

# RESILIENCY

Cool Ideas for Locally Elected Leaders



CENTRE FOR CIVIC GOVERNANCE

Going for Green  
Leadership Series  
Volume 5



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Edited by the Columbia Institute  
Centre for Civic Governance



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## **RESILIENCY**

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Columbia Institute  
Centre for Civic Governance, 2011

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# INTRODUCTION

THE WORD “RESILIENCE” REFERS TO THE ABILITY TO BOUNCE BACK, the possibility of something returning to its original form after a disturbance. While we may be accustomed to talking about resiliency in individual people, more and more frequently it is being used in relation to communities.

This includes the realm of Urban Design, where leaders are looking into the future and planning for cities that will meet the needs of our children and their children alike. It also includes economic responses that reflect the ways in which communities are strengthening their economies while protecting jobs and local businesses.

Inspired by conversations at our Centre for Civic Governance forums, Resiliency highlights the bold and creative ways in which leaders and communities are responding to the major challenges of our time. We’ve highlighted some up-and-coming project and policy ideas, whose ingenuity will be central to our collective ability to bounce back. Included on these pages are leadership stories from innovators and visionaries along with some succinct new additions for leadership toolkits.

—Charley Beresford, *Executive Director, Columbia Institute*





## CHAPTER 1

# Big Picture: The Jekyll and Hyde of “Resilience”

**DR BILL REES'** *ecological footprint model is a widely-used measure of human demand for planetary resources. The Ecological Footprint Society reported that we used the equivalent of 1.5 planets worth of resources in 2010. Clearly our behaviours need to change. This is the great challenge of our time.*

*Renowned scholar Bill Rees continues to push the envelope to change this destructive path. In this article, Bill combines climate science and behavioural science, acknowledging the grave trouble we are in, and looking to the path ahead. He uses the idea of Collective Resiliency, and suggests that we need new visions and new stories that help us adapt toward sustainability.*

WE'VE BEEN TALKING A LOT ABOUT RESILIENCE THESE DAYS. Checking out the academic literature gives us one thesis of resilience, resilience as a positive quality. But I'm suggesting there is another thesis, that in fact there are two faces of resilience, Dr. Jekyll and Mr. Hyde.

There is a generally accepted definition of this concept with which most people will resonate. Resilience is a measure of “the capacity of a system to withstand disturbance while still retaining its fundamental structure, function and internal feedbacks.”<sup>i</sup>

Well, who can argue against that? We all hope that human society is sufficiently resilient to cope with any shocks that might be tossed at it. If we can withstand a disturbance, we will be able to continue indefinitely within the existing set up. Since disturbance, or change, is inevitable, people generally think of resilience in a positive light.

Resilience is a measure of “the capacity of a system to withstand disturbance while still retaining its fundamental structure, function and internal feedbacks.” Since disturbance, or change, is inevitable, people generally think of resilience in a positive light.

#### A SYSTEMS APPROACH

Resilience science has emerged because the old scientific methods are not working out. Whether or not the majority of us realize it, most of our sciences and disciplines are based on something called Cartesian dualism and something called Newtonian analytic mechanics. We tend to think that humans are separate from nature

and exempt from natural law; we tend to think in simple one-to-one relationships, in linearity, in very short-term cause and effect. Perhaps during the first two hundred years of the industrial revolution, when our civilization was less complex, that was an adequate approximation of reality. But the fact is that the real world never works that way.

Resilience thinking adopts a “post-normal” scientific framework, a systems approach. This thinking recognizes that:

- Any complex system is non-linear. For example, there may be significant lags between cause and effect. Global warming, for instance, is lagging greenhouse gas concentrations by 20 to 60 years.
- Important systems variables or whole systems may be characterized by critical thresholds or “tipping points” whose existence is unknown until they have been breached.
- Beyond a threshold the system may gravitate into a new regime or “basin of attraction” that is not amenable to human purposes or even human existence.

Think of a bowl in which interrelated, interacting elements are whirling about. If a system spins too far out of sync, it is possible that the system may flip out into another bowl altogether.

Such catastrophic change may not be reversible in practical terms. The collapse of North Atlantic cod stocks is an example. For hundreds of years we fished the cod stocks off the Grand Banks. Despite warnings from scientists, we continued to fish, with better and better technology, until the stocks were depleted. We stopped fishing there a couple of decades ago, long enough for recovery. But the recovery has not yet occurred because the system reached a tipping point and is now in a different stability configuration. Though the cod is not extinct, the previous ecosystem will not necessarily rebound.

Environment? There are cultures for which that concept does not exist. We are not standing here, with the environment over there. There is no separation between us and nature. Resilience thinking accepts that:

- The human enterprise is structurally and functionally inseparable from nature. We are a fully embedded subsystem of the ecosphere.
- We belong to linked/integrated socio-ecosystems, complex adaptive systems that are constantly changing.
- The sustainability of the human enterprise on a crowded and resource-stressed planet depends on our ability to conserve the resilience of socio-ecological systems.
- Resource management efforts must shift from reshaping nature to satisfy human demands to moderating human demands.

#### CYCLES OF ADAPTIVE CHANGE

Resilience science recognizes that there are cycles of adaptive change in complex systems. The ecosystems, human systems, and combined systems that comprise the ecosphere exist in an overlapping hierarchical structure referred to as a panarchy.

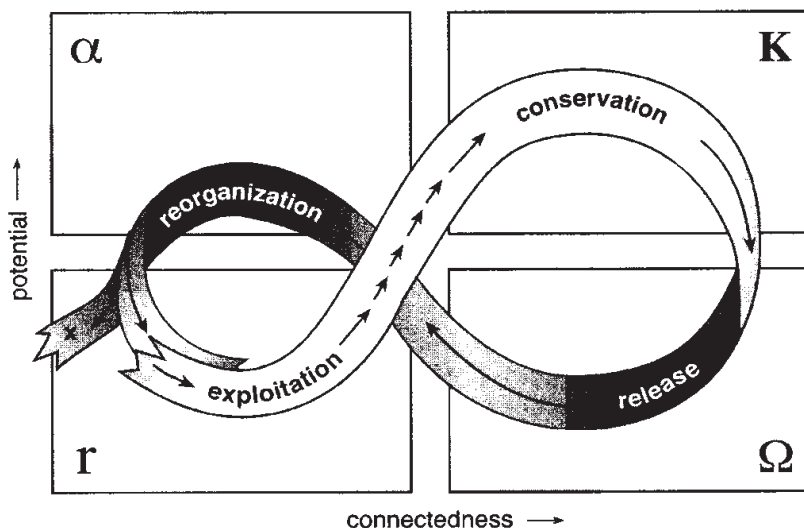


Figure 1: Never-ending adaptive cycle of growth, accumulation, release [collapse] and renewal

All subsystems within the hierarchy are interconnected in repetitive adaptive cycles of growth, accumulation, release [collapse], and renewal.

Let's apply this to the life cycle of pine forests. Young pine trees grow, they flourish and fill the canopy. At maturity their canopy blocks out the undergrowth, and they have absorbed almost all of the nutrients in the soil. After 80 to 120 years a lightning strike causes a fire, which releases the nutrients back into the soil and cracks open the cones so that seeds are available for more growth. And so the cycle begins again.

These transformational cycles take place at scales ranging from a single organism to the biosphere over periods from days to geological epochs.

The cycle may well apply to human societies as well. We develop, expand, exploit. Then we work to conserve the system, that is, to maintain the status quo. The system becomes rigid and loses resilience in the face of new problems. Eventually, we exhaust resources and experience collapse. If we are lucky, we reorganize, to begin the cycle again. When Europe became too

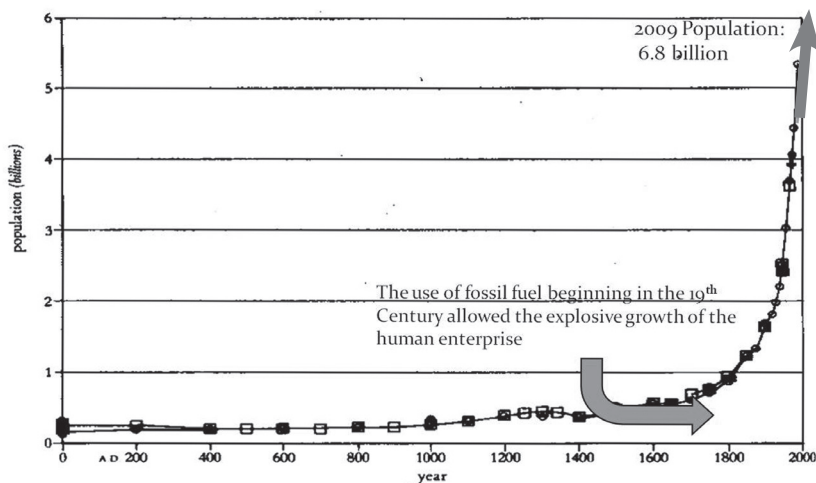


crowded, Europeans discovered the “New World” and began a new cycle there. However, many previous human societies simply collapsed, whether slowly or rapidly, and never recovered.

## OUR GENETIC PRESET

Every species has a tendency to fill all available habitat and use all available resources. It’s a genetic preset that a species must have to survive. It happens with bacteria in Petri dishes and to birds and animals when introduced to hospitable new habitats. Humans are no exception—look at how we have filled North America and plundered its resources. In fact, humans are particularly adept at this basic evolutionary strategy because in our case what constitutes available resources is determined by contemporary technology.

This makes humans a particularly successful species, the archetypal example of K strategists. K strategists are large, long-living, slowly reproducing, competitive organisms with high survival rates to maturity. Other mammals such as tapirs, elephants, and blue whales are in the same category.



Graph: Anomalous, unsustainable oil-based expansion of civilization.

K strategists tend to press against the carrying capacity of their ecosystems. To make matters worse, our biological predispositions are currently being reinforced by our dominant cultural narrative: the progress myth and the cult of perpetual economic growth.

The human enterprise is an open, growing, fully-contained, and dependent subsystem of a materially closed non-growing ecosphere. The modern human subsystem can grow and maintain itself only by extracting energy and material from, and by discharging its wastes into, its host ecosystems.

The problem is that the Earth is finite but our consumption lust is not! We are depleting the planet. Because of globalization and trade, countries that run eco-deficits can extract “surplus” biocapacity from low density countries (like Canada) and the global commons, and use it to sustain their destructive habits.

The result of this historically unprecedented global spike of consumption is the permanent dissipation and degradation of vital resources and systems. Should the human system collapse we may no longer have the wherewithal to reorganize a future civilization.

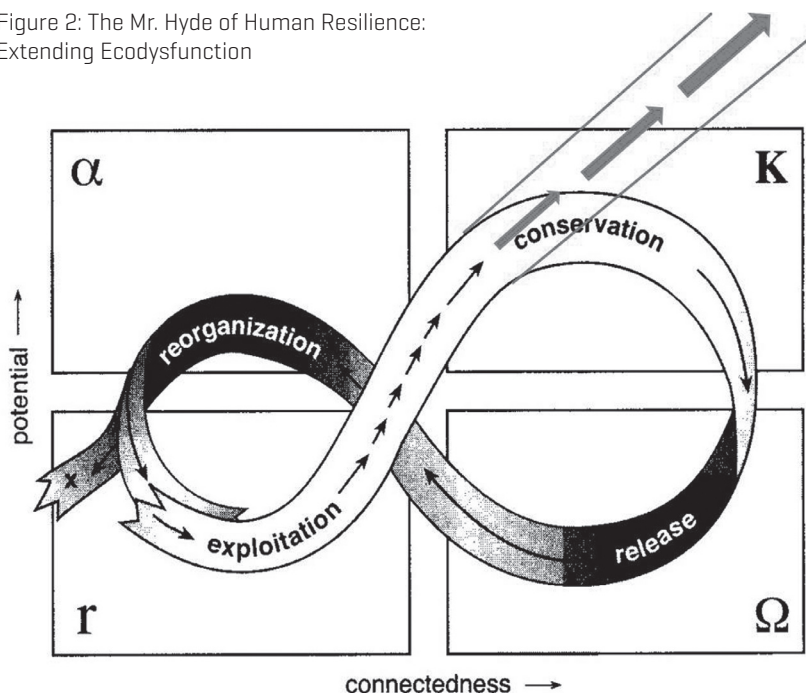
#### **THE MR. HYDE OF HUMAN RESILIENCE: EXTENDING ECO-DYSFUNCTION**

As noted at the outset, there is an ironic downside to resilience. Human inventiveness, creativity, ability to adapt—our resilience in the face of change—has meant that we have been able to extend the growth and conservation phase of our adaptive cycle. In other words, as challenges have surfaced, we have managed in the conservation phase to invent new solutions to maintain the system.

Our technological prowess and globalization are adaptive responses to resource shortages. This is resilience at work. But the longer and farther we extend our conservation phase, that is keep the system running at this pace and in this fashion, the worse the eventual collapse. Societies in overshoot risk catastrophic collapse.

Whenever a population grows beyond carrying capacity the

Figure 2: The Mr. Hyde of Human Resilience:  
Extending Ecodysfunction



environment is degraded. Think about climate change, ozone depletion, rising sea levels, deforestation, collapse of fisheries, land degradation, etc. This is all the result of uneconomic growth, growth that makes us poorer, not richer.

### COMPLEXIFYING

At some point about 9,000 years ago humans had become so efficient at hunting and gathering with metal weapons and tools that they hunted out whole areas. Out of necessity, stone-age resilience led to the invention of agriculture and the development of permanent settlements. With stable locations and food supplies came the population growth, division of labour, class structures, and other adaptations leading to greater socio-economic complexity—civilization as we know it.

After a few hundred years the soils were worn out, but societies adapted again with the invention of irrigation and, of

course, conquest. Eventually, soils became saline or waterlogged and further clearing of forests contributed to desertification. In some cases, whole human systems—civilizations—collapsed.

We've become extremely arrogant in the era of post-scientific revolution. We think we've overcome this long history.

But what we have now is complexity on a global scale. Our population doubled and doubled again to six billion in the 20th century alone. We're now pushing seven billion people. The food and material goods required to sustain all these people has put enormous pressures on the planet. We may well be heading to a crisis point from which we cannot complexify further. What used to happen on a regional scale is now happening on a global scale. Humans have become the single greatest consumer organism in all ecosystem types on the planet and they threaten to take many of these ecosystems down with them. We are at the top of a global-scale adaptive cycle deep into the conservation phase, where the system becomes brittle, very sensitive, and vulnerable to new perturbations.

Recent studies turn the screw<sup>ii</sup>. Since the year 2000 we have actually been increasing greenhouse gases at the rate of 2% per year. Some scientists argue that to stabilize greenhouse gases at even 650 ppm CO<sub>2e</sub>, the majority of OECD nations must begin to make severe emission reductions within a decade. Failure to act implies a disastrous 4° Celsius mean global temperature increase. Unless we can reconcile economic growth with unprecedented rates of decarbonization, in excess of 6% per year, proper preparation will require a planned economic recession.

## COGNITIVE DISSONANCE

Evidence of our plight abounds, but we live in deep denial—indeed, it seems that denial is a universal human trait:

“...a new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it.”<sup>iii</sup>

The perverse Mr. Hyde syndrome is revealed once again. Recent findings by psychologists point to a cognitive mechanism



that may explain our tendency to ignore unwelcome truths. Wexler<sup>iv</sup> points out that during our development as children and young adults, repeated sensory experiences, social conditioning, and cultural norms shape the human brain's synaptic circuitry in patterns that reflect and embed those experiences. Subsequently, people seek out compatible experiences and, when faced with information that does not agree with their [preformed] internal structures, they deny, discredit, reinterpret, or forget that information.

This makes sense from a socio-biological point of view. Arguably, in a stable, functioning society, one's chances of survival are greater if one adheres to accepted ideas and practices. After all, they are clearly working and it would be risky to try something new. For instance, in the Middle Ages those who survived the dangers of early childhood might live to a ripe old age, but the world that they left after ninety years would look pretty much the same as the world into which they were born. In evolutionary terms, it was a better bet to stay within the norms. In Darwinian terms, there was a selective advantage to conforming to patterns that were clearly working and to resist new ways of thinking.

The problem is that today both our socio-cultural and biophysical environments are changing rapidly because of human interventions and the selective advantage has shifted to nimble thinkers and doers. We need to change our ways dramatically, yet we are stuck with our Cro-Magnon brains and inherently conservative group behaviours. One result is that we're training a whole new generation to think exactly the same way as the present generation. We can't afford that! As Albert Einstein said, "We can't solve a problem at the same level at which it was created."

