

The Implementation of Market-Based Conservation Tools
Under the *Alberta Land Stewardship Act*: A Review

Alberta Land Institute
David W. Poulton & Eran S. Kaplinsky, eds.
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Author Profiles

Kim Good is a professional agrologist with 25 years experience applying and researching private land conservation tools.

Guy Greenaway is the Executive Director of the Corvus Centre for Conservation Policy.

Eran Kaplinsky is Research Director of the Alberta Land Institute and Professor in the Faculty of Law, University of Alberta.

David W. Poulton is Director of the Alberta Land Institute and Principal of Poulton Environmental strategies Inc.



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List of Acronyms

AACO	Alberta Association for Conservation Offsets
AEP	Alberta Environment and Parks
AER	Alberta Energy Regulator
AIBS	Alberta Innovates Bio Solutions
AITF	Alberta Innovates Technology Futures
ALSA	Alberta Land Stewardship Act
ALTGP	Alberta Land Trust Grant Program
ASP	Area Structure Plan
CE	Conservation easement
DTC	Density Transfer Charge
ECCC	Environment and Climate Change Canada
ES	Ecosystem services
ESG	Ecological goods and services
IAFE	Agriculture, Forestry and the Environment
IRC	Internal Revenue Code
JRP	Joint Review Panel
LARP	Lower Athabasca Regional Plan
LSC	Land Stewardship Centre
LUF	Land-use Framework
MBI	Market-based instrument
MDP	Municipal Development Plans
MGA	Municipal Government Act
NEB	National Energy Board
NGTL	NOVA Gas Transmission Ltd
SCAT	Subdivision Credit Application Transfer
SEACOP	Southeastern Alberta Conservation Offset Pilot
SSRP	South Saskatchewan Regional Plan
TDC	Transfer of development credit
TDR	Transferable development rights
TSD	Transferable Subdivision and Development
UCP	United Conservative Party
US	United States
WRP	Wetland Replacement Program



|Chapter 1| Alberta Land Stewardship Act: History

David W. Poulton

INTRODUCTION

In the early years of the 21st century Alberta was thriving. The economy was booming and the population was following apace—but this created pressures on the Alberta landscape. Industry was pursuing opportunities across the province, while a growing number of people, most benefiting from the economic prosperity, were looking to make use of the land and the recreational amenities that it offered. However, these various manifestations of the province’s economic and demographic success also increased public perception that this increased usage was taking a toll on natural ecosystems. Further, the incompatibilities of different land uses became apparent as each ramped up in scale and frequency.

The existing land-use planning system was ill-suited to cope with these new pressures. The regulation of land use was largely fragmented between different sectors, with little capacity to consider cumulative effects or the pursuit of overall social goals for the landscape. Prior efforts at regional planning had been dismantled or had declined in status and effectiveness. Further, many recreational activities had little or no regulation or means of controlling impacts or user conflicts.

The *Land-use Framework* (Alberta 2008: LUF), released by the Government of Alberta in December of 2008 was an ambitious attempt to grapple with the many interconnected issues of land use and to set the groundwork for a new approach to land-use governance. The policy began with appropriately grave and grandiose language:

There are more and more people doing more and more activities on the same piece of land. The competition between user groups creates conflict, and often puts stress on the finite capacity of our land, air, water and habitat.

What worked for us when our population was only one or two million will not get the job done with four, and soon five million. We have reached a tipping point, where sticking to the old rules will not produce the quality of life we have come to expect. If we want our children to enjoy the same quality of life that current generations have, we need a new land-use system. (LUF, 2008, p. 2).

The LUF promised to balance growth with social and environmental goals in the pursuit of “smart growth,” setting out the following seven strategies:

1. Develop seven regional land-use plans based on seven new land-use regions.

2. Create a Land-use secretariat and establish a Regional Advisory Council for each region.
3. Cumulative effects management will be used at the regional level to manage the impacts of development on land, water and air.
4. Develop a strategy for conservation and stewardship on private and public lands.
5. Promote efficient use of the land to reduce the footprint of human activities on Alberta's landscape.
6. Establish an information, monitoring and knowledge system to contribute to continuous improvement of land-use planning and decision-making.
7. Inclusion of [A]boriginal peoples in land-use planning. (LUF, 2008, pp. 3–4)

Under the fourth strategy—conservation and stewardship—the LUF described a disconnect between economic structures, incentives, and conservation goals (LUF, 2008). The Framework noted that many environmental benefits flowed from private land stewardship; as such, the benefits were public goods, but the cost of their provision was often borne by private landowners. The LUF identified this disjunct as a driver of wetland and habitat loss and the fragmentation and conversion of agricultural lands. As a result, the LUF declared the following: “If Albertans value these landscapes on private and public lands and the benefits they provide to all of us, we have to find new ways to share the costs of conserving them” (LUF, 2008, p. 33).

Accordingly, the Framework asserted that shifting away from primarily regulatory mechanisms for conservation to market-based instruments (MBIs) would provide a means to address this situation. The purpose of this report is to review the implementation of those MBIs, which were referenced in the LUF and in its subsequent legislation, the *Alberta Land Stewardship Act* (ALSA, 2009).

MARKET-BASED INSTRUMENTS FOR CONSERVATION

MBIs are policy tools designed to attain specific social objectives using economic incentives. In environmental policy, MBIs are used to introduce economic incentives to align private costs and the benefits of private decisions with their social costs and benefits. This is typically done by fixing or correcting prices or quantities of activities or goods associated with environmental impacts or “externalities” (Weitzman, 1974). There are many kinds of MBIs, but one element common to all is the use of price signals to influence behaviour (Pirard, 2012). This is based on the common understanding that people are more likely to overuse goods and services that are underpriced (or free), and conserve those that are priced higher. Prices may be affected by such tools as subsidies, fees, taxes, liabilities, supply constraints, and tradable permits. Some MBIs adjust prices in existing markets, while others aim to construct new markets in new kinds of goods and services. Properly structured MBIs can complement regulation; if well-designed, they can attain the same objectives the regulations target, but more effectively, efficiently and with less political resistance.

While the LUF and ALSA newly emphasized MBIs in Alberta policy, the concept itself was known—both globally and in Alberta. The United States had used trading systems to control cumulative levels of several noxious emissions since the 1980s (Hockenstein, Stavins, &

Whitehead 1997), an example that inspired the creation of carbon markets in many parts of the world. It had also established market mechanisms to deliver on conservation goals for wetlands and endangered species habitat. Meanwhile, the Commonwealth Government of Australia and several Australian states experimented with policy tools to encourage offsetting of impacts to wildlife habitat and native vegetation. Examples of household-scale MBIs in many parts of the world, Alberta among them, include deposit-and-refund systems applied to beverage containers, tires, and other materials vulnerable to irresponsible disposal. By the early years of the 21st century, Alberta had a lot of experience and knowledge to draw on in its quest to increase its use of MBIs.

The LUF described the realignment of costs and benefits of environmental protection to both protect the environment and stimulate the economy. On the one hand, MBIs would lead to a new way of sharing the costs and creating new partnerships for environmental protection. On the other, creating a monetary value for ecological goods and services (ESGs) could allow landowners to use the production of those ESGs as a new revenue stream, diversifying rural economies and reinforcing beneficial practices (LUF).

THE ALBERTA LAND STEWARDSHIP ACT

The LUF was a policy document and thus did not have the force of law. Many existing pieces of legislation did not necessarily share the LUF's orientation, a situation that could potentially frustrate the new policy direction. As a result, the provincial government followed up the LUF with an ambitious statute intended to legally enable this new direction in land-use planning and policy: the *Alberta Land Stewardship Act (ALSA)*, passed into law in 2009.

The general form of *ALSA* is one common to modern Alberta legislation: the statute lays out general directions and provides the legal authority to promulgate regulations. It is the subsequent regulations which are expected to set out specific enforceable obligations necessary to give effect to the direction of the statute. To date only two regulations have been promulgated under *ALSA*, neither of which deal substantively with the issues raised in this report.

ALSA is divided into four substantive parts. Parts 1, 2, and 4 establish a new regime for regional planning. The act enabled the provincial cabinet to adopt regional plans for each of seven regions, delineated by watershed boundaries, with some adjustments to accommodate municipal boundaries. Plans might include a history of the region and description of its current state. Section 8(1) of the act states that each regional plan must include a vision and one or more objectives for the region. Beyond those mandatory elements, section 8(2) details that a plan may include policies, thresholds, indicators, monitoring prescriptions, and so on, for the purpose of achieving a regional objective. Such elements, while not mandatory in the legislation, are important for the choice and evaluation of policy instruments, since they (a) allow processes and incentives to align with objectives, and (b) enable monitoring of progress towards stated objectives. This is certainly relevant to the effective use of MBIs.

Once adopted by the provincial cabinet in the form of regulation, regional plans are to have the force of law. Further, regional plans are to take priority over regulations and instruments under

other legislation if a conflict between them exists (s. 17(2)). Moreover, *ALSA* itself takes priority over all other legislation in case of conflict or inconsistency. (s. 17(4)). *ALSA* regional plans are binding on local governments (s. 15(1)(b)); local governments must therefore review their own regulatory instruments to that end and ultimately file a statutory declaration of their compliance with an applicable regional plan (s. 20(2)(b)).

Part 3 of *ALSA* focuses on the development of new land stewardship tools, including MBIs. This part begins with a significant declaration that the Lieutenant Governor in Council (the provincial cabinet) may support research and development, including pilot programs, to explore policy instruments (which includes MBIs) to support and implement the purpose of *ALSA* and the objectives of regional plans (see s. 23). These provisions are almost certainly not necessary from a legal perspective, as a government does not need legislative authority to explore new policy instruments. However, the explicit articulation of this authority in the legislation is an indication of the depth of interest in policy tool innovation in 2009.

Having highlighted this direction, the statute goes on to set out enabling provisions for *conservation easements* (see s. 28–35), *conservation offsets* (see s. 45–47), and *transfer of development schemes* (see s. 48–50). Thus, this report focuses on these three instruments—precisely because they are specifically enabled, and seemingly promoted, by *ALSA* and by the LUF. One new instrument that *ALSA* enabled, but which is not dealt with here, is *conservation directives*. This is because these are mandatory orders for land management for the purpose of enforcing measures to advance regional objectives. Thus, they are decidedly not market-based, and our focus here is on MBIs. Those having an interest in this controversial and so-far unused policy tool are referred to Palmer, Driedzic and Unger (2015).

One aspect of the MBI provisions in *ALSA* warrants special mention. Specifically, many MBIs rely on the implicit or explicit use of some metric or metrics of environmental value or function; they can then be used to describe environmental losses and gains from particular activities, making them valuable assessment tools. Metrics may vary widely depending on the environmental values in question however—but regardless of their particular form, the units derived from these metrics are what form the basis for assigning value to nature. Just as wheat cannot be assigned a value without references to cups, bushels, or tons, the environment cannot be assigned value without reference to area, species populations, litres of water sequestered or filtered, or some other measure. In some MBIs, a metric which allows for the comparison of environmental losses and gains is referred to as the “currency,” since it forms the medium of an exchange of environmental components or functions.

The Alberta legislature anticipated the need for a unit of exchange in environmental value by including reference to a notional unit called a “stewardship unit.” Section 46 of the statute details the particulars of a stewardship unit, which are to be set by regulations made by the Lieutenant Governor in Council. The enabling nature of the section is extremely broad, including how they can be created, held, exchanged, used, and extinguished, and by whom. Notably, the larger understanding that emerges from that section of the statute is that stewardship units act as a potential form of property in ecological goods and services, something to which a value can be

ascribed. Like many of the MBI provisions of *ALSA*, however, no regulation has been adopted or publicly proposed, so the significance of the stewardship unit remains inchoate.

Finally, Part 4 of *ALSA* established the provincial Land-use Secretariat, under the leadership of the Stewardship Commissioner. The act gives the secretariat and the commissioner broad powers to coordinate regional planning, to review the adequacy of regional plans, to receive and investigate complaints of non-compliance with regional plans, and to intervene if progress towards regional plan objectives were not to be satisfactory.

INSTITUTE FOR AGRICULTURE, FORESTRY AND THE ENVIRONMENT

The LUF committed to developing a toolkit of best practices for MBIs to provide ecological goods and services. This was a natural progression, given the discussion of MBIs as part of both public debate and policy development in the years leading up to the LUF. At the same time, perhaps as a stimulus to the partnerships that LUF signalled, there was an encouragement of stewardship ideas and initiatives at arm's length from government and in the private sector. One arm's length forum for the consideration of MBIs—one that was specifically cited in the LUF (see p. 33)—was the Institute for Agriculture, Forestry and the Environment (IAFE).

In 2006, as the LUF was being developed, Premier Ed Stelmach announced the creation of the IAFE “to identify market-based solutions to increase environmentally sound practices in the renewable resource sectors” (IAFE, 2010a, p. 3). The institute was established in 2008 with a two-year mandate to develop an Ecosystem Services Market Policy Framework. The fact that this mandate came from the premier was one of several indications of the government-wide interest in the new direction and the degree of political support that it received.

This target framework was to assist the Alberta Government in achieving its “green growth” objectives, as well as improving environmental outcomes. It was to enhance the competitiveness of Alberta’s natural resource sectors, especially forestry and agriculture, and brand the province as a leader in environmental innovation. All of this was to be done by developing a decision-support system to evaluate and select market-based policy tools for ecosystem services, and by documenting the state of Alberta’s ecosystems. (IAFE, 2009b, Slide 2.) IAFE proposed a new paradigm for the environment in Alberta, transforming it from a compliance cost to a valuable asset and profit centre. (IAFE, 2009b, Slide 3).

IAFE was tasked with bringing market-based ecosystem management forward as a unifying concept across ministries. It also had to interweave this new perspective with various provincial resource strategies—the Energy Strategy, Clean Air Strategy, Climate Change Strategy, Water for Life Strategy, as well as the LUF (IAFE, 2009b, Slide 6)—to combine all these aspects into regional plans.

IAFE commissioned several reports and studies. One of its most important activities was convening a “think tank,” held in Banff over three days in February 2009, of international experts on market-based environmental management with local experts and key stakeholders.

The report resulting from the workshop indicated that discussions were wide-ranging and frank, but a broad consensus also developed on several points, as below:

1. The choice and tailoring of any MBI should be based on a good understanding of a specific ecosystem service (ES) or set of ESs, including the challenges it faces.
2. While understanding of the current state of the ES may form a baseline, clear and measurable objectives for the ES will determine the application of the MBI.
3. The performance of any MBI system must be periodically evaluated to (a) ensure it is producing the intended results, (b) not creating unreasonable transaction costs, or (c) not engendering perverse incentives for the target or other ESs.
4. Pilot projects and learning by doing were recommended, rather than waiting for perfection to start. However, the group also noted that a significant need existed to build public understanding of developing policy in this direction (IAFE, 2009a).

