
Accounting for Nature:

Regulatory approaches to filling environmental budget gaps in Alberta

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THE ENVIRONMENTAL LAW CENTRE (ALBERTA) SOCIETY

The Environmental Law Centre (ELC) has been seeking strong and effective environmental laws since it was founded in 1982. The ELC is dedicated to providing credible, comprehensive and objective legal information regarding natural resources, energy, and environmental law, policy, and regulation in the Province of Alberta. The mission of the Environmental Law Centre is to advocate for laws that will sustain ecosystems and ensure a healthy environment and to engage citizens in the laws' creation and enforcement. Our vision is a society where our laws secure an environment that sustains current and future generations and supports ecosystem health.

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EXECUTIVE SUMMARY

We are in the Anthropocene, where humanity's impacts on nature are wide ranging and significant and could lead to irreparable changes to the earth's systems.¹ If humanity is to thrive we must ensure our impact on nature is accounted for. Accounting for our impact on nature is inherently complex and multi-faceted, with human behaviour, economics, ecology and sociology all being part of the picture. In this report we look at a small piece of this puzzle, that of how we can go about coming closer to "balancing the books" when it comes to our impacts on the natural world.

Resources are needed to address the broad suite of environmental challenges, from point source pollution to non-point source pollution and the cumulative environmental effects we have on the environment. Revenues generated can be used across the spectrum of environmental governance: monitoring, assessing, planning, administration of regulation, and compliance and enforcement.

We seek to highlight various approaches that can be taken to move towards balancing the budget and to outline where legislative reforms are needed. This report specific focuses on payments being made for environmental impacts, either as a **fee or levy** or through a requirement to offset harms (Part 1), through **investment** (Part 2), or through **environmentally linked taxation** (Part 3).

The report identifies approaches that are currently enabled in Alberta law, gaps in these approaches and highlights opportunities for law and policy reform. The report highlights approaches from other jurisdictions where applicable. The imbalance of imposing costs on nature that are not offset by revenues is not unique to Alberta.

¹ See Steffen, Will, et al. "Trajectories of the Earth System in the Anthropocene." *Proceedings of the National Academy of Sciences* 115.33 (2018): 8252-8259.

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Using the analogy of an accounting ledger the report seeks to answer whether we have the legal tools to balance the books, whether the books are well balanced, and what regulatory steps are necessary to better balance the books.

In terms of environmental costs that must be covered, they are myriad. The scope of activities that need to be covered are set out in Table 1 below.

Table 1: Environmental management and regulation costs

Monitoring	Standard & Rule Setting
Research	Assessment
Data Management and Reporting	Administration of Regulatory Systems
Planning	Compliance and Enforcement
Communication	Restoration and remediation (legacy and/or unregulated)

The first part of this report focuses on raising funds through charges for resource use. For example, what is the cost to cut down a tree or to divert water. The second part of the report sets out how we can use investments in the form of “green” bonds or securities to foster environmental outcomes. Finally, we look at “direct democracy” tools of linking taxation to environmental conservation and management.

The ELC concludes that we should be pursuing a variety of these cost recovery mechanisms here in Alberta, linking revenue to prescribed environmental related activities. To better reflect on the costs of effective environmental management, regulation and restoration the ELC recommends various policy and legislative approaches to ensure revenues are raised and allocated to appropriate management responses.

It is recognized that an essential step in this process is that the costs of those items in Table 1 must be assessed. This in itself is a significant task, as costs will vary depending on existing governance and the management systems in place. Of particular interest are ensuring sufficient monitoring, planning, restoration and enforcement are considered in assessing necessary budgets.

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Central Reform Recommendations

The ELC recommends the following reforms to better monitor, evaluate, plan, mitigate, and restore the environment.

Part 1: Fees, levies and cost recovery

There are various opportunities to increase revenue for the purpose of increasing environmental monitoring, planning, and regulation in Alberta. Many of these opportunities have been adopted in other jurisdictions, proving their viability.

Cost recovery for regulatory costs (multi-sector)

Alberta has several areas of environmental management and regulation where cost recovery for regulatory processes is in place. The adequacy and scope of this cost recovery needs to be assessed and adjusted as needed.

Recommendation: The Government of Alberta should review and identify relevant environmental management, regulation and compliance costs for relevant activities to determine where cost recovery may better serve the public purse. Allocation: Alberta Environment and Parks and other line regulators (as appropriate)

Water quantity

In the area of water management, monitoring, planning, restoration and enforcement, there are significant budgetary needs. Currently licenced allocations in Alberta do not pay rents to government, as they do in BC.

Recommendation: Amend the *Water Act* to enable volumetric water rents on industrial/agricultural licences. These funds should be kept for specific water and watershed monitoring, planning, management and restoration purposes. Allocation: monitoring, planning and regulating agencies and non-government organizations.

Water quality

Water quality in Alberta suffers from cumulative effects of various activities on the landscape and water management activities often fall to municipalities. There is a need to manage cumulative loading of surface waters and to consider point source fees for water quality impairment.

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Recommendation: The Government of Alberta should implement water quality impairment fees for point source effluent. Allocation: monitoring, planning and regulating agencies and non-government organizations.

Recommendation: The Government of Alberta should establish a regulatory system for identification of load budgets for surface waters (at appropriate scales). Once load budgets are established a water quality trading system should be implemented, with the goal of preventing pollution and restoration of ecosystem functions.

Forests

Forestry regulation in Alberta focuses on replacing and protecting timber as a resource. There is a need to broaden the scope of activities in forestry management, including ensuring ecosystems are effectively monitoring and restored.

Recommendation: Evaluate costs of biodiversity and ecosystem monitoring and management and adjust forest based fees and levies to account for these costs.

Recommendation: Amend the *Forest Resource Improvement Regulation* to expand the mandate of FRIAA to include delineating ecosystem monitoring and research objectives, legacy habitat restoration and monitoring.

Allocation: FRIAA, monitoring & restoration funding

Air

Alberta has proactively pursued regional air monitoring through its regulatory approach to air emissions. As a next phase of this the government should seek to ensure the entire air management, planning and compliance and enforcement system is recovered through levies on point source air emitters. A system of broader regulatory cost recovery is in place in the United States, and while not perfect, it is able to provide examples of expanded coverage of costs for the administration, compliance and enforcement or air pollution regulation and permitting.

Recommendation: Alberta Environment and Parks should promulgate regulations to effectively cover the costs of administering, monitoring, and enforcement of point source air emissions that are authorized under the Act. Allocation: Alberta Environment and Parks and other line regulators (as appropriate).

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Habitat, public land dispositions and recreation

Alberta does have regulatory requirements related to reclamation and restoration of land, but habitat function is not a primary driver under the regulatory system.

Recommendation: To begin a more systematic approach to managing and preventing biodiversity loss the government of Alberta should ensure, in a hierarchical order:

- That avoidance and/or protection of priority habitats is enabled and embedded in binding regional plans, and, where no plans exist, are integrated into decisions around whether to offer any dispositions on or under public lands;
- That appropriate level land disturbance standards and regulations are in place on public land for keystone species (i.e., that regulatory standards are used to place a cap on land disturbance at an activity and regional, ecosystem appropriate scales);
- That conservation offsets are used for allowable impacts (i.e., ensuring sufficient resource for monitoring and verification).

Recommendation: The Government of Alberta should undertake an evaluation of whether the conditions on dispositions are reaching desired outcomes as set out in the Master Schedule of Standards and Conditions. This evaluation should be transparent and result in periodic public reporting.

Recommendation: The Government of Alberta should alter public land disposition fees to cover the costs of monitoring and evaluation of the effectiveness of disposition conditions to meet the stated desired outcomes in the Master Schedule of Standards and Conditions. Allocation: Alberta Environment and Parks and other line regulators (as appropriate)

Recommendation: If access to parks and protected areas maintain the user fee system reforms to the current user fee system to capture higher intensity uses such as off-high vehicles (over and above vehicle registration fees). These fees should be directly linked to mitigation and restoration of impaired areas, and to increased monitoring and enforcement of environmental laws as they relate to recreational impacts.

Part 2: Green investment recommendations

Green investments are likely to continue to be of increased relevance for how we impact the environment. Evaluating and ensuring the quality of these investments in terms of environmental outcomes remains an outstanding challenge. In this regard, a regulatory standard for “green” investments (bonds and other securities) is recommended.

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Recommendation: To ensure accountability and transparency for green investments provincial and federal regulatory standards for securities to qualify as “green” should be promulgated. This approach can be modeled after the EU draft regulation.

Part 3: Earmarking general revenues to environmental spending

The approach to allocating tax revenues to specific government programming and spending is not without challenges. There are also significant opportunities of pursuing regional systems of environmental management and governance through engagement of referendum or petitioning powers to implement conservation services taxes at a regional and/or municipal level.

Recommendation: The Government of Alberta pass a bill to outline the administration and disbursement of funds to monitor, assess, plan, manage and restore Alberta’s natural environment and biodiversity.

Recommendation: The *Municipal Government Act* should be amended to allow municipalities to administer a “conservation services tax”. This tax should be held in municipal accounts for prescribed conservation and environmental stewardship purposes, as enumerated in regulation.

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Introduction

The Environmental Law Centre has undertaken this report with for the purpose of understanding existing options and opportunities for ensuring we have the resources to monitor and manage our impacts on the environment.

What are we accounting for?

The Global Assessment Report on Biodiversity and Ecosystem Services states, “nature and its vital contributions to people, which together embody biodiversity and ecosystem functions and services, are deteriorating worldwide.”² The deterioration of the natural world is the result of both individual and cumulative effects, point source and non-point source pollution, regulated and unregulated activities. This deterioration needs to be monitored, measured, regulated and, where possible, reversed. How do we ensure we have the resources we need to do undertake this broad approach to environmental monitoring, regulation and restoration?

This report will focus on three overarching ways of raising revenue for environmental management. The first is pricing resource use and/or pollution charges, which has the co-benefit of promoting conservation of resources. The second looks at how we can generate investment for conservation projects and finally, the third describes ways to generate revenue from general taxation powers and linking them directly to environmental policies and programs.

To frame this report; however, we need to discuss a variety of social, economic and accounting issues that arise.

² Sandra Diaz et al., “*The Global Assessment Report on Biodiversity and Ecosystem Services: Summary for Policymakers*” (2019) IPBES at 10 online: https://ipbes.net/sites/default/files/2020-02/ipbes_global_assessment_report_summary_for_policymakers_en.pdf.

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What do we need to pay for?

The scope of costs associated with our footprint on the natural world must be considered broadly. Capturing all the costs of environmental protection and management is ideal, albeit elusive. This means capturing the costs of environmental governance: monitoring environmental quality across media (including ecosystems), assessment of impacts and harms on the environment, planning for environmental outcomes, restoration (or reclamation and remediation under Alberta law), administration of regulatory systems for these purposes, and enforcement and compliance costs.

Table 1: Environmental governance and regulation costs

Monitoring	Standard, Rule and Policy Setting
Research	Impact Assessment
Data Management and Reporting	Administration of Regulatory Systems
Planning	Compliance and enforcement
Communication	Restoration and remediation

When this report uses the phrase environmental governance, we are referring to all the costs set out in Table 1, unless otherwise described. In this regard the costs associated with the governance system must consider information (both community based and science based), procedures, and roles of the various actors in Alberta's environmental management system.

Questions of how to best cover these costs are also relevant to how environmental governance is structured. The role of environmental monitoring and planning, for instance, is undertaken by all levels of government, multiple governmental departments, industry, and non-government organizations. As such understanding the costs of these items and the relevant revenue requirements (and efficiencies) can be a challenge. An example of this how monitoring and management was bifurcated between Alberta Environment and Parks and the Alberta Energy Regulator when oil and gas and mining activity authorizations under the *Water Act* and the *Environmental Protection and Enhancement Act* were separated between the agencies to accommodate a one window approach for industry.

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How are these environmental costs reflected in law and policy?

The approaches that can be taken to cover these areas of environmental management are various but they can be placed in four distinct areas:

1. Imposing costs to meet a standard or rule in how activities are undertaken. This may take the form of emission standards, monitoring and reporting requirements, imposition of fines and/or costs of carrying out administrative orders to restore the environment;
2. Imposing costs on activities that degrade the environment by way of fee, charge, rent or tax in an effort to account for resource use or degradation;
3. Invite investors to provide resources in the expectation of a return (typically in the form of green bonds for government), or
4. Impose general taxes, either earmarked for specific spending or budgeting expenditures from general revenue.

Sometimes these options are combined, for instance there may be an option of paying a fee or restoring the environment. This is typical of offsetting programs where there is a choice between undertaking habitat restoration and protection work yourself or making in lieu payments for harms to the environment.³ Insofar as conservation offsets bridge standards and fees we include them in our analysis.

The focus of this report is on rents and fees (part 1), investment opportunities (part 2) and general taxation powers (part 3) specified for environmental outcomes (numbers 2, 3 and 4).

³ See Dave Poulton and Adam Driedzic *In-Lieu Payments and Fees as a Mechanism of Environmental Compensation*, (Edmonton: Alberta Land Institute, University of Alberta) online: <https://www.albertalandinstitute.ca/public/download/documents/197482>.

Canada's annual \$25 billion nature deficit

The Nature Conservancy of Canada ("NCC") estimated that there is a \$15-20 billion (USD) or \$19-25 billion (CDN) annual gap in funding for nature. This is based on an extrapolation from the following US data¹:

\$250-350 billion US annually is required to conserve healthy terrestrial and marine ecosystems and restore the earth's natural capital stock of clean air, fresh water and species diversity;

\$300 billion US annually is required for comprehensive conservation and adoption of sustainable agriculture practices worldwide;

\$350-385 billion US annually is required for total ecosystem protection in the context of climate change; and

\$598-824 billion US annually to reverse the decline in biodiversity by 2030, including the cost of shifting agricultural, infrastructure and other high-impact sectors to more sustainable business practices for the first time.

Despite these numbers, only \$52 billion US per year actually flows to global conservation projects.² NCC extrapolated these numbers for a Canadian audience to demonstrate that, even without exact figures, it is clear these are large sums.

¹ Karolina Kosciolk et al., "Financing Conservation: How conservation financing could be used to protect Canada's ecosystems" (November 2020) *Nature Conservancy of Canada* at 7 online: <https://metcalffoundation.com/wp-content/uploads/2020/12/Financing-Conservation-in-Canada.pdf>

² *Ibid.*

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Certainty of payments

A key aspect of any system of balancing our nature budget is to ensure we either have revenue in hand or require spending in a timely fashion to ensure environmental management actions occur. Discretion as to when payment is made can undermine the resource system and shift environmental costs onto the public.

The benefit of having payments made at the time of resource use or environmental degradation is that it creates a level of certainty and accountability that can otherwise be elusive. This is best achieved by regulatory systems that captures costs and generates revenue in close proximity to the emissions/ impact, including through fees and taxes, or the taking of financial security prior to the impact being authorized. The actual timing of when a fee or charge will be engaged can vary depending on how markets are set up and how remittances can be efficiently applied.⁴

How is the money spent?

The payment of funds to avoid, mitigate or restore environmental impacts may take the form of monitoring costs, planning costs, environmental assessment, use of pollution abatement technology, and reclamation and remediation activities.

In some instances, there is a clear and direct link between a cost imposed and the spending on environmental restoration and management efforts, where in others the linkage may be delayed or less direct, as is the case where taxes on pollution are focused on the price signal alone to change behaviours.

In the context of this report, we focus on the linking of resources to environmental management outcomes in a direct way. In the context of government revenues, this means that revenue generation is linked with environmental action.

Social, economic, and environmental challenges with increased fees or taxes

A major part of this report (Parts 1 and 3) is focused on adding fees or taxes to polluting activities or for resource use and depletion. The application of such fees gives rise to a variety of environmental, economic and social concerns. These concerns include items from economic concerns around trade

⁴ For example, pricing on greenhouse gases is administered in a variety of ways (with several exemptions) under the *Greenhouse Gas Pollution Pricing Act* (S.C. 2018, c. 12, s. 186).

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exposed sectors to equity concerns around individual access to resources that are essential to maintaining one's health and quality of life.

As these fees are typically set to be imposed on previously authorized and lawful emissions it comes as little surprise that they are politically fraught decisions that attract a myriad of economic arguments against them. In this regard, the proposed movement toward generating more revenue to mitigate, offset and restore the environment will be contentious and, in instances, will require additional economic analysis prior to imposing the cost. In this regard, it is important to monitor the effects of such fees and taxes on social, economic and environmental outcomes.

Part 1 of this report focuses on what are known as pigouvian fees or taxes (after economist Arthur Cecil Pigou). Pigouvian fees or taxes in the environmental context can be described as “a price-based instrument designed to minimize the negative impacts generated by an individual or organization on the environment.”⁵ From the economics perspective these fees are meant to augment behaviour of the polluter. They also serve as a revenue source that can be directly linked to environmental management and regulation (although often then are not).⁶

These resource use levies or fees can pose challenges on various levels, socially, economically and environmentally.

Environmentally the use of resource fees may undermine environmental protection and regulation by simply becoming a “pay to play” process. Where the economic incentives are insufficient to change behaviours then the harm to the environment will continue. Where revenues are not allocated to further mitigate this harm or restore the environment, the environment will be continually degraded.

Further the determination of the correct price is complex, as measurement of environmental harms, cumulative effects, and allocating relevant costs to the appropriate payee can be confounding. The allocation of costs is also typically guided by a very anthropomorphic lens, a focus of the tax being on “helping prices closely [to] approximate marginal social costs”.⁷ Environmental outcomes are typically difficult to quantify, particularly when we talk about species (or species at risk). Typically, we have attempted to value organisms through processes such as contingent valuation, which basically asks how

⁵ Andrea Bassi et al., “Stormwater Markets: Concepts and applications” (December 2017) *International Institute for Sustainable Development* at 11 online: <https://www.iisd.org/system/files/publications/stormwater-markets-concepts-applications.pdf>.

⁶ *Ibid.*

⁷ Lawrence H. Goulder, *Environmental Taxation and the “Double Dividend: A Reader’s Guide*, Working Paper No. 4896, National Bureau of Economic Research, 1994.

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much societal values a specific species. ⁸ For instance, the preamble to Canada's *Species At Risk Act* states "wildlife, in all its forms, has value in and of itself"; but how can that value be determined?⁹

Economic arguments against resource fees are also likely to impair the adoption of resource user fees or levies. One of the central challenges in imposing resource fees is that, depending various factors, it can create economic issues, particularly for high emitters and trade exposed sectors by increasing production costs.¹⁰ This can be best illustrated through an example of greenhouse gas emissions. As Böhringer et al state, ¹¹

Proactive governments in the climate policy area express two major concerns, however. The first is the risk of carbon leakage, i.e., the relocation of emissions to countries with no or more lenient emission regulations. For a country that cares about the global climate, leakage will contribute to reducing the efficiency gain of its domestic emissions pricing. The second concern relates to distributional impacts of decreasing the competitiveness of domestic energy-intensive and trade-exposed firms.