Today both our socio-cultural and biophysical environments are changing rapidly because of human interventions and the selective advantage has shifted to nimble thinkers and doers

## THE QUESTION OF THE DAY

We are arguably the most intelligent, forward-thinking, generally compassionate species on the planet. What should

we do in response to the available data, the historical record, and ongoing trends to enhance the resilience of contemporary society?

**1. We need to recognize the Jekyll and Hyde nature of resilience.**

Resilience in the natural world has led to agricultural insect pests evolving tolerance to many kinds of chemical biocides. It has led to pathogenic bacteria and fungi evolving resistance to many kinds of antibiotics. Good for the insects and pathogens, but bad for humans.

Even human resilience can be frustrating to our collective survival. Consider the well-funded resistance of the corporate sector to evidence of climate change and to demands for ecological responsibility and social justice. Even globalization and technology are essentially dedicated to resisting change and sustaining the status quo while, in the process, they destroy long-term global life support. Our skills in adapting for the short term—human resilience—are destroying our chances for the long term.

**2. We need to restructure our socio-ecosystems for *collective* resilience.**

We need to abandon the myth of continuous economic growth and reorganize on a manageable scale. This means creating socio-economic planning regions, partially returning to a localized economy, and maintaining the integrity of the natural system within each region. We need to invest in multiple redundant energy systems with an emphasis on sustainable renewable forms.

**3. We need to re-socialize.**

We need to initiate a national public education campaign on the severity of the crisis and the need for decisive action. It must be emphasized that global change is a collective problem requiring collective solutions—individual actions have inadequate, even trivial effects. Governments must take action for the common good. Re-socialization requires that we:

- Promote a cultural shift from private to public capital accumulation and to human development.
- Implement programs in job training and job placement to equip people for employment in sunrise industries.
- Design and implement new forms of social safety nets to enable transition to the post-carbon economy (there will be sunset as well as sunrise industries).
- Recognize the advantages of job-sharing, such as improved work-life balance.

#### **4. We need to intervene to create more efficient markets.**

We need to end perverse subsidies, such as those to the fossil fuel sector, and acknowledge that most goods are underpriced and therefore over-consumed. We must:

- Recognize that government intervention to correct for gross market failure, such as climate change, is necessary and legitimate.
- Internalize ecological and social externalities, such as pollution and social damage from development. Among other things, a sustainable society will insist on full-cost pricing of goods and services.
- Initiate ecological fiscal reform: tax the bads, not the goods. Implement a combination of pollution charges/taxes (e.g., carbon tax) and import tariffs as necessary. Support World Trade Organization reform.
- Consider a negative income tax to assist low-income families through the transition.

We need a new global cultural narrative that shifts the values of society from competitive individualism, greed, and narrow self-interest, toward community, cooperation, and our collective interest in repairing the earth for survival.

#### **5. Society must consciously script a new cultural narrative.**

This is the ultimate in constructive resilience. We must learn to override our innate expansionist tendencies and abandon our perpetual growth myth. Instead of forcing the environment to conform to our demands we must learn to adapt our

expectations to ecological reality. A good start would be a new global cultural narrative that shifts the values of society from competitive individualism, greed, and narrow self-interest, toward community, cooperation, and our collective interest in repairing the earth for survival.

## CONCLUSION

Could growth-based global culture be “selected out?” Could civilization as we know it collapse? It wouldn’t be the first time.

“... what is perhaps most intriguing in the evolution of human societies is the regularity with which the pattern of increasing complexity is interrupted by collapse.”<sup>v</sup>

### **Sir Frederic Hoyle on the sustainability of civilization:**

“It has often been said that, if the human species fails to make a go of it here on the Earth, some other species will take over the running... this is not correct. We have, or soon will have, exhausted the necessary physical prerequisites so far as this planet is concerned. With coal gone, oil gone, high-grade metallic ores gone, no species, however competent, can make the long climb from primitive conditions to high-level technology.

Our real hope is that we recognize that for the first time individual and national self-interests have converged with humanity’s collective interests.

“[Civilization] is a one-shot affair. If we fail, this planetary systems fails so far as intelligence is concerned.”<sup>vi</sup>

Our real hope is that we recognize that for the first time individual and national self-interests have converged with humanity’s collective interests.

Regardless of place, culture, or circumstance all of us share the same planet and the same global future.

We have the benefit of hindsight—we’ve seen what has happened to previous civilizations that ignored obvious danger signs. And we have the technical capacity to re-educate a whole new generation to the nature of our plight.

We may have to shrink the economy for survival but this isn’t doom and gloom or even a vision of sacrifice. Maintaining the



status quo is the path that ultimately represents doom. Instead, the ecological perspective offers a vision in which human beings can flourish more equitably with greater economic security and ecological stability well within the means of nature. Reducing our gross consumption, putting a cap on the damage we're doing, and reducing the income gap all have the potential to enhance quality of life for everyone.

Our most “human” qualities must prevail—our capacity for reason, our capacity for forward planning, our ability to make moral judgments, our compassion for other people and other species.

Our most “human” qualities must prevail—our capacity for reason, our capacity for forward planning, our ability to make moral judgments, our compassion for other people and other species. If we use these qualities in a great expression of collective intelligence on both the local and global scales, humanity can become sustainable. However, if we don't exercise our full human endowment, the great evolutionary experiment that is *Homo sapiens* will have failed absolutely. In this case, humans may well sink out of existence just like any ordinary species that fails to adapt to changing reality.

I think this message needs to go viral.

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<sup>i</sup>Walker and Salt, 2006.

<sup>ii</sup>Anderson and Bows, 2008.

<sup>iii</sup>Max Planck, 1949.

<sup>iv</sup>Wexler

<sup>v</sup>Joseph Tainter, 1995

<sup>vi</sup>Fredrick Hoyle

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## CHAPTER 2

# Urban Design Responses

## CHAPTER 2.1

# Cities in Transition

*“There are moments in history when real transition can occur.” So says **RYAN WALKER**, Chair of the Regional and Urban Planning Program at the University of Saskatchewan. “Let us have bold governments!” In this article, Walker lays out the demographic changes—increasing ethno-diverse populations in Canada, a rise in small households, increasing Aboriginal populations in prairie cities, an aging population, and below-replacement birth levels that are a backdrop to contemporary social and environmental concerns. His strategy lies in developing more compact cities, bringing food systems closer, moving away from junkscape zoning, and calling for bold governments.*

WHEN WE TALK ABOUT PRAIRIE CITIES OR CANADIAN CITIES, the question arises of who we are in the first place. In her book *Lilac Moon: Dreaming of the Real West*, Sharon Butala writes a little bit about prairie towns and cities, and how people here still exchange stories about things that happened on the farm when they get together. Even if they only lived on the farm for five years as a child, they still repeat the stories of their parents and grandparents. When I visit relatives around Saskatoon this is the case, even though most of them haven’t lived on the farm for years.

I think the embrace of our rural culture and rural roots is one of the beautiful things about prairie cities. However, we can't use that as an excuse for bad urbanism.

On the prairies we have many small cities, but we also have some large cities, and they have large city issues. It is important not to deal with our larger cities as though they are small centres.

## WHO ARE WE?

Here are a few demographic points that are important in the discussion of changing cities on the prairies:

1. We are not necessarily reproducing ourselves as a Canadian population without immigration. Our birthrate is roughly 1.5 children per woman. We need 2.1 children per woman in order to reproduce our population, the 0.1% to take into account infant mortality.
2. There are some particularities with respect to prairie cities that are important to take into account. Of particular importance is that there are several groups of people on the prairies who are having children above replacement rate—First Nations and Métis groups. By 2017, according to statistics Canada, Aboriginal people could make up a third of Saskatchewan people in their twenties.
3. Our newspapers have written a number of stories about our increasingly ethno-diverse population. People coming from other countries for the most part still tend to settle in big cities like Montreal, Toronto, and Vancouver. However,

### Prairie Populations are changing:

1. We are not reproducing as a Canadian population without immigration
2. First Nations and Métis groups are having children above the 'replacement rate'
3. Immigrant populations in the Prairies are settling in urban centres
4. We have an aging population
5. Interprovincial migration is bringing younger people to Alberta and Saskatchewan
6. The number of one and two person households is going up

more often than before they are settling in other parts of Canada, with the highest proportion of immigrants coming to each province settling in that province's largest urban centres.

4. We have an aging population.
5. Recent interprovincial migration has been roughly equivalent to the population growth caused by international migration. Alberta and Saskatchewan are two places that tend to attract a lot of younger people from other parts of Canada.
6. Our household structure is changing. The number of one and two person households is going up. We have an aging population with more "empty nesters" and more young singles.

My colleague Ivan Townshend and I talk about the concept of the "Bridget Jones economy"—thirty-somethings choosing not to have children, having a consumptive lifestyle, eating out, going to the gym, having professional jobs. This cultural shift among younger people, combined with empty nesters leaving the family home, is driving demand for inner city developments.

#### TRANSITIONAL CHANGE<sup>1</sup>

Urban change is the outcome of tensions between opposing categories of forces: one promotes change, the second promotes stability. Cities have capacity for incremental change, but there are moments in history when real transition can occur. While alternate visions promoting change such as New Urbanism are being developed by the professionals involved in urban planning, those ideas are frequently tossed out by councils who are not yet positioned for the changes.

Transitional change is possible when expert visions are consistent with those of the consumers, economy, politicians, and technology. When these all come together, there is a groundswell to develop the new vision.



## LIMITS TO URBAN TRANSITION

There are conditions that tend to limit change.

- Path dependence or inertia. It is simpler to do what has been done before. Money has been invested in the existing infrastructure over decades. It may be more efficient to continue on the same path, and there is a regulatory structure in place that maintains the status quo.
- Complexity. Innovations must relate to infrastructure, technology, building codes, and zoning.
- Real estate development and investment. This tends to be a conservative industry that is cautious about change.

## POST-WORLD WAR II TRANSITION PERIOD

The last transition was in the post-World War II era, when there was significant convergence around how we wanted our cities to be developed. How did this transition come about?

First, we came out of a long period of slow growth. Our built form had been in place prior to the depression years. Then we had the period of rapid growth fueled by government investments, wartime efforts, and the postwar boom. There emerged the modernist outlook and a real consistency in values. People really believed in the idea of the family with a single breadwinner and a fair number of kids, and were inspired by the independence provided by the automobile.

Along with the automobile came freeway technology and road standards, standards that tend to be applied in the same way today. This development had great significance on how our cities grew.

## TRANSITION NOW?

We may actually now be at a point on the prairies where we will be working through a significant urban transition.

1. We have new visions of what we would like to see, shifts in our values, and external parameters that support change.
2. There is an increase in cognitive dissonance. We are dissatisfied. That is, our values don't mesh with what we are able to do in our built environment. There is a resistance to the status quo. Significantly, many of us can't afford to buy in the areas that we want to live in.
3. We have environmental concerns, particularly with climate change and how that connects to our lifestyle choices—our travel options, how we heat our buildings, etc.
4. We are facing various public health issues. For instance, the health of children is becoming an issue. There is thinking that we can trim waistlines through neighbourhood design <sup>ii</sup>.
5. There is an evolving love of urban life. We're not all rural transplants!

We might have a transition coming but it will not be as dramatic as the transition from the 1950s. There isn't as much consistency in outlook today—we don't all sing the same tune.

1. We have new visions
2. We are dissatisfied
3. We have environmental concerns
4. We are facing public health issues
5. There is an evolving love of urban life

We can predict one of two scenarios according to Filion and Bunting. One, we will have tension between path-dependence and the forces calling for transition, with the result that we have two urban forms superimposed on each other, the automobile-oriented model and transit/pedestrian/cyclist orientation. Or two, we may see the

victory of path-dependence, and the city twenty years from now will be much the same as it is today, with somewhat less satisfied citizens.

## URBAN GROWTH: FORM AND QUALITY

We're a suburban nation. According to a recent study at Queen's University, over 70 % of city-dwellers in Canada live in their city's suburban areas rather than within the walkable core.

That figure applies to Saskatoon. Changing the urban form to create more compact cities is not just putting up some towers in the downtown. We have to consider what we are going to do with the suburban areas.

## DEVELOPING A MORE COMPACT CITY

1. Intensify activity density. That is, increase both numbers of people and jobs in an area. We can identify three distinct situations to apply this.

- Inner city densification. The building of condominiums and the redevelopment of warehouses, work sites, and manufacturing sites as residential areas.
- The use of existing suburban densification. This often happens as soft or invisible densification through secondary suites, garden and garage suites, and laneway housing.
- New greenfield developments. These may be neighbourhoods designed according to new urbanist principles with a focus on neighbourhood centres, creating jobs and attracting more people. They are talked about in the context of creating complete mixed-use communities, with transportation and density, encompassing services, and recreational opportunities. The lots will be smaller. Attention is paid to the streetscape—having front porches for instance. The streets will have separated bicycle lanes and good pedestrian design. A number of housing options, rental and ownership, may be assumed. This concept of complete communities may be through new greenfield developments or redevelopments.

2. Undertake land use and transit planning together. We tend to separate land use and transit plans. That is an impractical approach.

3. Create intensification corridors and nodes. We can increase our development focus on underdeveloped commercial border areas. There may be a good walkable commercial strip with

shops side by side, and often you'll find that the residential density immediately behind that is single-detached. This can become an intensification corridor. Residential space can be developed on top of or just behind commercial businesses. There will likely already be good transit service here. The increase in the number of residents provides good clientele for transit and for the businesses. Even along commercial streets designed for easy automobile access and parking (e.g., strip malls), similar intensification can occur. In addition, grey field redevelopment becomes a viable enterprise, filling in parking lots with floor area.

4. Transportation planning. As internationally recognized former Vancouver planning director Larry Beasley said at his keynote address to the Association of Professional Community Planners of Saskatchewan annual conference in 2010, "The best transportation plan is a good land-use plan." We have to look at how we plan these together.

We have an appetite for mobility. We need free passage, to be able to move about in a reasonable, timely fashion, not backed up in traffic looking at the clock. We also have an appetite for livability. We need to pay attention to creating and maintaining a sense of place.

We might satisfy our need for mobility alone by using the predict and provide approach. That is, predict numbers and build infrastructure accordingly<sup>iii</sup>. Or we could use the debate and decide approach. That is, engage in a broader process of considering and debating the range of transportation options so that we can satisfy multiple appetites. We need to revise our transportation planning policy and standards.

For instance, on the main downtown commercial strip in Napier, New Zealand, vehicles are no more welcome in some areas than pedestrians or cyclists. The street is designed for pedestrians, but accommodates vehicles as well, inviting their movement through shared street space. In Copenhagen, Denmark, parked cars serve as a buffer between vehicle and cycling lanes. Cycling is not a fringe interest—it is an effective way to improve public health and relieve vehicle congestion.

Over the last ten years cycling has become mainstream in Copenhagen. Bicycle commuter traffic there has doubled, so that 37% commute by cycle and 33% take transit. The number of private cars has gone down. Seventy percent of cyclists continue to commute by cycle in winter, and in European cities like Copenhagen and Amsterdam you see cyclists in suits and dresses on their way to and from work. In Saskatchewan cities, on the other hand, it is a fair observation to say that there is a paucity of cycling. Change takes time and infrastructure.

Public transit is obviously another important topic, to be addressed in another forum.

5. Controlling growth at the urban boundary to promote inward development. Containing growth is a big issue. I firmly believe that municipalities are not able, as the lowest level of government, to confront this issue as readily as senior governments and in particular, the provincial government. Boundaries are contentious. Councils and communities can be a little nervous about establishing a boundary, worried about local developer shutdown or movement to nearby communities. Municipalities may be too close to the development community, and they are also faced with pressure to expand the tax base in response to rising costs. Regulation at the provincial level is needed to set rules of the game that apply to municipalities, and removing the impetus to race toward the bottom in order to induce development.

In Ontario, the 2005 Places to Grow Act set a number of criteria for boundary implementation. The State of Oregon set boundaries for over 200 urban communities, starting in the 1970s. The Agricultural Land Reserve was set up in BC at around the same time. One could argue that the agricultural land reserve is one of the most effective growth strategies, and appropriate if you value local food production—something that should fit well with Saskatchewan’s agricultural culture and sense of place.