In March 2010, IAFE issued its final report in the form of a recommended policy framework (IAFE, 2010a) and implementation guide (IAFE, 2010b). These documents emphasized the value in a market-based approach to many conservation issues, the need for clear policy objectives, and a system of outcome-based policy instruments that would yield measurable results.

ALBERTA INNOVATES AND ITS MBI ROADMAP

The IAFE mandate always anticipated a limited lifespan. With the completion of the March 2010 ES Markey Policy Framework, its mandate was fulfilled. Thus, continued work on MBI policy and program design fell to Alberta Innovates Bio Solutions (AIBS) and its sister organization, Alberta Innovates Technology Futures (AITF), the successors to the Alberta Research Council, which had researched select MBIs previously.

In May 2012, AIBS published its ES roadmap, which advocated for a phased approach to developing ES markets (AIBS, 2012). The roadmap stated that “ecosystem services will play a central role in both adaptation to and mitigation of existing environmental problems” (p. 12). In the same vein as IAFE, AIBS noted some critical components and recommendations for ES markets:

- An assessment of the state of ecosystem services
- A system to manage and build knowledge, verification, and validation systems
- An ecosystem trading platform
- The development of institutions and governance structures. Specifically, a multi-stakeholder body, independent of government, should be charged with governance of the market in the public interest (p. 17–18).

The roadmap also suggested, as part of its phased approach, that the first steps to developing full ecosystem service markets should be a series of pilot projects using conservation offsets to develop some key market concepts and tools.

AIBS and AITF either directly organized or sponsored much of the subsequent work, which encompassed studies, workshops, and collaborations, to develop ideas and policy proposals

related to ecosystem service markets and MBIs. These outputs lent impetus to work by such groups as the Ecosystem Services and Biodiversity Network (now known as the EcoServices Network), the Pembina Institute, the Miistakis Institute, the Alberta Association for Conservation Offsets, the Alberta Biodiversity Monitoring Institute, and the Alberta Land Institute. These groups have largely responsible for the ongoing interest in MBIs in Alberta.

It is significant to note how the move toward MBIs for environmental management has evolved over the space of little more than a decade—from a government initiative championed by the Premier’s office, to the current situation in which the main initiative and activities lie outside of government, with groups that may lack the financial sustainability to support them. Simultaneously, as documented through this report, the capacity and will of government agencies to propel this agenda forward appears to have diminished substantially. This has resulted in an imbalance where an interested and active stakeholder base for MBIs has been paired with government that has seemed to be significantly less interested and active.

The second chapter of this report, authored by Guy Greenaway and Kim Good, reviews the development and use of one of the fundamental building blocks of an MBI program. Conservation easements, a legal tool to enable a private conservation agreement to attach to, and run with a piece of land, allow for the legal recognition of EGS and the measures necessary to conserve or enhance them. They are a tool, enabled by *ALSA* though also by previous legislation, that has seen increasing acceptance and use in Alberta.

Chapter Three is a discussion of conservation offsetting. This is the intentional creation of environmental benefits in order to compensate for the unavoidable impacts of development. When undertaken by a developer offsetting creates a price incentive to minimize impacts and pursue cost-effective conservation. While discussed in the LUF, and broadly enabled by *ALSA* progress on conservation offset policy has been slow in the intervening years. One exception has been the development and implementation of Alberta’s wetland policy, which is largely offset-based. In this chapter David W. Poulton reviews the halting progress in offset policy development.

Chapter Four, authored by Guy Greenaway and Eran Kaplinsky, considers transfer of development credits (TDCs). TDCs are a municipal planning tool which allow for the focusing of development and the protection of nature each where desired. Again, this is a tool which has seen more interest than action since it was enabled by *ALSA* in 2009.

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[Chapter 2] Conservation Easements in Alberta: Past, Present, and Future

Guy Greenaway & Kim Good

INTRODUCTION: WHAT IS THE CONSERVATION EASEMENT TOOL?

A conservation easement allows a landowner to grant conservation-oriented rights and opportunities regarding their land to a qualified organization. This legal instrument is deployed through an enforceable written agreement (a contract) negotiated between the landowner and the qualified organization and registered on the land title. A qualified organization is most often a “land trust” or “conservancy”: a charitable or non-profit organization that, as one of its core activities, secures title to, or some interest in, land, for the explicit purpose of conservation (Greenaway, 2003). However, municipalities or a provincial government agency are also qualified organizations.

In Alberta, conservation easements (CEs) are enabled through the *Alberta Land Stewardship Act (ALSA)*, and can be granted for the protection, conservation, or enhancement of (a) the environment, (b) natural or aesthetic values, or (c) agricultural land or land for agricultural purposes. When so granted, the following uses are allowed: recreational use; open space use; environmental education; and research and scientific studies of natural ecosystems (*ALSA* s. 28–34).

Considering land ownership as a bundle of rights and opportunities is a useful starting point to fully understanding how CEs function. These rights and opportunities allow the landowner to carry out certain activities, such as cultivation, livestock grazing, tree harvesting, application for buildings or subdivision and so on. By signing a CE, the landowner voluntarily surrenders specified rights and opportunities to the qualified organization or promises to undertake certain activities to achieve the CE’s conservation objectives. These could be things like following a grazing management plan or controlling an invasive species. Through the CE, the qualified organization “retires” those rights and ensures all requirements are met, for the duration of the CE (most commonly in perpetuity, though *ALSA* does not prescribe a required term). The qualified organization is entitled to enforce the CE obligations against the landowner and the landowner’s successors in title.

Since the CE is transactional, the financial valuation of a conservation easement is based on its market value, not on its ecological value. A before-and-after appraisal method is used, whereby a qualified appraiser assesses the market value of the property without the CE, and then again under the assumption that the proposed restrictions are in place. The difference between those two valuations is the financial value of the CE. For example, a CE that restricts buildings and subdivisions in an area with high development pressure would be more financially valuable than a CE of equivalent ecological value in an area where development pressure is low.

While CEs are often motivated by philanthropy or the wish to contribute to a personal or family legacy, they are not without financial advantages. The grant of a CEs is, at a minimum, eligible for a charitable tax receipt equal to its financial value. In some cases, qualified organizations will be able to provide a cash payment to a landowner. Most often, this takes the form of a “split receipt” where a portion of the value is provided as a tax receipt, and a portion as cash. The Canada Revenue Agency has allowed this since 2002, provided the cash portion does not exceed 80% of the value (CRA, 2002).

History of the Conservation Easement Tool

Easements are “ancient” in origin and were recognized as the right to use another person’s property since at least Roman law. The concept of a “conservation easement” grew out of the 1930s “scenic easements” used in the United States (US) to protect stretches of motorways, such as the Blue Ridge Parkway in Virginia (Pidot, 2005). Noted urbanist and *Fortune* magazine editor William H. Whyte Jr. proposed the concept and the term in his 1959 Technical Bulletin, *Securing Open Space for Urban America: Conservation Easements*. Whyte proposed that the existing concept of an easement could be focused specifically on the conservation of open space, as an expedient but effective alternative to outright purchase of land.

What we’re really after is conservation of things we value, and thus I have been trying the term “conservation easement.”...[Conservation] easements can provide future options. Even though the community might not know what its precise land use needs will be in twenty years or so, by the conserving of key open spaces it ensures that it will have choices to make, and that the developer’s bulldozer will not have gotten there first.... Easements also break certain ideological blocks. They are ancient, they respect property rights, and are far less “socialistic” than many programs which [conservationists] now sanction.(Whyte, 1959)

Thus, Whyte saw CEs as a fundamentally conservative device. He also addressed what might appear as a backslide on his firm commitment to long-range planning, saying, “We need long range planning, but we need a little retroactive planning, too: Let’s save the best land as soon as we can, and then, at our leisure, rationalize with further studies how right we were to have done it.”

Conservation easements were used sparsely until a boom in the 1980s. Land trusts—not-for-profit charitable organizations committed to land conservation—became the main avenue for CEs. When Whyte wrote his bulletin, only 18 land trusts existed in the US; by the end of the century there were almost 1300 (Brewer, 2003). Merenlander et al. (2004) calculated that in 2000 1,111 land trusts in the US held CEs on 858,000 hectares of land; only a decade before, just 657 land trusts had existed. Today, the National Conservation Easement Database in the US reports 191,476 CEs covering 13,233,968 hectares¹ (NCED, 2021).

In Canada, prior to CE legislation, few land trusts or conservancies existed; those that did were mostly conservation organizations oriented towards naturalism or game habitat. Of the current 11

¹ These include state-held CEs, as well as those held by land trusts.

land trusts or land trust-type organizations eligible to hold CEs in Alberta only four existed prior to 1996, when conservation easement legislation was introduced.

Identified Advantages and Challenges

It is important to understand that CEs provide an *additional* tool in the effort to conserve valued landscapes—not a *replacement* tool. Unfortunately, many discussions of their advantages and disadvantages situate them in a competitive matrix, looking simplistically for the “best” tool. This is especially the case with more traditional land conservation mechanisms, such as parks and protected areas on public land. The reality of land conservation is that different tools play different roles and address different circumstances; thus, all are vitally necessary. The following inventory of advantages and challenges of the CE tool must be viewed in that context.

Conservation Easement Advantages

Detailed below are the multiple advantages of the CE tool, reflecting the ability of CEs to address conservation needs in a unique and practical way:

Enduring Conservation. Can be negotiated for long periods of time (usually in perpetuity), providing for conservation that can extend past ownership and political timelines, such as municipal councils and provincial policies.

Drafting Flexibility. Starts with similar structure, basic guidelines, and default restrictions, but each can be extensively tailored to specific circumstances.

Inclusion of Working Landscapes (Agriculture and Forestry). Works against separating people from conservation by permitting sustainable use of a land base within conservation parameters, while still providing for local economies.

Non-government Conservation. Contributes to necessarily diverse conservation approaches—a tool that is contract-based vs. legislative, less bureaucratic, and less recreation-focused, and where project selection is not politically motivated.

Private Landowner Engagement. Facilitates incentive-based and voluntary conservation options (rather than just regulatory and expropriation options), creating networks of people with a land ethic and enabling private landowners to pursue their conservation goals by choosing from a diversity of qualified organizations.

Opportunities for Compensation. Provides mechanisms for offsetting the financial burden of perpetual conservation by creating opportunities for financial benefits to arise from conservation of the land rather than from its exploitation.

Anchor for Other Tools and Programs. Provides an enduring conservation “anchor” that many other programs require, allowing existing and innovative programs to forgo the need to repeatedly design a conservation backstop.

Comprehensive Ecological Conservation. Addresses conservation on ecologically important private lands that occur throughout the “white zone”² (or settled area) of the province, thereby buffering other protected areas, maintaining wildlife movement corridors, preventing habitat loss, reducing roads and structures, and protecting critical habitats that occur away from and between public lands.

Integration with Planning. Integrates land conservation with local-level land-use planning and permitting directed at private land, and increasingly expected to accommodate conservation.

Agricultural Land Conservation. Is one of the few tools capable of long-term protection of land needed for food production, but which is available to the private producer.

Conservation Easement Challenges

Conservation easements are not a stewardship panacea and present numerous challenges, both within the tool itself and with its application. Unsurprisingly, concerns are divided based on the assessor’s perspective. The academic literature focuses on what *could* happen under theoretical circumstances, or on how tool use should change to support the goals of other conservation agencies (those not holding CEs). By contrast, discussions with CE practitioners show that concerns relate to improving the efficacy of, and support for, the tool’s application. This section aims to ensure that both perspectives are represented here.

The following categories help to summarize the issues and challenges raised in both research and practice, coupled with the representative questions. Importantly, some challenges are relatively easily dealt with or typify other jurisdictions (since much of the literature focuses on the US and Australia). That latter part of this chapter turns to key issues most pertinent to Alberta.

Conservation Impact

Assessing the conservation impact of a CE is challenging, as it is informed both by how a conservation outcome is framed and how progress towards that outcome is measured. This has generated the following questions:

- What is the actual conservation contribution of a given CE?
- How does conservation impact differ on private, multi-use, working landscapes compared to that on public, single-use, protected lands?
- When should narrow conservation targets (such as particular species, certain crop types, or threatened elements) be used vs. broad conservation targets (such as connectivity, representativeness, or buffering)?
- Who should dictate how impact is measured, and under what circumstances?
- How “durable” is the conservation, and how should that be measured?

² Alberta’s public land policy divides the province between the white zone, the settled agricultural area largely private land located in the south and east, and the green zone, the less settled boreal forest and foothill regions, where public land is most common

- How can a voluntary, nonregulatory, opportunistic tool be deployed strategically?

Land-use Perspectives

CEs represent a specific type of land use, composed of a suite of land-use restrictions/prescriptions, operating within a complex land-use matrix. This has generated the following questions:

- How can CE exponents manage the perception of the land base being “sterilized” (in other words, being unavailable for commercial, residential and industrial development)?
- How can the certainty of conservation be balanced against the reality that the land and the land-use dynamic will change over time?
- How can exponents address the erroneous perception that CEs should allow for public access?

Participant Parties

CEs involve a variety of parties, roles, interests, and rights, often with conflicting goals and varying capabilities. This has generated the following questions:

- Are land trust organizations financially and organizationally stable enough to guarantee “perpetual” CEs?
- What is the most appropriate role for governments to play regarding oversight, funding, planning, and facilitation? In which cases should there be no role for government?
- What is the conservation impact of other parties having rights related to the CE property?
- What are the goals and concerns of the landowner and adjacent landowners? How do they affect the drafting of the CE?

Drafting and Management

Though all CEs are conceptually similar, each qualified organization designs the easement for their goals; further, each individual CE can be drafted differently to accommodate different needs and circumstances. This has generated the following questions:

- How are restrictions or prescriptions within the CE correlated to the conservation goals?
- Should CEs be standardized in some way(s)? If so, who should make or drive that decision?
- What constitutes an adequate monitoring regime? Who determines that?
- Are the terms of the CE legally and practically enforceable?
- When are changes to the CE appropriate or necessary? How should they be facilitated?
- How should the landowner’s and the qualified organization’s desires for privacy be balanced with the need or demand for transparency?

Financial and Fiscal Matters

CEs routinely involve compensation and impacts on real property values. This has generated the following questions:

- How should the value of the CE be calculated? Is real estate value an appropriate measure for the ecological benefit being conserved?
- Are there direct impacts on property taxes and on local tax bases?

- What is the potential for income tax fraud?
- What is the actual impact on property values, both for the subject property and surrounding properties?
- Should governments fund the acquisition of CEs?

CONSERVATION EASEMENTS IN ALBERTA

In Alberta, conservation easements have had a complicated development as a market-based instrument for stewardship, going back about 25 years and involving the provincial government, relevant organizations, and various levels of usage.