Resource levies therefore become quite contentious and can be politically challenging to impose.

Social and equity concerns also arise when resource use is allocated an additional fee or tax, as affordability and access become a concern. This concern is captured in the United Nations 2010 resolution to recognize a human right to water and sanitation, this being later embedded in the Sustainable Development Goals (#6).¹² The cost and pricing of water in particular has given rise to concerns of equity, as payments for the resource can cause hardship to individuals and exacerbate poverty.¹³ The discussion around water pricing pits full cost accounting of water infrastructure (often at a municipal level), privatization of public goods and human rights.

⁸ For a discussion of contingent valuation see Jerry Hausman "Contingent Valuation: from Dubious to Hopeless" (2012) *Journal of Economic Perspectives* 26:4, online: <https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.26.4.43>.

⁹ S.C. 2002, c. 29.

¹⁰ IWH Parry "Pollution taxes and revenue recycling" (1995) *Journal of Environmental Economics and Management* 29:s-54.

¹¹ Christoph Böhringer, Brita Bye, Taran Fæhn, Knut Einar Resndahl, "Output-based rebating of carbon taxes in a neighbor's backyard: Competitiveness, leakage and welfare" *Canadian Journal of Economics-Revue Canadienne D Economique*. 2017;50(2):426-55.

¹² United Nations General Assembly, Resolution Adopted by the General Assembly on 28, July 2010, the human right to water and sanitation, A/RES/64/292), online: <https://documents-dds-ny.un.org/doc/UNDOC/GEN/N09/479/35/PDF/N0947935.pdf>.

¹³ There is no shortage of literature around water pricing and its impacts. For a general review see Grafton, R. Quentin, Long Chu, and Paul Wyrwoll. "The paradox of water pricing: dichotomies, dilemmas, and decisions." *Oxford Review of Economic Policy* 36.1 (2020): 86-107.

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The majority of approaches in this report focuses on more industrial (energy sector, manufacturing, construction, agriculture) resource uses. It is recognized that even within these sectors certain conditions may give rise to equity concerns.

Social equity concerns can arise in the payment of resource fees and taxes, but they can also arise on the spending side, as impacts of conservation, particularly in relation protected areas can have differential social impacts, particularly when one considers the exercise of Indigenous rights as codified in s.35 of the Canadian Constitution. One example are programs that mitigate against these impacts is the creation of Indigenous Protected and Conserved Areas.¹⁴

Further the Convention on Biological Diversity (“CBD”) acknowledges social equity is critical to conservation work.¹⁵ There are three specific references to equity in the CBD. The first, in the preamble, acknowledges that traditional knowledge must be respected and recognized when making decisions with regard to the conservation of biological diversity and the sustainable use of its components.¹⁶ In addition, Articles 1 and 8 recognize that there needs to be an equitable sharing of benefits from conservation and require parties to respect and maintain traditional knowledge.¹⁷

Wood Buffalo National Park: Are Protected Areas for Everyone?

In 1922, the Wood Buffalo National Park was established. However, as a space for conservation was created, the government also led an eviction of the Indigenous Peoples who had lived in the area for 1000’s of years. 100 years later, the Athabasca Chipewyan First Nation has released a report outlining the history of the area and the national park. It highlights that during the national park creation process, “Indigenous residents were rarely or only marginally included in discussions and decision-making processes, and their land-based knowledge was usually ignored, dismissed or discredited.” In fact, many national parks around the country were founded on, and continue to struggle with, a legacy of colonial dispossession of Indigenous Peoples. This is an example of how equity must be considered when making conservation decisions.

¹⁴ Melanie Zurba, “Indigenous Protected and Conserved Areas (IPCAs), Aichi Target 11 and Canada’s Pathway to Target 1: Focusing Conservation on Reconciliation” (7 January 2019) 8:10 *Land* at 7.

¹⁵ *Convention on Biological Diversity*, 5 June 1992, 1760 UNTS 69; Jensen Reitz Montambault et al., *Social equity and urban nature conservation* (2018) 1:1 Wiley Conservation Letters at 1 online: <https://conbio.onlinelibrary.wiley.com/doi/pdf/10.1111/conl.12423>.

¹⁶ *Convention on Biological Diversity*, 5 June 1992, 1760 UNTS 69 at preamble.

¹⁷ *Convention on Biological Diversity*, 5 June 1992, 1760 UNTS 69 at Articles 1 & 8.

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Overall, some equity issues to consider include:

- how can we price resource use/degradation while also ensuring access for essential environmental service;
- what are the legacy costs of resource use and extraction and how can we account for them;
- who receives the funds once they are generated; and
- how can we ensure accountability for the spending of funds in a way that ameliorates environmental harms and doesn't impair other rights.

In an attempt to account for some of these economic and social challenges policy makers and civil society have sought to implement a variety of alternative approaches including a shift away from the polluter pays principle to the provision of incentives. Payment for ecological services is primary among them, where those who impair the environment in one sector (i.e., offsets and banking systems) or society as a whole (through the use of general tax revenue) are asked to pay for specific ecological services, typically to landowners who undertake to manage their land in a manner that protects these services. Payment for ecosystem services is also seen as a way to provide support to rural citizens and economies.¹⁸ The effectiveness and sustainability of these payments need to be scrutinized on an ongoing basis to ensure they are supplying the services being paid for and to ensure they are cost effective.¹⁹ The payment for ecosystem services is relevant to this report insofar as it reflects one potential use of funds generated through general taxation powers as discussed in Part 3 of this report.

¹⁸ See for example Poudyal, B.; Upadhaya, S.; Acharya, S.; Khanal Chhetri, B.B. Assessing Socio-Economic Factors Affecting the Implementation of Payment for Ecosystem Services (PES) Mechanism. *World* **2021**, *2*, 81–91. <https://doi.org/10.3390/world2010006>.

¹⁹ Bremer, L.L., Farley, K.A., DeMaagd, N. et al. Biodiversity outcomes of payment for ecosystem services: lessons from páramo grasslands. *Biodivers Conserv* **28**, 885–908 (2019). <https://doi.org/10.1007/s10531-019-01700-3>.

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Part 1: Resources rents and pollution charges

In this section we look at resource rents and pollution charges (which include in lieu payments for conservation offset programs) as a mechanism to generate revenue for environmental management. It should be recognized that there are a variety of costs that are embedded in our regulatory system already, by way of regulatory requirements to meet specific standards, monitoring and due diligence in how operations are undertaken. This section focuses on the use of fees, levies and charges and offset requirements, which may be in lieu of regulatory requirements or additional to them.

Rents on natural resource use or pollution fees or taxes can drive environmental outcomes in two ways, first, it provides revenue that can be spent on environmental management and regulation and, second, it provides price signals (if based on volume) to driver conservation of a resource. As will be seen the imposition of fees is most often only representative of Crown ownership of a resource being exploited or extracted rather than a resource degradation or pollution tax.

This section of the report will look at what the legislation currently enables in relation to fees or rents and will highlight any gaps in the legislation. Each section also identifies steps to balance nature's budget in each subject matter area, borrowing from other jurisdictions as applicable. We separate our review by way of environmental media, water, forests, air, and land/habitat. First, however, we look at systems of cost recovery that may apply across various environmental media.

Regulatory Cost Recovery

Cost recovery in regulation focuses on requiring those individuals or corporate entities pursuing prescribed activities to pay a fee to cover either part or all of the costs of the regulatory process. These fee-based systems are intended to offset the costs of regulating a specific activity or industry.

The scope of activities that are potentially covered by such fees is quite open ended however, in application in Alberta, as will be seen, they are often limited to application fees. An exception to this are

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payments made that contribute to the operation of the Alberta Energy Regulator and the Alberta Utilities Commission in Alberta (as discussed below).

While attractive in the first instance cost recovery systems may give rise to risks of “regulatory capture” and may undermine unfettered decision making (or appear to do so). A major challenge is that regulatory capture is difficult to assess, particularly from the outside of an agency or department. Where regulatory cost recovery schemes are put in place it is important to consider mechanisms to ensure regulatory decisions and policy setting are made at arm’s length from the regulated industry.

Funding of the Alberta Energy Regulator and Alberta Utilities Commission

Pursuant to the *Responsible Energy Development Act* (REDA) the Alberta Energy Regulator can levy fees on operators it regulates. Section 29(2) of REDA allows the regulator to “impose and collect an administrative fee...that will produce a sum sufficient to defray a portion or all the estimated expenditures of the Regulator in the fiscal year”. In 2020-2021 (during the pandemic) the Government of Alberta paid for half of the operating costs of the AER, or \$113 million, to “provide relief for the energy sector”.²⁰ The system of fees is detailed in the Alberta Energy Regulator Administrative Fee Rules.²¹

Administration fees are also set by the Alberta Utilities Commission under section 70 of the *Alberta Utilities Commission Act*, enabling the commission to “impose an administration fee sufficient to pay for the Commission’s estimated net expenditures associated with carrying out its powers, duties and functions for a fiscal year.” Further rules related to the setting of these fees are set out in AUC Rule 025.²² The Administrative fee rules set out the classes and categories of fees as well as the ability to order payments, appeals and how a fee is characterized.²³ The fees can be set to cover the estimated “net expenditures” for the commission.²⁴

Insofar as these administrative fees pay for the regulator’s operations there are questions about how this relationship can result in an increased risk of regulatory capture and may contribute to perceptions of bias in regulatory decisions.²⁵ Where such regulatory cost recovery are in place it is important to

²⁰ AER 2020/21 Annual Report at 15, online: <https://static.aer.ca/prd/documents/reports/AER2020-21AnnualReport.pdf>.

²¹ *Rules of Practice of the Natural Resources Conservation Board Regulation*, Alta Reg 77/2005.

²² <https://media.www.auc.ab.ca/prd-wp-uploads/2022/01/Rule025.pdf>.

²³ *Ibid.*

²⁴ *Ibid.* at Rule 025, s. 3(2).

²⁵ For a general discussion of regulatory capture in Canadian environmental decision making see MacLean, Jason. "Striking at the root problem of Canadian environmental law: Identifying and escaping regulatory capture." (2016) and Edwards, Maxwell. "Regulatory capture in Canadian environmental decision-making." PhD diss., University of British Columbia, 2021.

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ensure both separation between the regulated industry funding and the agency and transparency in all aspects of rule and policy making and to ensure broad integration of non-sector inputs.

Fee recovery under the *Environmental Protection and Enhancement Act*

There are a variety of fees set that must be paid when makes an application for approvals or for certain certificates under *Environmental Protection and Enhancement Act (EPEA)*. These fees are set out in the *Environmental Protection and Enhancement Act Application Fees Order*.²⁶ The fee amounts vary with the activity to which the application relates ranging from \$1000 to \$30,000 for an approval, \$500 -\$15,000 for a renewal of approval and \$100-\$1000 for an amendment to an approval. These rates are clearly not reflective of specific regulatory costs and it is unclear how the rates were calculated.

Other legislative fees

Several other pieces of legislation set out fees for submitting an application, however these fees are quite minimal. This includes fees for applications before the Natural Resources Conservation Board (\$1000)²⁷ or fees for water authorizations, which are enabled through Ministerial Order (for example, water licence applications may cost up to \$150).²⁸

An example of government regulatory cost recovery under the US *Clean Air Act*

Pursuant to Title 5 of the *Clean Air Act* permit and annual fees are used to “implement and enforce the permitting programs, including review of new permit application and revisions or renewals of existing permits; monitoring facility compliance; taking enforcement action for noncompliance; performing monitoring, modelling and analysis; tracking facility emissions; and preparing emission inventories.”²⁹ The system relies on state run agencies and a survey conducted in 2014 by the National Association of Clean Air Agencies found that “46% of survey respondents reported that revenue from their Title V emission fees was insufficient to fully fund their Title V programs”.³⁰ This is discussed further in the section related to air emissions below.

²⁶ Online: <https://www.alberta.ca/assets/documents/ep-epea-application-fees-order-appendix.pdf>.

²⁷ Section 5 of *Rules of Practice of the Natural Resources Conservation Board Regulation*, Alta Reg 77/2005.

²⁸ Under section 168 of the *Water Act*.

²⁹ 2015 Funding of Title V Programs NACAA 2014 Survey Data.

³⁰ *Ibid.*

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Opportunities for Cost Recovery

The scope of cost recovery applied across environmental media in Alberta is limited to certain activities (regulated under the *Environmental Protection and Enhancement Act*) and to the oil and gas sector. Overall, many sectors and the larger scope of environmental management is typically paid for through general revenue. A review of sector and activity specific cost recovery should be completed to identify opportunities to alleviate the burden on general revenue.

Recommendation: The Government of Alberta should review and identify relevant environmental management, regulation and compliance costs for various environmentally impairing activities to determine where cost recovery may better serve the public purse.

Water

There are various aspects of water management that require resources to monitor, assess, plan and manage the diversion and use of water as well as regulating and managing water quality. This section delves into three major areas of water management in the province, water quantity (and water diversions), water quality and its impairment, and wetlands. This section focuses directly on the *Water Act* and the *Environmental Protection and Enhancement Act*, but it should be recognized that various other pieces of legislation have direct linkages to water quality and quantity.

Table 2: Summary environmental ledger for water

Account Name	Debit	Credit	Balancing enabled by law	Focus of environmental credits	Gaps in ledger	Opportunities to balance the budget
Water diversions	Reduction of instream flows	Water Licence Transfers Nominal application fee	minimal	10% of licence transfers can be obtained for instream purposes	Ecosystem flow protections	Industrial and agricultural licence rents (volumetric or non-volumetric)

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Account Name	Debit	Credit	Balancing enabled by law	Focus of environmental credits	Gaps in ledger	Opportunities to balance the budget
Water quality	Pollution	Wastewater standards Fines for unauthorized pollution Surface water quality frameworks	Yes	Effluent standards for selective activities	Non-point source pollution Authorized impairment of water bodies	Nutrient cap and trade of point and non-point sources. Load budgeting and fees Taxation of pesticides and fertilizers

Instream flows and water diversions

The *Water Act* governs the diversion of water for human use (among other relevant environmental matters). To divert or use surface and groundwater you first require a *Water Act* licence (unless the diversion and use is exempt by the Act or regulations).³¹ Licences specify the water source, location of the diversion site, volume, rate, timing of water, priority of the water right established, and any conditions the diversion must adhere to.³² Notable activities that are exempt from the requirement of a licence are statutory household use, traditional agriculture use, fire-fighting, wells equipped for hand pumps, and alternate watering systems.³³ For a full discussion of water law see the Environmental Law Centre's [recent publications](#) regarding water law.

Those parties seeking to divert water for industrial use must submit an application for a water licence along with the application fee.³⁴ Water pricing is an area of contention, particularly in relation to pricing of drinking water and for sanitation. Water pricing can also act as an incentive to conserve water and,

³¹ *Water Act*, RSA 2000, c W-3, s 49(1).

³² *Ibid* at div 2; Government of Alberta, "Water Act: Licences Facts at your Fingertips" online: <https://open.alberta.ca/dataset/fbb4453f-ee5a-45d6-99d2-c1d1aa397ffb/resource/dd6d856e-93b7-4268-aaa9-bb20a903fa60/download/2008-water-act-licences-fact-sheet.pdf>.

³³ *Water Ministerial Regulation*, Alta Reg 205/1998, sched 3.

³⁴ *Water Act*, *supra* note 31 at s 50(1).

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when used to generate revenue by the government, it can be used for the monitoring, planning and management of water resources (through water and watershed management).³⁵

Water pricing can take various forms: flat rate, volumetric or a hybrid of systems.³⁶ The determination of the appropriate water price is beyond the scope of this report however we acknowledge that identifying the appropriate rate would take significant amount of work in analyzing potential social, environmental and economic impacts of the price. Rather we seek to answer the question of whether we can price water under current law, with the aim of furthering discussion around water pricing for environmental protection.

What type of water pricing is enabled in Alberta?

The *Water Act* does not speak to pricing water (either by volume or by flat rate). Nor do Ministerial or Cabinet regulation powers specifically delegate the power to charge for water under the Act. Fees may be put in place for applications for approvals or licences however this is a one-time fee and does not relate to ongoing water diversion and use.³⁷ Further the Act provides the Minister certain powers under section 168, which states:

The Minister may, by order, charge fees

- (a) for any application made under this Act,
- (b) for issuing or amending any approval, preliminary certificate, licence, registration or other document under this Act,
- (c) with respect to any hearing or review held under this Act,
- (d) for any service with respect to works or undertakings administered by the Minister,
- and
- (e) for any service, material, function or thing provided under this Act.

As can be seen, with the exception of s.168(1)(e) the opportunities to charge fees under the Act are quite narrowly prescribed. Can a recurring water-based fee be found to be in the power of the minister of section 168(1)(e)? While this subsection is quite broad and general, a plain reading of the section seems to focus on the administration of the Act and recovery of costs associated with these services. So, potentially costs related to gathering and reporting water usage may be charged under this provision. It would strain a plain reading of this section to extend to volume-based water rents.

³⁵ For more discussion around these issues see Oliver M. Brandes et al., *Worth Every Penny: A Primer on Conservation-Oriented Water Pricing* (May 2010) University of Victoria POLIS Project on Ecological Governance online: http://www.rdek.bc.ca/web/pdf/waterservices/windermere/wortheverypenny_nov2010.pdf.

³⁶ *Ibid.*

³⁷ *Water Act supra* note 31 at s.37(1)(c) and 50(1)(c).

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Principles of statutory interpretation lend strong support to the interpretation of how fees can be put in place under the language of the Act is limited and would not extend to water rents (as are currently in place in BC).³⁸ Nevertheless, it seems an argument around a proprietary fee may allow for the Government of Alberta to put in place water rents as the owner of the water (discussed further below)

Further, while there is a high level of discretion to condition licence and approvals under the Act it is arguable that a volumetric fee or Crown rent would be found to be within a potential condition. For licences issued prior to the *Water Act*, the ability for the Director to unilaterally change a licence is even more limited.³⁹ Nevertheless the Government of Alberta does require the payment of funds in relation to *Water Act* approvals for the destruction of permanent and naturally occurring, i.e., Crown owned, wetlands.

Can a Crown water rent be justified as a proprietary based fee?

