

THE CANADIAN PRAIRIES ARE NOT IMMUNE to increasing worldwide pressures on the freshwater resources that are essential for our wellbeing. Water quality and availability are declining at the same time that demand is rising in many parts of the world, and the water crisis is coming our way. When dealing with emerging water challenges, we can expect that decisions about management and allocation of source water supplies will be made by provincial and federal governments, but municipalities and First Nations groups, tasked with providing water services, will be positioned to play a key role in shaping our water future. Leadership at the local level can drive innovation and cooperation essential for our water security and sustainability.

THE GLOBAL CONTEXT

Today, there are around 900 million people affected by water scarcity.¹ Water availability has become a limiting factor for growth, and competition for water is spurring conflicts both within countries and between countries in Africa, Asia, the Middle East, and North America.

The Nile, already heavily used for irrigation in Egypt, is facing new irrigation initiatives in upstream Sudan. But the river does not have the capacity to supply both demands. Similarly, the agricultural economy of Bangladesh is heavily dependent upon the river flow to the Ganges delta, which has been significantly reduced by one dam after another being built in India. Water allocations on the Colorado River in the USA have resulted in periods of no measurable flow near where it crosses into Mexico, even though historically the flow had been continuous and significant.

Most places in the world have already reached the limit of water availability. The old paradigm “we’re short of water and we’ve got to find someplace to pump it from” is over.

In Australia, draught has led to critical water shortages in the Murray-Darling Basin, where the river no longer runs its length in dry seasons. There has been a radical shift in water management there, in recognition that the amount of water needed by the environment must be set aside first. Both irrigation and municipal supplies have been seriously curtailed. This has had tremendous impact on what activities people do and how they manage water. A mechanism for trading water has been developed. The actual allocations for water are given out at a fixed rate by the government; if anyone has a surplus it can be traded at market rates. This system has allowed for some flexibility, and has led to less water usage. In some municipalities there is complete reuse: sewage water is treated well enough to be used for drinking water. Municipalities are also selling their excess water to irrigation systems in some seasons.

Water availability is a serious problem, but we are also facing serious degradation of surface water quality. The myriad of

human impacts on the landscape is creating cumulative impacts to the aquatic environment.

1. Reduction of water quantity through allocations for irrigation and industry can create concentrations of contaminants when the same pollutant loading is being deposited in lesser volumes of water.
2. Water quality is also affected by the ongoing loss of forests and riparian areas, which is taking place in many parts of the world.
3. Development creates more impervious surfaces, allowing more intense run-off and contributing increased sediment and chemical loading to surface waters.
4. Increasing industrial development means increasing effluent loading, cooling water impacts, and atmospheric deposition.

Water quality crises, from the recent breach of a tailings dam on the Danube River in Europe to the major challenges from development affecting the Yellow River in China, are frequently making the news. Declining water quality has become a global issue.

Many parts of the world have reached or passed peak water consumption and declining water quantity and quality herald the end of supply-side water management globally. While some argue that technological innovation will allow us to treat water more efficiently, others are not confident that energy availability is up to the task or that technology and market mechanisms can fix the problem of bumping up against environmental limits. Trade-offs must now be considered in many watersheds between supplying water to satisfy ecological requirements, irrigation, industry, or municipal use.

EMERGING WATER ISSUES

In addition to water quantity and quality, there are some complicating issues of concern becoming apparent to water managers.

First, we need to consider changes in water related to climate change. Gwyn Dyer has described how the global circulation patterns that control regional climate variation are shiftingⁱⁱ. The Hadley cells that redistribute warm air from the equator to the mid-latitudes are stretching and are expected to shift the desert belts that circle the globe more toward the poles. This will reduce precipitation in some areas and increase it in others, and more significantly, it will increase the variability of precipitation patterns and therefore the availability of surface water.

Second is the increasing human population, many of whom will expect to benefit from increasing development. Irrigation already accounts for 70% to 80% of water use, but there will be pressure to increase irrigation to feed the larger population.

Third is the relationship between energy and water. As hydrocarbons become more challenging to produce, the impacts to water quantity and quality will also increase; it will take more water to produce a barrel of oil, creating greater impacts on water quality. At the same time, more energy may be required to treat water of lower quality and to meet the food and hygiene demands of an increasing population. Water is needed to provide a cooling function for energy production and industrial development, and the thermal capacity of lakes and rivers is also limited if we want to sustain our aquatic resources.