Enabling Legislation

Alberta’s history with CEs formally began in the fall of 1996, when the Government of Alberta enacted changes to the *Environmental Protection and Enhancement Act* (1992) to include CEs as a new tool for protecting private lands that had biodiversity or scenic value (Kwasniak, 1997). Since that time, the number of land trusts, or land trust type organizations, has grown from four to 11, including national bodies that operate provincial chapters. However, only seven of these are actively pursuing CEs.³ Early discussions about CEs in Alberta considered in some detail the use of the tool by municipalities (Kwasniak, 2009; Kwasniak & Tingley, 1999). Indeed, Strathcona County was one of the first to use the tool in the late 1990s. However, while municipalities in Alberta have tended to include enthusiastic references to CEs in their Municipal Development Plans, few have followed up with actual programs or even one-off projects.

The Government of Alberta’s provincial land-use planning process, begun in 2005, culminated with the *Land-use Framework* (Government of Alberta, 2008) and the *Alberta Land Stewardship Act* in 2009. CEs were the only “conservation and stewardship” tool in the act that already existed in other legislation. The relevant clauses were ported over from the *Environmental Protection and Enhancement Act*, almost word for word. The most significant changes were to the allowable purposes for CEs: Specifically, “includes biodiversity” was dropped, leaving the broader language “environment” and “agricultural land and land for agricultural purposes” which was added, making Alberta only the second province to legislatively enable CEs for agriculture.

Qualified Organizations and Usage

Under *ALSA* the recipient of a CE must be a “qualified organization” (*ALSA* s. 28(c)), which include the provincial government, a provincial government agency, or a charity that meets two conditions: 1) one of its objects is the same as the CE purposes (as listed in *ALSA*); and 2) it

³ Alberta land trusts actively doing CEs are the following: Ducks Unlimited Canada, Edmonton Area Land Trust, Foothills Land Trust, Legacy Land Trust Society, Nature Conservancy of Canada, Southern Alberta Land Trust Society, and Western Sky Land Trust. Eligible organizations that are not doing new CEs or do not hold a CE are the following: Alberta Conservation Association, Alberta Fish and Game Association, Crooked Creek Conservancy of Athabasca Society, Land Stewardship Centre of Canada, and the Royal Astronomical Society of Canada–Calgary Centre (not a land trust per se, but holds a CE).

identifies in its bylaws that if the organization dissolves, any CEs it holds will be transferred to another qualified organization.

Most active qualified organizations in Alberta are land trusts or conservancies. There are several municipalities that also hold CEs. Records from the Land Stewardship Centre (LSC) indicate that the Government of Alberta also holds several CEs (LSC, 2021).

While the use of CEs in Alberta, measuring CE activity in this province is challenging. Although Alberta Infrastructure and Alberta Transportation receive detailed notification about the pending registration of every CE, and all CEs are registered at the provincial Land Titles Office, Alberta has no formal mechanism for tracking the number, area, conservation purpose, or location of conservation easements.⁴ Efforts to do so using Land Titles information face data deficiencies because CEs have been registered on titles in various ways.

Jensen (2009) calculated that private conservation organizations in Alberta had 46,322 hectares conserved through 1,231 CEs. The Jensen data indicated annual growth of lands secured by those organizations was at 18.5%. In 2013, the LSC Conservation Easement Registry showed 60,815 hectares, conserved by 1,528 CEs (Brian Ilnicki, personal communication). Data from the LSC 2020 Conservation Easement Registry did not include an acreage calculation, but it did show 2,201 CEs.

Comparing the three lists makes the data challenges evident. Viewed collectively, CEs attributed to an organization in earlier years disappear in later years, and CEs known to exist appear in one year but not in others.

APPLYING THE TOOL: EVOLUTION OF PRACTICE IN ALBERTA

Since CEs were first introduced in Alberta, the practice of drafting, negotiating, and stewarding CEs has evolved considerably. Some specific aspects of that evolution are worth noting, as follows:

Restrictions

The approach to CE restrictions has evolved, more than the restrictions themselves. The most common restrictions are still prohibitions against subdivisions and limits on future building. However, restrictions lists have become less extensive, with a growing awareness that fewer clauses may be just as ecologically robust but easier to monitor and enforce. As well, management plans that prescribe required activities have become much more common.

⁴ The Canadian Wildlife Service (which oversee the federal Ecological Gifts Program) maintains an internal database of 'EcoGifts' and other protected lands. The Land Stewardship Centre in Edmonton, Alberta maintains a CE Registry that does an automated troll of Land Titles information and can provide public users with information on any user-requested parcel (LSC 2021). The Government of Alberta's Land Trust Grant Program (AEP 2021), an initiative to support land trusts to acquire conservation easements, maintains an internal database of projects. Each land trust maintains a database of its own projects. At the time of this writing, the Miistakis Institute was leading an initiative to catalogue all privately conserved lands in the province.

Accommodation of Working Lands

Early CEs often assumed human activity (such as allowing grazing cattle) would be inconsistent with the stated conservation values. Over time, working landscapes became a more common target for CEs due to a growing understanding that conservation values could be protected by proper land management regime. Drafting of CEs evolved to allow for continued sustainable agriculture or forestry activity.

Expectations of Compensation

As noted above, prior to 2002, landowners could only receive a tax receipt or a cash payment for the grant of a CE. Because few, if any, qualified organizations had the resources for full cash compensation, the tax receipt was the main form of compensation. When “split receipting” (see above) arrived in 2002, it enabled some cash compensation. When the Alberta Land Trust Grant Program arrived in 2011, this sustainable and relatively large source of cash for CEs further increased the use of cash compensation.

Standards and Practices

The protocols related to securing and managing CEs has always been left to the qualified organization to create, so long as it met the base legislative requirements. In 1989, the Land Trust Alliance in the US facilitated the creation of Standards and Practices in response to their members’ concerns about credibility with government and funders (LTA, 2021). In 2005, the now-defunct Canadian Land Trust Alliance created the first Standards and Practices for Canadian land trusts, which included guidance on CEs. Those practices were almost universally adopted by Alberta land trusts. The practices were updated in 2019. The new Centre for Land Conservation is now the steward of those guidelines (CLC, 2021) and is using them as the basis for a future land trust performance assurance program.

PROGRAMS THAT SUPPORT CONSERVATION EASEMENTS

Two main programs support the use of CEs in Alberta. Both programs, described below, have been instrumental in encouraging CE use by land trusts and landowners, to conserve private land.

Alberta Land Trust Grant Program

The first program is the province’s Alberta Land Trust Grant Program (ALTGP) (AEP, 2021), the only one of its kind in Canada. The ALTGP was enabled through *ALSA* in 2009,⁵ which resulted in the addition of the Land Stewardship Fund in the *Public Lands Act* (2000) and creation of the Land Stewardship Fund Regulation (2011). The ALTGP is open to all land trusts in the province, though projects funded by the ALTGP must align with the Government of Alberta’s overall conservation objectives, and land trusts must match the grant funds 2:1. Since

⁵ See s. 25 of *ALSA*, “Funding to support conservation, environmental and agricultural values,” which catalyzed the creation of the Land Stewardship Fund.

its inception in 2011, the ALTGP has provided \$74 million in grants (Government of Alberta 2020), greatly increasing the capacity of the land trust community.

The ALTGP opens applications annually to enable land trusts to access funds to establish and administer CEs. The ALTGP will support all aspects of securing CEs, including payments to landowners, staff time, professional costs, and stewardship endowments. In fact, the ALTGP requires that an endowment be established for each project. It is unclear how large the Land Stewardship Fund is, or how long it can continue providing support to land trusts at this scale.

Ecological Gifts Program

The second program is the federal Ecological Gifts Program (Ecogifts). Ecogifts offers improved tax treatment for landowners who make perpetual gifts of land or interests in land (such as CEs) that are deemed ecologically sensitive. Ecologically sensitive lands are areas or sites that currently or could, at some point in the future, contribute significantly to the conservation of Canada's biodiversity and environmental heritage (ECCC, 2021).

Since CEs were legally enabled, they have almost always been donated to qualified organizations in exchange for a tax receipt equal to the full appraised value of the easement. However, the donation of a CE is considered a deemed disposition (that is, disposing of land without a sale) so, while there is no monetary gain, a taxable capital gain is incurred by the donor. A "normal" charitable donation would be subject to capital gains tax; a tax receipt that must be used within five years and applied to only 75% of the donor's income in any given year. Certification under the Ecogifts program removes the capital gains tax and provides a tax receipt that can be used over 10 years and applied to 100% of the donor's income.

Some early CE tax receipts were so large that the donors were audited. While these audits ultimately found no issues with the value or the receipts, they did cause landowners both personal and financial hardship. In response, the Ecogifts program created an appraisal review process. An expert panel reviews the appraisal in advance of a tax receipt being issued, and either agrees with the appraised value, suggests a different value, or rejects the appraisal. The landowner can accept the panel's decision or withdraw from the program. Once both parties agree and a statement of fair market value has been issued, the appraisal will be accepted by the Canada Revenue Agency. This was an important change to the program and likely encouraged an ongoing increase in grants of CEs.

The Ecogifts certification also entails stringent restrictions on the future of the conserved property. If a qualified organization allows, or does not stop, an action deemed by Environment and Climate Change Canada to be contrary to the CE—and thus is considered a "change in use"—the qualified organization can be charged a federal tax equal to 50% of the fair market value of the property. Currently, 174 CEs certified as Ecogifts exist in Alberta, covering 70,444 ha (K. Zimmer, personal communication, August 20, 2021).

Conservation Easements and Market-based Instruments

While CEs on their own do not have the characteristics of a market-based instrument (MBI), they can play a pivotal role in enabling other MBIs for conservation. By themselves, CEs are not well-suited to affecting costs or profits to produce a desired environmental outcome. Nor are they designed to generate a new market. To put this in the common lexicon of MBIs, CEs do not facilitate a regulatory effort that either *fixes prices* or *fixes quantities*, to achieve an environmental outcome (Weitzman, 1974).

Payments for CEs are relatively rare, and even then, generally do not reach the fair market value of the lost opportunities. While the split receipt rule allows up to 80% of the value to be in cash, in Alberta this is usually between 10% and 20%. The “trade” in CEs could potentially be thought of as a new market generated by this tool—but if so, it is a weak one. With few transactions, appraisers struggle to find “comparables”—real estate transactions with similar market characteristics. In the US, using the CE as a “financial instrument” has led to fraudulent use of tax receipts and created new federal legislation aimed at closing this so-called market (Charitable Conservation Easement Program Integrity Act of 2020).

Nevertheless, CEs can be an integral part of enabling other MBIs. It has become a kind of “power source” that other tools can plug in to. Many of those other tools require an enduring protective mechanism to underpin the desired environmental outcome. CEs can provide that. For example, conservation offsets, dealt with in the following chapter, require a legal means to secure conservation gains, and CEs are often used in those circumstances.

LOOKING FORWARD: KEY ISSUES FOR ALBERTA

As noted above in the inventory of challenges, not all potential CE issues identified in the literature apply to Alberta; conversely, issues of great importance to Alberta are not always emphasized (or even mentioned) in the literature. Thus, what follows are issues likely to be the most critical for ensuring the continued effectiveness of the CE tool in Alberta.

Compensation Beyond the Initial Grant of the Easement

As CEs are increasingly deployed in conjunction with other instruments, a concern has been expressed that landowners might “double-dip”—that is, receive compensation or credit more than once for providing the same environmental benefit. This concern arises from a misunderstanding about how CEs are financially valued, rather than from an actual risk of genuine abuse. However, proactive clarity is important if the utility of CEs to support other programs is not to be unnecessarily diminished.

A common misconception is that the dollar value of a CE, and therefore the compensation *amount*, is linked to its *conservation* value. In reality, the valuation of an easement is the amount the “real property asset” was devalued due to the *restrictions* on its use. Stated another way, landowner compensation equates to the loss in *market value* due to the specific restrictions they sell or donate. Some restrictions might have limited impact on the real property value, such as a

prohibition against dumping garbage, while others may account for the majority of the change in real property value, such as a prohibition against subdivision.

Three theoretical circumstances give rise to the double-dipping concern, described below: fraudulent identical grants of an easement, layering of CEs, and payment-for-participation programs.

Fraudulent identical grants of easement. It is not a concern that numerous parcels in Alberta have multiple easements of different types (pipeline easements, CEs, utility easements, and so on). At issue is whether the rights and abilities granted via an easement are granted multiple times to different parties at the same time. We are not aware of instances of this concern in Alberta.

Layering of conservation easements. “Layering” of CEs refers to the grant of more than one CE on the same parcel. This occurs regularly in planning environments with more mature CE practices (Montgomery County, 2021). This can occur because different restrictions are being transferred (that is, donated or sold). As each CE is unique, the restrictions list is similarly tailored to the particular circumstance. In the case of a CE with restricted subdivision, but not the construction of buildings, the landowner could conceivably grant a second CE that just restricted construction of buildings. In the second case, however, compensation could only be based on the change due to the new restriction on buildings, not all of the other restrictions previously granted in the initial CE.

Payment-for-participation program. Programs that require a CE to participate differ from programs to secure specific restrictions through a payment or tax receipt, which are based on the change in the real property value; instead, payment for participation is based on satisfying certain land management conditions. For example, a carbon credit program where properties must have title restrictions prohibiting cultivation is not “paying” for that restriction—in that it is not receiving a new CE, with compensation based on the changed value of the real property asset. Rather, a set payment scheme is determined within that program. These two program types can be complementary depending on their design.

While clarity on financial valuation of CEs is of general importance, it becomes critical when considering the variety of programs a CE might support, and how valuation may affect compensation in those programs. Addressing these issues will require the following:

- Payment-for-participation programs must clearly differentiate their compensation criteria and methods from those where CE restrictions are being “purchased.”
- Compensation for the grant of a CE must continue to be clearly tied to the resulting change in the financial value of the real property asset.
- Programs seeking to use CEs, either directly or indirectly, must assess whether the specific restrictions of a given CE align with the program goals, vs. relying on the simple existence of a CE.

Risks Due to Other Rights Holders

A CE applies only to the rights and opportunities to which the landowner is legally entitled—this means the landowner cannot grant rights and opportunities they do not own. A concern arises when a party external to the conservation agreement holds rights to some aspect of the land, the exercise of which might threaten the conservation values of the property. For example, the exercise of subsurface rights can be a threat. CEs rarely deal with subsurface rights (such as mineral leases), as private landowners in Alberta rarely own those rights. Surface access is therefore out of the hands of the parties to the CE agreement; significantly, major disturbance can occur if the holder of subsurface-rights wishes to pursue the exploration and development of minerals, oil, or gas.