Can the Crown charge fees for resources it owns, even when legislation doesn't set out that this is the case? Unlike regulatory charges, proprietary charges relate to charges for Crown owned property. The disposal of Crown assets is not constrained in the same way as taxes and regulatory charges.⁴⁰ The nature of proprietary rights and the discretion to deal with Crown was discussed by the Ontario Court of Appeal in *Boniferno Mill Works ULC v. Ontario*⁴¹

[29] A necessary and important distinction is to be made between a province's broad power to control the use and exploitation of natural resources located on lands owned by the Crown and the power possessed by the Crown as a legislative authority which power is limited by the Constitution.

[30] As Professor Hogg has noted:

The exploitation of a provincially-owned resource can be controlled by the province, either by the province directly producing and selling the resource, or by the province granting permits, leases or licences that authorize private firms to produce and sell the resource. Obviously, the rate of production, the degree of processing within the province and (subject to

³⁸ See *National Energy Board Act (Can.) (Re)*, 1986 CanLII 4033 (FCA), [1986] 3 FC 275, <https://canlii.ca/t/gb6kf>.

³⁹ This applies to both for water licences issued under the Act (where amendments are limited in scope and application under section 54 of the Act) and for licences issued under predecessor legislation (i.e., deemed licences).

⁴⁰ *Boniferno Mill Works ULC v. Ontario*, 2009 ONCA 75 (CanLII), <https://canlii.ca/t/228tm>.

⁴¹ *Ibid.*

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market conditions) the price at which it is to be sold can be controlled by the province as proprietor . . .

A province can profit from the exploitation of provincially- owned resources in a variety of ways: by direct sales or by licence fees, rents or royalties.

Peter W. Hogg, *Constitutional Law of Canada*, 5th ed. (looseleaf) (Scarborough: Thomson Carswell, 2007) at pp. 29-4 to 29-5.

[31] When the Crown is disposing of its own property, it is not bound by limits on its legislative authority. The use and disposition of Crown timber is a common example of the authority of the Crown to dispose of its property as it sees fit. Professor Hogg notes, at pp. 30-10 to 30-11:

Most forest lands are owned by the provinces . . . In each province, the provincially owned forests are not only subject to provincial legislative power under s. 92(5) and s. 92A, they are also subject to provincial executive power as proprietor: the province enjoys the same powers of disposition and management as a private proprietor. The provincially owned forests are in fact harvested by private firms to whom the provincial Crown issues licences to cut timber. The process is controlled by the province through conditions attached to the licences . . .

The province can derive revenue from the production of timber on its own lands through sales of timber, rents, licence fees and stumpage fees (which are like royalties). When imposed as a proprietor, these charges are valid, even if they would be invalid if levied by legislation as taxes.

The *Water Act* (and its predecessor legislation) states that “the property in and the right to the diversion and use of all water” in the province is owned by the Crown.⁴² While this lends itself to proprietary view of whether the Crown can charge for the water, this approach is problematic on a number of fronts. First, practically speaking, the Crown selling water as part of its property would be extremely onerous and administratively burdensome. Further, the nature of this proprietary right (insofar as it was the result of a legislative change) may be challenged as fundamentally different from other proprietary rights.

⁴² *Water Act supra* note 31 at s.3(2).

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Conclusion on water rents

The issue of charging for water rents is an arguable one as the Crown may assert both legislative but also proprietary rights over the water within the province. While the Crown may seek to use its proprietary rights to sell specific volumes of water it would do so at significant political and litigation risk. This is particularly the case when one considers that the ownership question is dictated by statute and that the Crown has not sought past payments.

A clearer and more democratic approach would be to clearly legislate the ability to charge rents. This would also ensure a level of investment certainty insofar as those seeking a water licence would have an understanding of the rents as set out in regulation.

If there was an intended to be a power to charge for water this would easily be legislated, similar to the application fee, or it would be enabled through regulation making powers.

Can regional plans be used to impose water rents?

Under the *Alberta Land Stewardship Act* regional plans can augment statutory consents, including water licences. However, the scope and application regional plans and their augmentation of statutory consents cannot conflict with other Acts.⁴³ That is to say, a regional plan cannot change a water licence in a manner that conflicts with the *Water Act*. Does a volumetric price on Crown water conflict with the *Water Act*? One could argue that a volumetric price change on a licence is not in conflict with the Act, insofar as it is not specifically dealt with in the Act, however one could argue that imposing additional rents on water use are directly conflicting with “free” water under the Act itself.

ALSA also enables regulations to establish “c) instruments, including market-based instruments, designed or intended to support, encourage or enhance all or any of the following: (i) the protection, conservation and enhancement of the environment.”⁴⁴ Further the ALSA provides that “ No tax-based measures, initiatives, programs, mechanisms, projects or instruments, including market-based instruments, proposed or developed under sections 23 to 26 may be implemented without the approval of the President of Treasury Board and Minister of Finance.”⁴⁵

This enabling provision appears to create an opportunity for a general fee or levy system to fund environmental protection, including issues related to environmental management. In this regard a flat fee for water management may be feasible, although there is litigation risk in this approach.

⁴³ *Alberta Land Stewardship Act*, S.A., 2009, c. A-26.8 at section 17.

⁴⁴ *Ibid.* at s.25.

⁴⁵ *Ibid.* at s.27.

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As a practical matter it would also seem regionally inequitable to impose volumetric water rents through the regional planning process.

Crown water rents: British Columbia's approach

Certain jurisdictions in Canada have already undertaken water pricing, by charging water rents. For example the British Columbia *Water Sustainability Act* enables the passage of cabinet regulations for the establishment of a “tariff of fees, rentals and charges payable... in respect of water diverted or used from a stream or an aquifer, whether diverted or used under authority of an authorization, a change approval, the regulations or a special or private Act, or without authority.”⁴⁶ The *Water Sustainability Fees, Rentals and Charges Tariff Regulation* brought water pricing into reality in BC.⁴⁷ This includes water rentals for water licence and use approvals for a variety of industrial (including oil and gas and power generation), commercial, agricultural and recreational uses.⁴⁸ For example, irrigation is charged at a rate of 0.85\$/1000m³ whereas various other industrial rents are \$2.25/1000m³ along with minimum annual amounts.⁴⁹

For context, the BC 2020-2021 budget forecast foresees water rentals and licences at \$370 million in revenue and this would rise to ~\$430-440 million for each year over the next 4 budget cycles.⁵⁰

Water Markets

Another way to ‘price’ impacts on water quality and quantity is through the implementation of water markets. Water markets allow water users to buy or sell their water rights and are intended to encourage efficient water use through an economic structure.⁵¹ A regulated water market is in place in

⁴⁶ *Water Sustainability Act*, SBC 2014, c. 15 at s.125.

⁴⁷ B.C. Reg. 37/201, online https://www.bclaws.gov.bc.ca/civix/document/id/complete/statreg/37_2016.

⁴⁸ *Ibid.* See Schedule 2 of the regulation.

⁴⁹ *Ibid.* For context, according to the government of Alberta gross irrigation diversions in 2020 were 1543293 acre-feet (or 1,903,621,050 m³, (Government of Alberta, *Alberta Irrigation information 2020*, Online: <https://open.alberta.ca/dataset/c0ca47b0-231d-4560-a631-fc11a148244e/resource/8e300417-d8eb-43e1-a574-284f0253e577/download/af-alberta-irrigation-information-2020.pdf> at table 9. According to the AER in 2020 the Oil and Gas industry 320 million m³.

⁵⁰ See Table A5 Material Assumptions- Revenue (at page 133) *Budget and Fiscal Plan – 2020/21 to 2022/23*, online: https://www.bcbudget.gov.bc.ca/2020/pdf/2020_budget_and_fiscal_plan.pdf.

⁵¹ Australian Water Markets, online: <https://www.awe.gov.au/water/markets>.

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southern Alberta however it lacks various attributes of an efficient market structure.⁵² Further, there is no opportunity for environmental interests to participate in the market.⁵³

Recommendation: The Government of Alberta should amend the *Water Act* to enable the use of volumetric rents. The amount of these rents will vary depending on use and would be limited to industrial, agricultural and possibly municipal licences and to ensure that accessibility potable water supplies and water for the purpose of sanitation are provided in an affordable way.

Water pollution pricing in Alberta

The *Environmental Protection and Enhancement Act (EPEA)* regulates water pollution through a general prohibition on the release of substances into the environment and through terms and conditions imposed on authorizations for polluting activities.⁵⁴ The *EPEA* also prohibits the disposal of waste into or under water or ice, except in accordance with the Act.⁵⁵ When a release is authorized by an approval, code of practice, or regulation, the relevant standard of water pollution will be dictated by specific regulatory instrument.⁵⁶ This includes standards for potable water and wastewater effluent.⁵⁷ The *Water Act* also regulates pollution in the form of erosion and sediment by virtue of requiring an approval for any activity that “causes, may cause or may become capable of causing the siltation of water or the erosion of any bed or shore of a water body, or ...causes, may cause or may become capable of causing an effect on the aquatic environment.”⁵⁸

The overall approach to paying for pollution for wastewater systems is through the operation of wastewater effluent standards that must be met. Application of these standards are somewhat limited by activity and are focused on point sources. Non-point source pollution of water ways is largely unregulated although some sector-based regulations seek to mitigate risks of pollution by mandating buffers around water bodies.

⁵² For additional context see the Alberta Water Council, *Recommendations for Improving Alberta's Water Allocation Transfer System* (Edmonton: Alberta Water Council, 2009), online: <https://www.awchome.ca/projectdocs/?file=9bd34c3909a316f1>. See Environmental Law Centre, “The Polluter Pays Principle in Alberta Law” (December 2019) at 54 online: <https://elc.ab.ca/wp-content/uploads/2019/12/The-Polluter-Pays-Principle-in-Alberta-Law-December-2019.pdf>.

⁵³ See *Water Conservation Trust of Canada v Alberta* (Environmental Appeals Board), 2015 ABQB 686 (CanLII), <https://canlii.ca/t/glwppw>.

⁵⁴ *Environmental Protection and Enhancement Act*, RSA 2000, c E-12, part 5.

⁵⁵ *Ibid.* at s 181.

⁵⁶ *Ibid.* at s 109(3).

⁵⁷ *Ibid.* at s 148.

⁵⁸ *Water Act supra* note 31 at ss 1(1)(b)(i) & 36.

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There are no pollution fees in place for polluting of waterways, unless there is a fine or administrative penalty for unauthorized pollution, or the costs associated with compliance with an administrative order.⁵⁹ No additional fees or pricing signals for water pollution are currently in place in Alberta.

Are fees on water pollution enabled under *EPEA* or the *Water Act*?

Under section 13 of the *Environmental Protection and Enhancement Act* the Minister may “establish programs and other measures for the use of economic and financial instruments...including...(a) emission trading, (b) incentives, (c) subsidies,(d) emission, effluent and waste disposal fees, and (e) differential levies, for the purpose of protecting the environment, achieving environmental quality in a cost effective manner and providing methods of financing programs and other measures for environmental purposes”.

Further the Minister may make regulations for “establishing fees for any information, documents, service or material provided in the course of the administration of this Act and for the filing of any returns, reports or other documents that are required or permitted to be filed under this Act”⁶⁰

Implementation of these systems is not dealt with further in EPEA, relying on regulations and, in their absence implementation through approvals. An example of monitoring programs that have been established in Alberta include the Oilsands Monitoring Program, and the short lived, arm’s length Alberta Environmental Monitoring, Evaluation and Reporting Agency that was in place for just a couple of years (the Agency was set up by legislation passed in 2013, but the Agency was disbanded, with monitoring going back to government in 2016).

Opportunities for advancing water pollution pricing

Several jurisdictions in the United States have implemented regulatory approaches to managing water quality by the imposition on fees on water pollution and trading systems.

US examples of non-point source pollution and water quality trading

Water quality trading has been undertaken in various states in the United States. These programs have been driven by federal regulations under the *Clean Water Act* that regulates specified point source

⁵⁹ *Environmental Protection and Enhancement Act*, RSA 2000, c E-12, s 234 (*EPEA*); Environmental Law Centre, “The Polluter Pays Principle in Alberta Law” (December 2019) at 49 online: <https://elc.ab.ca/wp-content/uploads/2019/12/The-Polluter-Pays-Principle-in-Alberta-Law-December-2019.pdf>.

⁶⁰ *EPEA* *ibid.* at s.36.

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pollution and requires states to identify water quality parameters for impaired water bodies based on total maximum loading of pollutants of concern.⁶¹ A TMDL “defines the maximum amount of a pollutant that can be discharged into a waterbody while maintaining water quality standards”.⁶²

Water quality trading is a mechanism by which those who required a National Pollutant Discharge Elimination System (“NPDES”) Permit can meet their regulatory requirements.⁶³ Under water quality trading programs those with a NPDES permitted discharge “can meet their regulatory obligations by purchasing environmentally equivalent pollution reductions from another source”.⁶⁴ To do so, facilities trade credits or ‘units of pollutant reduction’ usually measured in pounds equivalent.⁶⁵

The aim of water quality trading programs is to allow for meeting regulatory requirements at a reduced cost to the polluter. A recent review of state use of water quality trading has found that they have limited use. The United States Government Accountability Office published a review of these state programs in 2017: *Water Pollution: Some States Have Trading Programs to Help Address Nutrient Pollution, but Use Has Been Limited*.⁶⁶ One of the challenges found in these systems is that there was uncertainty and challenges in how credits arising from non-point source mitigation efforts were to be captured. The report reviewed 3 state programs and found that “nutrient credits purchased in these three programs in 2014 were generally small”.⁶⁷ Other reviews conducted in relation to water quality trading conclude that many programs face implementation challenges, requiring a “policy utopia” for success.⁶⁸

Moving from water quality trading to stormwater specific programs we see Washington D.C. provides one example of a stormwater trading market with their program - the Stormwater Retention Credit Trading Program.⁶⁹ Under this program, stormwater retention credits can be generated and sold and the proceeds can be put toward revenue for projects that reduce harmful stormwater runoff by installing green infrastructure. New developments are required to retain on site at least 50% of the

⁶¹ Mindy Selman et al., “Water Quality Trading Programs: An International Overview” (March 2009) *World Resources Institute Issue Brief No. 1* at 6, online: <https://www.wri.org/research/water-quality-trading-programs-international-overview>.

⁶² *Ibid.*

⁶³ *Clean Water Act*, 33 USC §1251 et seq. (1972).

⁶⁴ United States Environmental Protection Agency, “Frequently Asked Questions about Water Quality Trading” online: <https://www.epa.gov/npdes/frequently-asked-questions-about-water-quality-trading>.

⁶⁵ *Ibid.*

⁶⁶ Online: <https://www.gao.gov/assets/gao-18-84.pdf>.

⁶⁷ *Ibid.* at page 19.

⁶⁸ Hoag, Dana L.K., Mazdak Arabi, Deanna Osmond, Marc Ribaldo, Marzieh Motallebi, and Ali Tasdighi, 2017. Policy Utopias for Nutrient Credit Trading Programs with Nonpoint Sources. *Journal of the American Water Resources Association (JAWRA)* 53(3):514-520. DOI: 10.1111/1752-1688.12532. See also BenDor, Todd K., Jordan Branham, Dylan Timmerman, and Becca Madsen. “Predicting the existence and prevalence of the US water quality trading markets.” *Water* 13, no. 2 (2021): 185.

⁶⁹ Department of Energy & Environment, “Stormwater Retention Credit Trading Program” DC Gov online: <https://doee.dc.gov/src>.

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water anticipated from a 0.8-1.2' storm.⁷⁰ They can do this on their own or they purchase credits either on the private market or by paying an in-lieu fee.⁷¹

Another option for municipalities is to offer an in-lieu fee program. This program would allow developers to pay a fee to the local municipality or stormwater agency instead of buying a specific credit.⁷² This would allow the government agency to construct stormwater management projects on public or municipal property. This approach works because it allows municipalities to install stormwater reduction projects in locations where it would otherwise be too expensive to do so but where it will have significant environmental benefits.

Another approach to managing stormwater is through the use of fees or levies, which can be augmented with credits or fee reductions with the implementation of BMPs.

Several Canadian cities (such as Brampton, Guelph, Halifax, Kitchener, Mississauga, Saskatoon, and Waterloo) have also instituted Stormwater Management Credit (SMC) programs.⁷³ In Mississauga, the stormwater management program imposes an impermeable-area-based stormwater rate.⁷⁴ A base rate of \$100 USD/256m² is charged to property owners who have the opportunity to reduce their stormwater charge through the implementation of best practices such as peak flow reduction, water quality treatment, runoff volume reduction, and pollution prevention.⁷⁵

These fees (and related credits) are focused on recovering storm water infrastructure costs.

Water monitoring and utility levies in the City of Edmonton

As part of watershed monitoring the City of Edmonton's water utility, EPCOR, had a fee incorporated into its utility rate to allow for \$1million annual investment to facilitate water monitoring in the watershed.⁷⁶ This was enabled through the inclusion of a special rate adjustment in the City's Water and Wastewater Bylaw No. 17698.⁷⁷ The rate adjustment ranged from \$0.0056 per cubic metre to \$0.0113

⁷⁰ Andrea Bassi et al., "Stormwater Markets: Concepts and applications" (December 2017) *International Institute for Sustainable Development* at 18 online: <https://www.iisd.org/system/files/publications/stormwater-markets-concepts-applications.pdf>.

⁷¹ *Ibid.*

⁷² Jeffrey Odefey et al., "Establishing a Stormwater Volume Credit Trading Program" (September 2019) *Stormwater Currency* at 9 online: https://www.americanrivers.org/wp-content/uploads/2019/09/AR_StormwaterVolumeCreditTrading_Final.pdf.

⁷³ Smart Prosperity Institute, "Invest in Nature: Scaling Conservation Finance in Canada for a Nature-Smart Economy" (May 2021) at 23 online: https://institute.smartprosperity.ca/sites/default/files/Nature_Report.pdf.

⁷⁴ Andrea Bassi et al., "Stormwater Markets: Concepts and applications" (December 2017) *International Institute for Sustainable Development* at 23 online: <https://www.iisd.org/system/files/publications/stormwater-markets-concepts-applications.pdf>.

⁷⁵ *Ibid.* at 24-25.

⁷⁶ The monitoring sites on in the North Saskatchewan River watershed can be seen at <https://www.epcor.com/about/news-announcements/Documents/WatersSHED-Monitoring-Sites.pdf>.

⁷⁷ At page 7 of Schedule 3 of the bylaw, online: <https://www.edmonton.ca/sites/default/files/public-files/assets/Bylaws/17698.pdf?cb=1646437836>.