#### A More Compact City:

1. Intensifying activity density
2. Planning land use and transit together
3. Intensifying corridors and nodes
4. Planning transportation that encourage public transit, cycling and walking
5. Controlling growth at urban boundaries

## URBAN ENVIRONMENTAL SUSTAINABILITY

The eminent planning scholar William Rees has stated:

“Provincial and municipal governments must create the land-use legislation and zoning by-laws that urban planners need to eliminate sprawl and consolidate and densify existing built-up areas.”<sup>iv</sup>

Rees laments that we separate our sense of nature from our urban/cultural/economic place. The two often don’t meet in people’s minds. In our planning we need to encourage this connection.

“The separation of people’s lives and livelihoods *from* the land diminishes urbanites’ sense of felt connectedness *to* the land.”

It was Rees who developed the concept of the ecological footprint:

“The area of land and water ecosystems required, on a continuous basis, to produce the resources that the population consumes and to assimilate the wastes that the population produces, wherever on Earth the relevant land/water is located.”

The ecological footprint is a measurement of an entity’s biological impact on the world. By Rees’ calculations the sustainable per capita ecological footprint is roughly 2.1 gha (global hectares) of world biocapacity. We use 7.1 gha in Canada. We’re well above our per capita share of global biocapacity.

## BRINGING THE REGION AND FOOD SYSTEMS INTO THE CITY

We can begin to naturalize our urban areas through policy and regulatory changes. We can encourage green roofs<sup>v</sup> and xeriscaping—landscaping and gardening in ways that reduce or



eliminate the need for supplemental water from irrigation. And we need to examine urban food production.

In London, England, 40% of the ecological footprint is accounted for by food production and disposal of organic waste. It is surprising that we're not moving further in the direction of urban food production in a province that has such a rural connection and a sense of place, even in urban areas, connected to agriculture.

In Saskatoon we are seeing some movement towards urban agriculture. The concept of Small Plot Intensive Farming (SPIN) and the first SPIN farm were founded in Saskatoon, accomplished by converting free space on a range of residential plots that were offered for production. The concept of SPIN farming has been adopted in cities in the US and elsewhere, and there is more potential for this small scale farming.

#### URBAN QUALITY: QUALITATIVE DEVELOPMENT

Quality is the “other” component in planning. How do we plan for better rather than plan for more? How people interact with their built environment is very important. We have to move away from zoning junkscapes!

How much we are engaged and interested in our surroundings is in proportion to how much variation we see. Consider that:

How do we plan for better rather than plan for more?

- at walking speed with our field of vision mostly horizontal we are stimulated by quality urban design;
- within a minute our eyes flick around dozens of times, fixing on elements of the built environment designed for the pedestrian experience; and
- the first three floors are the most visually important at human scale.

Having many units, windows, doorways, stimulating street furniture and paving surfaces, vegetation, awnings, lines, and

texture in building facades all contribute to a richer visual experience and therefore to urban quality.

It takes conscientious physical planning and design to create streetscapes for people rather than junkscapes for cars. Eighth Street East in Saskatoon is a prime example of an uninviting stretch where people don't seem to matter. Our cars rescue us from there as soon as we've finished our business!

Qualitative development is not necessarily new development. We can retrofit. Built heritage is good raw material for place-making, helping people identify with their cities.

"History not only narrates past memories but also builds, in the present, a sense of distinction and authenticity." <sup>vi</sup>

It is popular among local decision-makers to court rapid growth, to count growth as a measure of success. However, in Saskatchewan as well as across much of Canada, we can count on slow growth and decline in our populations just as readily or more so than we can count on periods of rapid growth <sup>vii</sup>.

We tend to associate a psychology of failure with slow growth or decline. But some of the best cities are experiencing either slow growth or population decline. However their economies have gone up. In Canada, Sudbury is another good example.

To maintain sustainable communities we must replace the psychology of failure with the development of pride in place.

## **HOUSING: SOCIAL AND ENVIRONMENTAL POLICY**

Good housing policy is good social policy and good environmental policy. In the midst of many issues, housing fits in the middle of everything.

### **SOCIAL POLICY**

There is a correlation between physical and mental health and the state of housing. Poor physical and mental health can be predicted where there is poor housing repair, overcrowding, residential mobility for reasons not chosen by the household, and when there is a high proportion of monthly expenditure on housing and related costs. There are also correlations with

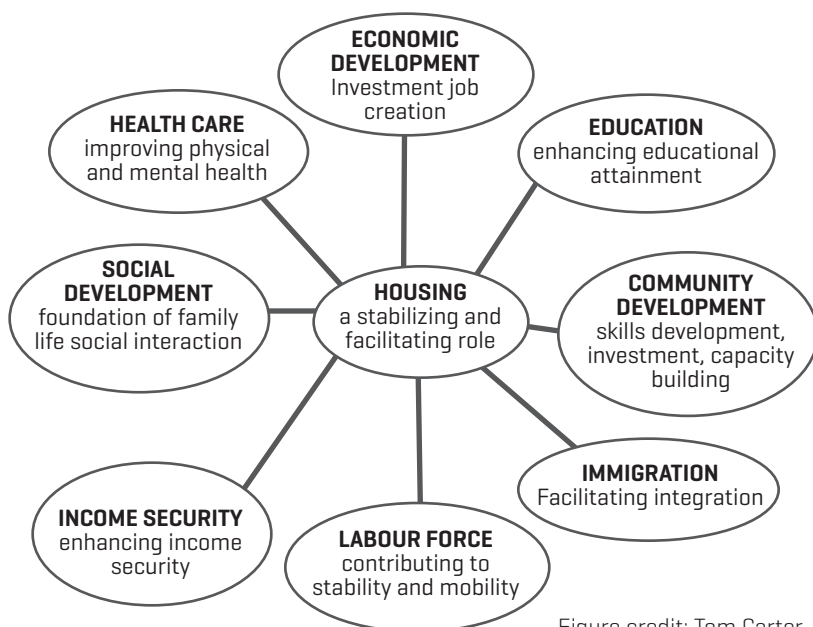


Figure credit: Tom Carter

exercise of control and security of tenure. The high cost of housing is a burden that results in stress and lack of self-esteem, with consequent health costs.

Homelessness is the greatest predictor of physical and mental health, with some horrifying statistics. Mortality rates among the homeless are up to ten times higher than in the housed. Physical, mental, and addiction health supports are ineffective when stress is caused by homelessness. Ultimately it costs four to ten times more to deal with homelessness as an emergency than to provide housing and support routinely.

It is recognized that a housing first policy means that resources are used more efficiently. The overall social cost is less when adequate and affordable housing is available.

There is also a correlation between housing and the effectiveness of education. Statistically, children living in overcrowded homes have poorer educational outcomes. Poorly housed children tend to be more anxious and depressed, and have more behavioural problems. This translates into lower educational achievement. We also know that residential mobility as a child has a higher

impact on high school graduation than poverty or welfare dependency. Adequate and affordable housing, with security of tenure, can level the playing field for disadvantaged children.

Strategies have been proposed but yet not implemented to deal with the housing crisis on the federal level.<sup>viii</sup>

## ENVIRONMENTAL STRATEGY

Housing sizes are increasing, with concurrent impact on the environment. Housing is the single largest user of developed urban land. In 1945 the average house size in Canada was about 800 square feet. In 1975 the average house size was about 1075 square feet. Today the average is about 1700 square feet. In a 2005 study of six Canadian cities, Saskatoon and Calgary had the highest proportions of single-detached dwellings.

Local administrators must cultivate demand for other housing styles. Some elements to consider are: unit size, square footage, lot size, housing type, and environmental standards in building design and materials.

It is time for a building code review to ensure that standards reflect a 21st century perspective on the health and safety of building occupants that includes accounting for the environment. Climate variability and change, for example, are environmental processes that affect population health and safety. Our building designs should minimize negative impacts on environmental sustainability.

## INDIGENEITY IN THE CITY

Consideration of First Nations and Métis communities is fundamentally important to prairie cities. If people see themselves and their culture reflected in the environment around them, they will engage more in the civic process because they feel more at home. And that can have many forms: murals, architecture, and governance. We have the Muskeg Lake Cree Nation development in Saskatoon, and the Long Plain Ojibway Nation and Assembly of Manitoba Chiefs development in Winnipeg. The design of the River Landing Tree Grates in Saskatoon and the architecture of

the First Nations University building in Regina are both examples of indigenous influence. Progress is being made in areas of governance, building relationships, and policy co-production.

## REFLECTIONS

Let us have bold governments. Municipalities have to draw the lines and build the visions to create great cities. Under leadership, the citizens and the developers will contribute vision and choice.

We need strong statements of provincial interest. The value of provincial urban strategies has been demonstrated in Ontario and in Oregon.

At the provincial-federal level, what will rise eventually from the ashes of the welfare state to speak to the needs of the environment as well as the needs of the people? Is it going to be the resilience state? Sustainability state? What is going to get to the social issues, the cultural issues, and the environmental issues that are so fundamentally important to people now?

Good governance is based on first defining and then serving the interests of the public. It requires knowledge, passion, and purpose.

“First we shape the cities. Then they shape us.”<sup>ix</sup> —Jan Gehl

Are we prairie cities in transition or are we cities stuck stubbornly in the ruts of path-dependence?

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<sup>i</sup>Filion and Bunting

<sup>ii</sup>Gilliland, 2010.

<sup>iii</sup>Perl and Kenworthy, 2010.

<sup>iv</sup>Rees

<sup>v</sup>Green roofs: [www.toronto.ca/greenroofs/overview.html](http://www.toronto.ca/greenroofs/overview.html)

<sup>vi</sup>Ley and Lynch

<sup>vii</sup>Donald and Hall, 2010.

<sup>viii</sup>One-percent Solution (Hulchanski and Shapcott) and FCM Recommendations for a National Action Plan on Housing and Homelessness. Private Member’s Bill on housing: [www2.parl.gc.ca/content/hoc/Bills/402/Private/C-304/C304\\_I/C-304\\_I.PDF](http://www2.parl.gc.ca/content/hoc/Bills/402/Private/C-304/C304_I/C-304_I.PDF)

<sup>ix</sup>Jan Gehl is a Danish architect and urban designer whose career has focused on improving the quality of urban life by re-orienting city design towards the pedestrian and cyclist.

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# Seven Rules for Sustainability: Strategies for the Post-Carbon World

**PATRICK CONDON**, author of *Seven Rules for Sustainability*, weaves together multiple aspects of Urban Design, and presents a tangible map for achieving carbon neutrality. The goals are bold, practical, possible and beautiful. Patrick has a reputation for “discussing frankly some of the key challenges that we face and leaving a huge sense of hope and forward momentum.”

*These seven rules guided the citizens and leaders of the City of North Vancouver in developing their 100 Year Sustainability Vision. This vision was a collaborative project undertaken by the City and UBC’s Design Centre for Sustainability.*

MY CAREER TOOK A TURN BACK about the time when my son Will was five years old. He was crying in bed one night, like kids around that age sometimes do, and I went in, like fathers always do, and asked him what was the matter. He said, “I’m afraid. I’m afraid... I’m afraid of global warming.”

It’s kind of sad but it’s kind of funny too. Like any good father I tried to calm him down. I said, “Don’t worry about it—it’s going to be okay.”

He looked up at me again. This time he was crying but he was also angry. He said, “It’s easy for you to say. You’ll be dead.”

My work has really been influenced by that moment. A lot of us are going to be dead when the whole question of climate change becomes really serious. But for better or worse, it is our generation and our generation of elected leaders, particularly our generation of leaders at the municipal level, who bear the brunt of responsibility for doing something about it.

In ten years we have made almost zero progress. How do we get to an 80% reduction in greenhouse gases by 2050? Get to zero emissions in a hundred years? How do we do that in our North American cities, given how they were formed and how they are designed to function right now?

It has been a motivation of mine, working out of UBC, to simplify a complex set of interactions and put them in a format that can be generally understood and discussed. I finally figured out that it's not that complicated. Twenty-five years of thinking about this stuff fits into seven simple rules. If you can get these seven rules right, then you can get it done. And they apply at the local level. You don't have to wait for the government to get this stuff done, though you will probably need their help.

**RULE 1.** Restore the streetcar city.

**RULE 2.** Design an interconnected street system.

**RULE 3.** Create and use local commercial services, frequent transit, and schools within a five-minute walk.

**RULE 4.** Locate good jobs close to affordable homes.

**RULE 5.** Provide a diversity of housing types.

**RULE 6.** Create a linked system of natural areas and parks.

**RULE 7.** Invest in lighter, greener, cheaper, and smarter infrastructure.

#### **RULE 1. RESTORE THE STREETCAR CITY.**

The North American city was and is a streetcar city. Streetcar cities are characterized by easy access to transit, a wide variety of house types, and services and job sites very close at hand—the exact elements of a sustainable city.

Streetcar cities are very particular—you don't find them in other parts of the world. About half of all Canadians still live

in neighbourhoods that were built during the streetcar period and the rest of us tend to live in neighbourhoods nearby. That means that we live in urban places where prior to 1940 almost no greenhouse gases were used for getting around.

In classic North American city development, the first thing we did in neighbourhoods was put in a streetcar. This was followed by the development of smaller buildings, in neighbourhoods of single-family homes. It is only now, eighty years later, that four-storey structures are commonly appearing along streetcar arterials and we are beginning to achieve the density that was originally planned.

We've already blown off ten years. We only have 40 years left to reach our greenhouse gas target. I never thought that I'd become a train nut—one of these guys with grey hair who just goes cuckoo about trains. But I've become a train nut in my later years because, after thinking about this for a long time, I figured out that trains are a key part of the answer.

Today, the biggest single factor in greenhouse gas production is transportation, and the biggest component of that is individuals driving their own cars alone. In order for us to return to the state of the streetcar city—an 80% reduction of greenhouse gas emissions—we need a radical re-investment in modes of transportation that emit zero greenhouse gas. The two best choices are trolley buses and streetcars.

To be successful, changing our mode of transportation must be affordable, and it turns out that the modern streetcar is the cheapest per-passenger-mile way to go. Buses are cheaper than streetcars in Year One, but if you amortize the investment over thirty years, and include the costs of the fuel, the driver, and the replacement of vehicles, streetcars are cheaper. (A modern streetcar will last 50 years compared to 10 years for buses.)

If you accept the hypothesis that we need to restore the streetcar city, consider that we citizens and ratepayers have only limited money and a limited number of years in which to do it. We may be spending money in the wrong ways—for instance, choosing to build a three billion dollar subway underneath Broadway so that students can get to UBC ten minutes faster than they would otherwise. I love my students, but that's a lot of

money. The same amount of money could more or less restore the entire streetcar/tram system of Vancouver, and actually extend it. Similarly, the three billion spent on our newest bridge could give the communities south of the Fraser a grid of modern tram system.

This transportation question also relates to our aging demographic. By 2050 the number of 65-years-plus residents in Vancouver is going to go from 12% to over 22% of the population. That's us. You don't want me out there driving around in my Buick at that point!

We have largely ignored the significance of the streetcar city as a model of a sustainable city. It needs rediscovering.

## **RULE 2. DESIGN AN INTERCONNECTED STREET SYSTEM.**

Fine-grain interconnected street networks ensure that all trips are as short as possible, disperse congestion, and are compatible with walking, biking, and transit.

The grid is the most common form of interconnected street system. Most streetcar cities have this characteristic street pattern, which is generally different than the post-1950 suburban pattern. The higher density of intersections reduces trip distance and reduces use of the automobile. Interconnected streets provide many alternative routes if there is congestion.

By contrast, in sprawl form traffic is funneled into a few highly loaded main intersections, with no alternative routes. (This is different but similar to the 1950's suburban pattern.) These overloaded intersections become magnets for big box commercial development. Including turning lanes, these can become ten lanes wide, with 400% more traffic and 60% more pedestrian fatalities. Engineers tell you that there is absolutely no choice but to have these. And within the constraints of the problem, they are right. It's a condition of having a not-interconnected system.

A higher density of intersections reduces trip distance and reduces use of the automobile

### **RULE 3. LOCAL COMMERCIAL SERVICES, FREQUENT TRANSIT, AND SCHOOLS WITHIN A FIVE-MINUTE WALK.**

People will walk if there is something to walk to. The most important walking destinations are the corner store and a transit stop. A minimum gross density of ten dwelling units per acre is needed for this system to work. With this density, commercial services will survive without the need for huge parking lots, and transit will pay for itself.

In Kitsilano, we average a density of about 17 units per acre. That gives you the right number of students within eight to ten minutes walking distance for elementary schools, about two classrooms per grade. It is the right density for neighbourhood schools. Unfortunately, in more remote communities we tend to locate mega schools on mega grounds. It may be an eight-minute walk from the edge of the school grounds to a classroom. Inside the building there are 2, 000 students, and there is no architectural difference between the school and a minimum-security prison.