Because this circumstance is pervasive in Alberta, but relatively uncommon in other jurisdictions, little consideration of it has occurred in the Canadian context. The little that has taken place tends to default to simplistic and subjective assessments: existing subsurface-rights = bad; no subsurface-rights = good (ECCC, 2018a). However, the reality is more nuanced. Land trusts and conservancies in Alberta already employ a range of informal approaches, routinely working with subsurface-rights holders to explore different siting options for well pads, use of directional drilling, better locations for access roads and facilities, and even some limited experience with the donation or transfer of mineral rights to the land trust.

Also relevant here is that many areas with subsurface-rights are highly unlikely to see those rights exercised. In the US, while surface mining on a CE property is prohibited by s. 170(h) of the Internal Revenue Service Code (in that the tax receipt would be withheld/withdrawn). In particular, oil and gas can potentially coexist provided “the impact is restricted to limited, temporary and localized impacts that are not irremediably destructive of significant conservation interests [or the] probability of surface mining occurring on such property is so remote as to be negligible” (Internal Revenue Code, s. 170(h)(5)(ii)).

Addressing this issue will require certain actions, as follows:

- The Government of Alberta much actively explore alternate lease arrangements, including facilitating donation of leases, refusing new leases underlying lands with CEs, and allowing leases to be extinguished under CEs.
- Land trusts and conservancies must create explicit policies about how they will approach securing and overseeing CE properties with existing subsurface-rights.
- Developing effective and efficient methods of assessing the likelihood of subsurface rights being exercised and the potential extent of ecological impact on a case-by-case basis.

Capacity of the Land Trust Community

Conservation plans and initiatives are increasingly looking towards private land conservation generally—and CEs specifically—to play a significant supporting role in land conservation objectives (Government of Alberta 2017; Greenaway, 2017; PT1 2018). This shift raises concerns about whether qualified organizations have the capacity to meet this demand: they must have more CE capacity, but also increased sophistication, capability, and support. That emerging

set of needs can be divided into *funding, people, expertise, and support resources*, each of which has associated challenges.

Funding. Funding has been increasing for CE securement in Alberta, especially with the advent of the ALTGP (AEP, 2021), and the yet-embryonic (federal) Natural Heritage Conservation Program (ECCC, 2018b). While these programs are well tailored for land trusts to secure CEs, a key challenge is their goals, which limit the diversity of projects the land trust community at large might otherwise pursue.

People. The land trust community in Alberta is very small, arguably representing one of the smallest staff-to-conserved-acres ratios in the country. Superficially, this may suggest efficiency but, in fact, it represents a low critical mass, which means ongoing struggles to maintain the necessary training, professionalism, and recruitment.

Expertise. Knowledge of CEs, and private land conservation generally, is very specialized, and in Alberta, this rests with relatively few people. However, implementing the tool requires a diverse toolkit of skills: law, accounting, appraisal, ecology, agriculture, financial planning, and so forth. Currently, few such professionals in Alberta have familiarity, let alone expertise, with CEs. Thus, tremendous time and money are spent training these participants to become “experts.”

Support Resources. The word “resources” is often a euphemism for money, but here it refers to the variety of supports that qualified organizations require to effectively deliver CE programs: legal, financial, organizational, training, data, and investment supports are among them. At present, all are currently available only in a limited fashion; they do not reflect the disparity of capacity between different organizations, nor the changes that will occur due to the growth and evolution of the private land conservation community.

To address these capacity issues and ensure the continued value and viability of the CE tool, the following will be required:

- An increased focus by non-profit qualified organizations to diversify funding sources
- Commitment from government and philanthropic funding agencies to support land trusts, not just to achieve funder goals
- Increased municipal CE programs
- Greater community-wide focus on the training and professionalism of land trust personnel
- Increased training of support professions (such as law, appraisal, and finance) with regard to CEs
- Greater community-wide support for various needs: organizational—such as benefits, insurance, and pensions; legal—like legal defence, funds, and legal support; and informational—including data, databases, and research
- Greater provincial support for land trust community priorities—for example, legal, organizational, research, and data
- Among land trusts, options for coordination of legal defence funds, shared endowment strategies, and investment management

- Diversification of support sources: a shift from only governments to effectively include foundations, businesses, and professional associations

Ensuring Conservation Impact

It is crucial to ensure CEs are an effective and efficient mechanism for achieving conservation outcomes. Nonetheless, uncertainties about measuring impact, ensuring strategic coordination and appropriate level of balance standardization remain. Conceptually, measuring impact is universally supported, but many characteristics of CEs make the practice complex, as in the following:

- Conservation on a working landscape will look different than in a traditional protected area.
- Environmental conservation and agricultural conservation are both legitimate goals of a CE, but they may conflict.
- Arbiters (including the self-appointed) of conservation effectiveness often have different goals.
- The inevitability of both landscape and land-use change affects the assessment of conservation effectiveness.

Strategic coordination and planning of a voluntary, and often opportunistic tool is, of course, a challenge. Still, coordination efforts have increased since the introduction of CE legislation. In fact, the four 4 province-wide land trusts have maintained an ongoing information and data-sharing arrangement. Moreover, they have recently added five 5 of the regional land trusts, and the mid-level or “regional” land trusts have created an informal alliance. Several land trusts have developed guidelines for selecting projects that align with their strategic goals. Nevertheless, landscape-level impact continues to be a planning and coordination challenge due to lack of accessible data and transparent targets. It should also be noted that the notion of strategic must sometimes be measured at a high level; in other words, the goal of creating a “community of conservation” defies short-term, spatial assessment against narrow conservation metrics.

Further, measuring and ensuring conservation impacts has led to tension between the values of *diversity* and *standardization*. Significantly, CEs primarily adapt to unique circumstances; thus, comparative assessment of similar elements is difficult. Functionally, the main challenge has been understanding standardization: of what and for whom. Current efforts foreground administrative expedience for government agencies and funders; academic assessment is typically just from a singular perspective. In both scenarios, assessors come with little or no private land conservation expertise.

Improving Alberta’s ability to both enhance and measure the conservation impact of CEs will require that the following occur:

- Conservation impact is assessed against the goals of the qualified organization, not just those of the self-appointed assessors.
- Assessments move past the inevitability of change in private and working landscapes to focus more clearly on conservation outcomes.

- High-quality CE data is available for conservation planning, municipal planning, provincial land use planning, and industrial planning.
- Strategic coordination between land trusts regarding conservation outcomes continues to advance.
- Assessment methodologies recognize CEs as an intentionally diverse conservation tool.
- All qualified organizations (including governments and municipalities) adhere to the standards and practices related to CEs (CLTA, 2019).

FUTURE OPPORTUNITIES

In the 25 years they have been enabled by Alberta legislation, numerous CEs have been granted. Today, several emerging situations and circumstances may create further opportunities for this tool, described below.

Transfer of Development Credits

The Transfer of Development Credits (TDC) tool (described fully in Chapter 4) allows municipalities to designate areas for bonus development and areas with conservation value; they can then facilitate developers purchasing bonus-development credits from conservation-area landowners. The conservation land is then protected with a CE, a critical component of these programs.

While TDC programs are still nascent in Alberta, increasing development pressures will exacerbate the conflicts between communities' conservation and development goals. In the coming years, the TDC tool may be used more extensively, along with associated CEs.

Conservation Offsets

Conservation offsets (described fully in Chapter 3) allow development to proceed in cases where the impacts to ecologically valuable lands are deemed unavoidable; however, they require developers to secure an offsetting ecological value.

While many types of offsetting have struggled to emerge in Alberta, the Alberta Wetland Policy (ESRD, 2013) has created a well-established framework wherein developers pay fees to a central government-operated fund, to which qualified entities can apply for wetland restoration support. The Government of Alberta's *Wetland Replacement Program* (WRP) (Government of Alberta, 2021) requires landowners to grant a CE on lands around restored wetlands for which they have received a payment. As the WRP seeks to address a backlog of collected fees, CEs in this circumstance will increase.

Conservation Development

In the late 1990s, Randall Arendt popularized the concept of conservation design in subdivision planning (Arendt, 1996); this notion was set alongside the ideas of cluster development and bare-land condominiums. Since that time, many local governments have sought to incorporate these principles in their planning practices, reflecting a desire to change while it is still possible to make a meaningful difference. Increasingly, in Alberta, valued landscapes are converted to uses

often unsupported by the community at large, in that they are unfriendly to conservation efforts. In these cases, communities (and municipalities) turn to tools like Arendt's, tools which are underpinned by CEs

Municipal Conservation Easement Programs

The Land Stewardship Centre indicates that 18 municipalities currently hold CEs⁶ (LSC, 2021), and several of them have comprehensive CE programs (such as Strathcona County and Flagstaff County). Importantly, these tools can survive the often-fickle back and forth of municipal council decisions. Further, municipalities are well-suited to integrating the necessary ongoing monitoring into existing capacity. Thus, municipalities are likely to increasingly use CEs.

Conservation Easements for Agriculture

ALSA (2009) added the ability to use CEs to conserve “agricultural land and land for agricultural purposes,” but Alberta has yet to take advantage of this new ability. While the policy direction for this change was never clear (Chiasson et al., 2012), the latent demand for it is likely present, in part because qualified organizations in the past have accommodated agricultural land conservation as a subset of ecological conservation. At least two land trusts identify conservation of agricultural land as a distinct purpose (Western Sky Land Trust and Legacy Land Trust Society), and an effort is currently afoot to establish an entirely agricultural land trust.

Tax, Estate, and Succession Planning

Typically, landowners do not have the income thought necessary for a large tax receipt to be useful. However, when a landowner begins advanced tax planning or an estate transfer situation, a tax receipt can often be of significant use. A few land trusts offer estate planning advice about CEs, but the option is not widely available or understood. Notably, with the baby boom generation moving through the latter stages of life, a significant amount of land is slated to change hands over the next several years.

CONCLUSION

The CE tool has a long history on the continent and 25 years of demonstrably effective use in Alberta. Indeed, it is the only *ALSA* conservation and stewardship tool in wide use prior to 2009. CEs provide enduring conservation in a way that few other tools can, and for that reason act to bolster many other tools and programs.

The CE tool also comes with many challenges; structural, perceptual, operational, and financial. The flexibility that has been critical to its success also creates latitude for ineffective application if it is deployed carelessly. For Alberta as a whole, pernicious challenges that must be addressed include the following: issues of compensation beyond the initial grant of the easement, risks due

⁶ As noted above, LSC has cautioned that this data does not control for instances where another tool may have been mis-registered as a CE.

to other rights holders, the capacity of the land trust community, and ensuring conservation impact.

In contrast to these concerns, Alberta also has several emerging deployment opportunities for CEs. As the Land Use Framework (2008) warned, the demand for enduring conservation to respond to the tipping point of loss will only increase. CEs will likely become increasingly valuable not just as a stand-alone tool, but as a quiet background power source: they energize more complex tools and programs, which we need if we are to balance our increasing use of the land with increased stewardship.

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|Chapter 3| Conservation Offsetting

David W. Poulton

INTRODUCTION

Conservation offsetting, also known as biodiversity offsetting, is a form of environmental impact mitigation whereby environmentally positive impacts are intentionally created for the purpose of counterbalancing the negative environmental impacts of a development project or program. This strategy is typically used as the final stage in a hierarchy of mitigation measures, to be applied only to the residual impact after all other reasonable measures have been taken to avoid, minimize, and restore impacts at a given site.

This mitigation hierarchy is key to ensuring that offsetting adds value: it is a means of compensating for impacts that cannot be mitigated by the prior measures. Thus, it does not eliminate impacts, but compensates for them in the context of the larger ecosystem. The goal of offsetting is often expressed as “no net loss,” or potentially a net gain, in biodiversity values. While offsetting may be pursued voluntarily by developers for a variety of reasons related to social licence or commitments to sustainability goals, it is often required as part of the development permitting and environmental impact assessment process.

Exploration of the concept started in the 1980s, with early versions of the federal Department of Fisheries and Oceans’ fish habitat regime and the U.S. wetland mitigation regime. In the intervening years, those programs have undergone several iterations as weaknesses were identified and lessons learned. Offsetting has been recognized as a regulatory tool of environmental mitigation in at least 100 jurisdictions around the world (Bennett et al, 2017; GIBOP). A significant body of academic and professional guidance regarding the practice.¹

The notion of compensation and the goal of no net loss invokes certain issues essential to the offsetting process. These include the following needs:

Quantitative assessment—of the negative environmental impact caused by the development project or program. Quantifying highlights that appropriate metric(s) are necessary that adequately and accurately reflect the values for which impact is being assessed. Because the selected metric is the medium of the exchange of environmental components, it is often referred to as the offset “currency.”

Identifying an offset project(s)—that can produce environmental positives equivalent to the negative impacts produced by the development project. Equivalency often includes

¹ As an indication of the breadth of application of offsetting, and some of the issues it raises, see the 2021 web forum series on this topic presented by the Alberta Land Institute: Alberta Land Institute, Land Use 2021: A Place for Biodiversity Offsets, <https://www.albertalandinstitute.ca/lu21>.

considerations of similarity and proximity of the impact and offset sites, as well as application of the same metric(s), to allow the losses and gains to be compared quantitatively.

Mechanism (usually legal) to ensure the longevity of the offset project benefits—which should at least match the duration of the development impacts. When the development is to be permanent (such as a residential subdivision), the offset must be similarly permanent so that it matches the development impacts.

Recognizing and adjusting for the inadequacies and uncertainties of the offset process—because of (a) an imperfect equivalency between impacts and offsets (as no two sites have exactly the same environmental components and functions), (b) time lags in the offset project producing its intended benefits, and (c) the risk of partial or total failure of the offset project to produce those benefits. These are often adjusted for by use of a multiplier requiring the offset to be larger than the impact by some ratio. These factors also highlight the need for ongoing monitoring and adaptive management of the offset project, with responsible actors clearly identified.

Conservation Offset Delivery Mechanisms

Through the experience and innovation of many offset regimes in various countries, three mechanisms have been identified to deliver offsets.

1. ***Project-specific offsetting***, whereby an offset project is conceived of and delivered for each development project. This allows for the careful matching of development impacts and offset benefits. However, this approach is likely to be inefficient as conservation benefits are pursued piecemeal.
2. ***Credit banking***, whereby a party is allowed to pursue offset projects in advance and anticipation of later development projects. The party receives and holds the credit for the resulting environmental benefits, to be applied against corresponding development impacts when those impacts occur. This may be done by a development proponent in anticipation of its later needs (first-party banking or self-banking); some systems also allow for the exchange of offset credits (third-party banking or banking and exchange systems). Banking is promoted as a means to allow offset benefits to be produced in advance of development impacts, thus minimizing or eliminating the problem of time lags. It may also allow conservation work to be done systematically and efficiently, in part by creating an opportunity for the growth of a specialized industry dedicated to the work.
3. ***In-lieu fee systems to produce offsets***, whereby a development proponent is not required to produce offset benefits *per se*, but to pay money into a fund that will be used later to produce those benefits. Many systems rely on this approach, which has the advantage of making the development permitting process more efficient by removing from it the need to consider the merits of particular offset design. It carries the risk, however, that time lags will be exacerbated and equivalency of losses and gains diminished (see Poulton and Driedzic, 2016, for a more thorough discussion of offset systems across North America).