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per cubic metre depending on volumes and year.⁷⁸ The program includes 19 monitoring stations along the North Saskatchewan River which monitor for and analyze turbidity, colour, nutrients, E. coli, and metals to better understand the health of the river. The resulting funds (about 10-15- cents on residential rates) resulted in \$1 million annually to pay for the program.⁷⁹

Taxes/fees on pesticides

While not solely focused on water quality, added fees to pesticide sales may allow for greater revenue generation to increase monitoring and research into their effects, while also promoting more environmentally friendly alternatives (by setting tax rates based on toxicity).⁸⁰

Opportunities

A significant gap exists in relation to management of non-point source pollution in Alberta. In addition, the cumulative loading of waterways with pollution requires ongoing monitoring, assessment and regulation to ensure environmental impairment is avoided or mitigated. Examples from other jurisdictions indicate water quality trading and load budgeting for waterways as a proactive approach managing water quality.

Recommendation: The Government of Alberta should establish a regulatory system for identification of load budgets for surface waters (at appropriate scales). Once load budgets are established a water quality trading system should be implemented, with the goal of preventing pollution and restoration of ecosystem functions.

⁷⁸ *Ibid.*

⁷⁹ Elise Stotle, "New charge on water bills to help study North Saskatchewan River headwaters" (21 August 2017) *Edmonton Journal* online: <https://edmontonjournal.com/news/local-news/new-charge-on-water-bills-to-help-study-north-saskatchewan-river-headwaters>.

⁸⁰ See Finger, Robert, Niklas Möhring, Tobias Dalhaus, and Thomas Böcker. "Revisiting pesticide taxation schemes." *Ecological Economics* 134 (2017): 263-266.

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Forests

The value of forests is greater than a sum of its timber and this was recognized by the Supreme Court of Canada in the case of *British Columbia v. Canadian Forest Products Ltd.* which, in part, dealt with the question of whether the Crown could recover for environmental value of a forest that was unlawfully damaged.⁸¹ The Crown had sought compensation for environmental harm for “non-harvestable” trees within an environmentally significant area. While this case dealt with a compensation issue in relation to torts it is a good reflection of how differing values of forests can be accounted for in our laws.

Table 3: Summary environmental ledger for forests

Account	Debit	Credit	Balancing enabled	Focus	Gaps in ledger	Steps to balance the budget
Forests	Deforestation Habitat related impacts Watershed impacts	Tenure Timber Dues Reforestation Requirements Use Permits	Yes	Timber replacement Crown ownership of timber (on public land)	Excludes species & climate related costs	Expand scope of fees to fund research and restoration for impaired habitats under the Timber Management Regulation and the Forest Resources Improvement Regulation

Timber Dispositions

In Alberta, authorization to obtain Crown timber (i.e. cut and remove trees on public land) is granted via one of three dispositions, each set out in the *Forests Act*.⁸² Overall, Alberta’s current forest law and policy is focused on public forests and there is limited legislation in place for forest management on private lands, although sustainable forest management is encouraged via the Agroforestry and the

⁸¹ 2004 SCC 38 (CanLII), [2004] 2 SCR 74, <https://canlii.ca/t/1h87s>.

⁸² *Forests Act*, RSA 2000, c F-22.

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Woodlot Extension Society.⁸³ Table 4 sets out each type of tenure and associated disposition available for Crown timber.⁸⁴

Table 4: Forest Tenure System in Alberta⁸⁵

Forest Tenure System	Timber Disposition	Main Types
Forest Management Agreement	Forest Management Agreement	N/A
Timber Quotas	Timber Quota Licence	Coniferous Timber Quota Deciduous Timber Allocation
Timber Permit	Timber Permits	Commercial Timber Permits Community Timber Program: Coniferous Community Timber Permits Local Timber Permits Forest Product Tags

Timber Dues

Timber dues are required for timber harvested under the authority of a forest management agreement, timber licence, commercial timber permit sold by direct sale, or community timber permit.⁸⁶ These dues are focused on the government receiving funds for the value of Crown owned timber. The setting of dues is undertaken pursuant the *Timber Management Regulation* which clearly focuses on the value of timber, not of forests, watershed function, biodiversity or ecology.⁸⁷

⁸³ Brenda Heelan Powell, “Managing Forests not Forestry: Law and Policy Recommendations for Ecosystem-Based Management of Alberta’s Forests” (December 2021) *Environmental Law Centre* at 13 online: <https://elc.ab.ca/wp-content/uploads/2022/01/Managing-Forests-not-Forestry-December-2021.pdf>.

⁸⁴ *Forests Act*, *supra* note 82 at ss 16, 17, 22; Brenda Heelan Powell, “Still can’t see the forest for the timber” (18 November 2020) *Environmental Law Centre* online: <https://elc.ab.ca/still-cant-see-the-forest-for-the-timber/>.

⁸⁵ *Forests Act*, *supra* note 82 at ss 16, 17, 22.

⁸⁶ *Timber Management Regulation*, Alta Reg 60/1973, s 78(1).

⁸⁷ *Ibid.* at ss. 76 to 97.6

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One of the first required dues is the price to obtain a timber disposition.⁸⁸ Security is also required for commercial and community timber permits with the respective formulas set out in the *Timber Management Regulation*.⁸⁹

Monthly rates are also sent out for deciduous pulp dues, veneer dues, and oriented strand board. Prices differ by type and product and calculations for each are set out in Schedules of the *Timber Management Regulation*.⁹⁰

The calculation of timber dues is based on timber harvested and measured through the timber scaling process. The *Forests (Ministerial) Regulation*⁹¹ requires anyone who scales timber to do so in accordance with the *Scaling Standards*.⁹² Scaling of timber is the measurement or estimation of the volume of felled timber and is used to determine crown dues payable. Scaling data is used to determine crown dues payable, allowable harvest level monitoring, and research and development.

In addition to the timber dues, holding and protection charges are also required. These charges are assessed based on the total area described within the boundaries of a commercial timber permit or a community timber permit or on the basis of an authorized annual cut and are payable on a yearly basis.⁹³ Calculations for the determination of these specific amounts are set out in the *Timber Management Regulation*.⁹⁴

A portion of the timber dues is remitted to the “forest Resource Improvement Association of Alberta” (FRIAA) (discussed further below).⁹⁵

The setting of timber dues is an economic calculus undertaking by the Crown to ensure “fair market” compensation is paid for Crown owned resources. Other values, such as ecological or cultural values of forests are not considered or integrated. Timber dues are remitted to the Crown as general revenue.

Reforestation Requirements

Timber disposition holders are required to meet prescribed reforestation requirements or pay a reforestation levy pursuant to the *Forests Act* and Part 6 of the *Timber Management Regulation*. This can be done by the disposition holder or through the payment of fees. The specific dollar amount is based on the costs of reforestation and replacement, as determined by the director and depends on the

⁸⁸ *Ibid.* s 28.

⁸⁹ *Ibid.* s 40(1).

⁹⁰ *Ibid.*

⁹¹ *Forests (Ministerial) Regulation*, A.R. 77/2021.

⁹² Government of Alberta, *Scaling Standards of Alberta* (Edmonton: May 2021, Alberta Agriculture and Forests).

⁹³ *Timber Management Regulation*, Alta Reg 60/1973, s 97.6.

⁹⁴ *Ibid.*

⁹⁵ *Ibid.* at s. 4.

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timber disposition type.⁹⁶ Where dues are paid most are paid to the Forest Resources Improvement Association of Alberta (“FRIAA”), a delegated administrative authority under the *Environmental Protection and Enhancement Act*. The purpose of the FRIAA is to establish programs and initiatives to enhance forest resources, promote enhanced management of forest resources, improve the sustained yield of the forest resources of Alberta, promote integrated resource management, and use the reforestation levies gathered to support the reforestation of public lands.⁹⁷

For example, for the holders of commercial and community timber permits, reforestation levies are paid to FRIAA.⁹⁸ If a timber disposition requires timber dues to be paid, the reforestation dues are calculated based on the same volume of timber and are due and owing at the same time.⁹⁹ The same process applies to reforestation levies.¹⁰⁰ Specifically, the portion of the general rate of timber dues remitted to the FRIIA as dues is the lesser of the amount of dues determined under the *Forest Resources Improvement Regulation* and an amount determined through a calculation set out in Schedule 1 of the *Timber Management Regulation*.¹⁰¹ Reforestation levies are payable on all timber cut on any area of public land except where reforestation is required or if the timber disposition is exempt.¹⁰²

In contrast, a forest management agreement requires the holder to carry out their own reforestation.¹⁰³ Timber quota holders with a combined annual allowable cut of 10,000 m³ or greater are also responsible for reforestation.¹⁰⁴ This differs from timber quota holders with an annual allowable cut of less than 10,000 m³ who can either do the reforestation themselves or pay a reforestation levy or fee.¹⁰⁵

The *Timber Management Regulation* also requires timber disposition holders to carry out reforestation within 2 years of the completion of their cut.¹⁰⁶ Reforestation is defined as any “operation involving seed management, seedling production, site preparation, tree planting, seeding, regeneration or reforestation surveying, stand cleaning, stand tending, stand thinning, tree improvement, fertilization, drainage, pruning or site analysis that is carried out in the course of forest renewal”.¹⁰⁷

Requirements for reforestation, along with applicable reforestation levies, are set out in the *Timber Management Regulation*, with further details provided in the Reforestation Standard of Alberta (the

⁹⁶ *Timber Management Regulation*, Alta Reg 60/1973, s 95(2).

⁹⁷ *Forest Resources Improvement Regulation*, Alta Reg 152/1997, s 3(1).

⁹⁸ *Timber Management Regulation*, *supra* note 96 at s 142.4(4.1)(a).

⁹⁹ *Forest Resources Improvement Regulation*, Alta Reg 152/1997, ss 5(1), 5(2) & 5(1.1).

¹⁰⁰ *Ibid.* ss 5.1(1) & (2).

¹⁰¹ *Timber Management Regulation*, *supra* note 96 at sched 1, s 3(1).

¹⁰² *Ibid.* s 143.9(1).

¹⁰³ *Ibid.* s 142.4(4.1)(c).

¹⁰⁴ Government of Alberta, “Timber Quotas” online: <https://www.alberta.ca/timber-quotas.aspx>.

¹⁰⁵ Government of Alberta, “Timber Quotas” online: <https://www.alberta.ca/timber-quotas.aspx>.

¹⁰⁶ *Timber Management Regulation*, *supra* note 96 at Part 6.

¹⁰⁷ *Timber Management Regulation*, *supra* note 96 at s 2(16.1).

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“Reforestation Standard”).¹⁰⁸ The Reforestation Standard aims to determine “the forest regeneration status of young managed stands relative to an assumed future condition.”¹⁰⁹ To do so, the Reforestation Standard sets out methodologies and procedures for conducting surveys, determining yields, reporting, and other similar measures to ultimately enable an assessment of the level of reforestation success in managed stands following harvest. It is incumbent upon the timber disposition holder to meet the applicable reforestation requirements.

Personal use permits are also part of the regulated fee structure but are viewed as nominal for the purpose of this report.¹¹⁰

FRIAA and the spending of dues and levies

FRIAA is a delegated authority with a legislative purpose of enhancing forest resources and their management, improving sustained yield of forest resources and promoting integrated resource management.¹¹¹ Their mandate is to undertake programs and initiatives in furtherance of the purpose, with a specific focus on promoting the industry and research into timber and forest management (e.g. pine beetle, fire management). In practice FRIAA funds research into a broad suite of matters, including species at risk, such as research on woodland caribou habitat, paid through grants from Alberta Environment and Parks.¹¹² It is notable that the woodland caribou habitat funding appears to come from general revenue and is not paid for through dues and levies under the forestry legislation.¹¹³

A pricing regime should recognize the overall impacts of timber resource use as they affect the forest ecosystems.

Opportunities toward balancing the environmental budget

The focus of forestry management should move past the value of timber alone. This is discussed more fully in the ELC’s *Managing Forests not Forestry: Law and Policy Recommendations for Ecosystem-Based*

¹⁰⁸ Alberta Agriculture and Forestry, “Reforestation Standard of Alberta” (1 May 2021) *Government of Alberta* online: <https://open.alberta.ca/dataset/f8b19d0a-4d8a-45ca-b904-11a19a207cf4/resource/c8c1e5d5-d578-47d4-a3eb-0a065166eced/download/af-reforestation-standard-alberta-2021-05.pdf>.

¹⁰⁹ *Ibid.*

¹¹⁰ *Timber Management Regulation*, *supra* note 96 at s 67; Alberta Agriculture and Forestry, “Directive – Personal Use Forest Products Permit” (1 May 2021) *Forest Policy 2021, No 1* online: <https://open.alberta.ca/dataset/6d21d21a-82f6-408c-8455-3343f5e73780/resource/152c2ff1-a02c-41e8-b074-aa6abfd53b8c/download/af-directive-forest-policy-01-2021-personal-use-forest-products-permit-2021-05.pdf>.

¹¹¹ Section 3 of the *Forest Resource Improvement Regulation*, Alta. Reg 152/97.

¹¹² See Forest Resource Improvement Association of Alberta Annual Report, 2020-2021, online: <https://friaa.ab.ca/wp-content/uploads/2021/06/FRIAA-Annual-Report-2020-21-1.pdf> at page 26, Note 8.

¹¹³ *Ibid.*

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*Management of Alberta's Forests.*¹¹⁴ See Brenda Heelan Powell, "Managing Forests not Forestry: Law and Policy Recommendations for Ecosystem-Based Management of Alberta's Forests" (December 2021) *Environmental Law Centre* online: <https://elc.ab.ca/wp-content/uploads/2022/01/Managing-Forests-not-Forestry-December-2021.pdf>

To facilitate this transition in the industry the government should amend timber dues to account for ecosystem monitoring and management (in conjunction with altering forestry standards to reflect ecosystem-based management). Further the mandate of FRIAA should be expanded to include ecosystem-based objectives (through amendments to the *Timber Management Regulation*).

Recommendation: Evaluate costs of biodiversity and ecosystem monitoring and management and adjust forest-based fees and levies to account for these costs.

Recommendation: Amend the Forest Resource Improvement Regulation to expand FRIAA mandate to include delineating ecosystem monitoring and research objectives, legacy habitat restoration and monitoring.

Air

Accounting for environmental impairment of the air takes various forms in Alberta. There are requirements to monitor and meet air emission standards for specific polluting facilities, there is a sector specific air emissions trading system and finally there is provincial carbon pricing (with a federal backdrop). Underlying this system are regulatory conditions placed on point source emissions implemented through the *Environmental Protection and Enhancement Act*.

Table 5: Summary environmental ledger for air

Account	Debit	Credit	Balancing enabled	Focus	Gaps in ledger	Steps to balance the budget
Air	Greenhouse Gas (GHG) emissions	NO _x and SO ₂ cap and trade program	Partial	GHGs NO _x /SO ₂ for prescribed emitters	Many air emissions are not captured (& some are difficult to capture)	Expansion of fees to cover full regulatory costs of air emissions and management

¹¹⁴ Brenda Heelan Powell, (December 2021) *Environmental Law Centre* online: <https://elc.ab.ca/wp-content/uploads/2022/01/Managing-Forests-not-Forestry-December-2021.pdf>.

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Account	Debit	Credit	Balancing enabled	Focus	Gaps in ledger	Steps to balance the budget
	Non-GHG emissions	Federal and provincial carbon levies Point source emission standards		General ambient monitoring		

Air Quality Monitoring

In Alberta, air quality monitoring is done at both sites of emissions and more regionally, through the formation of airshed monitoring organizations. These regional airsheds are defined as “organizations that operate regional networks responsible for monitoring, analyzing, and educating on outdoor air quality.”¹¹⁵ In total, there are 10 airsheds with 87 continuous monitoring stations and 100s of other sites monitoring air quality and emissions around the province.¹¹⁶

Alberta airsheds monitor for various emissions including ammonia, CO, particulate matters, NO_x, NO₂, and others.¹¹⁷ Monitoring data is then compared to guidelines and standards including the Alberta Ambient Air Quality Objectives, Alberta Ambient Air Quality Guidelines, and the national Air Quality Management System to measure ongoing air quality in the province. Data collected by these regional airsheds also supports the Air Quality Health Index in the province.¹¹⁸

Alberta Environment and Parks and the Alberta Energy Regulator mandates industrial participation and support of airshed monitoring by applying conditions on facility approvals under the *Environmental Protection and Enhancement Act*. The conditions that mandate this participation are various (and are typically accompanied by various other monitoring requirements).

¹¹⁵ Alberta Airsheds Council, “What is An Airshed?” online: <https://www.albertaairshedsCouncil.ca/>.

¹¹⁶ Alberta Airsheds Council, “Alberta Airsheds: 2020 Air Quality Report” at 4 online: https://static1.squarespace.com/static/587f8bd6414fb56f5c11053a/t/6119ba9cdea0d922aa26d59e/1629076134612/AAC_2020AR_F.pdf.

¹¹⁷ *Ibid.*

¹¹⁸ Alberta Airsheds Council, “Alberta Airsheds: 2020 Air Quality Report” at 16 online: https://static1.squarespace.com/static/587f8bd6414fb56f5c11053a/t/6119ba9cdea0d922aa26d59e/1629076134612/AAC_2020AR_F.pdf.

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For example, the approval for the Vista Coal Mine and Vista Coal Processing Plant states “the approval holder shall monitor, or cause to be monitored through participation in the [West Central Airshed Society] network, ambient air quality monitoring on a continuous basis unless otherwise authorized...”¹¹⁹ The approval of the Bigoray Sour Gas Processing Plant only requires that the approval holder “operate[s] or cause[s] to be operated the WCAS Air Quality Monitoring Program Network.”¹²⁰ The Edmonton Chemical Manufacturing Plant is required to “participate in implementing the Capital Region Air Quality Management Framework.”¹²¹

The Fort Saskatchewan Oil Seed Processing Plant approval is more detailed, stating “the approval holder shall participate in FAP through funding membership in the Northeast Capital Industrial Association (NCIA) or another regional ambient air monitoring network.”¹²²

It is not clear from these approvals the amount of money provided to these airshed societies to support air monitoring, although it is typically through membership in the relevant airshed (which is likely variable).

Alberta’s Cap & Trade Program – The Emissions Trading Regulation

The *Emissions Trading Regulation* under *EPEA* establishes an emissions trading registry where operators of electrical generating power plants or cogeneration units can participate in an emissions credit trading program.¹²³ This power generation sector cap and trade system covers NO_x and SO₂ emissions only.