All these pieces of the streetcar fabric fit together. In the streetcar city the five-minute walk merges into continuously accessible corridors.

### **RULE 4. LOCATE GOOD JOBS CLOSE TO AFFORDABLE HOMES.**

This is another piece of the formula. You want to have the jobs integrated into the system. The trend toward longer commute distances for workers must be reversed. Good jobs close to home are a fundamental requirement. It doesn't do any good if your house is five minute walking distance from transit but your job is a 20-minute hike from wherever your transit stop is.

The vast majority of new jobs in the United States and Canada are compatible with planning for complete community districts. A lot of our older areas have a very dense configuration of jobs knit within the streetcar city fabric. This might be deployed over large greenfield neighbourhoods. Industrial jobs or jobs in business parks and commercial areas can be grouped within the



block and arterial structure. A lot of cities have opportunities to reinvigorate commercial strip areas as centres for jobs.

#### **RULE 5. PROVIDE A DIVERSITY OF HOUSING TYPES.**

Clustering jobs must correlate with providing a diversity of house types. Zoning laws have tended to segregate communities by income. Communities designed for only one income cannot be complete, and when repeated throughout the region, they add to transportation problems. For slower transit to make sense, affordable housing must be more evenly distributed in throughout the region.

Density doesn't need to look dense. Vancouver architects have relearned this lesson.

Vancouver, North Vancouver, and other places have found good ways to retrofit. Infilling is an example—houses are designed for very narrow lots—or converting single-family bungalows to three-unit residences.

The real untold story of Vancouver is the tens of thousands of hidden secondary suites. These suites are the only housing that is at all affordable. They're not the Taj Mahal, but you can still get a living space for six to seven hundred dollars a month.

We are making good progress in intensifying the arterials by stacking different land uses on top of each other—big box commercial on the ground floor, then offices, and then town houses above. We can also double the frontage by allowing laneway housing.

Commonly, townhousing/condo complexes with underground parking are replacing less dense housing. Density can be as much as 25 dwelling units per acre and still work well in a neighbourhood of single-family homes. Architecturally, it's very important that there is aesthetic compatibility between what is already in the neighbourhood and what you intend to impose. This is an especially important point if you are dealing NIMBY concerns. If you come into the neighbourhood with something that looks like a spaceship and try to drop it in next to something that from the Craftsman period the neighbours may not like it!

## **RULE 6. CREATE A LINKED SYSTEM OF NATURAL AREAS AND PARKS.**

Keeping our streams and rivers healthy requires a rethinking of urban drainage systems and stream protection. Maintaining the integrity of these systems must be a primary design concern when planning new communities. Far from protecting these systems through restriction, these systems must form the public space armature of new and restored communities.

The fabric of interconnecting street systems, with five-minute walking distances between points and the rest of that configuration, can be unrelenting. But there are some great examples of places where natural systems intersect with the streetcar grid successfully. A good drainage system/stream protection plan can solve a lot of environmental and infrastructure problems: transportation, fresh water, drainage, sewage.

Here in our rainforest, growth comes back very quickly. An engineering project to create or enhance a well-designed drainage system can quickly be returned to the natural landscape. Preserved nature provides a natural interface to the streetcar city grid. Natural areas reduce urban impact, provide access to nature, and define and protect neighbourhoods.

## **RULE 7. INVEST IN LIGHTER, GREENER, CHEAPER, AND SMARTER INFRASTRUCTURE.**

Suburban developments have at least four times more infrastructure per dwelling unit than do streetcar neighbourhoods. Exaggerated municipal standards for roads and utilities cost too much to build and maintain, and they destroy watershed function. Smarter, cheaper, and greener strategies are required.

We live in a world where what we do when approving a new street has a direct influence on whether a fish lives or dies in a receiving stream. This is a crucial rule. We spend too much on infrastructure. Every dollar's worth of pavement produces a dollar's worth of environmental damage.

We must work with natural systems, not against them. With natural forest we have zero runoff, and a high percentage of

evapotranspiration; water that goes into the dirt will eventually show up in the stream, clean and at the right temperature. Instead, when we approach urban drainage in conventional ways, we put water into a pipe and it goes directly into the stream, sometimes at 100 times the natural rate, which destroys the stream. Velocity increases, volume increases, and temperature increases.

Streets can be built with a different construction detail to address the runoff issue.

A streetcar city is a city of linked centres, a green grid, green jobs and linked riparian zones

## THE CITY OF NORTH VANCOUVER

These rules were part of what was taken to the citizens and officials of North Vancouver, who have been forward thinking enough to develop a sustainability plan, knowing that it's going to take a number of decades to reach sustainability. The plan to get to 80% reduction in greenhouse gases has a target date of 2050, but it actually goes further toward a zero percent reduction by 2100. A 100-year vision. It has been a great honour to be invited to participate in planning for this future.

What would the city look like by 2100, assuming that its present rate of growth would mean tripling today's population? Crucial to understanding the plan is understanding the consequences of greenhouse gases. The closer that residential buildings are to urban services and the higher the density of jobs and residences, the better the results will be.

This plan for 2050 may be achieved without major changes in transportation technology, without major assumptions about solar panels on roofs and other advances. It can be done on the basis of the proposed changes in land-use and transit, and also in conjunction with a citywide extension of the existing district heating system.

If in 2100 the new residents of the city, as well as jobs, commercial services and transit, are strategically integrated into the landscape, we will confront the greenhouse gas challenge.

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# North Vancouver's 100 Year Plan

*It takes skilled and dedicated political leadership to lead change, and North Vancouver has a rich history in sustainability. In December 2010, the City of North Vancouver became the third municipality in Canada to achieve the final Milestone 5 within the Partners for Climate Protection Program (PCP), an international framework founded by ICLEI Local Governments for Sustainability.*

**DARRELL MUSSATTO**, Mayor of North Vancouver since 2005, recounts his community's achievements. He is passionate about making the City a place where the benefits of growth are shared by all.

I WANT TO SAY FROM THE OUTSET that all of us in municipal governments across the province are moving along the path toward the same goal: sustainability. There are lots of ways to get there. What I'm sharing with you is only one plan.

Our goal is to have a resilient city—a city that allows our residents to live enjoyable lifestyles while allowing for future generations to enjoy the same. Previous thinking has been based on the growth model, which has given us success up to a point.

The question is, how can we party now without having one incredibly bad hangover for the rest of our lives?

But now we have to start thinking about how we're growing and where we're heading.

We have our 2050 Plan. So what are we doing now in the City of North Vancouver to move toward it?

## CHALLENGES TO GREENHOUSE GAS REDUCTION

We all talk about the challenges to reduce greenhouse gases. Some of the challenges we barely recognize, and some we don't even know about yet. We are living in single-family homes, producing a tremendous amount of greenhouse gases for heating. We have inefficient public buildings with huge sheets of single glass. We use our cars for every single trip we take.

And it's not just our vehicles and buildings that we have to think about. It's about drinking bottled water brought from halfway around the world. It's about our diet. We have seven billion people on the planet and 70 billion livestock to feed us. Our meat-filled diets produce huge amount of methane.

We are taking steps to meet these many challenges.

## THE BEGINNING POINT: MEASUREMENT AND TARGETS

Our goal is to reduce our greenhouse gas emissions to 80% below 2007 levels by 2050, and to reach net zero emissions by 2107. The first step is to measure what our current emissions are. This tells us where we have the most work to do.

In the City of North Vancouver about 49% of our greenhouse gas emissions are from buildings, almost 49% from transportation, and about 3% is given off through solid waste. We have set specific targets around housing and transit use, and are working on others. This gives us a baseline from which to measure our progress. We have identified focal areas: building efficiency, energy consumption, transportation, water usage, garbage, and food security.

No one works alone. Partnerships are an important part of planning, and the implementation of projects and programs. In the City of North Vancouver we work with several different agencies to reach our goals.

## **CHALLENGE 1: BUILDING EFFICIENCY**

The dream of the single-family home is not sustainable. Twenty percent of our population lives in single-family housing, and takes up 80% of the residential land in the City of North Vancouver. We need to build a more compact community. There are lots of ways of doing this, like authorizing lane-way housing and secondary suites, putting up residential towers behind commercial buildings, and creating residences above businesses.

What about the idea of not having to move around as much? That is, living, working, and playing in the same area. We have people moving into Lonsdale from West Vancouver and other areas specifically because the change means they will no longer need a vehicle. Car share and ride share programs help make this lifestyle practical. The 500 parking spaces we've put into the Lonsdale parkades may never be used. That has to be questioned at \$40,000 a spot!

We're working on improving efficiency in the buildings of North Vancouver—building to LEED or equivalent standards. Our new library is a LEED building. It has solar panels and sunshades, which give solar gain in winter and block heat in the summer. It's also hooked up to our district heating system.

## **CHALLENGE 2: ENERGY CONSUMPTION**

We seem to be throwing money away with our excessive energy consumption. Other levels of government have to talk about how we're going to move forward on this issue, beyond what kinds of light bulbs we're using.

We have developed our own utility in the city, the Lonsdale Energy Corporation, which has been profitable since its fourth year. It's an advanced district hot-water heating system that provides both hot water and space heating. Our staff has been trained to install a relatively new type of insulated pipe, imported from Denmark, to move the hot water. Using the district heating system is now a condition of redevelopment and some existing buildings are voluntarily asking to be hooked up to the system.

We have amazing technology happening in the City of North Vancouver. One of our heat sources for the system is the largest bank of solar panels in western Canada, sitting on the city library roof. Unfortunately, we are using high-efficiency gas boilers to give a reliable energy supply to get started with, but the long-term goal is to move away from this technology. We also have a geothermal exchange project for taking heat out of the ground in the winter and cooling in the summer, and at the bottom of Lonsdale we're installing pipes for ocean-source heating and cooling from Burrard Inlet.

### CHALLENGE 3: TRANSPORTATION

We have to retrofit our cities, but it is always much harder to retrofit than to start from new.

We are successfully reconfiguring roads to install bike lanes, but getting bikes up the long hills has been a challenge. On the Third Street hill we have removed one of the double uphill automobile lanes to install a bike lane going each way. We have a Share a Lane program with painted green lanes on routes going in and out of the city. This has been remarkably successful—cars tend to stay out of those lanes and cyclists feel more secure, and are more likely to use the routes repeatedly.

We've developed the Green Necklace, a system of connected walking paths. This initiative was unpopular with some, who opposed tearing up grass and putting in pavement. However, it has proven to be extremely successful in getting more people walking.

The Yike Bike is the world's smallest folding electric bicycle. Developed in New Zealand, it weighs about twenty pounds. Fold it, hoist it over your shoulder and use it between hopping on and off transit.



Above: The Yike Bike



In the City of North Vancouver we have buses and the SeaBus. Transit is always a challenge. Here in the lower mainland we tend to find the most expensive, most ‘advanced’ way to move a small number of people. We could use other technologies just as effectively—consider the case for the electric streetcar. Why go for the Cadillac version when other opportunities exist?

The City is experimenting with more energy efficient vehicles, using smaller cars and some electric vehicles. We also have some hydrogen vehicles, simply because cheap hydrogen is readily available from the nearby chemical plant.

#### **CHALLENGE 4: WATER INFILTRATION**

North Vancouver gets a lot of rain, as well as run off from the North Shore mountains. We have been making improvements in the infiltration of water all along Lonsdale. A bioswale captures the rainwater instead of allowing it to enter the storm system and wiping out the creeks.

#### **CHALLENGE 5: GARBAGE**

Garbage processing is another big challenge. There are a tremendous amount of greenhouse gas emissions from solid waste. We have been focusing on recycling and diversion of waste, and encouraging composting. Incredibly, every hour of every day in North America one million plastic containers are thrown out.

#### **CHALLENGE 6: FOOD SECURITY**

We all take food for granted, but we must consider where our food is coming from. We’ve reached a population of seven billion—that’s a lot of mouths to feed. Crises and food riots are already happening in the world. It doesn’t take much to trigger a food crisis. The day after the March 11, 2011 earthquake in Japan, the shelves in grocery stores in Hawaii were literally empty, ransacked by people desperate to ensure they had enough food stockpiled. In recent times, droughts and floods have

What does leadership for a sustainable future require?

- > an integrated approach
- > a committed staff
- > useful partnerships
- > greener technology
- > acceptance of new ideas

affected Canada, Ukraine, Darfur, Australia, and many other countries. The consequences of climate change are intensifying food supply and availability issues.

The City of North Vancouver has started Loutet Farm, breaking ground and bringing topsoil into what was once planned to be a playing field. The new plan is to grow fruit and vegetables to sell locally. In another initiative, the Edible Garden Project, people have been encouraged to give up yard space for farming. And in a third, the Queen Mary Community Garden, volunteers are growing produce in 75 garden plots. These spaces are intended for those living in multi-family units rather than people in single family housing, who have the option of converting space in their own yards for growing food. Aware of the importance of maintaining pollinator populations, we've brought back beekeeping within the city. We are looking at further initiatives—street stewards, protecting the Agricultural Land Reserve, yard sharing, SPIN farming, and using rooftop spaces and boulevards for food growing. The city is setting an example by putting community gardening plots in front of City Hall.

These projects are possible because attitudes are changing. Five years ago, few would have considered proposing our wide boulevards to grow food. That discussion is possible today.

#### CHALLENGE 7: WATER CONSERVATION

We are water gluttons! In BC, water is undervalued and underpriced. Though the numbers for water use in the City of North Vancouver are a little lower than average for BC, we are still consuming too much. We are trying conservation strategies: limiting watering at night on the metro level, encouraging the use of rain barrels and low flow toilets, and encouraging a shift in personal water use. We all need to be more aware of how we are using our water.

So how can we become the most sustainable and resilient city?

We are trying to take the seven principles that Patrick Condon has raised and apply them to our situation. That means taking an integrated approach, having a committed staff, and developing useful partnerships.

And it means getting a multi-year commitment from Council. Our single biggest challenge in moving toward sustainability is the political challenge. Here's a quotation from discussion in Council regarding food security:

“ . . . I think this is one of those delightful motions brought forward, relatively harmless but a bit silly in the sense that it is way outside the scope of the City.”

As leaders we must be prepared to embrace greener technology. As importantly, we must be prepared to embrace new ideas.

# Williams Lake: The Heart of Cowboy Country

*In the heart of cowboy country, Williams Lake, BC, has forged a long-term sustainability vision, establishing priority strategy areas and actions, and including a sustainability-based decision evaluation framework. For this Integrated Community Sustainability Planning Framework, Imagine Our Future, Williams Lake received a Federation of Canadian Municipalities (FCM) Sustainable Community Award, and has influenced significant changes throughout the region.*

*Mayor **KERRY COOK** and city planner **LILIANA DRAGOWSKA** describe how the people of Williams Lake generated an inspired collective vision for their community up to 2030 and beyond.*

IN MY FIRST TERM AS MAYOR, and within months of our new council being elected, we lost a third of our jobs. Williams Lake is the hub of the Cariboo Chilcotin region, and many residents from the outlying communities commute daily. As a community dependent on forestry we were hit hard by the crisis in that industry, and we also had a lot of social challenges. Williams Lake became the crime capital in BC, and were rated number one in crime severity nationally. *Money Sense* magazine ranked us the second worst place to live in Canada.

Because we knew we were in crisis, we had an emergency meeting in council two days after the election. This was to provide extra administrative funding for the RCMP, whom we needed as important community partners. As a new council we simply said that we didn't have time to point fingers. We needed to come together as a community and work out a critical situation; we didn't have time to do anything else.

I'm pleased to say that two years later we have dropped our crime statistics 20 to 80% in almost all areas related to property theft, vandalism, and car theft. We still have a lot of challenges to continue moving in the right direction—we have huge poverty and addiction issues. But with every challenge there are great opportunities, and the people of Williams Lake have really risen to the occasion.

It's about working collaboratively and building relationships. You'll see some of these benefits and success stories as we talk about our Integrated Community Sustainability Planning (ICSP) process.

Williams Lake is located in the heart of the Secwepemc Nation, in central British Columbia. It was incorporated in 1929, has a total land area of 33 square kilometres and a population of 10,744. According to the 2006 census, the population of the city and surrounding market area is approximately 25,000.

Williams Lake currently has a density of 4.7 people per net hectare, compared to a BC municipal average of 7.4 people per net hectare. The local economy is made up of the primary industries of mining, cattle ranching, and forestry, along with service-based industries such as retail, business, professional and financial services, government agencies, healthcare, and transportation.