Conservation Offsetting as a Market-Based Instrument

Conservation offsetting qualifies as a market-based instrument (MBI) in two ways, depending on the delivery mechanism used. All forms of offsetting require a development proponent to bear the replacement cost of the environmental values lost to its development impacts. This amounts to price signal incenting developers to reduce impacts as much as possible. . Conversely, the need to produce offset benefits creates economic value in land and work that is required to produce positive impacts, and in the ecological gains themselves. Under a banking and exchange system of offsetting, a new market is created in offset credits that operates according to the laws of supply and demand to motivate and appropriately price offset work and benefits.

OFFSETTING IN THE LUF AND ALSA

In the 2008 *Land-Use Framework* (Government of Alberta, 2008: LUF) conservation offsets were listed as one of the MBIs that Alberta would explore to improve land stewardship in the province, being described as “incentives [that] will be further evaluated to identify their potential to be applied on both public and private lands” (p. 34). Additionally, this further description was offered:

Land conservation offsets are compensatory actions that address biodiversity or natural value loss arising from development on both public and private lands. Compensation mechanisms include restitution for any damage to the environment through replacement, restoration, or compensation for impacted landscapes. (LUF, 2008, p. 34)

This broad language potentially opened the door to a system of conservation offsetting with wide-ranging application but left undefined just what specific goals that such a system might achieve.

As with the other market-based conservation tools reviewed in this report, the expansive wording of the LUF was echoed in legal form in Part 3 Division 4 of the *Alberta Land Stewardship Act* (ALSA; s. 45–47). These three pertinent sections of the act introduce the prospect of a complex system of exchange-traded units of natural values for the purposes of achieving a counterbalance to the adverse effects of human activities. However, those provisions are peculiar for a couple of reasons. First, the text of the statute makes no specific mention of offsetting. The word is only used only in titles (in idiosyncratic hyphenated form, “off-set”), which do not have the force of law. Second, the order of the provisions is somewhat odd: The act first sets out the notion of an exchange to deal in stewardship units (s. 45), followed by a menu of possible characteristics of stewardship units (s. 46). Only in section 47 is the purpose of the preceding sections revealed: “The Lieutenant Government in Council may make regulations *to counterbalance the effect of an activity*” (s. 47, italics added).

Two words are noteworthy in this quote: “*effect*” is highly expansive, while “*activity*” constrains the application of all ALSA provisions. *Effect* is defined by Section 2 of the statute to include virtually any consequence—economic, environmental, social, health-related, and so on—of any *activity*, plus the cumulative effect of all specific effects over time. *Effect* is neither positive nor

negative, encompassing both. As such, section 47 could be used to require a counterbalancing of unambiguously positive effects, perverse though such an interpretation would be.

On the other hand, the statutory definition of *activity* is direct and explicit in its qualifications:

2(1) In this Act

(a) “activity” means

- (i) anything that requires a statutory consent, and
- (ii) anything that, under an enactment, must comply with a rule, code of practice, guideline, directive or instrument.

While this definition encompasses many kinds of behaviour, it is clearly limited to those that are subject to regulation by law. The effects of unregulated behaviour, such as many types of recreation, are not dealt with by the statute.

While this report is not intended to be an exegesis on the legal text of *ALSA*, it is important to note that the provisions of section 45 through 47, and the applicable statutory definitions, are extremely broad, admitting of any number of possible applications for numerous reasons in an array of circumstances. The very flexibility built into them means that the wording in *ALSA* gives little guidance in itself about how conservation offsets are intended to be used.

Nonetheless, the sections are wholly enabling, as all three sections begins with “The Lieutenant Governor in Council may make regulations....” To date, however, no regulations have been promulgated or even released in draft for discussion—although a series of discussions and processes have unfolded to consider how to proceed with developing a conservation offset system(s) for Alberta. A review of those follows.

Southeastern Alberta Conservation Offset Pilot

In 2011, Alberta Agriculture and Forestry, and the Alberta Land Use Secretariat agreed to institute a conservation offset pilot in southeastern Alberta. The aim was to test key offset principles on a local, voluntary scale as a means of informing a more general offset program to come (AAF, 2015). Such a pilot was envisioned by the South Saskatchewan Regional Plan (Alberta, 2018 at 77-76, 154-155).

Under the pilot program, known as SEACOP (Southeastern Alberta Conservation Offset Pilot), industrial impacts on native prairie in the dry mixed grass natural subregion were to be voluntarily offset by the purchase of offsets from private landowners. Nominally, these impacts were assumed to be temporary, pending eventual reclamation. Landowners were to provide offsets by committing to convert marginal croplands to native perennials. Arrangements were to be secured by contracts of no less than 10 years (AAF, 2015.). The exchange of offset credits between landowners and industry operators was to be facilitated by a third party, the Alberta Conservation Association (AAF, 2015).

The SEACOP final report of 2015 (AAF, 2015) notes that the pilot attracted positive interest from both industry and landowners for the idea of offsetting for native prairie. The process drew on academic and stakeholder expertise to work towards a scientifically defensible metric for measuring the offsetting requirements and performance, including considering multipliers. That process, however, stopped short of reaching a conclusion or providing firm recommendations. Nevertheless, both landowners and industry supported having a third party mediate the offset process, and thus the practicality of that role was explored.

The expert and stakeholder consultations through SEACOP shed light on the questions and issues facing offset design in Alberta. In particular, landowners expressed reluctance to long-term binding commitments for offset measures, preferring short-term contracts (not registered against title) so as not to restrict future opportunities for agricultural use. They also sought training and support for those who wished to be involved in the offset process. Industry, on the other hand, sought a level playing field for all industries and mechanisms, and a system to pool offset requirements annually to avoid individual project transactions. It also expected a metric to be used that would be consistent with other areas of policy, such as the *Alberta Wetland Policy* (which is described below) (AAF, 2015).

Overall, consultation participants agreed that offsetting based on the restoration of land to native perennial cover was preferable to the protection of existing native prairie. Existing habitat was well stewarded and not under imminent threat, so further protection would not necessarily qualify as additional (Good & Haddock, 2014). Further, parties preferred offsetting within the natural region over allowing offsetting within the region, for disturbance elsewhere (especially the oil-sands region).

The SEACOP process also revealed some gaps in policy that made progress difficult. Industry sought written assurance that they would receive credit in their respective regulatory regimes for early adoption of the voluntary offset system (AAF, 2015; Good & Haddock, 2014). This assurance did come in qualified form at a later date (see below) but the delay was a barrier to the progress of SEACOP. Additionally, the pilot identified a gap in policy linked to whether offsetting should be allowed across natural region boundaries. The vexing problem of the conflict between conservation interests on the surface of the land and rights to subsurface minerals was also brought out as an ongoing challenge. Finally, staff turnover and inconsistent government interest and support were identified as further challenges. A need for an executive-level champion within the government was voiced in the pilot's final report

Shell Jackpine

The decision in 2013 of a Joint Review Panel (JRP) on a major oil-sands project, which prominently mentioned offsetting, gave some impetus to developing an offset policy in Alberta. Specifically, the proposed Shell Jackpine Mine Expansion Project would have expanded the existing Jackpine mine and facilities, resulting in increased bitumen production of 15,900 cubic metre per day (JRP, 2013). The JRP found that the project would have significant adverse environmental effects on “wetlands, traditional plant potential areas, wetland-reliant species at

risk, migratory birds that are wetland-reliant, or species at risk” (JRP, 2013, p. 24). The panel also noted that oil-sands development was having a significant regional cumulative effect that would require greater mitigation efforts. It went on to identify conservation offsets as a potentially important tool for mitigation.

[1824] . . . the Panel is concerned that without additional mitigation, significant adverse effects will occur. . . . The Panel believes that conservation offsets (or allowances) provide a potentially viable mechanism for mitigating these effects without sterilizing bitumen resources or adversely affecting mine operation.

...

[1828] The Panel recommends that before other provincial and federal approvals are issued, the Governments of Canada and Alberta cooperatively consider the need for conservation offsets to address the significant adverse project effects to wetlands, wetland-reliant species at risk, migratory birds that are wetland-reliant or species at risk, and biodiversity and the significant adverse cumulative effects to wetlands, traditional plant potential areas, old-growth forests, wetland-reliant species at risk and migratory birds, old-growth forest-reliant species at risk and migratory birds, biodiversity and Aboriginal traditional use. (JRP, 2013)

Shell and Alberta Innovates Technology Futures

In 2013, two workshops on the potential for offsetting in Alberta were held, independent of the provincial government and the JRP. The first occurred in May 2013, when Shell Canada convened a group of about 50 experts and stakeholder representatives to discuss opportunities for policy development in anticipation of the JRP finding on its Jackpine project.

The second took place in November 2013, when Alberta Innovates Technology Futures (AITF) brought together a larger group for two days at the University of Calgary’s downtown campus. The workshop included presentations for the Business and Biodiversity Offset Programme, and the Willamette Partnership, and from individuals with a background in offset policy development in the State of Victoria, Australia, and the U.S. private wetland banking sector. Importantly, the AITF workshop was distinguished from the Shell event by the presence of provincial government officials. At the end of the AITF workshop, some participants floated the idea of forming a standing stakeholder group to explore offset practices and opportunities for policy development. In 2014, this evolved into the Alberta Association for Conservation Offsets (AACO). AACO operated from 2014 to 2019 as a forum for stakeholder discussions respecting offset policy and practices and as a mechanism for engagement with policy-makers. (The author acted as Executive Director of AACO.)

ALBERTA WETLAND POLICY

In 2013, we achieved a significant milestone in the development of offset policy in Alberta, even though it was not directly related to ALSA. The *Alberta Wetland Policy* (AESRD, 2013), released in September 2013, requires offsetting for any permanent residual loss of wetlands, once impacts have been avoided and minimized. The policy does not use the word “offset” but rather refers to

“wetland replacement.” This requirement is imposed pursuant to the approvals process mandated by Alberta’s *Water Act* (2000). The policy, however, appears to support the goals of the LUF (2008), and offers flexibility for the pursuit of regional planning objectives.

The stated goal of the policy is “to conserve, restore, protect and manage Alberta’s wetlands to sustain the benefits they provide to the environment, society, and the economy” (AESRD, 2013, p. 6). This is intended “to minimize the loss and degradation of wetlands, while allowing for continued growth and economic development in the province” (AESRD, 2013, p. 8).

Unfortunately, both these expressions are not as firm a commitment as a “no net loss” goal, or other quantifiable target.

According to the policy, where a permanent residual loss of wetlands occurs, the proponent must undertake wetland replacement, which may take one of two forms:

- **Restorative replacement**—aims to restore previously degraded wetland, enhance any existing wetland, or constructing a new wetland.
- **Non-restorative replacement**—includes activities like doing research, monitoring at the provincial level, acquiring inventory and data, modelling, conducting public education, and securing wetlands. With the possible exception of this last item, many other systems do not accept “non-replacement” activities as offset measures, as they do not result in actual gains in ecosystem function or legal security (Poulton, 2014).

A development proponent that affects a wetland may undertake its own restorative replacement, or may pay into an in-lieu fund that can be used in part for non-restorative replacement. As the policy was first being implemented, some discussion suggested that no more than 10% of such designated funds would be spent on non-restorative replacement; however, this guideline was never formalized and has not reappeared. As for in-lieu funds, after some discussions about setting up a variety of them on a regional basis, Alberta Environment and Parks ended up being the both collection and disbursement agent.

The provincial agency for this purpose is the Wetland Replacement Program (WRP). A November, 2021 fact sheet reported that in 2020 the WRP was working with 11 municipalities and one non-profit group to replace wetlands. It had supported seven wetland replacement projects totalling 157 hectares of wetland habitat, at a cost to the WRP of \$3.7 million (Government of Alberta, 2021). The amount of funding paid into the WRP, however, is not regularly reported publicly, nor is its criteria or decision process for its support of projects. This opacity makes it difficult to evaluate the effectiveness of the WRP to date.

The policy establishes a process for assessing equivalency of losses and gains of wetland benefits through the “relative wetland value” of each wetland. Specifically, using the Alberta Wetland Rapid Evaluation Tool (ABWRET), each wetland receives a numerical rating based on its contribution to water quality improvement, hydrology, biodiversity, and human uses. These factors, combined with the relative regional scarcity of wetlands, yields a rating from A to D, with A being the highest value.

The relative wetland value of wetlands lost and gained is used as the foundation for the application of multipliers. An exchange of wetlands of the same relative wetland value occurs on a 1:1 basis. However, the further the disparity between that value of the two wetlands, the larger the multiplier. An A-rated wetland replaced by a D-rated one attracts a multiplier of 8:1. The inverse is also true, with a D-rated wetland replaced by an A-rated one having a multiplier of 1:8 (AESRD, 2013). The multiplier, then, is an adjustment for the differential value of the two wetlands, applied on the basis of area—without any consideration for time lags, failure risk of the replacement, and so on—which is typically the basis for assessing multipliers (Moilanen et al, 2009; Bull et al, 2017).

As stated above, the *Alberta Wetland Policy* is not derived from *ALSA* and has no formal relationship to the regional planning process. Regardless, it has provided a vehicle to test key ideas about offsetting, from which lessons might be learned for the larger exercise enabled by *ALSA*.

INTERIM MEASURES

The repeated statements of interest in offsetting along with the slow progress on policy development highlighted the issue of how the Province should treat projects undertaken prior to enacting a full policy. The question of whether earlier adopters would have their offset project recognized was one key issue that bogged down the SEACOP program, as discussed above. This was not simply an issue of delayed progress, but one of reversing prior positive momentum. Indeed, some companies had voluntarily undertaken habitat offsets for several years, working with non-profit land trusts in the province, but such efforts slowed as proponents waited for the finalization of offset policies. Ironically then, anticipation of the policy was effectively slowing conservation progress.