Emission credits, which represent one tonne of NO_x or SO₂, are allocated to unit operators if a generating unit emits fewer kg of NO_x or SO₂ than the calculated baseline amount, decommissions a generating unit, or makes a written commitment to the Director to meet the current emissions standards.¹²⁴ These emission credits can then be used for compliance purposes and can be traded amongst unit operators.¹²⁵

¹¹⁹ Alberta Energy Regulator, Amending Approval No. 301345-00-01 (20 January 2016) at ss 4.1.23 online: <https://aww.alberta.ca/pdf/00301345-00-01.pdf>.

¹²⁰ Alberta Energy Regulator, Amending Approval No. 187-03-01 (24 March 2017) at ss 4.1.12 & 4.1.13 online: <https://aww.alberta.ca/pdf/00000187-03-01.pdf>.

¹²¹ Alberta Environment and Parks, Approval No. 10973-03-00 (1 September 2017) at s 4.1.24 online: <https://aww.alberta.ca/pdf/00010973-03-00.pdf>.

¹²² Alberta Environment and Parks, Approval No. 9773-03-00 (4 June 2020) at ss 4.1.18 & 4.1.19 online: <https://aww.alberta.ca/pdf/00009773-03-00.pdf>.

¹²³ *Emissions Trading Regulation*, Alta Reg 33/2006, s 16.

¹²⁴ *Emissions Trading Regulation*, Alta Reg 33/2006, ss 32, 34(1), 36(1), 37(1), & 38(1).

¹²⁵ *Emissions Trading Regulation*, Alta Reg 33/2006, s 45.

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The goal of these emission credits is to reward those who emit lower levels of air pollution and ideally this will result in lower levels of emissions overall.¹²⁶ However, under the program credits remain with operators and are only focused at incentivizing the mitigation of NOx/SO₂ emissions.

GHG emissions in Alberta Tier funding

In Alberta, GHG emissions are priced under the *Emissions Management and Climate Resilience Act* (formerly *Climate Change and Emissions Management Act*) and the Technology Innovation and Emissions Reduction Regulation (“TIER”).¹²⁷ As of January 1, 2020 the TIER program applies to any facilities that emitted 100,000 tonnes of CO₂e in 2016 or any subsequent year.¹²⁸ Smaller facilities can choose to opt in to the regulation so long as they have greater than 10,000 tonnes of annual emissions in an emission intensive trade exposed sector.¹²⁹

Facilities that do not achieve their emissions reduction targets can purchase credits from other facilities that have done so, in a cap and trade style program, or pay a levy into the “TIER Fund”.¹³⁰ The TIER fund supports low emissions technology in the province.¹³¹ Payment into the TIER fund will increase at the same rate as the federal *Greenhouse Gas Pollution Pricing Act* – ensuring that the TIER program qualifies under the federal regime.¹³² This means that TIER facilities are exempt from paying the federal fuel charge under the GGPPA.¹³³

The TIER fund is reinvested into many of the same industries that qualify for the project focused on research and development and emissions reduction technology. For example, the fund has been invested into carbon capture and sequestration technology, methane emissions reduction technology, biodiesel fuel creation, and hydrogen projects.¹³⁴ The Minister may transfer money from the fund to the general Revenue Fund as per section 10(4.1) of the Act.

¹²⁶ Environmental Law Centre, “The Polluter Pays Principle in Alberta Law” (December 2019) at 38-39 online: <https://elc.ab.ca/wp-content/uploads/2019/12/The-Polluter-Pays-Principle-in-Alberta-Law-December-2019.pdf>.

¹²⁷ S.A. 2019, c E-7.8.

¹²⁸ *Technology Innovation and Emissions Reduction Regulation*, Alta Reg 133/2019, s 1(1)(cc).

¹²⁹ *Ibid.* s 4(4).

¹³⁰ Brendan Downey et al., “Pathways to Net-Zero: Opportunities for Canada in a Changing Energy Sector” (2021) 59:2 Alta L Rev 225 at 235-236.

¹³¹ *Ibid.*

¹³² Lou Cusano et al., “Recent Legislative and Regulatory Developments of Interest to Energy Lawyers” (2020) 58:2 Alta L Rev 481 at 503; Rosa Twyman, Laura-Marie Berg & Marle Riley, “Recent Legislative and Regulatory Developments of Interest to Energy Lawyers” (2021) 59:2 Alta L Rev 527 at 534.

¹³³ Rosa Twyman, Laura-Marie Berg & Marle Riley, “Recent Legislative and Regulatory Developments of Interest to Energy Lawyers” (2021) 59:2 Alta L Rev 527 at 534.

¹³⁴ Government of Alberta, *News Release*, “Creating jobs and reducing emissions with technology” (5 Aug 2020) online: <https://www.alberta.ca/release.cfm?xID=729757B8B6804-CA32-4659-8A99E4C140051498>; Government of Alberta, *News*

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The Federal Greenhouse Gas Pollution Pricing Act

The *Greenhouse Gas Pollution Pricing Act* (“GGPPA”) is the federal Act that implements a price on carbon across the country.¹³⁵ The main body of the GGPPA is divided into two parts. Part one imposes a surcharge on fuels that produce GHGs including gasoline, oil, propane, kerosene, and methanol and on combustible waste that is burned such as tires and asphalt shingles.¹³⁶ Part two establishes emissions limits for large industrial emitters of GHGs and requires emitters who do not meet those limits to pay a charge.¹³⁷

In both instances, the GGPPA pricing scheme applies in any province that does not have a sufficiently stringent GHG pricing scheme for fuel, as determined by the federal government. Put simply, the federal government imposes minimum national stringency standards that can also be met by the provinces under their own pricing programs. The rates also increase on a regular basis.¹³⁸

Despite the breadth of this Act, the majority of funds generated under the GGPPA are returned to the payer through tax benefits. Theoretically the pricing will promote behaviour change toward lower cost alternatives, bringing environmental gains. According to the federal government, approximately 90% of revenue generated by operation Act in Alberta, Manitoba, Ontario and Saskatchewan goes back to individual Canadians under the Climate Action Incentive.¹³⁹ The majority of the remaining 10% of proceeds are distributed through the Climate Action Incentive Fund which helps businesses fund energy efficiency retrofits or other projects to improve energy efficiency and reduce their energy use and carbon pollution.¹⁴⁰

The structure of carbon taxes is focused on providing a price signal to emitters (both individual and industrial) rather than generating revenue for broader environmental mitigation and adaptation measures. The federal program relies on the emitter’s choices and this may or may not be influenced at a given price point.

Release, “Diversifying the economy with cutting-edge tech” (27 Jul 2021) online: <https://www.alberta.ca/release.cfm?xID=796211C3EE0E1-B89F-0DC8-94C478516C7B77AC>; Government of Alberta, News

Release, “Cutting emissions and diversifying the economy” (1 Nov 2021) online: <https://www.alberta.ca/release.cfm?xID=802609F6EB575-E22B-32A7-B61FE3B3C19692E7>.

¹³⁵ *Greenhouse Gas Pollution Pricing Act* SC 2018, c 12, s 186.

¹³⁶ *Greenhouse Gas Pollution Pricing Act* SC 2018, c 12, s 186, Part 1.

¹³⁷ *Greenhouse Gas Pollution Pricing Act* SC 2018, c 12, s 186, Part 2.s

¹³⁸ *Greenhouse Gas Pollution Pricing Act* SC 2018, c 12, s 186, Sched 2.

¹³⁹ See Government of Canada, “Delivering climate Action Incentive payments quarterly”, online: <https://www.canada.ca/en/departement-finance/news/2021/12/delivering-climate-action-incentive-payments-quarterly.html> *Income Tax Act*, RSC 1985, c 1 (5th Supp), s 122.8.

¹⁴⁰ Environment and Climate Change Canada, “Climate Action Incentive Fund” online: <https://www.canada.ca/en/environment-climate-change/services/climate-change/carbon-pollution-pricing-proceeds-programming/climate-action-incentive-fund.html>.

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Air Emission Fees in Metro Vancouver

The area of Metro Vancouver, which encompasses a number of cities and towns around the City of Vancouver has authority under the provincial *Environmental Management Act* to manage the region's air emissions.¹⁴¹ Section 31 of the Act enables the Metro Vancouver area to provide the services of air pollution control and air quality management within the region.¹⁴² They do so through Bylaw 1083: *A Bylaw to Regulate Air Quality Management Fees* which conditionally authorizes businesses to emit air contaminants through site-specific authorizations and sector emission regulations.¹⁴³ The Bylaw was passed in 2008 and fees were initially based upon estimated health impacts of individual contaminants. These amounts were adjusted in 2021 due to decreasing revenue and increasing costs.¹⁴⁴

Fees are divided into a variable and fixed portion. The variable portion is based upon the quantity and type of air contaminants.¹⁴⁵ They apply to any person who applies for a permit or approval; every person who discharges air contaminants under an emission regulation, a permit, or an approval; and to emission fees related to the discharge of GHGs unless the provincial carbon tax applies.¹⁴⁶ Calculations are based on whether the contaminant is considered an emission or an odorous air release.¹⁴⁷

In 2021, the Bylaw was updated for the first time since coming into force in 2008. The biggest change was an update to the air contaminant fees based on the health impacts associated with certain emission types. In making these updates, Council suggested that fees for air contaminants should be adjusted to reflect the health impact relative scale, if not the true cost of health impacts.¹⁴⁸ New air contaminants were also added to the fee list.¹⁴⁹ The 2021 amendments also introduced fees for odorous air contaminant emissions including for nonene, octene, butanal, among others.¹⁵⁰

¹⁴¹ *Environmental Management Act*, SBC 2003, c 53.

¹⁴² *Environmental Management Act*, SBC 2003, c 53, s 31.

¹⁴³ Metro Vancouver Regional District, revised by-law, No 1330, *A Bylaw to Regulate Air Quality Management Fees* (2021); Metro Vancouver, "Proposed Amendments to Air Quality Permit and Regulatory Fees in Metro Vancouver" (November 2020) Discussion Paper online: <http://www.metrovancouver.org/services/air-quality/AirQualityPublications/AQ-Fee-ChangeDiscussionPaper.pdf>.

¹⁴⁴ *Ibid.*

¹⁴⁵ *Ibid.*

¹⁴⁶ Metro Vancouver Regional District, revised by-law, No 1330, *A Bylaw to Regulate Air Quality Management Fees* (2021), ss 6-8.

¹⁴⁷ *Ibid.* s 9.

¹⁴⁸ Metro Vancouver, "Proposed Amendments to Air Quality Permit and Regulatory Fees in Metro Vancouver" (November 2020) Discussion Paper at 12 online: <http://www.metrovancouver.org/services/air-quality/AirQualityPublications/AQ-Fee-ChangeDiscussionPaper.pdf>.

¹⁴⁹ *Ibid.* at 13.

¹⁵⁰ Metro Vancouver Regional District, revised by-law, No 1330, *A Bylaw to Regulate Air Quality Management Fees* (2021), Sched B.

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Schedules to the Bylaw set out the annual price for emissions of a number of substances including ammonia, fine particulate matter, ozone, methane, and others with the price increasing every year until 2028.¹⁵¹

Fees are intended to cover the costs of administrative activities including the cost of reviewing applications and developing requirements for new permits, approvals, and amendments along with ongoing compliance promotion and bylaw requirements.¹⁵² However, it is not set out in the bylaw or the overarching *Air Quality Management Bylaw* how the remaining emissions fees collected are to be used.¹⁵³

Air emission fees under the US *Clean Air Act*

Under the US *Clean Air Act* Title V permit fees are used to implement and enforce the permitting program.¹⁵⁴ The Act sets a course of regulation in §7661a(b)(3)(A) which states:

A requirement under State or local law or interstate compact that the owner or operator of all sources subject to the requirement to obtain a permit under this subchapter pay an annual fee, or the equivalent over some other period, sufficient to cover all reasonable (direct and indirect) costs required to develop and administer the permit program requirements of this subchapter, including section 7661f of this title, including the reasonable costs of—

- (i) reviewing and acting upon any application for such a permit,
- (ii) if the owner or operator receives a permit for such source, whether before or after November 15, 1990, implementing and enforcing the terms and conditions of any such permit (not including any court costs or other costs associated with any enforcement action),
- (iii) emissions and ambient monitoring,
- (iv) preparing generally applicable regulations, or guidance,
- (v) modeling, analyses, and demonstrations, and
- (vi) preparing inventories and tracking emissions.

¹⁵¹ *Ibid.* Scheds A-1-A-8.

¹⁵² *Ibid.* at 7.

¹⁵³ Metro Vancouver Regional District, revised by-law, No 1330, *A Bylaw to Regulate Air Quality Management Fees* (2021); Greater Vancouver Regional District, by-law, No 1082, *Air Quality Management Bylaw* (2008).

¹⁵⁴ See U.S. Code Title 42, Ch. 85.

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The revenue generated under this Title of the *Clean Air Act* must be used for the purpose of administering the program costs.¹⁵⁵ Additional details are found in the Code of Federal Regulations at Title 40, Part 70.

A review of the adequacy of these fees was conducted in 2015 that illustrated the need for some states to more accurately assess the fees to be levied on industry to cover costs.¹⁵⁶ This illustrates the importance of accurately costing out regulatory actions and ensuring fee systems are adapted in a timely fashion to reflect these costs.¹⁵⁷

Opportunities to balance the environmental budget

Alberta has chosen to impose costs associated with certain types of emissions, however they are either narrow in application or scope or both. Regulating air emissions is primarily the venue for command-and-control systems although levies and a cap and trade system are also used for the most pressing areas of concern, like NO_x and SO₂ (as in Alberta).

Some areas are challenged to move the dial in air emissions, due to costs and the embedded nature of our transportation system (and infrastructure). This in turn requires wholesale changes to how we develop and move goods and people.

Nevertheless, for point sources there remain near term opportunities to ensure the full cost of the regulatory system are covered.

Recommendation: Alberta Environment and Parks should pursue regulations to ensure costs associated with authorizations, monitoring, and enforcement of point source air emissions that are authorized under the Act are covered. (This system is well established in the US and, albeit not perfect, is able to provide examples of expanded coverage of costs for the administration, compliance and enforcement or air pollution regulation and permitting).

¹⁵⁵ See 40 CFR §70.9(a), online: <https://www.law.cornell.edu/cfr/text/40/70.9>.

¹⁵⁶ US EPA Office of Inspector General, *Enhanced EPA Oversight Needed to Address Risks from Declining Clean Air Act Title V Revenues*, Report No. 15-P-0006, October 20, 2014. <https://www.epa.gov/sites/default/files/2015-09/documents/20141020-15-p-0006.pdf>.

¹⁵⁷ Guidance for the fee structure was published by the EPA in 2018 and sets out what may be included in the costs US EPA, Memorandum of Director Peter Tsirigotis, "Updated Guidance on EPA Review of Fee Schedules for Operating Permit Programs Under Title V", online: Environmental Protection Agency) https://www.epa.gov/sites/default/files/2018-03/documents/fee_schedule_2018.pdf.

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Fish & Wildlife

In this section we consider impacts directly on fish and wildlife and their habitat. Specifically, we will consider how we price hunting and fishing and how that can be expanded to fit an updated view of wildlife harvesting and fund conservation in the process. Habitat related aspects of the ledger are highlighted in this section but are dealt with more extensively in the section that follows.

Table 6: Summary environmental ledger for fish & wildlife

Account	Debit	Credit	Balancing enabled	Focus	Gaps in ledger	Steps to balance the budget
Fish & wildlife	Hunting Fishing Incidental taking of individuals Habitat destruction	Licencing Increased fines for species at risk	Yes *except for habitat and incidental harms (see next section)	Game animals	Non-licence species impacts Habitat Incidental impacts on wildlife	Develop a system of avoidance, mitigation and offsetting for priority habitat types (set out in the section below)

Hunting and Fishing Licences

In Alberta, fees for hunting and fishing are authorized under the *Wildlife Act*. The *Wildlife Act* is the primary statute dealing with the management of ‘wildlife’, including species at risk, in Alberta and is largely a piece of hunting legislation.¹⁵⁸ This is also the Act which authorizes the issuance of licences and permits for hunting.¹⁵⁹ The Act enables Ministerial regulations to make regulations for establishment and setting of fees.¹⁶⁰

Applicable provisions related to fees are set out in section 23-25.1 of the *Wildlife Regulation*.¹⁶¹

¹⁵⁸ *Wildlife Act*, RSA 2000, c W-10.

¹⁵⁹ *Wildlife Act*, RSA 2000, c W-10, s 13.

¹⁶⁰ *Wildlife Act*. S103.

¹⁶¹ *Wildlife Regulation*, Alta Reg 143/1997.

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In 2020, there were 151,724 hunting licences issued to Alberta residents, 68 to non-resident aliens, and 5,045 to non-resident Canadians.¹⁶²

Fishing licences are required for all persons engaged in sportfishing in Alberta with the exception of youth aged 16 years or younger; Alberta residents aged 65 years and older; and First Nations persons.¹⁶³ The Alberta Guide to Sportfishing Regulations sets out the licence fees based on where the angler resides.

In 2020, there were 325,977 sportfishing licences issued to residents and non-residents and 3,485 to non-resident Canadians.¹⁶⁴

Additional levies on licences and permits can be set by the Alberta Conservation Association (ACA) under section 4 of Schedule 2 of the *Wildlife Regulation*. This “enhancement levy” is used to fulfill the Association’s purposes on the Regulation.¹⁶⁵ According to the Association’s annual report for the year 2020-2021 the ACA received ~ \$15 million in revenue from hunting and angling levies.¹⁶⁶

The ACA is a delegated administrative organization created under the *Wildlife Act* and associated *Wildlife Regulation*.¹⁶⁷ The *Wildlife Regulation* delegates certain powers and duties to the ACA including:¹⁶⁸

- a) the inventorization, development and enhancement of populations and habitats of wildlife, fish and endangered species in Alberta through the:
 - i. implementation and support of projects and improvements that retain, enhance or create any such habitat,
 - ii. implementation and support of restoration and reintroduction projects to enhance populations of wildlife, fish and endangered species,
 - iii. implementation and support of the inventorization of populations and habitats of wildlife, fish and endangered species, and
 - iv. implementation and support of projects for the stocking of selected water bodies, including transportation.

¹⁶² My Wild Alberta, “Annual Sales Statistics” online: <https://mywildalberta.ca/buy-licences/annual-sales-statistics.aspx>.

¹⁶³ Alberta Environment and Parks, “2021 Alberta Guide to Sportfishing Regulations” (2021) at 18 online: <https://open.alberta.ca/dataset/dbf392f4-266f-4947-adc0-fa4bdf4e2c9c/resource/a4af881c-b069-41c1-84bc-a339f0880e30/download/alberta-guide-sportfishing-regulations-2021.pdf>.