## DECIDING TO GO THE ICSP ROUTE

In 2007, the government of British Columbia in collaboration with the Fraser Basin Council and Pembina Institute, was encouraging municipalities to take a different approach to planning through a funding program called Integrated Community Sustainable Planning Initiative. This program provided financial resources to support communities considering sustainable planning.

At this point the Williams Lake's Official Community Plan was

nine years old and we needed to review it, but we knew that we could not repeat the traditional approach with all those familiar questions. The community planning process is an onerous one. We didn't want to hear once again from the same small group of people. Given the social and economic context, generating more citizen engagement was critical. What we needed was to build community excitement and empowerment throughout the planning process.

We wanted to be involved in a future-rated process: including environmental, social, recreational, and economic factors into community planning, and basing the plans on community values and sustainability.

We decided to engage in the ICSP with some funding from the federal and provincial governments through the BC Union of Municipalities.

**GETTING STARTED**

It was a two-phase funding project. In our first phase we partnered with the Real Estate Foundation of British Columbia, the United Way, and our social planning council to do a snapshot community assessment of what we had and what were our deficiencies. The City worked with the Centre for Innovative and Entrepreneurial Leadership to complete this assessment. After

Step One was a snapshot community assessment of what we had and what our deficiencies were. Step Two was to review our Official Community Plan and create our sustainability planning framework.

completing phase one, we applied for phase two of the funding, and received \$175,000 to review our Official Community Plan and to create our sustainability planning framework.

We sought help from consulting groups, but consultants with a different perspective. We weren't looking for people to come into our community, tell us what our issues were, have some public open houses, create a plan, and walk away. We really wanted to look to our consultants to help us build some capacity within our council, within our staff, and within our community around sustainability and what that meant; to help us through the public engagement

process and bring some new ideas and innovative techniques from other communities.

So we hired a consortium of consultants to do the project. The consortium was managed by the Whistler Centre for Sustainability and included The Natural Step, Ears to the Ground Planning, and Smart Growth BC. And of course we had our Williams Lake staff team.

## THE ICSP PROCESS

### Phase one: working with staff and council

First of all, the consulting team and staff began the process by working to introduce The Natural Step and sustainability planning to the city council and the community. We needed to provide examples of sustainability work that has happened in other communities so that our council did not feel they were alone with the decision to go the ICSP route, and knew that many other municipalities and corporations were working with *The Natural Step*.

This process was key in building capacity around sustainability with our staff and with our council.

### Phase Two: identifying priority areas

We had an excess of volunteers from those who are heavily involved in the community's wellbeing and community development. The community had looked at the same questions over and

What an Integrated Community Sustainability Plan is:

1. **Integrated:** It must look at everything as connected, identify opportunities between sectors, and try to bring everyone together under one process. Traditionally, at least within our municipality, we had worked in silos. The work of the planning department was separate from other city departments.
2. **Community:** It recognizes the voices of different sectors within the community. We tried to identify how we were unique in different aspects.
3. **Sustainability:** It looks at what sustainability means for a resource-based community. Does it mean that we are saying no to mining, no to logging? We needed to define what sustainability really meant in our own community.
4. **Planning:** It features long-term thinking. We were trying to create visions for the community, which would guide policies, bylaws, and processes.

over—what do you want your community to be like in the future? How can the local government help us to get there?

So before we went to our community with the ICSP project, staff and the consulting team looked closely at our community assessment. We brainstormed with all our senior staff across the board: economic development, recreation, transportation, everyone. We looked at the plans, bylaws, processes, and work that had been done by committees and with the help of our consultants, we grouped the results into categories.

Nine priority areas emerged:

- *Social wellbeing*
- *Lively downtown*
- *Active and convenient transportation*
- *Affordable housing and livable neighbourhoods*
- *World class recreation*
- *Cherished local ecosystems*
- *Distinctive arts, culture, and heritage*
- *Partnership with First Nations*
- *Resilient economy*

From there we worked with the community to assess what was already in place and to begin envisioning what we wanted for Williams Lake in the future, what that would look like as a *sustainable* future. Even using the word “sustainable” helped generate ideas and establish priorities. We used the backcasting model<sup>1</sup> from The Natural Step to go through this, and came up with *Williams Lake: Imagine our Future 2030*.

### **Phase Three: introducing the ICSP process to the community**

This is where it got really exciting. We were now ready to begin working with the community to generate ideas about how we could actually get to a collective vision. We knew we didn’t want to wait for people to come to City Hall. We decided to go to them.

We did a lot of brainstorming about where people were and how were we going to reach them. We decided to work on a few different levels of engagement.



## 1. Website and social media tools

We launched our ICSP process using a website and social media tools. We used the City of Williams Lake website. With Ears to the Ground Planning we created our own video, *Imagine Our Future*, featuring a number of local citizens commenting on what they would like to see in the community in 2030. During this process we partnered with Shaw cable and aired the video on local television, on our website, and during many community presentations.

## 2. General engagement

We took all of our information, structured in the nine priority areas, out of City Hall to where the people were. We tried to target all the different age groups and different economic groups.

We went to coffee shops. We set up different places to be at certain times and just listened to people. We set up kitchen table meetings. We phoned random people in the community, as well as some key influencers, and asked them to invite a group of people around their kitchen table.

We had summer performances in the park in the heart of downtown. At the first one we presented our ICSP and tied it in with music and family events there. We had stations and engaged with all kinds of people.

We went to the annual youth soccer tournaments. There was a wind-up soccer tournament at Esler, an event where we met lots of young families.

We attended local festivals in June and July 2009—Aboriginal Day, Children’s Festival, the Local Food Festival, and more.

### COMMUNITY VISIONING:

“I wanted Williams Lake to be an inclusive place, a diverse place, and a place where people can stay.”

“Being involved in the process I think is very important for First Nations people, to come out and have their voice heard rather than sitting back and thinking why not us.”

“How are we going to preserve what we have for twenty generations in the future?”

“I want to say that our grandchildren, all our grandchildren, that Williams Lake participated in doing its share to stop global warming.”

“In 2030 Williams Lake will be a cooperative community that works together for the benefit of their citizens.”

“The list of ideas that we’re generating goes well beyond the years of 2030 . . . can you imagine our future?”

We met with community groups, organizations, and advisory group boards to introduce the project.

### **3. Community partner cafes**

This approach was a little more strategic. We held a series of three community partner cafes within the year. This first one was the most challenging to organize and generate interest for. Our team identified key leaders, and partners in the community. We held a number of different roundtable discussions, again looking at all the priority areas. We talked with our community partners about desires, futures, and current strengths. And we asked them questions about their ideas for action. We were breaking down those silos, getting people from all different sectors to come together in discussion.

How did we get these busy community leaders to a forum? First, we brainstormed to create a guestlist, looking for a real cross section of leaders from the community—people from key organizations, the school district, ministerial, recreational, and business leaders. The list ended up being 150 people!

It was a lot of people to contact, one by one. Our consultants helped us develop an interview guide for our staff teams to use and we gave five names to each of our staff and to each of our city councillors. They called or visited their five people and asked them what they thought about sustainability in Williams Lake. People had five to ten minute conversations outlining their interests, perceived challenges, and views on working together?

This approach really helped to get people engaged and excited about what was happening. They knew that the City was listening and committed to a new kind of process. Almost 100 people came out to the first community partner cafe forum. That was 1% of our population, which is huge!

### **Phase 4: first draft of the plan**

After this phase of public engagement we stepped back with the council. We had a lot of feedback around the nine priority areas and we knew the community was interested. We followed the Whistler model and worked with our council to create a Sustainability Declaration [page 67] to officially demonstrate

to the community that the council was truly committed to sustainability planning. Then we came up with our first ICSP draft.

Anybody who's worked with an official plan knows that a 100-page document is difficult to take back to the community. Now that we had the sustainability planning framework, what was next?

We worked with our consultant groups to create a Guide for Community Partners. We drafted a framework for integrating the nine priorities into the community. Our guide contained:

- The council's Sustainability Declaration
- Principles of sustainability
- Ten strategic priority areas

Nine priorities had become ten. Local food had surfaced as a target area during the community dialogue and became the tenth priority.

Under each priority we had the predictions of success that the community had brought forward, some description of current reality and we had some ideas from our community about how to move toward the future.

### **Phase 5: another round of community engagement**

We took this draft document back to the community, to all existing conservation societies, naturalists, and First Nations communities that were bordering with our municipality, the Chamber of Commerce, the Construction Association and others. We went to the regular meetings of these organizations with the guide and started talking about the draft goals. City staff members who worked in a relevant department attended these meetings with us.

This way we got input from the people who actually worked under those priority areas. Some groups were so interested that they wanted to look at more areas and kept coming back. This approach engaged many more people than had previously been involved. We worked through the draft document in a more specific and more personal way.

One group we went out to was the youth of Williams Lake. We invited students to a two-day workshop, where they worked with Ears to the Ground Planning to develop a digital story, plus developed skills in using cameras and digital editing. This group developed ten digital stories (they can be found at Vimeo at <http://vimeo.com/20310818>). They then came to council to present the videos, and we are using the stories they created in our policy work and in the development of the Official Community Plan.

### **Phase 6: getting more specific, with an even wider audience**

The draft prompted a lot of feedback and with this input we went back to our community leaders. In our second community partners cafe we wanted to work more on determining the steps that we could take toward sustainability.

We also went back to the general public engagement technique. We worked with the Boys and Girls Club and many other partners, including the local newspaper, to advertise the Great Adventure, an event modeled on the show The Great Adventure. We organized this event with lots of volunteers. The ten priority areas were posted in ten secret locations around the town. Sixty-nine people pre-registered for the event (amazing for a planning activity), an event that toured them around town and got them talking about the details of how to implement the sustainability visions. This event ended at the Local Food Festival—we partnered with the local food policy group to serve food and host the last station of the Great Adventure, “Local Food and Agriculture” (a priority area of the ICSP).

The next step was to involve the development and business community in the implementation of a sustainable Williams Lake vision. We invited some key people to an Innovators Summit. Personal letters of invitation went out from the mayor, some to people who had not been previously invited to the roundtables and were excited to be there. The event was designed to stimulate thinking outside the box. How could we do things differently? Again, there was a lot of roundtable discussion and a lot of energy.

### **Phase 7: celebration!**

After many months of editing and drafting the land-use plan from sustainability visions, and vetting that through the community, we needed to celebrate with everyone involved that we got this far. At the end of the process we pulled everything together. There were still lots of questions about how we were going to integrate everything into the Official Community Plan, but we wanted to celebrate. We decided to do an evening of “spotlights on success,” successes of the last year that resulted from the sustainability planning process.

All these initiatives started as we began our sustainability planning process, a reflection of where the community itself was going. Some of our spotlights are:

- We have just completed our first LEED gold affordable housing building, a 33-unit First Nation housing project
- We have the second-largest legalized trail system for mountain biking in the province.
- We built a new \$250,000 bike park, working with our mountain biking club.
- We worked with local growers to start a new food cooperative.
- We started a new recycling business.
- We have 52 new community garden plots.

The council approved the ICSP in the summer of 2010. It is not a bylaw, it's an overarching framework policy. It has been the guide in the development of our new Official Community Plan, which will be adopted in June 2011.

Our goal as a municipality is to foster community partnerships and work towards the collective vision we have of Williams Lake in 2030. So many positives have sprung out of this intense community engagement through the ICSP process. We are shifting from imagining our future to creating our future. Many people within our community have been doing this work for years and we're celebrating it. We're moving it forward!

## AFTERWORD

We haven't really touched on the strength of the Williams Lake community and our capacity to overcome differences. The proposed Prosperity Mine Project, which the City has supported, has been a very complicated issue and a big challenge. We have been in a difficult position economically and socially, and so, although we signed the sustainability charter, we realize that we need to find a balance between industry, jobs, social issues, environment, and other factors. Working through the mining issue has led to some tensions within the community.

What is so encouraging and inspiring is that despite the tension of the Prosperity Mine issue, we have the community coming together to work respectfully and support each other on things that are important to us and to our children. One of our top ten priorities is building relations with First Nations. Recently we had an amazing meeting initiated by the RCMP, First Nations, and community leaders about youth gang issues. Two of the big gangs in the area are from two rival First Nations communities.

The message that we're repeating is that we can't do it by ourselves. The City can't do it, the RCMP can't do it, the First Nations can't do it. It's only by coming together respectfully that we are able to start solving those bigger issues. And that's happening all over Williams Lake.

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<sup>1</sup>A major approach used by *The Natural Step* is backcasting, that is beginning with the endpoint, the goal(s) to be reached, and working backwards to reach the decisions to be made in the present.

## REFERENCES:

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Whistler Sustainability Centre: [www.whistlercentre.ca](http://www.whistlercentre.ca)  
The Natural Step Canada: [www.naturalstep.org/canada](http://www.naturalstep.org/canada)

## CITY OF WILLIAMS LAKE SUSTAINABILITY DECLARATION

As mayor and councillors of the City of Williams Lake, we acknowledge society's desire to create a stable, sustainable future. We further acknowledge that such a future is not certain, and that it will take the good will and determined work of many individuals, organizations, and communities around the world to achieve this goal.

We are proud to be part of a community rich in natural amenities, economic opportunities, and social possibilities, and to be working on behalf of a future in which our economy, environment, society, and governance are integrated in ways that foster vibrant communities, strong economies, and healthy ecosystems. To that end, we commit ourselves to creating the conditions necessary for a sustainable future. By seeking innovative and flexible solutions to the challenges that confront us, by sharing our knowledge, and by coordinating our actions, we strive to attain the following sustainability principles:

- Reduce our contribution to the progressive build-up of materials [and their associated wastes] that are extracted from the Earth's crust;
- Reduce our contribution to the progressive build-up of synthetic materials produced by society;
- Reduce our contribution to the ongoing physical degradation of nature; and
- Reduce our contribution to conditions that undermine people's ability to meet their basic needs.

And further strive to follow the "principles of smart growth" for our communities planning and development:

- Create a range of housing opportunities and choices
- Create walkable [human-scale] neighbourhoods
- Encourage community and stakeholder collaboration
- Foster distinctive, attractive communities with a strong sense of place
- Make development decisions predictable, fair, and cost effective and using sustainability guidelines and mixed land use.
- Preserve open space, farmland, natural beauty and critical environmental areas.
- Provide a variety of transportation choices.
  - Strengthen and direct development toward existing neighbourhoods.
  - Take advantage of compact building design.

## CHAPTER 3

# The New Economy Responses



## CHAPTER 3.1

# Revitalizing Communities from the Inside Out

**MICHAEL SHUMAN**, research and public policy director of the Business Alliance for Local Living Economies (BALLE), does much more than advocate for buying local. He argues that nurturing and encouraging local businesses, investing locally, and shifting our policies, can have enormous impact on jobs, the environment, and the life of our communities. Examples from places such as Austria, Vermont, and Michigan reflect the diversity of tactics within this approach, and the successes they've brought about.

*As we wade further into the rocky waters of climate change and globalized trade, Michael Shuman presents an economic response, and the practical inspiration to make it happen. As he says, "None of these things are easy to implement, but they are easier than not doing them."*

THE STARTING PLACE FOR INVIGORATING OUR COMMUNITIES, in my world view, is understanding that there is a gigantic wrestling bout going on between two archetypes of capitalism: TINA and LOIS.

### TINA

TINA comes from Margaret Thatcher's invocation, "There Is No Alternative to global economy!" Economic development

departments around the world have embraced TINA with three big strategies:

- Attract Toyotas to your back yard.
- Export your goods as far and wide as possible, because exports are the only way you can get “real” wealth into your community.
- Reassure all the local businesses that all of this is in their interest.

It’s interesting to me that the words that come up repeatedly in economic development are “attract” and “retain.” What’s weird about this is that you cannot attract local business. That’s an oxymoron. And if the only way you can retain a local business is by bribing it not to seek, say, one more percentage point of return in China, how local is that business really? The entire focus of economic development has become non-local business.

We can now empirically prove that this is the case in the United States. I just finished a four-year study for the Kellogg Foundation where we looked at the three largest economic development programs in 15 states, 46 programs in all. We found that 80% of these programs were spending most of their money on non-local business and that around 30% of these programs were spending 90% of their money on non-local business. This turns out to be the worst way of doing economic development.