To clarify intentions, on June 16, 2010, then-Minister of Sustainable Resource Development Mel Knight wrote to Todd Zimmerling, Managing Director of the Alberta Conservation Association (Knight, 2010). The letter, by referring to coming regulations, strongly suggested that the government intended to proceed with the development of policy and regulations. Notably, Knight expressed that voluntary offset projects, undertaken pending development of a full offset policy, would be recognized provided they met four criteria:

- Offsets projects are recorded as CEs on the subject land
- A multiplier ratio of 1:1 is to apply
- Impact and offset sites are to be within the same natural region
- Offsets with wetlands are to be consistent with the wetland policy, when it is released

The matter of interim measures resurfaced again in 2014 at one of the first meetings between members of AACO and staff of the department, now named Alberta Environment and Parks (AEP). At that time, AEP staff began to develop a more detailed and formal process to recognize “early action” (Ridge, 2014). The process they outlined was to screen candidate conservation projects submitted to the department against departmental criteria, as well as sending them out for third-party scientific review. Criteria also included that the submitted project had to have

been substantially underway by December 2008 (the date of the release of the LUF) with a completion date by December 2015. One possible interpretation of the latter date was that it was the expected date for a completed offset policy.

The Early Action program was, in fact, completed in March 2016, with a project submission form made publicly available. While the program was under development the department approved its first Early Action project, a collaboration between ConocoPhillips Canada and the Alberta Conservation Association to conserve land at Junction Lake, a site of importance to piping plover birds. We do not know if other projects have been approved under the Early Action program and the program is not currently referenced on the AEP website.

CONSERVATION OFFSET PROGRAM FRAMEWORK

Throughout 2016, AEP worked to create a general framework document that set out the key components of an acceptable conservation offset program. The framework was intended to provide guidance to key aspects that specific offset programs, targeted at key natural resources or objects of conservation concern would require, even in the absence of an offset policy or program of general application. In November 2016, this idea of several specific offset programs was expressed in the draft framework document: “Alberta intends to develop conservation offset programs to support the government’s objectives related to the environment. The Framework outlines elements that must be included in a Conservation Offset Program (AEP, 2016).”

This draft framework set out such requirements as compliance with provincial law and policy, proper management systems, and common offset concepts such as equivalency, additionality, long-term security of offsets, and the like. It used the wetland policy as an example but made clear that the framework might be applied more broadly. Crucially, however, it did not commit that such programs would be forthcoming.

By the fall of 2016, the draft framework document was referred to the highest levels of the provincial government for approval as policy. We do not know what happened in that process, but no further reference has been made to the document, nor has any further work on its development or implementation occurred.

REGULATORY INVOCATION OF OFFSETTING

In the continued absence of Alberta policy, regulators have still occasionally invoked offsets on their own initiative.

Throughout the 2010s the National Energy Board (NEB) released a series of decision reports dealing with pipeline projects in caribou habitat in Alberta and British Columbia. In these they developed an increasingly sophisticated approach to requiring offsets as a mitigation measure. While these decisions were apparently based on federal policy they did have implications for Alberta in that many of the required offset projects were delivered on Alberta lands. Further they served to keep offsetting on industry and stakeholder minds as a tool of resource management.

In 2016, NEB released its decision about an application by NOVA Gas Transmission Ltd (NGTL) to expand its pipeline that runs down the eastern slopes of the Rocky Mountains, with parts passing through boreal woodland caribou range (NEB, 2015). Boreal woodland caribou are a species listed as “at risk” both federally and provincially, and of significance to Indigenous peoples. The application drew the attention of, among others, several Indigenous nations and communities, who expressed a special interest in caribou conservation. NGTL, which had received offset requirements on prior projects from the NEB, submitted that it could offset impacts on caribou. The NEB ordered that offset plans be included as part of the project environmental mitigation, but in doing so pointedly noted the absence of provincial offset policy or caribou range plans. The NEB report stated the following:

The Board notes the absence of completed provincial range plans and is concerned that if offsets are placed in a range without long-term protection there is a risk those offsets may be lost in the future.

... With respect to offset ratios, the Board is of the view that in the absence of provincial range plans and any provincial framework for offsets, NGTL’s [Offset Measures] plan provides a defensible approach with which to address the remaining residual impacts of the Project after application of on-ROW restoration efforts. (NEB, 2015, p. 137)

The successor to the NEB, the Canadian Energy Regulator returned in 2020 to the theme of the absence of policy respecting offsetting for caribou habitat (CER, 2018). In considering another NGTL application for another pipeline system expansion on Alberta’s eastern slopes, this one passing through the highly vulnerable Little Smoky Caribou Range—the empanelled commission said the following:

The Commission notes there is a lack of standard regulatory framework for the calculation and implementation of offsets within woodland caribou ranges. The Commission therefore strongly recommends that the [Governor-in-Council] should, in conjunction with [Environment and Climate Change Canada], provincial governments, Indigenous peoples and stakeholders including industry develop a comprehensive and detailed Offsets Framework for linear projects in caribou critical habitat. The Offset Framework should provide a framework that is practical and can be operationalized and measured in the field.

...

The Commission . . . strongly recommends that these initiatives be undertaken as soon as possible. (CER, 2018, p. 8-9)

The NEB panel recommended in some detail elements that it would like to see in an offset framework and how it might be developed.

In February 2018, the Alberta Energy Regulator (AER) released its decision on the TransCanada Pipelines Ltd. White Spruce Pipeline project, consisting of two pipelines in the Fort McKay area that would pass through West Side Athabasca caribou range (AER, 2018). The panel hearing the application made the following ruling

[W]e note that even with the best efforts, the project will still disturb approximately nine hectares of previously disturbed area and 22 hectares of new cut habitat within the West Side Athabasca Range.

Therefore, we require that TransCanada must prepare and submit a caribou habitat restoration plan to the AER for approval This plan must have the effect of restoring 2.0 times the area of new cut habitat affected in the West Side Athabasca Range by the project. The goal or outcome of the plan is to ensure that there is, at a minimum, no net loss of caribou habitat from the project in the West Side Athabasca Range. (AER, 2018, para. 133)

In the absence of policy, the AER in this decision imposed, without elaboration, a multiplier of 2:1 and a goal of no net loss.

These decisions indicate a continuing interest on the part of proponents and regulators in having offsetting as a tool in the mitigation toolbox.

UCP POLICY

The United Conservation Party was elected to the provincial government on April 16, 2019, and thus assumed handling of land stewardship issues. The UCP's election platform for land stewardship included a 13-point plan with the stated intention of "protect[ing] Alberta's environment today and for future generations, continuing Alberta's proud tradition of environmental stewardship" (UCP, 2019, p. 1). Point 12 of the plan is to "encourage and increase the use of development credits and conservation offsets in provincial policy"(UCP, 2019, p. 3, 7). However, to date, no publicly visible policy initiatives on conservation offsetting have occurred since the UCP took office.

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Chapter 4 | The Transfer of Development Credit Tool in Alberta

Guy Greenaway & Eran Kaplinsky

INTRODUCTION

Alberta’s municipal governments face ongoing calls both for increased development and more conscientious land conservation, all on the same land base and often on the same parcel. Because municipal mandates contain imperatives to provide both, reconciling these competing demands for development and conservation is challenging.

The Transfer of Development Credits (TDC)¹ tool arose specifically to address this situation, providing a method to allow for greater development activity, enduring conservation, and some measure of financial equity. The *Alberta Land Stewardship Act* (ALSA, 2009) contains enabling provisions that offer a framework for implementation of TDCs through secondary legislation. However, while the TDC tool is conceptually rather straightforward, implementation can be demanding: municipalities may be unfamiliar with the tool; the provincial populace has never seen it applied; and the tool itself is temperamental, since it can only succeed in particular circumstances.

ALSA was intended to catalyze adoption of TDC schemes, but instead it ultimately created nearly insurmountable barriers for municipalities to use this tool, given its complexity and their limited implementation capacity. Nevertheless, the TDC tool still has great potential for Alberta, and its flaws are reparable. Some willing Alberta municipalities and developers have persevered and have successfully developed a TDC program. However, their ability to fully implement such programs still hangs in the balance, as does the overall future success of the TDC tool.

TDC PROGRAM STRUCTURE

A TDC program is a municipal planning tool designed to help communities reconcile their conservation and development goals. An effective TDC program creates an incentive for additional development in areas deemed most appropriate for such land uses; it also incentivizes communities to commit to conservation in areas they would like maintained in their current state.

A type of market-based instrument (MBI)—like conservation easements (CEs) and conservation offsetting—TDCs work by fixing the quantity of local development opportunities, allowing these “credits” to be traded among the owners of participating parcels at prices negotiated by the parties themselves. The instrument *reallocates* development from areas of greater preservation

¹ The term Transfer of Development Rights (TDR) is typically used in other countries (notably the US) and in the academic literature to describe similar arrangements. Professor Arlene Kwasniak popularized the use of the term TDCs in Canada (Kwasniak 2004), and the Government of Alberta adopted this terminology when drafting ALSA.

value to areas of lesser preservation value. At the same time, the program also *distributes* the social cost of conservation, so that it is not shouldered by the owners of protected parcels alone.

The municipal TDC program is implemented, in particular, by assigning development credits to parcels within the identified conservation areas (called *sending areas*), which can be purchased by developers and applied in the program’s identified development areas (called *receiving areas*). When applied, these purchased credits allow the Receiving Area developer to build beyond the base density of the area. At the same time, the credit seller in the Sending Area must agree to a CE or other permanent use restrictions on the title to the property.

The municipality typically establishes the parameters of the instrument, including the total amount of credits available for transfer, the additional development to be allowed in the receiving areas in exchange for conservation in the sending areas, and the credit transfer ratio. This ratio designates how many credits are required for each bonus-development opportunity. Participation in the program remains voluntary however. Landowners in the sending areas are not required to sell credits, while developers in the receiving areas are free to build at base (non-bonused) densities. Moreover, the price of credits is determined by negotiation between the participating buyers and sellers.

More sophisticated or mature programs can go further. For example, existing programs have featured additional elements such as the following:

- Development of a bank and brokers who proactively buy and sell credits
- An initial increased credit allocation that is based on the presence of high-value landscape features, such as streams, riparian areas, productive agricultural soils, and so on
- Modified credit transfer ratios based on other development goals, such as more units allowed for the same credits if a higher percentage are affordable units
- Transboundary programs, where development credits are, for example, transferred from at-risk rural properties to support increased density in urban areas

It is extremely rare to find a complex program that did not start first with a “basic” TDC program—in other words, where local residents have experienced and internalized the practical fundamentals of a program before becoming more complex. Even in these cases, the initial interest in additional features often wanes when faced with the increasing complexity in program design.

HISTORY OF THE TDC TOOL

The idea of “transferable development rights” (TDR) grew out of frustration with the limits of “clustering” development on one or more parts of a given property—which meant the “conserved” lands were whatever was left over on the parcel, even if those were not a conservation priority. Related to this, the concept of “transferable density” was proposed by George Lloyd in a 1961 technical bulletin published in the US by the Urban Land Institute. The first practical application was New York City’s 1968 *Landmark Preservation Law*, which allowed the owners of historically designated buildings to transfer to adjacent parcels the

development potential the historical buildings had lost. The 1970s saw an additional 21 programs across the US, and by the end of the 1980s, 78 were established. Expanding from roots in historic preservation, programs from the 1960s through the 1980s were established to address diverse needs and concerns: environmental, farmland, groundwater, infrastructure capacity, downtown revitalization, scenic, and landfill buffering (Pruetz, 1997).

During this period, the City of Calgary also facilitated a density transfer policy to allow an over-height-limit building, contingent on the protection of a heritage building. To increase the height of the Petro-Canada tower and to ensure that the Calgary Chamber of Commerce heritage building was maintained, Petro-Canada purchased the Chamber's "air rights" in exchange for four extra floors above the height otherwise permitted by the city's land use regulations. A restrictive covenant was registered on the title of the Chamber of Commerce building to ensure that the building's character and size are not altered.

The leading authority on TDR programs, Rick Pruetz, maintains a list of current TDR programs, which presently shows 294. The vast majority of these are in the US (258), with another 29 catalogued programs in countries with multiple schemes: Italy (14), France (7), Australia (6), and Canada (2). Seven countries have only one catalogued program each: Brazil, India, Japan, Mexico, New Zealand, Spain, and the Netherlands (Pruetz, 2021). Given that two programs in Alberta are not on this list, we can reasonably assume this number is an underestimate.

APPLICATION OF THE TDC TOOL IN ALBERTA

Like some of the other MBI discussed in this report, the TDC has had an uneven application throughout the province, since it was first proposed more than two decades ago. The following sections will detail its history and its framing as a stewardship unit, as well as regulation that almost, but not quite, made it into existence.

History of TDC Legislation in Alberta

The TDC credit tool had long been in discussion by the time it was enabled in Alberta via the *ALSA* in 2009 (*ALSA* s. 48–50). Initiatives like the action teams of the provincial 2002 Ag Summit had previously recommended that the province adopt the tool (LUCAT, 2002; ESAT, 2002). In 2004, it was raised again at the provincial Agricultural Service Board conference, to which the American Farmland Trust had been invited to speak about the TDR tool and its applicability to Alberta.

While municipalities were contemplating the potential for local TDC programs, in 2004, Professor Kwasniak published a detailed legal assessment, which concluded that the extant legislation provided authority for Alberta municipalities to develop "all aspects of a typical TDC program without the need for legislative changes" (Kwasniak, 2004, p. 24). A desire for a clearer mandate, however, led the Alberta Association of Municipal Districts and Counties (now Rural Municipalities of Alberta) to pass a resolution in 2006 calling on the provincial government to enact enabling legislation

In 2006, the Miistakis Institute undertook extensive research on beginning use of the tool. This included visiting programs in Colorado and Maryland in 2007, hosting speakers from American programs in Alberta, convening municipal workshops, and making over a hundred presentations to municipal and other audiences from 2006 to 2011. The Alberta Research Council also undertook a detailed investigation of the potential of the TDC tool for the Beaver Hills Initiative east of Edmonton.

With the adoption of the Land Use Framework in 2008 (Government of Alberta, 2008) and the exploratory efforts by several municipalities, the province finally established TDCs in 2009 as one of several conservation and stewardship tools in *ALSA*. Despite a review of enabling legislation in the US, commissioned by the province, which showed “less was more” (Greenaway, 2008), Alberta nonetheless ended up with arguably the most extensive, program-specific, and prescriptive TDC legislation on the continent.

Specifically, under *ALSA*, one or more municipalities may establish a TDC scheme via a regional plan or with cabinet approval. Subject to regulations, each iteration must address several matters, including the areas designated for conservation for any prescribed purpose, the development areas, the attributes of development credits, and the terms and conditions under which they can be applied (*ALSA*, s. 49).

TDCs as a Stewardship Unit

Importantly, development credits in a TDC plan are conceived as “stewardship units” under *ALSA*, which established a broad framework for regulating such units and their “exchange” (ss. 45–46). The enabling provisions contemplate common stewardship units that are mutually exchangeable across all of the conservation tools sanctioned by the legislation. Consistent with the legislative practice in Alberta, *ALSA* offers no definition of stewardship units or their objective; instead, this and all operational aspects (including creation, issuance, sub-classes, extinguishment, and disposition) are left to be addressed in future regulations. Development credits “that are the subject of a TDC scheme” are listed as a potential type or class of Stewardship Unit that may be dealt with in such regulations (*ALSA*, s 46(1)(c)).