¹⁶⁴ My Wild Alberta, “Annual Sales Statistics” online: <https://mywildalberta.ca/buy-licences/annual-sales-statistics.aspx>.

¹⁶⁵ *Wildlife Regulation*, Alta Reg 143/1997, Schedule 2 at section 4.

¹⁶⁶ Alberta Conservation Association, *Annual Report 2020/21*, at page 64, online: https://www.ab-conservation.com/downloads/annual_report/aca_2020_21_annual_report.pdf.

¹⁶⁷ *Wildlife Act*, RSA 2000, c W-10, s 104(1)(b); *Wildlife Regulation*, Alta Reg 143/97, Sched 2.

¹⁶⁸ *Wildlife Regulation*, Alta Reg 143/97, Sched 2, s 2(2).

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To accomplish these tasks, the ACA can collect enhancement levies which are paid in addition to any licence, permit, or other fee charged for hunting, fishing, and other resource use. The money raised from these levies are used for conservation related projects including habitat restoration and creation, research, education, and making grants.

One example of a funding stream dedicated to conservation is a grant program for conservation, community, and education projects.¹⁶⁹ In 2021-2022 the ACA's grants range from an \$8,000 allocation for Elk Trap Removal for Habitat Recovery to \$40,000 for Wildlife and Native Habitat Enhancement in Red Deer County.¹⁷⁰

A systems approach: beyond the game animal

There are a variety of factors that must be considered in managing individual populations of both game and non-game species. This includes monitoring of numbers, managing and enforcing hunting/angling pressures, and maintaining suitable habitat. Alberta has created a system whereby hunting and angling fees are meaningfully linked with ensuring sustainable resource management. Could fees be more comprehensive? Most likely however it is likely that habitat-based fees and conservation would provide a bigger return for other species and the environment. This is dealt with further below.

Fisheries and wildlife habitat offsetting for public lands

Habitat offsetting is not broadly applied by the provincial government in relation to impacts on habitat. A conservation offset system is enabled under the *Alberta Land Stewardship Act*, but related regulations and policies have been slow to be created and/or approved. There have been instances where independent regulators have made offsets a part of conditions of approval, however this has not been broadly adopted.¹⁷¹ The primary example of habitat offsetting is found in the federal *Fisheries Act*.

Opportunities for wildlife, fisheries and their habitat

There are several enabling provisions under Alberta law that could be used to better reflect the impact of our activities on wildlife and its habitat. Specifically, the long-considered use of conservation offsets may find a place in conjunction with regulatory standards and limits for land disturbance for high value habitats. Conservation offsets are rife with challenges however as often they fail to reach their stated

¹⁶⁹ Alberta Conservation Association, "Alberta Conservation Association Grants: Project Funding Allocations 2021-2022" online: https://www.ab-conservation.com/downloads/grants/ACA_CCEG_Allocations_2021-2022.pdf.

¹⁷⁰ *Ibid.*

¹⁷¹ See for example MAXIM Power Corp., Buffalo Attlee Wind Power Project – Phase 1 Buildable Area (February 7, 2018), Decision 22755-D01-2018 where offsets were required in relation to a wind energy's impact on grasslands and related wildlife.

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objectives.¹⁷² In this regard robust planning and protection (i.e., avoidance of valued habitats) is needed in conjunction with any offset scheme.

As illustrated by the past application of the federal no-net loss habitat policy there is a significant need to ensure monitoring and follow up on habitat offsets and the effectiveness of habitat banking. This includes the need to ensure there are sufficient resources committed to monitoring for offset effectiveness.¹⁷³ Proof of success of offset policies often remains elusive and difficult to verify.¹⁷⁴

The *Alberta Land Stewardship Act* has enabled these policies (as described further below) but there has yet to be regulations that would clarify the legal delivery of these types of market-based programs.

Recommendation: To begin a more systematic approach to managing and preventing biodiversity loss the government of Alberta should ensure, in a hierarchical order:

- 1) That avoidance and/or protection of priority habitats is enabled and embedded in binding regional plans, and, where no plans exist, are integrated into decisions around whether to offer public land dispositions;**
- 2) That appropriate level land disturbance standards and regulations are in place on public land for keystone species (i.e., that regulatory standards are used to place a cap on land disturbance at an activity and regional, ecosystem appropriate scales);**
- 3) That conservation offsets are used for allowable impacts (i.e., ensuring sufficient resources are generated for monitoring and verification of the offset's effectiveness).**

Habitat & Land Use

In this section, we will divide land into two discrete areas: first, we look at dispositions for use and occupation of public land and second, we look at recreation fees on public land.

¹⁷² See Kujala, Heini, Martine Maron, Christina M. Kennedy, Megan C. Evans, Joseph W. Bull, Brendan A. Wintle, Sayed M. Iftekhar et al. "Credible biodiversity offsetting needs public national registers to confirm no net loss." *One Earth* 5, no. 6 (2022): 650-662 and zu Ermgassen, S. O., Baker, J., Griffiths, R. A., Strange, N., Struebig, M. J., & Bull, J. W. (2019). The ecological outcomes of biodiversity offsets under "no net loss" policies: A global review. *Conservation Letters*, 12(6), e12664.

¹⁷³ Burgin, S. (2008). BioBanking: an environmental scientist's view of the role of biodiversity banking offsets in conservation. *Biodiversity and Conservation*, 17(4), 807-816.

¹⁷⁴ *Supra* note 170.

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Table 7: Summary environmental ledger for habitat and land use

Account	Debit	Credit	Balancing enabled	Focus	Gaps in ledger	Steps to balance the budget
Land Use - Industrial dispositions	Disturbance of land (and related habitat and water related impacts)	Reclamation of specified land Remediation obligations Disposition conditions (Master Schedule of Standards and Conditions) Habitat offsets and banking (Federal) Wetland policy	yes	narrowly focused on reclaiming lands to “equivalent land capability” Limited application of offset systems (i.e. wetlands, fish habitat).	Biophysical habitat impacts Not clear whether conditions on public land dispositions are reaching desired outcomes	Conservation offset systems (in conjunction with land disturbance standards)
Land Use - Recreation	various recreational impacts	camping and recreation fees	yes	focused on non-motorized recreation		scaled fees for more damaging recreation

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Land Use Disposition Fees and Rents

Approximately 60% of Alberta’s land base is Crown land or “public land”¹⁷⁵ The management of these lands are dictated by the *Public Lands Act* which regulates administration and management of provincial public lands and the *Environmental Protection and Enhancement Act*, which dictates conservation and reclamation standards and regulations for prescribed activities.¹⁷⁶ In addition, binding regional land use plans are made feasible under the *Alberta Land Stewardship Act* (“ALSA”).

The approach to managing environmental management on Alberta’s Crown lands is largely activity specific, which different dispositions on Crown lands requiring differing responses. Examples of this include forestry replanting requirements, reclamation of lands to “equivalent land capability” for select activities, and conditions and requirements in dispositions, e.g. surface leases, themselves. These conditions are guided by the Master Schedule of Standards and Conditions.¹⁷⁷ The Master Schedule sets out a suite of desired outcomes that are the focus of the conditions.

Public Lands Act

The *Public Lands Act* confirms the Crown as the owner of public land including any right, title, and interest in the land.¹⁷⁸ It also allows the Minister to set:¹⁷⁹

- rent or other amounts to be paid for land dispositions; and
- fees relating to the use or occupation of public land.

In conjunction with this ownership structure, the *Public Lands Act* prohibits any person from entering onto or occupying public land unless authorized.¹⁸⁰ Fees for public land use are enabled under the *Public Lands Administration Regulation* and set out in *Ministerial Order 01/2020 – Public Lands Fees, Rents and Other Amounts Payable Order*.¹⁸¹ This Order sets out nominal application fees for activities on public lands, royalties for the removal of surface materials, and rent for ongoing land use. These rents vary across the type of land use and intensity of use and reflect use or depletion of Crown property.

¹⁷⁵ Government of Alberta, “Alberta Crown Land Vision”, online: <https://www.alberta.ca/alberta-crown-land-vision.aspx>.

¹⁷⁶ *Public Lands Act*, RSA 2000, c P-40; *Alberta Land Stewardship Act*, SA 2009, c A-26.8.

¹⁷⁷ Government of Alberta, (April 2021), online: <https://open.alberta.ca/dataset/133e9297-430a-4f29-b5d9-4fea3e0a30c2/resource/37d91717-08ab-4998-a13f-ce5c103c0735/download/aep-master-schedule-of-standards-and-conditions-2021-04.pdf>.

¹⁷⁸ *Public Lands Act*, RSA 2000, c P-40, s 2.1.

¹⁷⁹ *Ibid.* ss 9.1(1)(a)(i) & (i.1).

¹⁸⁰ *Ibid.* s 20(1).

¹⁸¹ *Public Lands Administration Regulation*, Alta Reg 187/2011; *Public Lands Fees, Rents and Other Amounts Payable Order*, Ministerial Order 01/2020 (2 January 2020).

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Alberta Environment and Parks (“AEP”) has also standardized public lands fees to provide consistency across all disposition types — industrial, commercial, recreational and agricultural.¹⁸² Fees can be charged for uses including in the case of agricultural public land uses such as grazing leases; industrial land uses including oil and gas and mining; residential land uses including recreational cottages; and surface material leases which allow for the removal of sand, gravel, clay, topsoil, marl, and peat moss.¹⁸³

These fees are collected by AEP, but they do not appear to be based on related harms, rather government relies on conditions on dispositions to reach desired outcomes.

For both commercial and recreational user fees, there is no requirement that revenue collected goes into a special account or restricts funds for environmental purposes.¹⁸⁴ In fact, often revenue generated will not be seen by land or environmental agencies. Some examples include:¹⁸⁵

- fuel taxes attributable to recreational vehicles;
- registrations of OHVs; and
- fines levied against users for violations of public land legislation.

In all three of these instances, revenue is not linked to environmental management.

Federal *Fisheries Act* habitat replacement requirements

The federal department of fisheries and oceans has had a policy of no-net-loss of fish habitat under the *Fisheries Act* since 1986.¹⁸⁶ This was implemented as part of the permitting process for activities that harm or disrupt fish habitat under section 35(2) of the Act (commonly referred to as a HADD). A 2005 review of this program observed that, notwithstanding the compensation paid and restoration conducted “no-net-loss” could only be determined for 17 of 124 authorizations, “as a result of poor proponent compliance with monitoring requirements and the qualitative assessment procedures used by the monitoring programs”.¹⁸⁷ Similarly, a more recent review of authorizations found that authorized

¹⁸² Government of Alberta, “Public lands fees updates” (2020) online: <https://www.alberta.ca/public-lands-fee-updates.aspx>.

¹⁸³ *Public Lands Fees, Rents and Other Amounts Payable Order*, Ministerial Order 01/2020 (2 January 2020) at ss 19, 21, 22(4) & 26.

¹⁸⁴ Adam Driedzic, “Managing recreation on public land: How does Alberta compare?” (December 2015) *Environmental Law Centre* at 54 online: <https://elc.ab.ca/media/105057/Managing-recreation-on-public-land-Final-December-10-2015.pdf>.

¹⁸⁵ *Ibid.*

¹⁸⁶ See Fisheries and Oceans Canada, *Summary Habitat Management Policy*, online: https://waves-vagues.dfo-mpo.gc.ca/library-bibliotheque/40616873_rev.pdf.

¹⁸⁷ D. J. Harper, J.T. Quigley, “No Net Loss of Fish Habitat: A Review and Analysis of Habitat Compensation in Canada” (2005) *Environmental Management* vol, 36, no.:3.

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destruction of habitat was more than the required restoration, putting in question the effectiveness of the policy.¹⁸⁸

In 2019 the Act was amended to provide additional regulatory details regarding the use of habitat banking.¹⁸⁹ Section 42.01 of the *Fisheries Act* defines fish habitat banking as an area of fish habitat that has been restored, enhanced or created by the carrying on of one or more conservation projects within a service area and in respect of which area the Minister has certified any habitat credit.¹⁹⁰ As part of this process, where an application for a Ministerial authorization under sections 34.4(2)(b) or 35 (2)(b) is made there are specific requirements set out in Regulation.¹⁹¹ Specifically the application sets out requirements to delineate and provide a description of the HADD related to the project and the number of “habitat credits that the applicant plans to use to offset the death to fish” or the HADD or any plan to offset HADD.¹⁹² The information provided in an offset plan must include (among other matters) the measures to be taken to offset the HADD, monitoring and “estimated cost of implementing each element of the plan”.¹⁹³ The Regulations require that “an irrevocable letter of credit issued by a recognized Canadian financial institution, or another equivalent financial guarantee” be provided to cover the costs of the plan.¹⁹⁴

Policy guidance around offset plans and habitat banks include:

1. Fisheries and Oceans Canada, *Policy for Applying Measures to Offset Adverse Effects on Fish and Fish Habitat Under the Fisheries Act* (Ottawa, Her Majesty the Queen in Right of Canada 2019).; and
2. Interim Policy for Establishing Fish Habitat Banks to Support the Administration of the *Fisheries Act* and the *Species at Risk Act*.¹⁹⁵

These policies set out the approaches to be taken in determining how offsets and habitat banking will operate in the context of impacts on fish and fish habitat. This includes how to approach measuring of impacts, restoration guidance, and monitoring.

¹⁸⁸ Brett Favaro and Martin Olszynski. “Authorized net losses of fish habitat demonstrate need for improved habitat protection in Canada” (2017) *Canadian Journal of Fisheries and Aquatic Sciences*. 74(3): 285-291. <https://doi.org/10.1139/cjfas-2016-0480>.

¹⁸⁹ *Fisheries Act*, RSC 1985, c F-14 ss.42.01-42.1.

¹⁹⁰ *Fisheries Act*, RSC 1985, c F-14, s 42.01.

¹⁹¹ *Authorizations Concerning Fish and Fish Habitat Protection Regulations* (SOR/2019-286).

¹⁹² *Ibid.* at schedule 1 ss.15 & 16.

¹⁹³ *Ibid.* at schedule 1, s15.

¹⁹⁴ *Ibid.* at s2(1)(a).

¹⁹⁵ Department of Fisheries and Oceans, online: <https://www.dfo-mpo.gc.ca/pnw-ppe/reviews-revues/policies-habitat-politiques-eng.html>.

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Section 42.03 of the Act restricts the use of habitat credits to the service area where the work is being undertaken.¹⁹⁶ The Act and the interim policy make it clear that these banks are “managed under a formal agreement between the Department and each proponent.”¹⁹⁷ This is likely to limit the nature and scope of these banks insofar as credits can’t be generated independently by a third party bank.¹⁹⁸ Further, it is apparent that the Department must undertake a significant oversight role and that banking fails to include cost recovery aspects for monitoring, implementation and compliance with offset plans.¹⁹⁹

Under a third-party banking program, a habitat banking organization can acquire land and establish a habitat bank through the restoration, creation, enhancement, or preservation of habitat.²⁰⁰ A proponent generated offset credit or debit would then enter into a larger market for restoration projects.

Wetlands and wetland replacement

Alberta began implementing a wetland policy in 2013 that focuses on conservation and maintenance of wetland function. The policy seeks to engage a “mitigation hierarchy” whereby wetlands are avoided, impacts are mitigated, or restored, or activity proponents charged an in-lieu fee. For further discussion of these types of fees and the wetland policy see David Poulton and Adam Driedzic, *In-Lieu Payments and Fees as a Mechanism for Environmental Compensation*.²⁰¹

The policy is engaged through conditions that are placed on approvals under the *Water Act*. A description of the policy and its various guidance documents is beyond the scope of this report.

There is a need, now that the wetland policy has been in play for nearly 10 years, to evaluate the policy and its administration to determine the effectiveness of the policy tool in reaching the stated objectives. Various aspects of how the wetland policy is being implemented need to be investigated and evaluated to determine whether the policy is working effectively. These questions include:

1. Evaluation of the accuracy of wetland assessments being conducted;

¹⁹⁶ Service area is defined as the geographical area that encompasses a fish habitat bank and one or more conservation projects and where a fish habitat bank can reasonably be expected to provide appropriate measures to offset for the adverse effects on fish and fish habitat.

¹⁹⁷ See section 42.01 definitions and the Interim policy.

¹⁹⁸ *Fisheries Act*, RSC 1985, c F-14, s 42.03; Fisheries and Oceans Canada, “Interim Policy for Establishing Fish Habitat Banks to Support the Administration of the *Fisheries Act* and the *Species at Risk Act*” (February 2021) *Government of Canada* at 11 online: <https://waves-vagues.dfo-mpo.gc.ca/Library/40972239.pdf>. [Interim Policy].

¹⁹⁹ See Interim Policy *ibid.* at pages 12-14.

²⁰⁰ Kyle Hunt et al., “Fish Habitat Banking in Canada: Opportunities & Challenges” (2011) *Economic and Commercial Analysis Report 180* at 9-10 online: <https://waves-vagues.dfo-mpo.gc.ca/Library/347440.pdf>.

²⁰¹ Online: <https://www.albertalandinstitute.ca/public/download/daocuments/197482>.

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2. Evaluation of replacement effectiveness (for class and function);
3. Evaluation of effectiveness of mitigation hierarchy (and administrative rationale and decision making around avoidance, mitigation and compensation approaches);
4. Evaluation of restoration cost effectiveness; and
5. Evaluation of the use of in lieu fees.

(a) *Alberta Land Stewardship Act*

The *Alberta Land Stewardship Act* is the provincial land use planning statute that enables the creation of binding regional plans and enables various market based stewardship tools.²⁰² There are two plans currently in place: the Lower Athabasca Regional Plan and the South Saskatchewan Regional Plan.

The ALSA market-based stewardship tools can be designed and used to incent environmentally beneficial behaviours.²⁰³ For our purposes, it is important to focus on market-based instruments that provide a tool for developers to pay for their impacts on public land, as opposed to the other way around.

Some of the market tools enabled under the ALSA include a transfer of development credit scheme, a conservation offset scheme, stewardship units, and an exchange program. Each is highlighted briefly below.

i) Transfer of Development Credit Schemes

Transfer of Development Credit Schemes (“TDC”) focus on redirecting land development from less suitable areas into more suitable area, with suitability based on environmental impacts.²⁰⁴ The TDC scheme in the ALSA is made up of three main elements:²⁰⁵

1. Identification of a conservation area with one or more of the following purposes:²⁰⁶
 - a) the protection, conservation and enhancement of the environment;
 - b) the protection, conservation and enhancement of natural scenic or esthetic values;

²⁰² *Alberta Land Stewardship Act*, SA 2009, c A-26.8, s 1(2).