#### **LOIS.**

The alternative to TINA is LOIS, as argued by the late, great Canadian Jane Jacobs, urban economist and intellectual godmother of many of the ideas I’m talking about. The LOIS perspective emphasizes:

**LO** = Locally Owned Business, meaning the majority control is in the community where the business operates, and  
**IS** = Import-Substituting Development, an economists’ term for self-reliance.

If you can produce the goods and services you consume in your own back yard, it doesn't make sense to import them. Every time you import something unnecessarily you give away a piece of your economy. A key to economic vitality is diversifying your economy with as much self-reliance as possible. Since this runs counter to conventional economic thinking, let me give you a couple of examples of communities that have become wealthy through self-reliance.

Güssing, Austria is a former forestry and agricultural town, which saw great days in the middle of the twentieth century, and whose fortunes declined as Europe opened up to the global economy. In the mid 1990s, under the leadership of a new mayor, the town made a move toward self-reliance in energy. They set up a district heating system, using wood from the old forest industry. They became a little more self-reliant and imported a little less oil, natural gas, and electricity. And then they used that wealth to create another energy business, and then another and another and another. Flash forward fifteen years: this 3,000-person community created 1,000 new jobs in 15 new energy businesses, and brought their carbon footprint down by 95%!

A key to economic vitality is diversifying your economy with as much self-reliance as possible.

Closer to home, Hardwick, Vermont is a struggling agricultural community, also with about 3,000 residents. They decided that the key to their prosperity was to become ground zero for the local food movement in New England.

They organized themselves around a bunch of fabulous new local food businesses: High Mowing Seeds, Pete's Greens, Jasper Hill Cheese, Clare's Restaurant, and Vermont Soy. They created a food business incubator. At a time when most rural communities were shedding jobs, Hardwick created 100 new jobs just in the local food sector.

And closer still, we have Zingermans in Ann Arbor, Michigan. Zingermans is a great delicatessen. The proprietors did pretty well for the first ten years of operation in the 1980s, and they were ready to grow. But they didn't want to become a chain. They didn't want to lose quality control and their connection with the

community. They decided that rather than growing wide, they would grow deep.

So they looked at the things coming into the deli and considered that as they used bread, they could create our own bakery. They served cheese and ice cream, so could create their own creamery. They brew coffee, so they could create their own coffee roasting company.

Then they looked at things coming out of the deli and decided that as they made good food they could create a sit-down restaurant, which they named The Roadhouse. They made good cakes, so decided to open a mail order cake business. They had great customer service, so they trained businesses with a consultancy called Zing Train.

In all, Zingermans created nine independent businesses. They licensed the name, and the partners meet together regularly to coordinate their businesses. All together, Zingermans' businesses employ 550 people and have annual sales of \$30 million a year.

What is remarkable to me about Zingermans is that economic development folks would have pronounced it impossible, because they only look at clusters of strength. Here in BC, forestry or health science would be clusters of strength.

Zingermans did just the opposite. There was nothing happening in the food sector in Ann Arbor. But they decided to build a cluster from scratch. That kind of philosophy can make any community in North America a wealthy one.

#### **BALLE.**

Out of these ideas has come the **Business Alliance for Local Living Economies (BALLE)**, where I work half time. BALLE was founded about ten years ago, and currently has 80 networks in North America, with half a dozen in Canada. Our worldview can be summarized in three principles:

1. Local owned. The wealthiest community will have the highest percentage of its jobs in locally owned businesses.
2. Both self-reliant and exporting. A really prosperous community is going to simultaneously be as self-reliant as

possible and as globally engaged as possible. Those goals are not contradictory. One of the mistakes that economic development thinkers have made is their assumption that if we just focus on the global side of the picture, the local side takes care of itself. We know that the causality goes in exactly the opposite direction. If we focus and nurture local businesses, many of them will naturally reach out into global markets.

3. Socially responsible. Finally, we're not interested in just any kind of local businesses. We're interested in businesses that model the highest possible labour and environmental standards. We think the high road is possible, but only if we look for it. We look for great labour-friendly, environmentally friendly businesses, we shine a spotlight on them, and we try to spread these models as far and wide as possible.

#### **WHY EMBRACE LOIS?**

Let's talk about why LOIS is a better idea than TINA. There have been studies done in at least two dozen places around the world comparing local businesses and non-local businesses of similar types. In the United States these studies all show that the same amount of consumer spending generates between two and four times as many jobs in a local business than in a non-local business.

Why do we get these results? Because the local businesses spend their money locally, and when they spend locally it multiplies in the economy. I should also point out that there's not a single study that shows the opposite.

Don't take my word for this. To quote the Harvard Business Review summer issue 2010, "More small firms means more jobs. Cities relying on a few large non-local businesses have slower subsequent job growth than cities with an abundance of small firms."

The Business Alliance for Local Living Economies recently completed a study for Metro Cleveland that will give you a sense of the myriad advantages that come through locally owned business.

Local businesses spend their money locally, and when they spend locally it multiplies in the economy.

My partners and I were asked to look at what the impact would be if Cleveland moved 25% of the way toward total self-reliance in food. We looked not just at Cleveland, but also at 16 surrounding counties, including some rural parts of the region.

### **Direct benefits.**

The big news was that a 25% shift just in food self-reliance would create 27,000 new jobs, enough in principle to re-employ 1 in 8 of the unemployed people in the region.

Where would the jobs come from? About 10,000 in farming, 5,000 in retailers, 4,000 in processing, and another 8,500 indirect jobs. It's true farming and retail are not the highest paying jobs, but the processing and indirect jobs can be high wage jobs. There would be \$1 billion of new wages in the region every year, and \$126 million of new state and local taxes collected.

This is your tax-revenue home run! The more local businesses and self-reliance you create, the more tax revenue you're going to bring in.

### **Indirect benefits.**

A 25% shift in food localization would mean more tourism, would naturally attract more business, and would nurture entrepreneurship. Not only would there be more taxes coming in, there would be a reduction in costs such as unemployment benefits. The net result would be improved fiscal health for the region and more money to spend on infrastructure. There could be more rural development and more economic security through reduced dependence on unreliable supplies of foreign food and energy.

### Other benefits.

We're not sure how to count all of the benefits of the 25% shift, but we know they're real. For example, there are environmental benefits. By using more land for farming, there is better control of water. You can take blighted areas in the city and convert them to urban farms. Biodiversity both inside the city and in rural areas is improved. And it the city's carbon footprint.

There are public health benefits too. Around a third of children in Cleveland are at risk of developing diabetes and other problems associated with obesity. This is because they live in awful food deserts, where it is much easier to find fast food and corner stores selling old, processed foods than a supermarket.

And finally, the global image of Cleveland is much improved. A city once seen by the world as having a river so dirty it caught fire ("Burn on Cayahoga!") is now viewed as the home of great Iron Chefs like Michael Symon.

### TYPICAL SKEPTICISM: ECONOMY OF SCALE

My point is that economic developers are very cavalier about this issue of economies of scale. Even if you are a local official in a very small community, your mission should be to find just the right scale appropriate for your community. And if you make that your mission, you will find brilliant models across nearly all of these 1,100 economic sectors.

These views are not universally embraced by the economic development profession. Not because they challenge any of these points I've just presented—most of them are uncontroversial. But economic developers say that although local business will get you jobs, tourism, entrepreneurships, and so forth, it will always cost more. Bigger is better. Bigger box is cheaper. Bigger businesses achieve higher economies of scale.

A lot my book *The Small-Mart Revolution* tries to take apart this argument. Let me give you a couple of data points that should at least make you skeptical of the view that bigger scale is always more economic.

#### 1. NAICS.

In the book, I looked at the 1,100 categories that Canada

and the United States use to analyze their economies. This framework is called NAICS (the North American Industrial Classification System).

In how many of these 1,100 categories do we have more examples of successful large business than small? The answer is a whopping seven. That is, in 1,093 categories, we have more examples of successful small businesses than large ones.

What are the examples of the seven businesses that are really, really hard to localize?

1. Running your own central monetary system.
2. Nuclear power.
3. Missiles and rockets. Surely if there was a category that would be hard to localize it would be one with an intergalactic mission! And yet we have about ten of these companies in the United States, and three of them are small and locally owned.

My point is that economic developers are very cavalier about this issue of economies of scale. Even if you are a local official in a very small community, your mission should be to find just the right scale appropriate for your community. And if you make that your mission, you will find brilliant models across nearly all of these 1,100 economic sectors.

## **2. Jobs.**

Here's another way of thinking about the economy of scale issue. If it were true that globalization has shattered local businesses, we would have seen a shift of employment from local small businesses to much larger businesses.

But here is what we have seen in the United States: starting at around 1990, small businesses were responsible for about 53% of the jobs in the economy, and today it's about 52%. And this is jobs. It doesn't include self-employed people. If you add the self-employed, whose ranks have exploded, that curve goes in the other direction. So, even though there's been all this rhetoric about globalization, the truth is that local businesses have been remarkably competitive.



Data from Canada says the same thing. What's the percentage of the economy, of the GDP, of Canada, generated by self-employed individuals and businesses of under 50 employees? From 2000 to 2008, the most recent year for which we have data available, the percentage of GDP for small business steadily increased from 26 to 29%. Again we're seeing local businesses becoming more competitive.

What about profitability? Surely local businesses are not as profitable as Fortune 500 companies? And yet, in the United States, sole proprietorships, per unit of sales, generate three times more net revenue than corporations do. I have no doubt that the same is true in Canada.

#### FUTURE COMPETITIVENESS OF LOCAL

If you think local businesses are profitable now, wait until you see what's going to happen in the next ten years. The Walmart

The conclusion then? Local businesses are highly competitive. They're highly profitable. They've done great, despite massive inattention by economic development departments.

economy, where we ship goods ten thousand miles from China to Canada to be sold in big box stores, is not going to make sense any more. Oil prices mean it will be too expensive to ship this junk across the ocean. Rising transportation costs are going to totally outswamp tiny labour costs.

#### OUR CURRENT PRIVATE INVESTMENT STRATEGY

We know that local businesses are essential for the vitality of our economy and yet all of us are systematically overinvesting in the Fortune 500 companies we distrust and underinvesting in the local businesses we know are essential for our future. This is crazy, self-destructive behaviour.

In Canada two-thirds of all businesses are small and local. Let's look at your long-term savings. You have about two trillion dollars invested in things like bonds, stocks, mutual funds, pension funds, and RRSP's. Let's generously assume that 20% finds its way

into local business today. Again, two-thirds of your economy is local business. If capital markets were operating efficiently, two-thirds of that would be is going into local business.

Imagine what you could do with \$1 trillion new dollars pouring into local business! I don't think we would need to agonize so much over tax and budget debates if we got our capital system to begin operating effectively.

## HOW TO NURTURE LOIS?

How to get from here to there? There is an agenda that I have organized around what I call the six Ps.

1. Planning. Plug the leaks. Analyze all of the places in your local economy where you are unnecessarily buying outside goods and services.
2. People. Support LOIS entrepreneurs.
3. Partners. Compete through collaboration. Try to organize local business alliances so that businesses working together are more competitive than they would be working apart.
4. Purse. Harness pensions locally. (This is how we create the \$1 trillion dollar shift.)
5. Purchasing. Spearhead "local first" campaigns.
6. Policy-making. Remove anti-LOIS biases.

## POLICY: SEVEN MAGNIFICENT IDEAS

There are at least seven powerful policy ideas that ought to be the focus of your attention as policy makers.

### **1. Smart planning**

Do a state of the city report. We need a new generation of annual reports that come out of our communities letting us

know where all the economic leakages are. What kind of progress is being made each year in plugging those leaks and becoming more self-reliant? What's the inventory of LOIS businesses? What's their labour and environmental performance like? What's the startup success rate?

## **2. Smart growth**

Engage in place-making and create walkable, connected communities. Jane Jacobs argued that we should scrap most of our zoning codes, which separate our functions. We also have to stop waging war on home-based businesses, and loosen up a lot of the regulatory barriers that stand in their way. And we need to respect and encourage neighbourhood schools. Just like a mega-mall is a deadening shopping experience, a mega-high school is a deadening education experience.

## **3. Smart regulation**

In Maine a wonderful ordinance was passed that says whenever a big-box project is proposed, you have to pause for a month or two and perform an economic analysis. Look at what the impacts are going to be on jobs, wages, and so forth. Then the local council, has the ability to give the project a thumbs up or thumbs down. That's a reasonable way of getting some good information on the table before a community commits to disastrous commercial development.

## **4. Smart taxes**

I would like to replace all taxes with a carbon tax. You don't want to tax things you want more of, like sales, income, wealth, and property use. You do want to tax what you want less of, like energy use, pollution, and carbon footprints. To me this is a no-brainer. Let's do a little Gedanken experiment:

Canadian end use of energy = 8 quadrillion BTU's

All Canadian taxes at every single level = \$634 Billion

Therefore, the green tax needed to replace all taxes = \$7.687 per 100 000 BTU's, which works out to \$2.25 /litre of gasoline.

Of course you would have to charge not just gasoline, but all energy uses in your economy. So that would mean increasing the price of gasoline to between three and four dollars per litre. Worth eliminating all other taxes in your economy? I think that's an interesting discussion to have.

### **5. Smart procurement**

Buy more local more of the time at the local government level. In the United States two dozen municipalities and a lot of states are preferentially buying more locally. "If it exists, it's possible!"

### **6. Smart business support**

I know that Canadians think that you never subsidize or provide incentives to big business, so I'm not even going to suggest that happens here. What I would encourage you to think about is just putting a little bit more money into nurturing local business. In my view, the smartest ways to support local businesses are to think about programs that actually self-finance, which I call meta-businesses. You can support small businesses in a number of ways:

1. Buy local. For example, rather than promoting local purchasing in the abstract, let's learn, from Edmonton's Originals Card, a gift card that encourages holders to dine at local restaurants. Oregon Market Place is another example. It was set up by the state of Oregon in the 1980s. I view the Oregon Market Place as a structural yenta, a matchmaker. Say a flag maker needs cloth. He asks the Market Place to find a source. The Market Place finds the cloth and gets a 5% fee for setting up the contract. That was how they self-financed. In their peak of operation, they were doing \$40 million dollars of contract work a year. And this in the pre-internet era.
2. Scale up local. What about scaling up local businesses through local partnerships? An example of a great partnership is a purchasing cooperative such as the Tucson Originals, a group of local food businesses in Tucson. In Minnesota,

local government and local businesses do procurement in bulk together to reduce costs.

3. Invest local. This is the \$1 trillion dollar shift. How do we do this? The key is to make it cheaper and easier to create and exchange local stock. Canada and the United States have securities laws that were enacted in the early Jurassic period, and these laws make it extremely expensive and difficult for us to put our money into local small business.

There are lots of ways we could do economic development differently if we used local stock. A great example is The Merc in Powell, Wyoming. There was no place in this small mountainous town to buy socks and underwear, so they decided to build their own general store. They needed \$500,000 to do so. They got some free legal assistance to set up stocks, they raised the capital, and they built it and named it The Merc. It has been profitable from year one. To be a stockholder you had to be a resident. And if you're a shareholder in the local mercantile, you're not going to go and buy your socks out of town!

Creating local stock used to cost \$50,000 to \$100,000, but can now cost as little as \$5,000 to \$10,000. Cutting Edge Capital is producing generic forms that simplify the process, and we are beginning to see local stock exchanges being formed. Mission Markets in New York was formed during the last year, and they have an online platform that could be used to create a local stock exchange in BC. Once you get a critical mass of local stocks and get people to start trading in them, you can have some liquidity in the market. Various kinds of funds can start to invest in portfolios of local businesses, and pension funds also can start to invest in these portfolios.

What do you think happens to the mainstream stock markets as the first couple of \$100 million moves out of conventional stocks into local stocks? Those traditional stocks begin to sink in value. We may see a very rapid shift of capital once we get these stock markets in place.

4. Incubate local. With local stock markets in place, you can create a self-financing incubator. Say a business is in incubation for two or three years, and when it graduates you present a \$300,000 bill. You've just destroyed that business's balance sheet. It would be better to hold on to five or ten per cent of the local stock of that business during incubation. Once it graduates, the incubator has a little share of that company. It sells the local stock out to the public, the money comes back, and it has the resources for the next round of incubation.

## 7. Smart advocacy

Our securities regulators are stunningly out of touch. Bernie Madoff gets a pass while everyone at the bottom can't play. We've got to change this. We've got to change trade policy and we've got to change some of the impediments to green taxation. National advocacy must be part of the LOIS agenda for local officials.