The goal of establishing a market for MBIs in Alberta is laudable, but can conflict with the potential TDC regulations and with the municipal responsibility for TDC tool. The market could also confound the conservation goals of any credit-based program considered by *ALSA*.

Sections 48–50 of *ALSA* extensively detail the requirements for TDC programs, but some sections are ambiguous. For example, while local governments are empowered to undertake TDC programs, section 45, which enables the exchange, also creates the potential for a person, named by the minister, to “create, hold, issue, approve, verify, authenticate, distribute, modify, suspend or extinguish” all TDC credits. Further, section 46, which enables stewardship units,

provides additional broad and potentially contradictory regulation opportunities specific to TDC credits.²

An example illustrates the potential dilemma here if regulations are not developed with care. A conservation offset program might be created that allows wetland restoration credits to be “banked” after a proactive effort to replace drained wetlands. At the same time, a municipality might create a TDC program for a section of their community, identifying exactly how many credits generated from a conservation parcel are needed to secure bonus development on a development parcel. TDC transfer ratios are designed with a view to balance; ensuring developers feel comfortable they will have the opportunity to apply the credits they collect over time, and conservation landowners feel comfortable they can sell the credits they have been assigned. This comfort is critical to ensuring their participation in the TDC market.

However, if the developer in the TDC program area were allowed to buy the banked wetland credits, the TDC transfer ratio’s balance would be invalidated and certainty related to TDC credit use would dissipate. Additionally, the markets of both programs (TDC and wetland banking) would be skewed, as whichever market had the lowest credit price would overwhelm the other. Potentially, the municipality could see all the bonus development occur, but none of the anticipated land conservation. Conversely, the TDC market might generate numerous credits, with the wetland banking generating only a few. Those industrial activities previously requiring wetland credits might then look exclusively to TDC program credits, unintentionally eliminating the incentive to restore wetlands.

It is important to remember that the goal of these programs is not to generate a certain number of transactions or a certain level of market activity. In fact, they target distinct environmental outcomes, and activity in one program may be unable to promote the goal of another program.

The “Almost” Regulation & Alberta Usage of TDCs

A Transfer of Development Credits Regulation was drafted in 2011, but never promulgated officially. Its intent was to exempt municipalities from obtaining cabinet approval for local TDC programs that satisfied a checklist of required elements. The draft regulation was reviewed by the Alberta Urban Municipalities Association, the Alberta Association of Municipal Districts and Counties (now Rural Municipalities of Alberta), Alberta Municipal Affairs, and all municipalities who had expressed an interest in the tool. Numerous adjustments were made based on the feedback. The initiative was abandoned just as the draft was nearing completion, likely related to the timing of the retirement of the Land Use Commissioner who initiated the

² This includes powers related to TDC Credits such as creation, holding, issuance, approval, verification, authentication, distribution, modification, suspension, extinguishment, how created, by whom, class structure, irrevocability, conditions and restrictions with respect to each type or class, use, sale, trading, exchange, lease, assignment, disposition, closing of trading accounts, recording of transactions or use, disclosure of information, records kept, delegation to a Designated Minister, and applying or exempting provisions of the Securities Act.

process. The Miistakis Institute forwarded the near-final draft to every subsequent Land Use Commissioner (or equivalent), but the effort to create such a regulation was never renewed.

Uptake of the TDC in Alberta can thus be described as primarily aspirational, with some exploratory investigation, but very few attempts at creating and implementing such a program. In fact, only four municipalities have actually stepped forward to create a TDC program (described below). However, numerous municipalities have added enabling (or aspirational) references to TDC programs in their Municipal Development Plans (MDPs). Specific municipal initiatives are as follows.

Cypress County

The first comprehensive efforts to create a TDC program in Alberta were made by Cypress County in 2003. Increasing pressures for residential development on the border of the Cypress Hills Provincial Park prompted a proposed Area Structure Plan (ASP)³ containing a TDC scheme to concentrate development on selected parcels while conserving others, functionally extending the protected landscape. According to the draft ASP, subdividing and developing within the “Inner Fringe” would be allowed only through participation in a TDC program. As a condition of subdivision approval, applicants would be required to “acquire (through market-based transactions) enough development credits from eligible parcels in the Inner Fringe (known as a sending area) to equal the number of parcels proposed to be created by the applicant.”

The estimate was that out of 424 potential “sending” parcels,³ 22 parcels (totalling 3040 acres) would qualify and provide 361 credits. The unadjusted development potential was 704 additional parcels, but the TDC program would limit that to 361 and only in certain areas (Cypress County 2003). The ultimate aim was to shift new residential development as far as possible from the park regions. Regrettably, the TDC program was omitted from the final plan for a variety of reasons—especially, reliance on local land trusts and the ASP itself to conserve the at-threat lands, reservations about a perceived complex and unproven scheme, and importantly, concerns about provincial support for the program (Greenaway & Good, 2008).

Wheatland County

As part of the preparation of its 2006 MDP, Wheatland County included a Subdivision Credit Application Transfer (SCAT) program “whereby potential subdivision is transferred from an area where there is a prohibitive factor to subdivision (a reason that subdivision is not desirable), other than existing subdivision, and given to another area where there are no or few prohibitive factors to subdivision.” (Wheatland County, 2006)

³ An area structure plan (ASP) is a statutory plan adopted by a municipality in accordance with the *Municipal Government Act* (MGA). ASPs serve as blueprints guiding future subdivisions within the area of the plan. The MGA requires that an ASP specify, among other matters, the sequence of development proposed for the area, the land uses proposed for the area, either generally or with respect to specific parts of the area, and the density of population proposed for the area either generally or with respect to specific parts of the area. In addition, an ASP may contain other matters that council considers necessary.

The intent of this program was to minimize the fragmentation of valuable agricultural land by allowing more than one additional parcel to come out of some quarter sections, but retaining the overall density of two parcels per quarter section across a larger areas. In effect this would use “cluster development” to maintain the first-parcel-out density across the region of valuable agricultural land. Transfers of density were allowed only between parcels that were either 1) owned by the same entity, or 2) immediately adjacent.

While Wheatland County’s current MDP does not include the detail of the SCAT program, it states that “this MDP opens the door for a future Transferable Subdivision and Development (TSD) Credits Program, based on the previous MDP’s Subdivision Credit Application Transfer [SCAT] program.” (Wheatland County, 2006)

Municipal District of Bighorn

In 2007, the Municipal District of Bighorn amended its MDP to include a Transfer of Subdivision Density (TSD) policy, an option maintained in their current MDP. The program was targeted at their “small holdings” land use district, an area intended to accommodate “fairly-low rural densities,” allowing up to four parcels per quarter section. The TSD policy allows the transfer and pooling of density potential from one or more sending parcels onto one or more receiving parcels within the small holdings area. Participation requires securing rezonings (“TSD District” for the receiving area, and “Conservation Easement District” for the sending area), preparing an ASP, and a committing to place CEs on participating sending area parcels.

In 2007, a landowner with holdings in both sending and receiving areas initiated the Carriage Ridge ASP (MD of Bighorn, 2007). The base zoning would allow the holdings to be divided into 16 40-acre parcels, but the ASP outlined a plan to concentrate 45 one to five-acre residences, with subdivision prevented on eight quarter sections through the placement of CEs. The plan was approved, but the anticipated development did not materialize following the 2008 financial crisis.

Rocky View County

In 2015, Rocky View County initiated a new ASP for a region between Calgary and Cochrane immediately adjacent to the new Glenbow Ranch Provincial Park. The county proposed to conserve 50% of the lands contained in the ASP, facilitated by a TDC plan. The ASP comprises 7,359 acres, 3,078 of which are in the park. As a developer-funded ASP, the entities interested in the development areas were at the table from the beginning. A CE was applied to the developable parcels. 1,787 acres were designated for conservation (sending areas), and 1,877 acres were targeted for development (receiving areas). The program is voluntary, allowing any landowner in either zone to develop at a base density of 5-acre parcels.

Rocky View County’s TDC program was initiated after *ALSA* was enacted and was the first to require cabinet approval. The ASP was approved by council on July 25, 2017 (RVC 2017), with the TDC component to take effect upon receiving cabinet approval. As of April 2021, the County is still awaiting provincial approval.

Current Provincial Government Policy

In developing its platform prior to the 2019 Alberta provincial election, the United Conservative Party sought input from environmental groups regarding issues and potential priorities. Of the various tools and approaches discussed, transferable development credits and conservation offsets were singled out for further consideration. Ultimately, the “Conserving Our Environment” section of the party’s platform contained a commitment to “encourage and increase the use of development credits and conservation offsets in provincial development policy” (UCP, 2018).

The Government of Alberta reported that they have not heard expressions of interest regarding TDCs directly from any Alberta municipalities, nor during regular meetings with the Rural Municipalities of Alberta, the representative association, even though, reportedly, interest persists and municipal actors are open to pursuing improvement and application of TDC programs. From the government’s perspective, several lingering questions remain: whether the best route is through regulation or policy; the degree of urgency for implementing TDCs; the internal capacity to support TDC programs; whether TDCs can continue; and what overall effort is necessary to modernize the *Municipal Government Act (MGA)*. (Kate Rich, personal communication, June 24, 2021).

Since the enactment of *ALSA*, only one TDC program (Rocky View County’s) has been submitted for cabinet approval. The county first sought approval under the previous government and has yet to receive it. Perhaps more importantly, the fact that this has not moved forward highlights that the steps necessary to secure approval are quite opaque.

ISSUES FOR TDC IMPLEMENTATION

While the TDC tool is well understood and well accepted elsewhere, its implementation has been another matter in Alberta. Some barriers to implementation are the practical ones to uptake on the part of local communities and local governments, while others are (or will be) barriers to programs achieving their desired goals.

Barriers to TDC Program Uptake

Low Levels of Awareness. Although talked about in Alberta for 15 years, functioning TDC programs do not yet exist in the province. Such low level of related activity leads necessarily to low awareness among the public and municipal actors, hampering new initiatives and fostering misconceptions. In general, communities and municipal councils have few practical examples to consult and follow.

Concerns About Capacity vs Time/Resource Commitments. Local governments routinely cite capacity/time/resources concerns as a barrier to uptake of “new” programs (Pruetz & Standridge, 2009). Without proven local examples (as noted above), the magnitude of up-front investment is relatively apparent, but the potential benefits are not.

Limited Opportunities for Application. The TDC tool requires a certain mix of conservation desire and development demand, but in many areas in Alberta the two do not coincide. Areas with high conservation value, but little development pressure will not have the engine needed to drive payments and participation. Conversely, areas with high development pressure, but limited need for or interest in conservation will lack a supply of conservation land.

Lack of Provincial Support. The provincial government's approach to enabling TDC programs has focused on creating extensive legislative requirements and steering clear of any legal or political liability. No resources have been made available to municipalities to work through the initial mechanics of TDC programs, and the inscrutable cabinet approval process has only served to add more barriers.

Disconnect Between Municipalities and the Provincial Government. Despite having the power to undertake TDC programs prior to *ALSA* (Kwasniak, 2004), municipalities sought enabling provincial legislation. The *ALSA* then nominally created this municipal planning power, but it also kept ultimate approval vague and at an obscure high-level, so municipalities lacked clarity about how to proceed.

Insufficient Incentives to Developers. Because TDC programs rely so heavily on the participation of the affected developer, the bonus development must provide a significant incentive that also aligns with the developer's objectives. Traditionally, the "bonus" of the TDC is an increase in development intensity (e.g., height, density, or number of housing units) beyond that allowed "as of right" under the land use bylaw. However, some developers may prefer low intensity development. Other suggested incentives include more smooth approval processes, waivers, improved access to water, or partial exemptions from development obligations—such as dedication of land for municipal purposes, provision of services, and payment of off-site levies.

Lack of Impetus for Development Authorities. In Canada, even the most stringent land use restrictions do not normally trigger a right to compensation (Kaplinsky, 2018). This differs from legal interpretations in the US and other jurisdictions, where TDCs evolved as an alternative to compensating landowners deprived of development opportunities through restrictions that *were* legally deemed as taking their property. In Alberta specifically, municipal or other land use authorities can designate land for conservation with legal impunity (but not necessarily political), unless the designation is pursuant to a regional plan or for a specific municipal purpose (*ALSA*, s 19.1; *MGA*, s 644). Additionally, unless done as a conservation directive, municipalities are virtually immune from paying compensation—this, then, also reduces their incentive to proceed with a TDC.

Reliance on Other Tools to Achieve Conservation Goals. Experience across North America in general (Pruetz & Standridge, 2009), and the Cypress County experience in particular, show municipal councils are often more reliant on other internal mechanisms, like environmental reserve, or external ones, such as land trust programs, to achieve the municipal or

community-wide conservation goals. As well, in Alberta Direct Control zoning allows municipal councils greater in flexibility in zoning.

Barriers to Program Effectiveness

Inadequate Involvement of Developers. TDC programs, and related discussions, focus on the intended conservation, but the developer’s participation is crucial to the success of a program. Therefore, program design must attract developers’ participation, and take their concerns seriously to ensure the program is pragmatic.

Alternate Methods to Secure Additional Development. “Time is money,” as the saying goes, so the path of least resistance to approval is the one that is favoured. If development approvals can be secured via other mechanisms that are easier or quicker to navigate—such as lobbying local governments, out-waiting recalcitrant councils, making additional payments, and so on—this significantly reduces the likelihood of developers choosing to participate in a TDC program.

Inadequate Engagement of the Broader Community. TDC programs are voluntary and affected landowners need not participate, although this is not commonly understood. Thus, program managers must take seriously the responsibility to thoroughly explain to every affected landowner what the TDC program does and does not require of them, on a property-specific basis. Failing to do so can let simmering misconceptions boil over.

Inadequate Identification of Sending and Receiving Areas. The sending (conservation) areas and receiving (development) areas must be carefully identified in advance. Consistency and defensibility are the key characteristics; sound assessments must be made for the entire program area in advance drawing on advice from internal and external experts. Novice programs tend towards overly-detailed methodologies, but mature programs recognize this most likely makes for numerous frailties.

Inappropriate Credit Transfer Ratio. The ratio of available credits (the Credit Transfer Ratio) cannot be left to chance—this must align with the program goals and program manager’s expectations. Importantly, credit holders are motivated to participate more quickly when more potential credits are available, than options to use them; the reverse situation makes credit holders more choosy.