²⁰³ Adam Driedzic & Brenda Heelan Powell, “Buying a Better Environment? Market-Based Instruments & the *Alberta Land Stewardship Act*” (December 2016) *Environmental Law Centre* at 16 online: https://elc.ab.ca/wp-content/uploads/2016/12/MBI_Volume-1_Introduction-to-Market-Based-Instruments-the-Alberta-Land-Stewardship-Act.pdf.

²⁰⁴ *Alberta Land Stewardship Act*, SA 2009, c A-26.8, div 5.

²⁰⁵ Adam Driedzic & Brenda Heelan Powell, *supra* note 200.

²⁰⁶ *Alberta Land Stewardship Act*, SA 2009, c A-26.8, s 49(1)(a).

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- c) the protection, conservation and enhancement of agricultural land; or
 - d) land that provides for recreational space, open space, environmental education, or research and science.
2. Identification of a development area, the receiving area; and²⁰⁷
 3. A system of valuation and transfer or development potential from one parcel to another – done by transferable credits.

TDC schemes can be established by a regional plan or by local authority.²⁰⁸ While TDC schemes do not directly raise money for conservation, they represent another market-based option for polluters to ‘invest’ in conservation, in this case by developing areas that are already degraded.

ii) Conservation Offset Programs

The ALSA also enables the creation of conservation offset programs. According to the Act, these programs are intended to ‘counterbalance’ the effects of development activities.²⁰⁹ Regulations under this section can provide terms and conditions on activities; set limits on impacts; or establish stewardship units that can be traded to enhance conservation.²¹⁰

iii) Stewardship Units and the Land Exchange Program

Stewardship units are tradeable credits recognized under the ALSA and which can be used to manage conservation offsets, but which do not create an interest in land.²¹¹ They are a facilitative tool, facilitated in part by the creation of the exchange program which is an agency or authority to which market and credit-related functions are assigned.²¹²

Finally, the ALSA also enables the use of conservation easements and land transfers. The Act states that conservation easements may be used to protect, conserve, or enhance the “environment, natural scenic or aesthetic values, agricultural land or land for agricultural purposes.”²¹³ The ALSA also prescribes land

²⁰⁷ *Ibid.* s 49(1)(e).

²⁰⁸ *Alberta Land Stewardship Act*, SA 2009, c A-26.8, s 48(2).

²⁰⁹ *Ibid.* s 47(1). See also Poulton, D. (2015). Biodiversity and conservation offsets: a guide for Albertans. *Canadian Institute of Resources Law, CIRL Occasional Paper*, (48).

²¹⁰ *Ibid.* s 47(3).

²¹¹ *Ibid.* ss 46(1) & (2).

²¹² *Ibid.* s 45; Adam Driedzic & Brenda Heelan Powell, “Buying a Better Environment? Market-Based Instruments & the *Alberta Land Stewardship Act*” (December 2016) *Environmental Law Centre* at 34 online: https://elc.ab.ca/wp-content/uploads/2016/12/MBI_Volume-1_Introduction-to-Market-Based-Instruments-the-Alberta-Land-Stewardship-Act.pdf.

²¹³ *Alberta Land Stewardship Act*, SA 2009, c A-26.8, s 29(1).

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uses for conservation easements consistent with these purposes including recreational use, open space use, environmental education research and scientific studies of natural ecosystems.²¹⁴

Conservation easements can be granted to a qualified organization which includes the government, a government agency, a local government body, or a corporation that focuses on the acquisition and holding of land parcels for the same purposes as those deemed relevant for a conservation easement – usually a land trust.²¹⁵ In practice; however, most easements are held by land trusts, with municipalities being the second most common easement holder.²¹⁶

The ALSA establishes certain legal tools that may be used to fund conservation going forward. However, they are still underused, or unused, and therefore do not fulfill this purpose.

Recommended actions for Public Lands

Recommendation: The Government of Alberta should undertake an evaluation of whether the conditions on dispositions are reaching desired outcomes as set out in the Master Schedule of Standards and Conditions. This evaluation should be transparent and result in periodic public reporting.

Recommendation: The Government of Alberta should alter public land disposition fees to cover the costs of monitoring and evaluation of the effectiveness of disposition conditions to meet the stated desired outcomes in the Master Schedule of Standards and Conditions.

Public Land Access: Recreation Fees

Fees for recreation in Alberta protected areas and public lands have been seen increasing focus in the last 2 years. This section highlights some fees regarding public land access, recreation and camping.

In 2021, the provincial government implemented a new charge for camping on public lands.²¹⁷ On June 1, 2021, random camping on public land along the Eastern Slopes of the Rocky Mountains, ranging from

²¹⁴ *Ibid.* s 29(1)(d).

²¹⁵ *Alberta Land Stewardship Act*, SA 2009, c A-26.8, s 28(c).

²¹⁶ Adam Driedzic & Brenda Heelan Powell, “Buying a Better Environment? Market-Based Instruments & the *Alberta Land Stewardship Act*” (December 2016) *Environmental Law Centre* at 29 online: https://elc.ab.ca/wp-content/uploads/2016/12/MBI_Volume-1_Introduction-to-Market-Based-Instruments-the-Alberta-Land-Stewardship-Act.pdf.

²¹⁷ *Public Lands Camping Pass*, Ministerial Order 52/2021 online: <https://open.alberta.ca/dataset/c74dd25f-264f-4ce1-bb5c-289bc2745e02/resource/f394cc14-5555-49de-8a14-edc37717a19e/download/aep-ministerial-order-52-2021-public-lands-camping-pass.pdf>.

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Grande Prairie to Waterton comes with a fee.²¹⁸ The price is \$20/person for a 3-day pass or \$30/person for a yearly pass.²¹⁹ To implement this pass, section 9.1 of the *Public Lands Act* was amended to state, “the Minister may, by order, implement fees relating to the use of occupation of public land, including the carrying on of activities on public land.”²²⁰

In making this change, the government announced that funds generated by the public lands camping pass would go to enhance conservation in the area.²²¹ The allocation or spending of the collected fees is not prescribed in law. The preamble to the *Public Lands Amendment Act, 2021* does refer to the government’s commitment to using fees collected for recreation uses of public land for purposes related to the maintenance and management of public land and recreation and public safety on public land; however, the preamble is not binding.²²²

Parks and protected areas

Fees have started to be used in Alberta for parks and protected areas. Access to parks and other natural areas can impair (to varying degrees depending on use) ecosystem and watershed health. Further, planning, management and compliance to ensure the integrity of these areas is required.

Are user fees enabled?

*Provincial Parks Act*²²³

Under the *Provincial Parks Act* the Minister is enabled to require the payment of fees via order.²²⁴ This includes orders to:²²⁵

- set or provide mechanisms for setting, and otherwise provide for, fees relating to parks and recreation areas, including fees for
- i. their use and the use of facilities in them,
 - ii. the carrying on of activities there,

²¹⁸ *Public Lands Camping Pass*, Ministerial Order 52/2021, ss 16 & 4.

²¹⁹ *Public Lands Camping Pass*, Ministerial Order 52/2021, s 12.

²²⁰ *Public Lands Act*, RSA 2000, c P-40, s 9.1(1) (i.1).

²²¹ Government of Alberta, “Public Lands Camping Pass” online: https://www.alberta.ca/public-lands-camping-pass.aspx?utm_source=google&utm_medium=sem&utm_campaign=AEP&utm_term=PLCP&utm_content=v1&gclid=CjwKCAjw95yJBhAgEiwAmRrutEb1-pha586DoVbKisjGvAec4zOivilXGF0kRZsFsi6KiWcBNKckQhoCh_MQAvD_BwE.

²²² *Public Lands Amendment Act, 2021*, SA 2021, c 8, preamble; Kent Roach, “The Uses and Audiences of Preambles in Legislation” (2001) 47 McGill L.J. 129.

²²³ *Provincial Parks Act*, RSA 2000, c P-35.

²²⁴ *Ibid.* at s. 13(1)(b.1)

²²⁵ *Ibid.*

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- iii. dispositions and permissions or applications for them, and
- iv. the provision of goods, services and any other things in or relating to them;

*Wilderness Areas, Ecological Reserves, Natural Areas, and Heritage Rangelands Act:*²²⁶

Legislation related to other protected areas does not speak to the ability to impose fees for access to the land base.

Kananaskis Conservation Pass

The Kananaskis Conservation Pass (the “Pass”) came into force on June 1, 2021, applies to sites in Kananaskis Country and the Bow Valley.²²⁷ It was initially passed through Ministerial Order 51/2021, which is enabled under section 13 of the *Provincial Parks Act*, section 43.1 of the *Provincial Parks (General) Regulation*, section 9.1(1)(a)(i.1) of the *Public Lands Act*, and section 33.1 of the *Public Lands Administration Regulation*.²²⁸

According to the Order, a person must not operate a vehicle in the Pass Area unless they have obtained a Pass and registered their licence plate.²²⁹ Personal vehicles cost \$15 for a daily pass or \$90 for an annual pass.²³⁰ There are certain exemptions including for government vehicles; those living in the area; recipients of Assured Income for the Severely Handicapped, Income Support, or the Alberta Adult Health Benefits program; and First Nations people with status.²³¹

Specifically, with regard to any exemptions for lower income Albertans, approval must be obtained from an Exemptions Officer who may limit the number of vehicles to which the exemption applies, determine the time period of the exemption, and add any other terms or conditions.²³² This approach may also attach some degree of stigma to those who are forced to provide proof of income before getting an exemption and having to do so repeatedly. A better approach would be to proactively provide exemption passes on an annual basis to all those who qualify. Non-profits, schools, seniors, and those

²²⁶ *Wilderness Areas, Ecological Reserves, Natural Areas, and Heritage Rangelands Act*, RSA 2000, c W-9.

²²⁷ Government of Alberta, “Kananaskis Conservation Pass” online: <https://www.alberta.ca/kananaskis-conservation-pass.asp>.

²²⁸ *Kananaskis Conservation Pass Order*, Ministerial Order 51/2021 online: <https://open.alberta.ca/dataset/05c6aad1-c645-4915-aac4-fa281b2b666a/resource/b692f25b-0d05-49a2-afe2-ab082f4c960d/download/aep-ministerial-order-51-2021-kananaskis-conservation-pass.pdf>.

²²⁹ *Kananaskis Conservation Pass Order*, note 207 at s.3.

²³⁰ *Kananaskis Conservation Pass Order*, note 207 at s 8(a).

²³¹ *Kananaskis Conservation Pass Order*, note 207 at ss 11-14; *Public Lands Administration Regulation*, Alta Reg 187/2011, s 33.1(2).

²³² *Kananaskis Conservation Pass Order*, Ministerial Order 51/2021 at s 16 online: <https://open.alberta.ca/dataset/05c6aad1-c645-4915-aac4-fa281b2b666a/resource/b692f25b-0d05-49a2-afe2-ab082f4c960d/download/aep-ministerial-order-51-2021-kananaskis-conservation-pass.pdf>.

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low-income families who do not qualify for one of the listed programs are not exempt from the program.²³³

Government information regarding the funds indicate that the money will be used for conservation, safety and maintenance of the areas however, there is no regulatory provision that prescribes how the money raised is spent.²³⁴

Notably, just shy of 6 months after the implementation of the Pass, the Government of Alberta announced they had sold 253,000 passes resulting in \$10 million in revenue.²³⁵ An October 2021 news release stated revenue from the Pass was spent hiring conservation officers, reopening two visitor centres, grooming cross-country ski trails, and increased public safety through incident response services and traffic management.²³⁶ It remains to be seen if these funds are treated as “additional” to existing budgets or if budget cuts are offset.

The scope and range of user fees applied in Alberta is not applied equally. While other recreation users may pay fees, such as Off Highway Vehicle registration, there is no connection to those fees and environmental management outcomes at a local or provincial level. In this regard, if user fees are to be used, they should be clearly connected to the impairment and degradation of the environment and used to ensure there is broader environmental management gains being made.

Recommendation: If access to parks and protected areas maintain the user fee system reforms to the current user fee system to capture higher intensity uses such as off-high vehicles (over and above vehicle registration fees). These fees should be directly linked to mitigation and restoration of impaired areas, and to increased monitoring and enforcement of environmental laws as they relate to recreational impacts.

²³³ Government of Alberta, “Kananaskis Conservation Pass” online: <https://www.alberta.ca/kananaskis-conservation-pass.aspx>.

²³⁴ See Shaun Fluker, “Kananaskis Conservation Pass” (7 June 2021) *ABLawg* online: <https://ablawg.ca/2021/06/07/kananaskis-conservation-pass/>.

²³⁵ Minister of Environment and Parks, News Release, “Kananaskis Conservation Pass on track for success” (18 October 2021) online: <https://www.alberta.ca/release.cfm?xID=80172C5906E90-94DC-88D1-0E73B2EE73065E4C>.

²³⁶ *Ibid.*

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Part 2: Green investments

In this section, we look at conservation financing available to governments, corporations and private individuals whether through loans, investments in securities, or other financing arrangements. While any investment decision may be characterized by some aspect of “environmental impact” and risk we look to specific tools within the context of “green investment” vehicles for use by the provincial government and Alberta municipalities.

Green Bonds

Green bonds are fixed-income securities that raise capital for ‘green’ projects or projects with specific environmental benefits.²³⁷ They offer an opportunity for individuals to invest in environmentally minded projects and for green bond issuers to raise a fixed amount of capital – which must eventually be repaid in full (both principal and accrued interest). While green bonds are functionally the same as conventional bonds, they are constrained by the type of project they support.

One benefit is that green bonds can help attract new investors who are focused on environmental, social and governance (“ESG”) investment opportunities, bring attention to environmental and sustainability issues, and promote the issuer’s environmental projects or pedigree.²³⁸ While eligible projects vary by jurisdiction, green bonds have mainly been used to date to fund infrastructure projects like sustainable transportation, energy efficiency retrofits, and renewable energy projects.²³⁹ It is less

²³⁷ Karolina Kosciolok et al., “Financing Conservation: How conservation financing could be used to protect Canada’s ecosystems” (November 2020) at 43 online: <https://metcalfoundation.com/site/uploads/2020/12/Financing-Conservation-in-Canada.pdf>; Government of Ontario Financing Authority, “Ontario Green Bond Q&A’s”, online (pdf): https://www.ofina.on.ca/pdf/green_bond_qa.pdf.

²³⁸ CAIA Association, “An Introduction to Green Bonds” (2016) Alternative Investment Analyst Review Quarter 2 at 7, online: https://caia.org/sites/default/files/AIAR_Q2_2016_02_GreenBonds.pdf.

²³⁹ Environmental Law Centre, “Paying for conservation: Municipal powers to generate revenue for conservation” (May 2021) Community Conserve at 28 online: https://www.communityconserve.ca/wp-content/uploads/2021/05/Paying-for-Conservation_final-May-17-2021.pdf.

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common for green bonds to be used to fund land conservation, primarily because it is difficult to generate cash flow sufficient to generate the cash flow necessary to repay investors.²⁴⁰

To date, most green bonds issued in Canada have been either treasury-style retail bonds, with a fixed rate of interest and redeemable in full on maturity, or asset-backed securities tied to specific green infrastructure projects.²⁴¹

Green bonds in Alberta

Green bonds have not been formerly promoted by the government in Alberta. At the municipal level in Alberta the use of green bonds is limited due to debt limits on municipalities imposed by legislation. Specifically, the *Municipal Debentures Act* permits municipalities, school divisions, irrigation districts, and other similar public corporations to issue debentures, bonds, or other obligations.²⁴² Alberta municipalities could likely issue green bonds for select conservation projects or as hybrid bonds with transit or clean energy improvements.

The difficulty is that green bonds would be added to municipal debt and therefore municipalities would need to ensure the amount did not cause the municipality to exceed its debt limit.²⁴³ Municipal debt limits are set out in regulations which define the debt and may establish different methods of determining debt limits and different definitions of debt for different municipalities.²⁴⁴

A debt is incurred as a result of the municipal “borrowing” money. While the general phrase of “borrowing money” is not defined in the MGA the scope of phrase is aligned with the *Municipal Debentures Act*.

There is an exception to when the debt limit is engaged and this is for green investment for energy retrofitting is enabled under the *Municipal Government Act*, in the form of *Clean Energy Improvement Tax*.²⁴⁵ Rather than a typical “tax” the clean energy improvement program is a mechanism by which the municipality may facilitate a landowner doing specific retrofits and the resulting debt is linked to municipal taxes. Importantly, the money borrowed by the municipality to pay the costs of the clean energy improvement are not included in the debt limit under the *Act*.²⁴⁶

²⁴⁰ Nature United “A Blueprint for Action: Conservation Finance to Support Canada’s Target 1” (2018) at 5 online: <https://www.natureunited.ca/content/dam/tnc/nature/en/documents/canada/A-Blueprint-for-Action-%20Nature-United.pdf>.

²⁴¹ Karolina Kosciolk et al., *supra* note 234.

²⁴² *Municipal Debentures Act*, RSA 2000, c M-25, s. 1.

²⁴³ *Municipal Government Act*, ss 252(1) & 268.

²⁴⁴ *Ibid.*, s 271.

²⁴⁵ *Ibid.* ss. 390.1-390.9.

²⁴⁶ *Ibid.* s. 252(2).

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At the provincial level, there is no legislated limit on debt, and it is likely the province could acquire green bonds without being limited in this way.

While green bonds have not been widely used in Alberta to date recent events have seen the landscape of investment evolving. For instance, Aimco Realty (the real estate focused aspect of the provincially owned AIMco) published its Green Financing Framework in 2021, with a focus on energy efficiency, renewable energy, and sustainable water and wastewater management (among other climate and environmentally focused areas).²⁴⁷

Federally, the Government of Canada is also issuing green bonds, with its Green Bond Framework being published in March of 2022. The Framework outlines eligible project categories, including clean transportation, “living natural resources & land use” and energy efficiency, renewable energy, circular economy, water management, and measures focused on conservation of terrestrial and aquatic biodiversity (among others).²⁴⁸ the Framework identifies supporting implementation and evaluation measures as well as indicators of impact.²⁴⁹

Private Green Financing

Green financing offers another opportunity to invest in green projects with less restrictions than green bonds or community revitalization levies. It can be defined in many ways, but one definition comes from the Principles of Responsible Investment which is a UN organized group of investors who, in 2005, came up with a set of principles intended to clarify environmental, social, and corporate governance (“ESG”) goals in the investment realm.²⁵⁰ The six ‘Principles for Responsible Investment’ are:²⁵¹

1. We will incorporate ESG issues into investment analysis and decision-making processes;
2. We will be active owners and incorporate ESG issues into our ownership policies and practices;
3. We will seek appropriate disclosure on ESG issues by the entities in which we invest;
4. We will promote acceptance and implementation of the Principles within the investment industry;

²⁴⁷ AIMco Realty, Green Financing Framework, September 2021, online: <https://assets.ctfassets.net/lyt4cjmfjino/55VnlKy69neHZ52zO6wQka/1a7af25232733e5361fa15b56bfdcc2e/AIMCoRealty-GreenFinancingFramework.pdf>.