The fourth emerging issue stems from our growing scientific understanding of how chemicals in water affect our environment. While there is not much immediate concern about human health issues, there is evidence of interference in fish reproduction by pharmaceuticals and particularly by synthetic hormones. We can expect there will be more stringent requirements for returning municipal and industrial effluents to the environment as guidelines are developed governing synthetic hormones and other trace organic compounds with significant environmental impact. At the moment we do not have the technical capacity to remove these from community water systems.

CHALLENGES FOR PRAIRIE MUNICIPALITIES AND FIRST NATIONS

We are beginning to understand is that we are going to be facing water issues in the prairie provinces. Schindler and Donahue from the University of Alberta warn that a crisis in both water quantity and quality has arrived in western Canada, where drought and climate change are complicating factors.

Water allocations on the South Saskatchewan River in Alberta, for example, already exceed on average the estimated in-stream flow requirements needed to keep the river healthy, and in dry years the province struggles to meet the political requirement of passing on 50% of the flow to Saskatchewan. We know the Bow River on that system is over-allocated—they have more water licences than they have water in the river. We have also heard that there are plans for serious expansion of irrigation in Saskatchewan.

We can expect to hear a growing chorus of voices calling for reallocation of our water use because we have to look after our ecological needs. And we can expect those voices to be getting louder.

There is increasing pressure on the North Saskatchewan River system from continued industrial development related to oil and gas production. Between two and eight new bitumen upgrading facilities are in the planning stages along the river main stem, and the river is seen as one of a limited number of water bodies that can still

offer cooling capacity to satisfy increasing demand for electricity generation. Using the river as a cooling agent affects water temperature that in turn impacts the ecology of the river.

More knowledge about the ecological requirements of our rivers is needed. In-stream flow is starting to be seriously examined in Alberta and Saskatchewan. Desktop models are being used to study the North and South Saskatchewan Rivers. These models suggest that an in-stream flow of 85% of the natural flow is needed just to maintain the riparian areas and the health of the river. We already know that that target cannot be considered for the South Saskatchewan River, where Alberta struggles to provide 50% of the flow in some years.

The bad news is that we can expect increasing competition for water of poorer quality with more uncertainty of supply, higher treatment and energy costs, and changing targets for treatment objectives. This is going to translate into pressure on municipalities and First Nations to spend more money on treating and managing their community water supplies.

The good news is that technological innovation is being driven by countries in water-short areas such as Indonesia and the Middle East, and that such technology is likely to become a priority in countries like China as development continues. More options are emerging that may be applicable here. Unfortunately, decisions by local governments about what technologies to employ for treatment may be difficult to make. Infrastructure investments tend to be amortized over long periods of time, and can lock communities into systems that may not be suitable for future requirements. The challenge will be to move away from a reliance on tried-and-true technologies and to push the envelope in anticipation of the emerging issues in water management. Whole-system efficiencies in energy and water use and the flexibility to support emerging technologies may become important considerations for infrastructure design.

Opportunities for local leadership may open for those who can ensure that their community is at the forefront of innovative planning and plan infrastructure to be oriented to deal with emerging water issues. That is the kind of leadership we are beginning to see in rural Saskatchewan, where tighter regulations for municipal effluents have been anticipated and small communities are experimenting with alternative treatments, such as managed wetland systems and evaporative lagoons. My own village of Neilburg, Saskatchewan has recently pioneered a freeze-thaw water purification system for recycling municipal effluent in combination with an evaporative lagoon.

Don't wait for the provincial and municipal governments to tell you what it is you need to do. You need to get out in front and find out how you can experiment within your comfort zone to push the envelope. There are opportunities for innovation that can best be driven on the municipal level.

Water will be reused for local non-potable applications and no effluent will be released into local surface water bodies.

The other opportunity for municipal and First Nation leaders to affect water management in a meaningful way is through participation in watershed-based source water protection initiatives. These generally take the form of stakeholder-based non-profit organizations. Watershed organizations can provide a forum for effective water governance outside of big “G” government through the development of working relationships between stakeholders.