Insufficient Conservation Easement Holders. The linchpin of the TDC program’s conservation side is the protective mechanism, usually a CE. In Alberta, there are relatively few land trusts that hold CEs, and all areas of the province are not encompassed within them. However, all municipalities are legally able to hold CEs, but few are willing to do so; nonetheless, program designers must be familiar with their local capacity to hold them.

Focus on Transactions Versus Goals. In the early stages of program design, the discussion typically turns to how to maximize TDC transactions, even though no programs have ever explicitly stated this as a goal. In some cases, few transactions might arguably best serve the

goal, if the program is heavily focused on the conservation side. Regardless, decisions about establishing and tweaking the program mechanics must be based on the overall goals of the program, not simply on eliciting maximal transactions.

RECOMMENDATIONS

This review of the current landscape of TDCs in Alberta has generated the following eight recommendations. Their implementation will bring about a marked difference in the understanding and utilization of this important conservation-oriented MBI. The inventory below is divided into three bundles: those that focus more on municipalities, those oriented towards developers, and ideas for future developments.

Municipalities

1. Delegate Regulatory Control of TDC Programs to Municipalities

The regulation of land use is an essential municipal function and has even been characterized as the *raison d'être* of local government (Fischel, 1985). The Alberta *MGA* delegates to local councils the power to adopt statutory plans, land use bylaws, and development approval processes with minimal provincial oversight.⁴ More broadly, the Federation of Canadian Municipalities, Alberta's rural and urban municipal associations, and academics have urged greater autonomy for municipalities. This perspective has also received judicial support in several cases.

The legislative requirement that local TDC programs receive provincial approval is at odds with the principle and praxis of local autonomy, especially when such processes are wholly contained within municipal boundaries. Moreover, the Alberta experience clearly demonstrates that the structures and procedures at the provincial level are ill-equipped to assess the particulars of TDC programs. The special requirement of obtaining *cabinet* approval situates the review process within a heavily politicized environment.

Ideally, legislation should characterize and enable the TDC tool (as *ALSA* has done), but delegate their design and implementation to the municipalities. The *ALSA* articulates TDC programs with sufficient regulatory detail to make subsequent provincial redundant. Alternatively, the requirement for provincial approval could be waived where certain conditions are satisfied (as in *The "Almost" Regulation* approach, above, proposed in 2011).

2. Provide Support Resources for Municipal Implementation

It is unsurprising that TDC programs have been slow to be explored and adopted, as they are unfamiliar to developers and municipal personnel, and they are viewed as operationally complex.

⁴ Perhaps an analogue in this case would be off-site levies, where local programs, which are subject to a regulation under the *MGA*, do not require cabinet approval.

Getting over that hump is a challenge for even those municipalities expressing interest—indeed, this has contributed to the 15-year “start-up” phase of TDCs in Alberta.

New programs are always fraught with unexpected issues. In the case of TDCs, dedicated resources from the provincial government for interested and willing municipalities would likely go a long way to moving programs past the start line. As well, new programs need an influx of funding to cover training, support, and resources—this includes access to data, subject experts for workshop facilitation and training, Acommunications and promotional support, and so forth. Such support, even for a limited time, would help provoke action.

3. Align with Legislated Growth Plans

A key challenge for TDC programs is the identification of acceptable TDC development areas, along with the ongoing commitment to them. Alberta’s two major metropolitan regions (Edmonton and Calgary) have been required by provincial regulation to create growth plans, both of which include designated growth areas. The challenge with such plans is how to instigate development in those areas: this may ultimately entail a combination of encouragements, incentives, and requirements.

The TDC tool can provide a significant opportunity for both regions and their constituent municipalities to channel growth to those areas, while more equitably spreading the costs and benefits of development and conservation. Furthermore, the modernized *MGA* emphasizes intermunicipal collaboration, opening the door to broader (in area) schemes.

The metro region boards would benefit from undertaking a dedicated review of when and where they could use the TDC to effect development in designated growth areas. This includes the following:

- Developing potential scenarios
- Including or consulting with member municipalities
- Providing support for municipalities interested in piloting the tool

Developers

4. Engage Willing Developers

TDC programs initially tend to skew towards conservation in the initial stages, only later considering the developer perspective. This disconnect is amplified further because homebuilders and land developers may not be interested in, or necessarily benefit from, TDC programs. Nevertheless, individual TDC programs—and the tool more generally—needs greater involvement of the developer community, which can be promoted with the following strategies:

- Research on incentives and opportunities
- Creation of dollar-specific TDC development scenarios, such as peri-urban to urban, rural to hamlet, gateway community to ecological buffer and the like
- Facilitation of developer workshops
- Targeted support for pioneering developers

5. Increase the Variety of Developer Incentives

The TDC tool is predicated on developers seeking an increase in development density (more residential units per acre), and the municipality incentivizing a certain type and location of development by providing it options for increased density. However, in many cases, increased development density is not desired, such as when base zoning is already dense, a demand exists for less-dense estate properties, and so on. Nevertheless, other types of voluntary incentives can accomplish the same goals. During the TDC research conducted by the Miistakis Institute (Greenaway & Good, 2008) developers indicated a willingness to consider other types of incentives, suggesting options related to availability of water, an alternate streamlined approval process, and the taking of municipal reserve.

More research is needed to determine what novel approaches have been used in other TDC/TDR programs, and the kinds and levels of incentives acceptable to municipalities that are attractive to developers.

6. Limit Non-TDC Bonus Opportunities

A proponent that is seeking development approval will naturally seek the route with the fewest number of regulatory hurdles—the proverbial path of least resistance—since this normally carries the lowest cost. If a less onerous process than the TDC program is available to secure additional development potential, the TDC program will fail from disuse. Therefore, municipalities seeking to implement TDC programs must be careful that development policy, council decisions, and administrative messaging all coordinate to ensure that bonus development is *only available via* a TDC program. The meaningful goal is reconciling development and conservation in the community, not just generating significant program activity.

Thus, municipalities should also avoid increasing the bureaucratic complexity of other routes as a mean to impel developer participation in the TDC program. Such contrived approaches generally lead only to overtaxed municipal resources, hard feelings, and poor program outcomes. Such conditions may suggest that the TDC is the wrong tool for the circumstance.

Future Developments

7. Explore Density Transfer Charges

Two major challenges affect implementation of a TDC program: (1) the need for municipalities to proactively identify sending areas opportunities, and (2) the need for developers to negotiate with (potentially numerous) landowners there. Density Transfer Charge (DTC) programs have many of the same characteristics and design aspects as TDC programs; however, a pre-determined fee is instead paid by the developer at the time a property is upzoned, securing the desired increase in density. Fees paid are designated to acquiring lands or CEs. Similar to TDC programs, DTC programs are voluntary, and no fee is paid to develop at the base density. By 2010, DTCs had been used by over 40 communities in the US (Pruetz, 2021).

These two design changes could well attract both municipalities and developers currently uninterested in TDC programs. Initial research would be valuable on the legal aspects, municipal interest, and developer interest. If that indicates acceptability, a program should be piloted.

8. Establish the Exchange as a Clearing-house, Not a Regulator

ALSA enabled the creation of an exchange in an intentionally vague manner, so that it could control any aspect of the TDC program's central element: the transferable development credit. Yet the demonstrated effectiveness of TDC programs resides in their diversity—that is, the ability for each municipality to design and deploy a program that fits their community.

To date, the provincial government has avoided establishing regulations for the exchange, a state that must continue to prevent adding layers of regulatory oversight on emergent TDC programs. Instead, creating a clearing-house—a single locale for information about Transfer of Development Credits programs—would be considerably more valuable. This entity could do the following, among other advantages:

- Help conservation landowners know where and how to market their credits
- Show developers which municipalities are actively using the tool
- Provide researchers with data to learn more about overall activity and impacts

CONCLUSION

The initial drafting of the *ALSA*'s enabling clauses for TDC programs appears overly cautious. If the act sought to enable TDCs as an MBI in Alberta, it failed in that regard. The enabling provisions are excessively detailed, and the onerous requirement to obtain cabinet approval for a local land use tool inhibits municipal initiative and innovation. In fact, the *ALSA* had the most extensive enabling legislation of any jurisdiction on the continent at the time of its drafting (Greenaway, 2008).

The legislative framing suggests a view of TDCs as a regulatory rather than an MBI—which was how it was initially conceived. Even for a regulatory tool, however, the provincial approval process is far more involved compared to planning tools enabled by the *MGA*, which are subject to far simpler processes and public participation requirements. In contrast, under *ALSA*, TDCs are subject to significant planning, consultation, approval, and oversight processes, comparable to the *MGA* requirements for all local government plans and bylaws. Nevertheless, several municipalities have chosen to explore and implement the TDC tool, providing examples and experiences to learn from.

Greater uptake now seems dependent on the provincial government shifting their mindset from overseer to true enabler, with the need to streamline, support, and above all, delegate. For both the provincial government and all other stakeholders (municipalities, developers, and conservationists) more creative thinking is needed. New incentives, new partnerships, greater awareness efforts, and thoughtful alignment with existing initiatives are all required for the TDC tool to become an effective market-based tool for conservation in Alberta.

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[Chapter 5] Concluding Comments

David W. Poulton & Eran Kaplinsky

The foregoing chapters describe the halting and inconsistent progress that Alberta has made in the development of MBIs as policy tools. The various chapters do not paint a single picture. In the studio we see some works of ambition and accomplishment, such as the substantial progress made in the development and use of conservation easements. More commonly, however, we see works under long term development, perhaps still in the introductory sketch stage. More artistry will be needed to bring them to fruition as policies, much less to demonstrate their value as tools of resource conservation.

The significance of the progress made on conservation easements should not be underestimated. While they pre-dated *ALSA*, much of their popularity and support has been generated since the 2009 Act. The demand from landowners for easements has challenged the capacity of the land trust community to respond. This is a healthy model for the growth of private conservation in Alberta, so long as adequate resources can be marshalled for the task. In that regard, the creation and operation of the Alberta Land Trust Grant Program has been of assistance, as has the federal Ecological Gifts Program. There is work remaining to be done, but every reason to feel good about a tool that has bridged environmental and practical concerns of both conservationists and landowners.

One indication of the success and popularity of conversation easement is a debate about their contribution to conservation should be counted in the context of Canada's international conservation commitments. Of course, in large part this depends upon how we measure the conservation impact of conservation easements, an aspect of the work that remains very much in progress.

Progress has been less evident with regard to conservation offsetting. Despite continued interest from stakeholders and occasional calls for policy from regulators, little progress in development of a broad conservation offset policy has been evident publicly.

The one major exception to this is the *Alberta Wetland Policy* of 2013. That policy is largely based on the model of the mitigation hierarchy, especially offsetting. Under its auspices a complex process has been put in place to evaluate the "relative wetland value" of individual wetlands, and compensation ("wetland replacement") in some form is required of developers who disturb wetlands. A basic but logical system of multiplier ratios was developed based on the relative wetland values of both the wetland lost and prospective one gained. The option of satisfying those compensation requirements by payment of funds into the Wetland Replacement Program. While that program has begun to undertake some wetland replacement work, the relatively opacity of its process makes its operation difficult to evaluate. As the WRP is the key mechanism for delivering the wetland benefits promised by the policy, this murkiness is unfortunate.

With respect to transfer of development credits, progress has not matched hopes and expectations. Several Alberta municipalities have expressed interest in or experimented with the TDC tool. Despite that a series of barriers have remained. These include legal and administrative barriers, such as the requirement of high-level provincial approval for TDC schemes, and the need to build relationships, trust and capacity in support of the tool in practice. In Chapter Four Guy Greenway and Eran S. Kaplinsky offer some recommendations to remove these constraints.

Thus it is evident that the implementation of MBIs has not matched the initial enthusiasm and initiative with which they were welcomed in 2008's *Land Use Framework* and 2009's *Alberta Land Stewardship Act*.

In the preparation of this report we interviewed several of the key players in the development of the LUF and ALSA and heard several takes on the progress observed. Some of the comments we heard were variations on the themes of "big wheels move slowly" and "big initiatives take time." These comments, however, were usually accompanied by recognition that progress has not matched earlier hopes. We are left to question if sufficient resources and attention have been allocated to the task.

In our interviews, the faltering progress of MBI policy development was attributed to several other factors including an economic downturn, political instability, and intransigence within the Alberta public service. Of course, these are not mutually exclusive.

In contrast to the first decade of the 21st century, Alberta has struggled economically since the precipitous drop in petroleum prices in 2015. This was both a blow to the provincial economy and treasury and a distraction from a policy direction that was initially driven by vigorous economic growth. That economic direction has recently changed again, however, with a return, however unstable, to higher prices and public revenues.

At the same time, the province, long a bastion of one-party political stability, has undergone a series of shifts in government. When ALSA was being introduced a vocal rural lobby arose in defence of property rights and opposed to top-down planning. This shook the Progressive Conservative party that had championed the LUF and ALSA. It may have been among the factors that led to internal dissension. In the result, the party changed leadership (bringing changes in the position of Premier and the provincial cabinet) three times between 2012 and 2016. In 2016 the mantle of government transferred to the New Democratic Party, and then to the United Conservative Party in 2019. During the finalization of this report the UCP replaced its leader and the provincial Premier. During this instability the cabinet members involved in implementation of ALSA provisions, and environment and resource policy more generally, have circulated in and out of office at least as frequently as have Premiers. A lack of resolve to consistently pursue policy direction is not surprising, therefore.

There may also be factors involved internal to provincial government culture. Interviewees indicated that through the early stages of the LUF and ALSA those championing the initiative experienced resistance from senior members of the provincial public service. The cross-ministry

nature of the initiative ran counter to established structures and accountabilities, and challenged long-held policy directions. No doubt some officials may have seen a threat to their status and authority.

This version of events corresponds to the findings of Kerr (2018) who examined the recent history of MBIs in Alberta with a focus much broader than just the LUF or *ALSA*. One important factor she identified in the gap which has grown between provincial commitments to MBIs and delivery was the lack of familiarity of MBIs among key government officials and their discomfort with trusting elements of resource decision-making to market forces.

Beyond our focus on MBIs, a general malaise seems to have settled over the ambitious direction set by the LUF and *ALSA*. Only two of the seven regional plans called for by the Act have been completed; some others have not yet been begun. Some subsidiary components called for in the completed regional plans have not been completed either.

Many of the regulations enabled by *ALSA* have not been promulgated. These include some of those which would be key to effectively enabling the MBIs set out in the Act and discussed in this report. Among the missing regulations is one that would flesh out the characteristics of a “stewardship unit,” a key to the further development of MBIs.

Regardless of the circumstances that may have produced the current lag in policy innovation and development, the underlying rationale of MBIs as a means of harnessing private interest in the work of better resource stewardship and environmental protection remains. Further, interest in this direction has been maintained by a significant stakeholder community. The opportunity for Alberta to develop market-based land stewardship is still presents itself for those who wish to take up the challenge.

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