### FOCUS!

To achieve all of this, you need focus. I often get feedback from economic development departments agreeing that these are good points about local business. They say that these are the reasons why they support local business. And they support big business, and they support attraction, and they support nurturing.

They don't get it! Every dollar that is put into TINA is a dollar that is unavailable for LOIS. Public policy is not unlimited money. Every hour of a civil servant's time that is put into attraction and retention is an hour that is unavailable for nurturing local business.

There's a lesson from Indiana Jones and the Last Crusade. You may recall that after Indiana had suffered through snakes and spiders and terrorists and bullets, he comes to a crypt. The crypt has the Holy Grail that Indiana has been looking for. There's a

Every dollar that is put into TINA is a dollar that is unavailable for LOIS. Public policy is not unlimited money. Every hour of a civil servant's time that is put into attraction and retention is an hour that is unavailable for nurturing local business.

500 year old guardian who says, “Indiana, your last task will be to choose the goblet from which Christ drank,” and he points to fifty goblets. “Choose the right goblet and choose wisely.”

The German spy jumps to the front and says, “I know which one. It would have been the most ornate.” He drinks from it and he spontaneously combusts. The guardian looks at him and drolly says, “He chose poorly.”

I argue that all of us are choosing poorly. We are all choosing poorly by not doing leakage analysis that is necessary to undertake the kind of local economic development that we’re talking about here. We’re choosing poorly as consumers by not buying local first most of the time. We’re choosing poorly as investors. And until we see the magnificent seven public policies being implemented, we’re choosing poorly in the political domain.

None of these things are easy to implement, but they are easier than not doing them. I don’t think any of these things are so radical that you couldn’t try some versions of them in your community.

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# The Craik Sustainable Living Project

*Sometimes an idea floats by and finds a sturdy lodging place. Some time ago, Dr. Lynn Oliphant of the Prairie Institute for Human Ecology addressed a meeting of the Saskatchewan Midlakes Coalition. The coalition is a group of individuals concerned with maintaining viable rural communities and corresponding lifestyles in central Saskatchewan. Dr. Oliphant was looking for a community that would be interested in developing a sustainable living project. Rural municipality Reeve Hilton Spencer and Mayor Rod Haugerud of Craik, Saskatchewan were intrigued by the idea. The concept took root and from this introduction the Craik Sustainability Living Project was born.*

### THE CRAIK SUSTAINABLE LIVING PROJECT

CRAIK IS A SMALL SASKATCHEWAN TOWN more or less half way between Regina and Saskatoon. The town and the rural municipality surrounding it represent a population nearing 750 people. Like many other Saskatchewan communities in the late 1990s, Craik was in decline due to drought, low grain prices, and a livestock-industry crisis. With the population dwindling, there were rumours of amalgamating rural municipalities. In the words of Reeve Hilton Spencer:



“Rural Saskatchewan has suffered some decline in population over a long period of time. The farms got bigger and rural communities suffered because the population wasn’t there. It wasn’t very long ago, ten to fifteen years ago, that we kind of realized that agriculture would no longer sustain a rural community in Saskatchewan. So then we had to come up with different ideas as to what we could do to create activity, to create a population. People are very, very important as far as having schools, hospitals, stores. We had to have people or Craik would disappear completely.



Above: Reeve Hilton Spencer, Craik  
[Crystal Stinson]

“The rural municipality had 120 acres that we weren’t really using too much, and I thought, well, if I could get ten people to move to Craik that would be an historic step.

“We got together with the town itself and we come up with the idea of the Craik Sustainable Living Project. We got a golf course built, a very nice golf course, and then the Eco Centre was built in the same facility. And then we began the Eco Village itself.”

Thanks to committed local leadership, the Craik Sustainable Living Project has become the source of successful revitalization for the Craik community. Craik has been widely recognized as one of Canada’s leading communities in its development of sustainable living. It is the recipient of several awards. The United Nations University designates the Saskatoon-Craik-Regina corridor a Regional Centre for Education in Sustainable Development.

#### **THE MISSION STATEMENT OF THE CRAIK SUSTAINABLE LIVING PROJECT**

We believe that sustainability will become the dominant issue of the 21st century. Our society needs to develop ways of living



Above: an aerial photo of Craik [Paul Stinson]

that are economically viable and socially just, which do not at the same time destroy the ecological base that sustains us and all other life on the planet. The town and the rural municipality of Craik therefore propose to embark on a joint long-term project in search of ways of living that address the issue of sustainability and rural revitalization through physical demonstration of viable solutions.

Goals :

- Raise awareness about sustainable living and climate change
- Advance the use of ecologically sound technologies and ways of living
- Assist the community of Craik in becoming an ‘eco-community,’ inspiring and enabling change in other communities.

#### NEW INITIATIVES

The Craik Sustainability Living Project has four key initiatives: the Eco Centre, Outreach and Education, Community Action, and the Eco Village.

Activity at the Eco Centre, a model of ecologically sound

construction, supports education and outreach. Besides the centre, the sustainability or related initiatives that have begun in Craik make an impressive list. The project has inspired initiatives both inside and outside of the community. Examples include:

- an environmentally friendly community golf course, built by the rural municipality.
- the Solar Garden restaurant at the Eco Centre, featuring local foods.
- the Eco Village, which attracts more residents to Craik and uses sustainable design.
- community composting and recycling.
- the health committee, which sponsors events to encourage physical wellbeing.
- ecology awareness events, such as straw bale building workshops and the Solar Fair.
- energy-efficient building refits.
- community-supported gardens, such as shelter groves and Botanic Xeric Garden.
- a bird observation site and trail building.
- multi-faith sacred space.

"I recently moved to Craik, Saskatchewan, not because it is an environmental utopia, but because the local leadership is open to new ways of doing things. They have been very supportive in encouraging longtime residents and new residents to take action. Things are happening because people are making things happen. What a fantastic place to live."

Quotation from Craik Saskatchewan's blog on Green Map's website. Green Map has engaged communities worldwide in mapping green living, nature, and cultural resources since 1995.

Right: grain elevator [Crystal Judd]



The list also includes new economic ventures within the framework of sustainability:

- Forest 2020: NRC project, growing hybrid poplars for fibre wood/production.
- Flax house, selling flax straw and seed, and promoting its health benefits.
- Titan Clean Energy biorefinery.
- Craik Cottages.
- Craik campus, the Praxis International Institute of Saskatoon.

Agriculture remains the primary industry in the municipality. In the face of the demise of rail lines and grain elevators across the prairies, Craik and neighbouring communities have successfully pursued the re-opening of the rail line south to Regina, a more ecologically appropriate way to move goods than by truck.

#### **INSPIRED!**

The Craik Sustainable Living Project is an experiment of sorts in both environmental sustainability and social change, an experiment with promising results. Building on the long prairie tradition of working together, the community of Craik has a proud new story to tell.

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# Big Box Retail vs. Communities: The Leslieville Case

*Sometimes a great idea isn't such a great idea. Big-box retail has a track record of choking out smaller, locally-owned and operated businesses, and a reputation for killing off neighbourhood shopping. Rather than contributing to walkable, compact communities, the arrival of big-box stores encourages driving to retail parks outside of residential areas.*

*When Walmart made a move on Toronto's employment lands—lands that are set aside for value-added jobs—Councillor **PAULA FLETCHER** took action. In "Big-Box Retail vs. Communities: The Leslieville Case," Paula, who has represented Ward 30 (Toronto-Danforth) since 2003, recounts a pivotal grassroots fight to stop big-box store development in Toronto's Leslieville area and shares the successful campaign tactics that saved the area for value-added industries and quality jobs.*

I'D LIKE TO SHARE WITH YOU A STORY OF AN EPIC BATTLE that unfolded in the Riverdale and Leslieville neighbourhoods of Toronto, where I am an elected official. This is a story of how my community rose up to fight a big-box retail development. It may be familiar to you because many of the proponents of this big-box development are the same players who are trying to push similar developments forward in municipalities across Ontario and throughout Canada.

## BACKGROUND

This fight took place in a large employment area close to the port and waterfront in the city of Toronto.

As many know, the film industry is a very large economic driver in Toronto. It brings \$750 million annually to the economy, with 2,500 people employed in the industry. In 2004, the city put out a request for proposals for a large film studio to be developed in the Port Lands area on the waterfront. The proposal was for a “mega-studio”—one that would be able to handle the international blockbusters. Toronto Film Studios won that contract. They decided to move all of their production from their existing location to the nearby Port Lands, and redevelop their 19-acre site on Eastern Avenue. It was this large site that became the centre of the controversy.

In 2001, the part of the Gardiner Expressway that ran between the Port Lands and Eastern Avenue was demolished and the area has since been redeveloped. We now have a lovely area near the lakeshore. Developers saw the opportunity for residential towers and “power centre” style malls. They also committed to some office space, service retail, and hotels, but their main thrust was residential. When Toronto Film Studios won the contract, they asked for rezoning to allow residential development on their newly acquired Eastern Avenue site.

However, the Toronto Film Studios site is located within an important employment district that is home to 78,000 jobs. Toronto’s south-central post office is housed there, with 1,500 employees. The mail for the whole of Toronto goes through this space.

Toronto’s employment lands are set aside for value-added jobs, that usually have benefits, and that are of greater value to the economy than minimum wage jobs. For instance, a retail job in Toronto is worth \$33,000 a year to our economy. A value-added job in our creative industries or film industry is worth \$106,000 a year to Toronto’s economy. This is why we need to have areas to house these types of jobs and incentives to attract them to the city.

## MAKING MOVES

Toronto Film Studios changed the name of the area on Eastern Avenue from Studio District to Foundry District. That was the first hint that something was going awry with the site. Many people asked why a studio district would be renamed Foundry District. Toronto Film Studios then announced their intention to rezone the area. They wanted to develop the space as residential and to put 14-storey towers along the lakeshore.

But that's not allowed for an employment area, and so the city councillors, myself included, said no.

Predictably, Toronto Film Studios took us to the Ontario Municipality Board (OMB) in an attempt to overturn the decision. In the fall of 2006 they sold half of the site to the Prose Corporation. Prose is now called Smart!Centres, and is Canada's largest developer of big-box malls. Smart!Centres were smart—they didn't just buy half of the site, they also got 50 per cent interest in it. Although it was Toronto Film Studios that took the issue to the OMB, once they got there Smart!Centres stepped in to represent the partnership.

## THE STAGE IS SET

In May 2007, the City of Toronto was forced to file a motion to see some of the plans that the developers had for the site. In the original Official Plan of Toronto, this site was zoned for industrial use, and then rezoned to permit the film industry—the reason why the Eastern Avenue area is such a hub for the film industry. The zoning did not allow for retail use of the area, but there were some stores that had been grandfathered in over the years. There was no residential zoning.

However, when the Official Plan was change, it became an employment district with a number of uses, although there was no residential zoning and retail was ancillary to any of the other uses. As you may know, Smart!Centres is solely in the business of retail.

This was to be the first Walmart-type space in downtown Toronto. Smart!Centres wanted to put a massive retail development in a 765,000 square foot space. There were to



be 1,700 parking spots. The planned development would have been Toronto's largest downtown retail centre outside of Eaton Centre.

At Council, I put forward a motion saying no to “power centres” on Eastern Avenue. It passed, but a plethora of people at the Ontario Municipal Board challenged it. At least five other businesses came in and appealed the motion.

The City had a strong case because it was not simply fighting retail; it was fighting retail in an area that was restrictively zoned in favour of industry. We believed that having good jobs close to home was more important than retail. This land had been purposely set aside for value-added jobs—high-value jobs in the creative sector.

Toronto has 16 designated employment areas and the Official Plan for the city was designed with the province's Places to Grow Act in mind. This legislation ensures that there is enough land in the province dedicated to green belt and to jobs that are close to where people live. There are 370,000 jobs in Toronto's employment districts, with between 905 and 945 jobs per hectare. To meet the requirements of the Places to Grow Act, we'd have to add 300,000 additional jobs in Toronto's employment districts by 2031.

Because of this context, our mayor and council were asked to declare an interest in the file before it went to the OMB. We campaigned and led a huge campaign for a declaration of provincial interest. We had backing from former mayor David Cromby, major planners, 4,500 emails of public support, and a meeting with the Office of the Premier.

At the eleventh hour, the OMB declared that it would be inappropriate for the City to declare an interest.

#### **SMART!CENTRES' ARGUMENT**

Smart!Centres and their major client Walmart wanted an incursion into downtown Toronto. They wanted, and still want, to become more urban and less suburban. Their argument was that retail jobs are good jobs and that the proposed development would add 1,800 new full and part-time jobs. We knew that most of these jobs would pay only the minimum wage and offer little or no benefits.



Smart!Centres said that their development would not be a suburban-style design. However, the firm that designs every small town mall for Smart!Centres, Turner Fleischer, was designing this one too.

SmartCentres also indicated there would be no impact on local retailers. But there were healthy avenues of small businesses on Queen's Street, Burrard Street, and all the way up to Danforth that would be negatively affected by a big-box retail development in this area.

Smart!Centres tried to argue that I wasn't allowing the poor in my community the opportunity to shop at Walmart. They asked loaded questions like, "Why are you being so mean to the poor?" and, "Don't the poor need a place to shop?"

#### DAVID AND GOLIATH

I worked with community members to bring in canvassers from Acorn, an advocacy group for low-income earners, who knocked on doors and talked about good jobs. Our campaigners had to work hard to get our message across. The developer had a number of reports saying why they had such a great project. They sent pamphlets to every house in the neighbourhood, paid for advertising in the Globe and Mail and the Toronto Star, and threw money at promoting their project.

They also had a lot of experts of their side. They donated to local community groups, held Easter egg hunts, and even created little front groups for "greening." They had door-to-door canvassers seeking signatures of support and promoted the development as a place for the poor to shop. Our response was to have our canvassers say that the poor needed a place to have a good job, not just a place to shop.

It was shaping up to be a David and Goliath situation. The community organized by creating the East Toronto Community Coalition<sup>i</sup> and Good Jobs for All<sup>ii</sup>. The coalition was comprised of local residents and businesses, and the Good Jobs for All alliance was made up of union members from various industries on Eastern Avenue. It continues to be a very strong and well-respected community group.

The community's case was that reducing the number of good jobs would really hurt many of the small-business strips in the area. They knew that in order to have a vibrant community we need to have good, value-added jobs.

Transportation is another big issue to consider when discussing the proposals. Seven to fourteen million cars would accompany this development, a real detriment to the area. People want to connect with the waterfront without crossing a 1,600-space parking lot.

Our strategy was to anticipate Smart!Centres' movements and try to be a step or two ahead of them. We produced posters and buttons for distribution in local businesses. We raised funds and awareness through door-to-door canvassing. We held rallies and we met with the editorial board of the *Toronto Star* to try to get the opinion leaders onside.

Finally, in March 2009, the OMB rejected Smart!Centres' application for this "power centre" on the Toronto Film Studios site. The OMB rejected Smart!Centres' application to amend the Official Community Plan and zoning bylaw that barred big-box development on the Toronto Film Studios Lands. The ruling also upheld Ontario's Places to Grow Act, which requires cities to plan ahead to ensure land is zoned and used for employment purposes.

This was an extremely important decision for the neighbourhood and for the future of good jobs. It was a victory for not only my community, but also for anyone who supports good planning and good jobs for our city. Together, the East Toronto Community Coalition, the Good Jobs Alliance, the Leslieville community and the city's outstanding legal team scored a victory for high-quality jobs for future generations. We did this through grassroots organizing and activism. We did it by forging coalitions, by outworking the other guys, and by spreading the message that good jobs and good neighbourhoods are worth fighting for.

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<sup>i</sup><http://www.easttorontocommunity.org/>

<sup>ii</sup><http://goodjobsforall.ca/>

## 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.

# 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

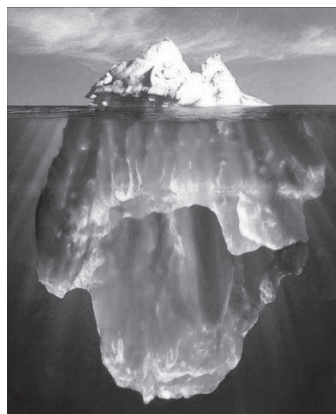


the development of a new social contract as we transition to a low carbon future.