CONCLUSION

There are significant challenges ahead for water management globally, including in Canada’s prairie provinces, where conflicts over water allocation priorities and water quality management are beginning to surface. As owners of water as a resource,

Water issues touch us all. Much can be accomplished when First Nations, senior levels of government, municipalities, community members at large, and industry can find a shared vision for water management within a watershed.

provincial governments carry the constitutional burden for water management, though the interest of First Nations in resource management, including water, is now emerging in the courts through Canadian case law, and the federal government also has responsibilities and obligations for water management.

Much of the burden for dealing with water issues, however, falls at the community level and on those like you who are charged with providing water services—the municipalities and First Nations. Within this there are opportunities for you to show leadership and to affect the quality of water management in Canada through a progressive approach to infrastructure management, and through a progressive approach to shared water governance within watershed NGOs. We must make the most of those opportunities to ensure that our human water requirements and our ecosystem water requirements can be securely met in the future.

ⁱSchindler, D. W. & Donahue, W. F. (2006). An impending water crisis in Canada's western prairie provinces. *Proceedings of the National Academy of Sciences*, 103(19), 7210-7216.

ⁱⁱDyer, G. (2009). *Climate Wars*. Vintage Canada, Toronto ON.

CHAPTER 5.4

Swift Current's Source Water Protection Story

The Swift Current Creek Watershed Protection Plan was developed in partnership with the Swift Current Creek Watershed Stewards, with technical assistance and support from the federal and provincial governments and private sector partners. The plan contains 62 key actions, which focus on enhancing water quality and stream health within the watershed. ARLENE UNVOAS from Swift Current Creek Watershed Stewards shares key elements and provides insight into the success of a dedicated group of citizens determined to protect their water resource, and a hint of the interplay between levels of government, interest groups, and the community in an arduous planning process.

IF YOU'RE FAMILIAR WITH SOUTHWEST SASKATCHEWAN, you will know that water is a very valuable commodity here. We often have droughts. Though in some years we've had over 30 inches of rain, we always know that the next drought is around the corner.

SWIFT CURRENT CREEK WATERSHED STEWARDS

In 1999, the City of Swift Current accidentally released effluent into Swift Current Creek, part of the South Saskatchewan water basin. In response to concern for water quality in the creek, the

Saskatchewan Ministry of the Environment responded by fining the City \$25,000, and urging the formation of a stewardship group interested in source water protection.

The funds generated by the fine were mandated to finance the Watershed Protection Plan, and became seed money to support the Swift Current Creek Watershed Stewards (SCCWS). Further support came from the federal government in the form of office space offered through the Prairie Farm Rehabilitation Administration (PFRA).

The Board of the SCCWS is made up of representatives from the municipalities and four urban communities in the watershed area and the executive director. Each stakeholder has an equal vote, and decisions are consensus-based.

The City of Swift Current has one vote, the villages each have one vote, and Farmer Joe has one vote on the SCCWS Board. It doesn't matter how small you are as a stakeholder.

Since its formation, the stewards have partnered on various projects with all three levels of government, environmental clubs, the World Wildlife Federation, and private industry such as agriculture and oil and gas companies.

The mission of the Swift Current Creek Watershed Stewards is to enhance water quality and stream health in the Swift Current Creek watershed by promoting awareness and understanding among water users. The goals of the organization are to:

"I love to see government partnering with non-profits so that it works for both. That can happen in a municipal setting as well provincial and federal."

- educate water users on the issues and the impacts of water usage;
- monitor water quality and riparian health; and
- foster an attitude of individual responsibility toward watershed stewardship.

Funding was sought from a variety of government programs and other sources to launch specific projects. Within two years of initial meetings, the SCCWS had initiated several projects with a focus on public education and awareness of water issues.



The Frog-hopper Student Stewardship Program

FROG-HOPPER STUDENT STEWARDSHIP PROGRAM/BOYS AND GIRLS ON THE MOVE

The Frog-hopper Student Stewardship Program has been very successful. We've got teachers calling every year asking if we can take the kids down to the creek. We teach them the value of the creek, what riparian areas are, and why they are valuable. Kids love it and they learn it. We've been teaching enough years that we now get kids in the Boys and Girls on the Move group coming back saying, "Hey I learned that when I was in grade four!"

SWIFT CURRENT CREEK MONITORING PROJECT

The stewards undertook a four-year biological assessment of the creek. We wanted to know if the creek was healthy. A riparian health inventory was done to establish a benchmark.

We monitored water quality, we studied the fish community and population, and we also studied the macroinvertebrates—the bugs living in the mud at the bottom of the creek. Water quality samples only tell you what’s happening right now, because water moves, and fish are a secondary indicator because they can leave if they don’t like the environment. But the bugs that live in the mud can’t leave, so they are an excellent indicator of the health of the creek.

In the third year of our assessment the City of Swift Current put in a waste-water treatment plant. From our monitoring we saw that the water quality improved. The fish also got better over time. But the macroinvertebrates have stayed the same. That tells us that it takes quite a while to heal that portion of the creek. We know at this point that the creek is generally healthy. There are problems in certain pockets and we’re working to do remediation there.

THE AGRI-ENVIRONMENTAL GROUP PLAN (AEGP)

Part of the remediation work on the Creek is a result of the AEGP, which is sponsored by the federal government. We have been able to hire an on-staff agrologist, whose job is to help farmers implement changes that will help to protect the water in the creek. There are three related projects:

1. Corral relocations. If corrals are too close to the water, farmers can apply for a grant to cover 50% of the cost. We can help with the planning.
2. Riparian area management. This is another project to get the livestock off the creek.
3. Winter site management.

If the corrals are draining into the water, they are too close. However, moving them is a very expensive proposition. There are different approaches, such as berming. The agrologist is available to assess a site and work with the farmer to find the best solution for the particular situation. Any corral that drains into the watershed would qualify for the program.

SWIFT CURRENT CREEK INVASIVE PLANTS PROJECT

We also have a campaign to raise awareness of invasive species such as zebra mussels and eurasian watermilfoil, which impact water quality and quantity. We have developed some informational materials: placemats, leaflets, newsletters, and fact sheets, as well postings on our website.



Salt Cedar is one such invasive species. It can draw up to 200 gallons of fresh water and emits a saline solution

We are especially concerned about salt cedar, a plant which grows from 10-20 feet in height and which produces a huge number of seeds. Our agrologist calls it a double whammy of badness - it can draw up to 200 gallons of fresh water and it emits a saline solution. It has invaded lakes to the south of our border—in Montana there are lakes that are no longer lakes, just saline flats. Two of these plants have recently been found in Southwestern Saskatchewan.

We get rewarding feedback. Within weeks of the postings about salt cedar, we got a phone call saying, “I think this plant is in my dugout.” We got out there and sure enough that’s what it was. The dugout owner had just done a drag on his dugout to make it deeper. So we played detective, and checked with the dragline operator to see where he went before, and where he went immediately after.

WATERSHED PROTECTION PLANNING PROCESS

Prompted by the well-documented outbreak of E coli in Waterton, Ontario and the subsequent, serious outbreak in North Battleford, Saskatchewan, both levels of senior government have made efforts to improve local water supplies. Provincially, concern for water quality and source protection has led to the formation of the Saskatchewan Watershed Authority.

It is the mandate of the Watershed Authority to develop water protection plans throughout the province. Because we were already active, it was logical for the Authority to partner with the SCCWS. We became the backbone of Swift Current Creek Watershed Committee, joined by other interested parties. These included rural and urban municipal representatives as well as special interest groups: environmental clubs, the World Wildlife Federation, irrigation users, and the oil and gas industry. We decided that we wanted to do watershed protection plan, which was a little more inclusive than just source water protection.

We worked together with the Technical Advisory Committee, which brought technical guidance to our planning. This committee was made up of people from provincial and federal government departments: agriculture, health, water, energy and resources, fisheries, environment, and the PFRA Watershed Advisory Committee.

Because the SCCWS had already been working closely with these advisors on other projects, we decided to meet jointly in order to fast track the work and keep people engaged. Avoiding the cumbersome process of shifting information between two groups saved a huge amount of time and made the relationship between the committees even better.