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.<sup>i</sup>

**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"> <li>▪ Motivations</li> <li>▪ Experiences</li> <li>▪ Values</li> <li>▪ Intentions</li> <li>▪ Identity</li> </ul> <p>“The me you can’t see.”</p>	<ul style="list-style-type: none"> <li>▪ Personal behaviours</li> <li>▪ Observable and Measureable</li> <li>▪ i.e. cycling, voting, home reno’s, going to a meeting, participation in a program</li> </ul> <p>“The me you can see.”</p>
<ul style="list-style-type: none"> <li>▪ Relationships</li> <li>▪ Shared values</li> <li>▪ Shared worldviews</li> <li>▪ Shared stories</li> <li>▪ Shared goals and visions</li> </ul> <p>“The we you can’t see.”</p>	<ul style="list-style-type: none"> <li>▪ Ecological systems [i.e. climate]</li> <li>▪ Economic systems</li> <li>▪ Political systems</li> <li>▪ Policies</li> <li>▪ Programs</li> <li>▪ Institutions</li> </ul> <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 "response-ability"<sup>ii</sup> 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."<sup>iii</sup>

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.<sup>iv</sup> Ballard discusses four: awareness, association, agency and action.

##### AGENCY



##### AWARENESS



##### ASSOCIATION



##### 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<sup>v</sup>

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<sup>vi</sup>. 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

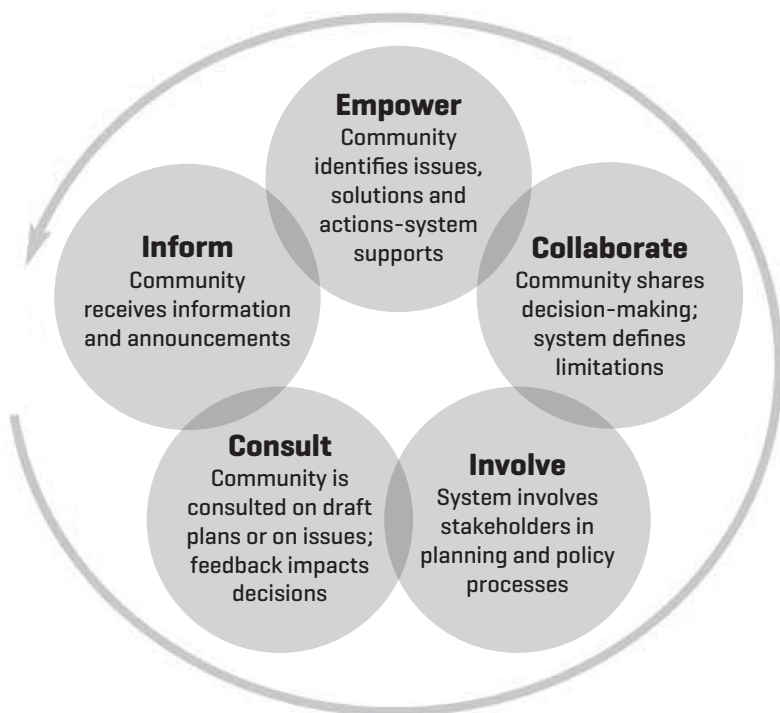
- Define the purpose and scope of engagement from the outset.
- Ensure the leaders of the process understand the community and the audience.
- Use highly skilled facilitators.
- Establish trust and transparency.
- Maintain a balance between broad community engagement and targeted focused groups with 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<sup>vii</sup>, 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.

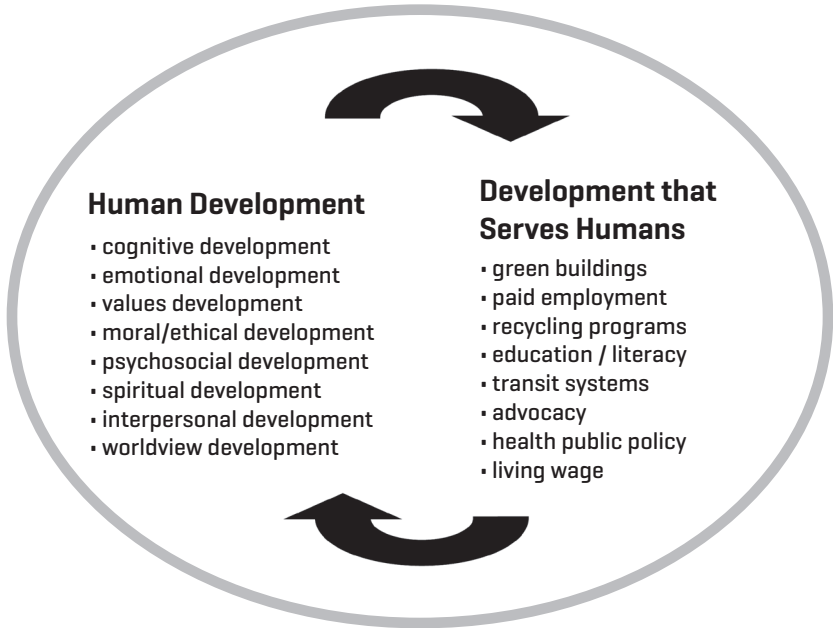
Goal: Partner with the public in each aspect of decision-making, including identification of solutions.

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.

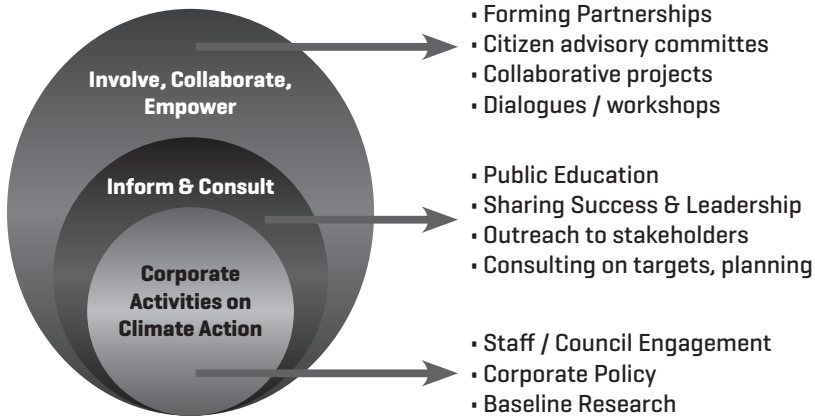


#### EXAMPLES OF ENGAGEMENT IN ACTION

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.

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<sup>i</sup>Esbjorn-Hargens S.

<sup>ii</sup>Koffman, Fred.

<sup>iii</sup>Tamarack Institute for Community Engagement (2009)

<sup>iv</sup>Ballard, D.

<sup>v</sup>Shome, D., & Marx, S.

<sup>vi</sup>Rosell, S., & Furth, I. Inc

<sup>vii</sup>International Association for Public Participation.

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#### ORGANIZATIONS AND WEBSITES

BC Healthy Communities: [www.bchealthycommunities.ca](http://www.bchealthycommunities.ca)

The Deliberation Network: [www.deliberate.ca](http://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](http://www.thataway.org)

International Association of Public Participation: [www.iap2.org](http://www.iap2.org)

Tamarack Institute of Community Engagement: [www.tamarackcommunity.ca](http://www.tamarackcommunity.ca)

# 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.

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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

- 1. 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’*

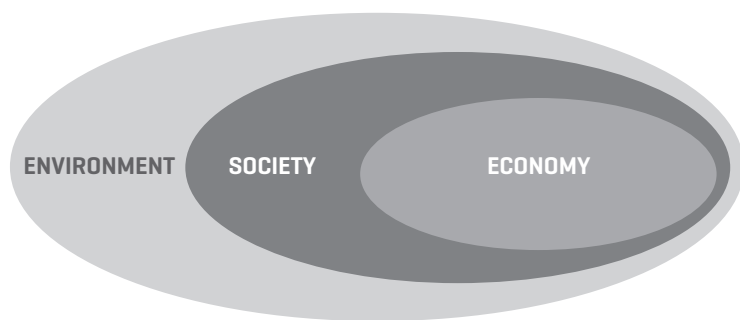
*in business, and thereby allowing business leaders to merge seemingly disparate ideas.*

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.

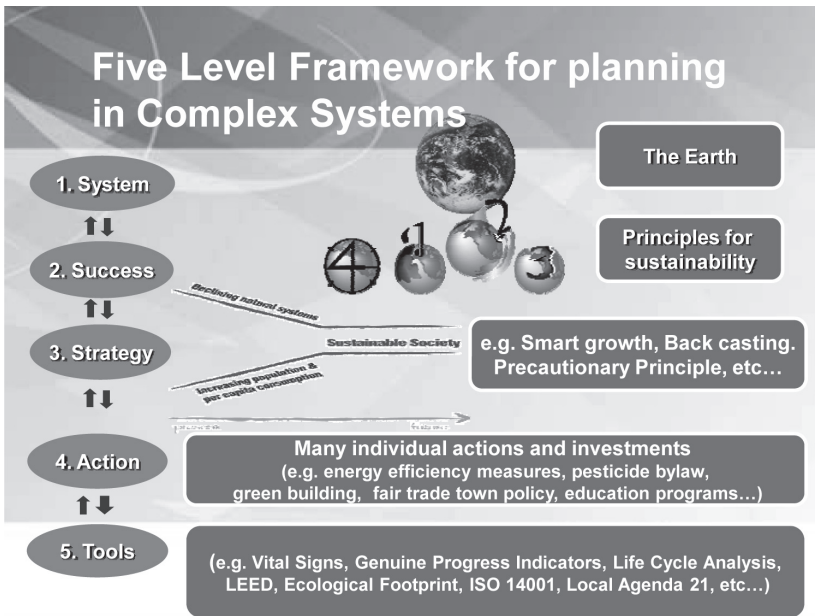
## KEY TNS CONCEPTS

### 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.



## 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 <sup>1</sup>	Example	Satisfiers <sup>2,3</sup>
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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Whistler Centre for Sustainability: [www.whistlercentre.ca](http://www.whistlercentre.ca)

Resort Municipality of Whistler: [www.whistler.ca](http://www.whistler.ca)

## CHAPTER 5

# Ideas Whose Time Has Come

# 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.

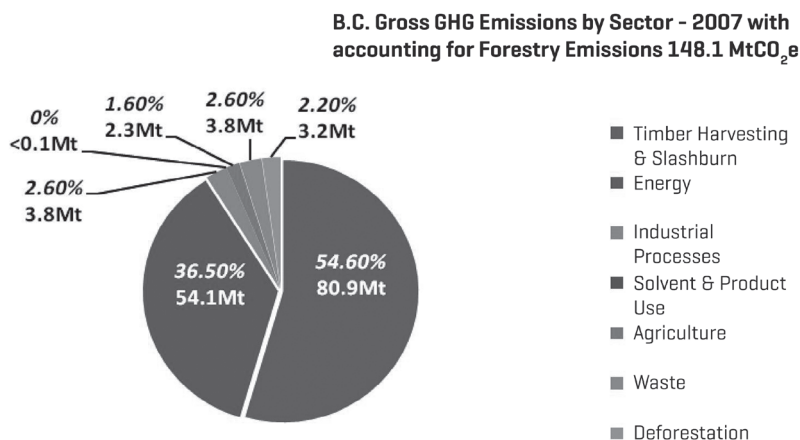
Scientists believe that the world is in the midst of a biodiversity crisis on par with historical mass extinction events—some 17,000 species are now threatened with extinction. This abrupt decline in plants and animals threatens not only ecosystem health, but also the health and wellbeing of human communities 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 legislation<sup>i</sup>, 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 (CO<sub>2</sub>e) 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 markets<sup>ii</sup>.

- 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.

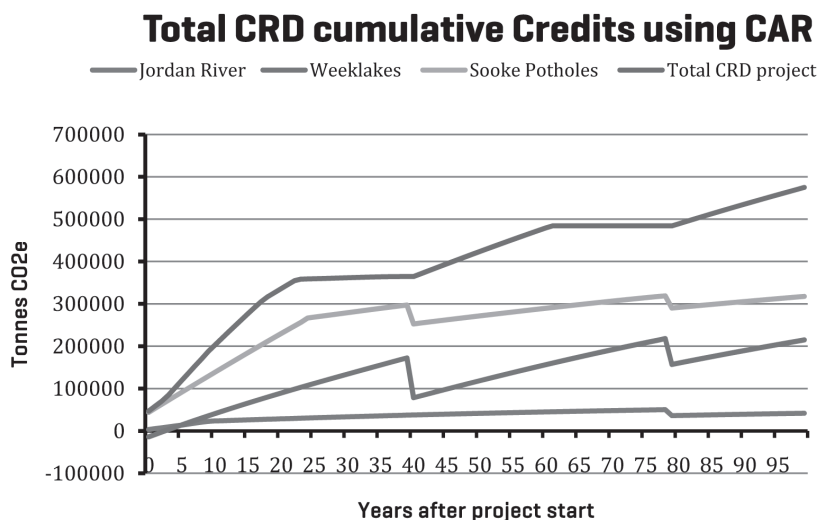
### III. WHERE ARE WE NOW WITH CONSERVATION OFFSETS?

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



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.

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<sup>i</sup>Species at Risk Act, Wildlife Management Areas, Natural Area Protection Tax Exemption Program

<sup>ii</sup>See 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](http://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](http://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.

## CHAPTER 5.2

# 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.

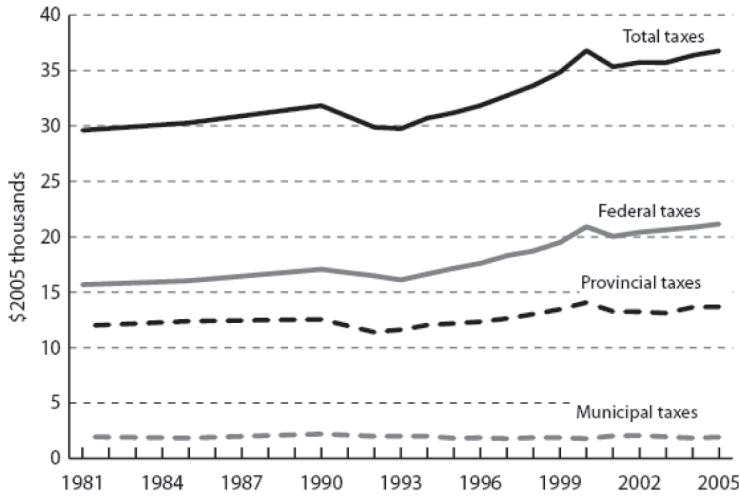
Think about all that your city does for you every day. Roads, arenas, pools, libraries, parks, waste collection, police. Your city provides you with clean water, fire protection, plowed streets, and much more. With only eight cents out of every tax dollar collected, cities manage to have an enormous 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 themselves<sup>i</sup>. 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.

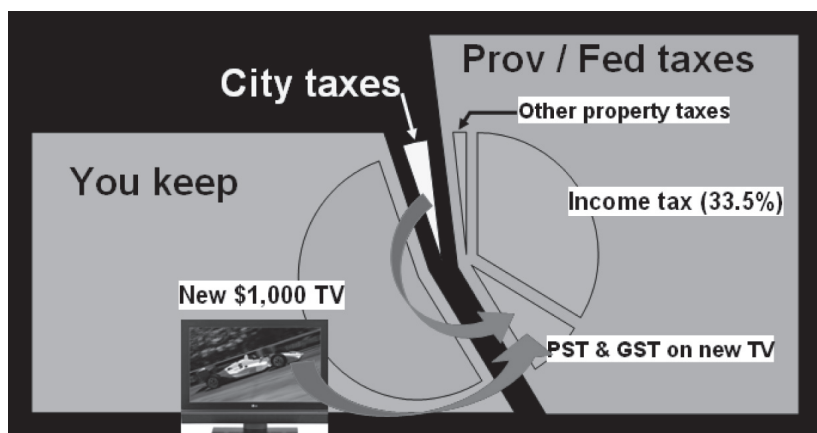


Figure 3. What happens to a \$2,000 wage increase? One third is deducted at the source. Then another 13% goes to the provincial and federal government when whatever is left gets spent.

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.

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<sup>i</sup>Reference 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.

# 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.<sup>1</sup> 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

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.

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.

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 shifting<sup>ii</sup>. 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.

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<sup>i</sup>Schindler, 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.

<sup>ii</sup>Dyer, 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 as 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.”<sup>i</sup>

## 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

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<sup>i</sup>Executive Summary of the Swift Current Creek Watershed Protection Plan







*Resiliency: Cool Ideas for Locally Elected Leaders* is the fifth volume in the Going for Green Leadership Series. Inspired by conversations at our Center for Civic Governance forums, *Resiliency* highlights the bold and creative ways in which leaders and communities are responding to the major environmental challenges of our time.

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