The most important function of the Watershed Committee was collecting local stakeholder knowledge. It was really important to get the people that live in the watershed to come and tell us about the watershed, to tell us what were their issues. This not going to be a government plan - it was the community's plan.

We invited participants through organizations rather than as individuals, to avoid having committee members with a single-issue focus. In other words, all participants needed a 'point of connectedness'. We established working committees. We went to towns and held open forums. Anyone could attend our meetings.

THE JOB OF THE WATERSHED ADVISORY COMMITTEE

In developing the Watershed Protection Plan, the Committee sought to:

1. Identify the issues and the challenges around protection of the watershed.
2. Develop planning objectives.
3. Develop achievable key actions.
4. Work with partner agencies to achieve the objectives: that is, determine who would do what and assign the action.

The Committee was tasked with these specific deliverables:

1. Complete the background report for the Watershed Protection Plan, covering demographics, land use and history.
2. Organize a watershed tour for key bureaucrats, to deepen their understanding of the geography of our region.
3. Invite community input through Open Houses once the plan was formulated. We held two public forums where the plan was discussed, and input was taken back to committee to be reworked.
4. Participate in the annual Saskatchewan Watershed Conference, an opportunity to share information and ideas with technical advisors and other groups around the province.

THE COMPLETED PLAN

An excerpt from the executive summary of our completed plan:

“This document is the culmination of . . . planning efforts which involved rural and urban municipal representatives as well as nature-based conservation groups. These representatives shared table space and meeting rooms, tour buses, and project site workshops, to discuss the challenges, options, and opportunities around watershed protection.

“The recommendations and actions contained in this document have been proposed, discussed, prioritized, and then accepted by planning members and validated by experts from the watershed’s Technical Committee.

“Watershed planning in the Swift Current Creek watershed is not a panacea for this area. Instead, community-based planning should be viewed as a viable and creative component of sustainable watershed management. The recommendations and key actions contained herein focus on protecting source waters from degradation in quality, or reduction in quantity, within this watershed. The committee members view the plan as a ‘living’ document. They understand and accept that some recommendations or actions contained in this plan may be adapted or may evolve to address the changing communities it represents.

“The heart of this document is the Recommendations and Key Actions that were developed by people living in the watershed. Sixty-two initiatives are contained within five broad categories. The categories include Watershed Risks and Stressors; Watershed Stewardship, Education and Communications; Aquifer and Ground Water Protection; Watershed Management; and Water Conservation. The highest priorities of the Committee were related to water supply and management.”¹

OVERVIEW: ROADBLOCKS AND SUCCESS

Completing a watershed plan is a long and detailed process. In Swift Current, we had a strong head start, having a stewardship group and a good working relationship with some of the technical advisors already in place.

The majority of Saskatchewan communities are confronted by some roadblocks in this planning process:

- Money to operate. We were the old kid on the block, so we had money to keep things going. If you’re a new group it’s pretty tough to start up.
- Large time commitment. You do have to have a staff person because volunteer burnout is huge.
- Keeping stakeholders engaged. It is important to keep things moving along.
- Stakeholders with an agenda or single issue. Single issues can be distracting and time-consuming.

KEYS TO LONG TERM SUCCESS:

- It is vital to build and maintain mutually respectful relationships. We're not policy makers or government – we cannot enforce our recommendations. But over the years we've gotten the respect of government, at least certain levels of government.

We feel that we are partially responsible for the fact that the City of Swift Current put in the wastewater plant. So we know that they listen to the stakeholder group. We're a group of people made up from all over the whole watershed. We're not just agricultural or urban, or environmental clubs. When all these people come together, after a while it starts to build. It takes time to nurture these relationships.

- Municipal commitment is essential. We had lots of staff buy-in. The engineering department is really engaged. It's more difficult for counsellors to commit, given the range of their responsibilities on committees.
- Community ownership of the plan. In the end, you have to remember as stakeholders that it's your plan.

Many groups around the province have now worked through these challenges to complete their own watershed plan, a vital step in protecting our water resource and an important exercise in community engagement.

“Never doubt that a small group of thoughtful, committed citizens can change the world. Indeed, it is the only thing that ever has.” —Margaret Mead

¹Executive Summary of the Swift Current Creek Watershed Protection Plan



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