²⁴⁸ Government of Canada, Green Bond Framework, online: https://www.canada.ca/content/dam/fin/publications/green-bond/21265%20Green%20Bond%20Framework_EN.pdf.

²⁴⁹ *Ibid.*

²⁵⁰ Principles for Responsible Investment, “About the PRI” online: <https://www.unpri.org/pri/about-the-pri>.

²⁵¹ Principles for Responsible Investment, “About the PRI” online: <https://www.unpri.org/pri/about-the-pri>.

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5. We will work together to enhance our effectiveness in implementing the Principles; and
6. We will each report on our activities and progress towards implementing the Principles.

While the Principles of Responsible Investment cite climate change as the highest priority for investment, ESG goals such as sustainable land use, biodiversity, and water as environmental issues have also been considered.²⁵² For example, in their investor’s report on biodiversity, the Principles of Responsible Investment group suggests “[i]nvestors can seek to drive positive biodiversity outcomes and reduce negative outcomes by encouraging their investees to implement the Mitigation Hierarchy, which guides users towards limiting the negative impacts on biodiversity from their activities.”²⁵³ Notably, the Principles for Responsible Investment group defines biodiversity as “the variety of natural capital’s living components (for example, species and habitats) [with] a role in ensuring resilience of other natural capital assets and securing them for the future.”²⁵⁴

However, green financing is still limited in comparison with other investment strategies. For example, the multi-national consulting firm McKinsey argued that funding for environmental conservation globally needed to increase by close to \$350 billion per year.²⁵⁵ One of the challenges that arises when we work to close this gap is that it not only takes a long time to realize the profits of a conservation investment but the risk often outweighs the potential returns and it is hard to monetize the benefits that do exist.²⁵⁶ For example, how do we measure monetary benefits associated with maintaining biodiversity or mitigating against future losses? On the legal side, a clear and consistent regulatory and approval process for proposed projects will ensure investor confidence and help to increase private financing toward conservation goals.

Further, even when green financing can offer both a financial and conservation ‘return’ on investment, they are generally smaller and offer a lower rate of return than traditional investment funds.²⁵⁷ This means that there is less discussion of action on biodiversity in the investment world than on climate change and, specifically, there are far less mentions of biodiversity, ecosystem services, and natural

²⁵² Principles for Responsible Investment, “Environmental, social and governance issues” online: <https://www.unpri.org/sustainability-issues/environmental-social-and-governance-issues>.

²⁵³ Principles for Responsible Investment, “Investor Action on Biodiversity: Discussion Paper” at 5 online: <https://www.unpri.org/download?ac=11357>.

²⁵⁴ *Ibid.* at 9.

²⁵⁵ Ryan Davies et al., “Taking conservation finance to scale” (1 November 2016) *McKinsey Sustainability* online: <https://www.mckinsey.com/business-functions/sustainability/our-insights/taking-conservation-finance-to-scale>.

²⁵⁶ Fabian Huwyler et al., “Conservation Finance: Moving beyond donor funding toward an investor-driven approach” (January 2014) Credit Suisse, *WWF & McKinsey* at 20 online: <https://www.cbd.int/financial/privatesector/g-private-wwf.pdf>; Ryan Davies et al., “Taking conservation finance to scale” (1 November 2016) *McKinsey Sustainability* online: <https://www.mckinsey.com/business-functions/sustainability/our-insights/taking-conservation-finance-to-scale>.

²⁵⁷ WWF, “Guide to Conservation Finance: Sustainable Financing for the Planet” at 36 online: http://awsassets.panda.org/downloads/wwf_guide_to_conservation_finance.pdf.

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capital in comparison with climate and water.²⁵⁸ Another challenge that investors interested in ‘green’ financing for conservation face is the lack of data and metrics defining what ‘green’ means and outlining which investment opportunities fulfill these goals. This often means that investors need to develop their own tools to do this, making these investment opportunities more inaccessible.²⁵⁹

While limited, there are certain tools available to evaluate investment options including the recently announced Task Force for Nature Disclosure²⁶⁰ and other online tools. See [Exploring Natural Capital Opportunities, Risks and Exposure](#) and [SPOTT](#) as examples.

Quality Control of Green Bonds/Securities

The International Capital Market Association recognized this challenge on a global scale and responded by creating what are known as the Green Bond Principles (“GBP”).²⁶¹ The GBP are voluntary guidelines intended to help streamline and clarify the issuance of green bonds and consist of four main components.²⁶²

1. **Use of Proceeds:** all designated projects should provide clear environmental benefits including climate change mitigation, climate change adaptation, natural resource conservation, biodiversity conservation, and pollution prevention and control. Examples of eligible projects include environmentally sustainable management of living natural resources and land use, terrestrial and aquatic biodiversity conservation, and sustainable water and wastewater management;
2. **Process for Project Evaluation and Selection:** the issuer of a green bond should indicate the environmental sustainability objectives, process by which the issuer determines how the project fits within eligible categories, and any related eligibility criteria;
3. **Management of Proceeds:** the net proceeds of the green bond should be credited into a separate account or portfolio or otherwise tracked to ensure that the funds are being used for an appropriate purpose; and

²⁵⁸ Principles for Responsible Investment, “Investor Action on Biodiversity: Discussion Paper” at 16 online: <https://www.unpri.org/download?ac=11357>.

²⁵⁹ *Ibid.*

²⁶⁰ Task Force dedicated to understanding and explaining the risks and opportunities to an organization posed by the linkages between its activities and nature.

²⁶¹ International Capital Market Association, “Green Bond Principles: Voluntary Process Guidelines for Issuing Green Bonds” (June 2018) online: <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Green-Bonds-Principles-June-2018-270520.pdf>.

²⁶² *Ibid.*

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4. **Reporting:** green bond issuers should make and keep available, and up to date, all data on the use of the proceeds on an annual basis, including information about the projects that have received allocated funds.

While these criteria are voluntary, they can provide clear guidance for investors and bond issuers. Similar tools exist around the world including the Climate Bonds Standard & Certification Scheme released by the Climate Bonds Initiative.²⁶³ This is a similar international best practice for labelling green investments and is aligned with the GBP.²⁶⁴

The standards for green bonds have been evolving to ensure that investors are getting what they paid for. Green bond standards are evolving across the globe, include the EU Green Bond Standard, ASEAN Green Bond Standards, Japan's Green Bond Guidelines, and India's Disclosure and Listing Requirements for Green Bonds. However, the GBP are some of the most widely recognized.²⁶⁵ For example, the Luxembourg Green Exchange²⁶⁶ recognizes the GBP and the Climate Bonds Initiative when approving projects to include on their platform.²⁶⁷

Green Bonds Around the World

At the international level, the World Bank is a major issuer of green bonds. In fact, they funded the inaugural green bond in 2008.²⁶⁸ Since then, they have provided a summary of projects that have been financed through this tool including those focused on conservation such as:²⁶⁹

²⁶³ Climate Bonds Initiative, "Climate Bonds Standard Version 3.0" (December 2019) online: <https://www.climatebonds.net/files/files/climate-bonds-standard-v3-20191210.pdf>.

²⁶⁴ *Ibid* at 3.

²⁶⁵ See e.g.: Echo Kaixi Wang, "Financing Green: Reforming Green Bond Regulation in the United States" (2018) 12:2 Brook J Corp Fin & Com L 467 at 475-476; David A. Seville et al., "Green bonds and beyond: sustainable finance in the capital markets" (23 March 2021) Torys LLP and U.S. Department of Energy, "What are green bonds?" Better Buildings Financing online: <https://betterbuildingssolutioncenter.energy.gov/financing-navigator/option/green-bonds>; Federal Ministry of Finance, "Green bond allocation report 2020" (April 2021) Federal Republic of Germany at 6 online: <https://www.bundesfinanzministerium.de/Content/EN/Standardartikel/Topics/Priority-Issues/Climate-Action/green-german-federal-securities-restricted/green-bond-allocation-report-2020.pdf>.

²⁶⁶ The Luxembourg Green Exchange is a dedicated platform for securities that are verified as green and listed on one of the Luxembourg Stock Exchange markets.

²⁶⁷ Luxembourg Stock Exchange, "FAQ – Bonds on the Luxembourg Green Exchange" online: <https://www.bourse.lu/faq-lgx-bonds>.

²⁶⁸ The World Bank, "10 Years of Green Bonds: Creating the Blueprint for Sustainability Across Capital Markets" (18 March 2019) online: <https://www.worldbank.org/en/news/immersive-story/2019/03/18/10-years-of-green-bonds-creating-the-blueprint-for-sustainability-across-capital-markets#:~:text=Less%20than%20a%20year%20later,a%20specified%20amount%20of%20time>.

²⁶⁹ World Bank's Capital Markets Department, "Green Bond Impact Report 2019" (November 2019) *The World Bank* online: <https://pubdocs.worldbank.org/en/790081576615720375/IBRD-Green-Bond-Impact-Report-FY-2019.pdf>.

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- forest development in China intended to increase forest cover to create wind breaks and shelterbelts;²⁷⁰
- protection and sustainable management of coral reefs in Indonesia;²⁷¹ and
- improved management of marine areas and fisheries in the Seychelles.²⁷²

In the United States, Fannie Mae is one of the largest issuers of green bonds.²⁷³ These bonds are tied to properties that receive Green Building Certifications or that are working to retrofit housing to become more energy and water efficient.²⁷⁴ In the private sector, Apple has issued a \$4.7 billion green bond to fund green energy projects, green buildings, and robotic technology.²⁷⁵

Internationally, in 2020, the German government allocated €11.5bn towards green securities.²⁷⁶ While the majority of this money was allocated towards enhancing a high-quality rail network, 3% was allocated for sustainable agriculture, coastal protection and flood prevention as well as the protection of habitats and biodiversity.²⁷⁷ Selected expenditures were also based on the criteria listed in the GBP.²⁷⁸ Clearly, green bond is a buzz word but there is limited monitoring or enforcement to ensure the capital raised is being used to accomplish the stated goals.

Proposed Green Bond Regulation in the European Union

The European Union have proposed “a set of rules that issuers of green bonds must follow in order to call a bond a ‘European green bond’ or ‘EuGB’”.²⁷⁹ To this end the European Commission published a

²⁷⁰ *Ibid.* at 38.

²⁷¹ *Ibid.* at 40.

²⁷² *Ibid.* at 42.

²⁷³ Fannie Mae is a United States government backed mortgage financier.

²⁷⁴ Fannie Mae, “Multifamily Green MBS” online: <https://capitalmarkets.fanniemae.com/sustainable-bonds/green-bonds/multifamily-green-mbs>; Liam Jones, “Record \$2.69.5bn green issuance for 2020: Late surge sees pandemic year pip 2019 total by \$3bn” (24 January 2021) Climate Bonds Initiative online: <https://www.climatebonds.net/2021/01/record-2695bn-green-issuance-2020-late-surge-sees-pandemic-year-pip-2019-total-3bn>.

²⁷⁵ Apple, “Apple’s \$4.7 billion Green Bond spend is helping to create 1.2 gigawatts of clean power” (17 March 2021) *Press Release* online: <https://www.apple.com/ca/newsroom/2021/03/apples-four-point-seven-billion-green-bond-spend-is-helping-to-create-one-point-two-gigawatts-of-clean-power>.

²⁷⁶ Federal Ministry of Finance, “Green bond allocation report 2020” (April 2021) *Federal Republic of Germany* at 3 online: <https://www.bundesfinanzministerium.de/Content/EN/Standardartikel/Topics/Priority-Issues/Climate-Action/green-german-federal-securities-restricted/green-bond-allocation-report-2020.pdf>.

²⁷⁷ Federal Ministry of Finance, “Green bond allocation report 2020” (April 2021) *Federal Republic of Germany* at 3 online: <https://www.bundesfinanzministerium.de/Content/EN/Standardartikel/Topics/Priority-Issues/Climate-Action/green-german-federal-securities-restricted/green-bond-allocation-report-2020.pdf?blob=publicationFile&v=3>.

²⁷⁸ Federal Ministry of Finance, “Green bond allocation report 2020” (April 2021) *Federal Republic of Germany* at 6 online: <https://www.bundesfinanzministerium.de/Content/EN/Standardartikel/Topics/Priority-Issues/Climate-Action/green-german-federal-securities-restricted/green-bond-allocation-report-2020.pdf?blob=publicationFile&v=3>.

²⁷⁹ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on European green bonds COM/2021/391 final, online: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0391>.

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proposed regulation to standardize certain aspects of green bonds in 2021.²⁸⁰ Adoption of the standard is still voluntary by issuers and is aimed at elevated “transparency and environmental credibility”.²⁸¹

The proposed regulation states that the framework “can be used as a benchmark to classify whether an economic activity and, by extension, related assets or projects are green”.²⁸² The proposed approaches would integrate the requirements to be defined as “green” within the context of the existing Taxonomy Regulation.²⁸³ This approach to green bond standards would seek to harmonize approaches to green bond standards among member states.

The proposed regulation sets out the types of expenditures that may qualify as green bonds (and other securitizations), and incorporates the framing of “environmentally sustainable economic activities”, objectives and selection criteria set out in Regulation 2020/852.²⁸⁴ Registered external reviewers must comply with extensive provisions and provide an oversight/audit function: reviewing the green credibility of the bonds.²⁸⁵ The proposed regulations also set out requirements for green bond reporting and impact reporting.²⁸⁶ Further the regulation articulates oversight powers and sanctions.²⁸⁷

Green Bonds in Canada

Ontario is currently the largest issuer of green bonds in Canada.²⁸⁸ The Ontario government issues green bonds for five categories of project:²⁸⁹

1. Clean Transportation;
2. Energy Efficiency and Conservation;
3. Clean Energy and Technology;
4. Forestry, Agriculture, and Land Management; and
5. Climate Adaptation and Resilience.

²⁸⁰ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on European green bonds COM/2021/391 final, online: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52021PC0391>.

²⁸¹ *Ibid.* at 8.

²⁸² *Ibid.* at 2.

²⁸³ *Ibid.*

²⁸⁴ REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088.

²⁸⁵ *Ibid.* at CH II, article 8 and Title 3, articles 14-35.

²⁸⁶ *Ibid.*

²⁸⁷ *Ibid.*

²⁸⁸ Dr. Cameron S.G. Jefferies & Erin Sawyer, “Subsidiarity in Action: Effective Biodiversity Conservation and Municipal Innovation” (October 2019) at 86-87.

²⁸⁹ Ontario Green Bond Q&A’s online: https://www.ofina.on.ca/pdf/green_bond_qa.pdf.

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While all five categories may indirectly impact upon conservation, the category of ‘forestry, agriculture, and land management’ is most relevant to our definition of conservation. Projects that have been eligible under this category include:²⁹⁰

- sustainable forest management;
- environmentally sustainable agriculture; and
- the preservation and restoration of natural landscapes.

Additionally, eligible projects under the heading of climate adaptation and resilience have included wastewater and stormwater management projects.²⁹¹

In addition to the provincial program, the City of Ottawa launched its green debenture program in 2017 and has issued \$602 million to date.²⁹² Proceeds have mainly been used to fund an LRT expansion. The City of Toronto also issued its first green bond in 2018, and after two rounds, has issued \$500 million in bonds.²⁹³ Proceeds have been used to fund subway expansions, community housing energy retrofits, and solar PV projects (among others).²⁹⁴ Outside of Ontario, Export Development Canada, the province of Quebec, and the city of Vancouver have all issued green bonds.²⁹⁵

The federal government has also announced a green bond program with \$5 billion from the 2021 budget earmarked for the same.²⁹⁶ While details about the program have yet to be released, the federal government has indicated this is the first of many green bond issuances and that ‘nature conservation’ is eligible.²⁹⁷

²⁹⁰ Ontario Green Bond Framework online: https://www.ofina.on.ca/pdf/green_bond_framework.pdf.

²⁹¹ Ontario Green Bond Framework online: https://www.ofina.on.ca/pdf/green_bond_framework.pdf.

²⁹² City of Ottawa, “City of Ottawa Green Debenture Framework”, online: <https://ottawa.ca/en/business/research-and-data/investor-relations/green-bonds-city-ottawa>.

²⁹³ City of Toronto, “Green Debenture Program”, online: <https://www.toronto.ca/city-government/budget-finances/city-finance/investor-relations/green-debenture-program/>.

²⁹⁴ City of Toronto, “Green Bond Newsletter” (August 2020) online: <https://www.toronto.ca/wp-content/uploads/2020/07/9616-GreenBondNewsletter-v4a.pdf>.

²⁹⁵ Export Development Canada, “2020 Green Bond Impact Report” online: https://www.edc.ca/content/dam/edc/en/non-premium/green_bond_report_2020.pdf; Government of Quebec, “Green Bond Program” online: http://www.finances.gouv.qc.ca/en/RI_GB_Green_Bonds.asp; City of Vancouver, “Green Bond Annual Update September 2020” online: <https://vancouver.ca/files/cov/city-of-vancouver-annual-green-bond-information-update-2020.pdf>.

²⁹⁶ Government of Canada, “Budget 2021 A Recovery Plan for Jobs, Growth, and Resilience” at 166 online: <https://www.budget.gc.ca/2021/home-accueil-en.html>.

²⁹⁷ *Ibid.*

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Are Regulatory Standards for Green Securities/Bond enabled in Alberta and Canada?

In Canada, bonds issued by the federal government are regulated under the *Financial Administration Act*.²⁹⁸ In this Act, securities are defined as including “bonds, notes, deposit certificates, non-interest bearing certificates, debentures, treasury bills, treasury notes and any other security representing part of the public debt of Canada.”²⁹⁹ This Act enables the Governor in Council to make regulations for the inscription and registration of securities; the transmission, transfer, redemption, and cancellation of securities; and the issue of security certificates – among other topics.³⁰⁰

The Regulation specific to bonds is the *Domestic Bonds of Canada Regulation* which sets out the requirements for bond registration including transferring ownership, rules for minors, and lost certificates.³⁰¹ This regulation could be amended to include specific requirements related to green bonds in a similar fashion as proposed in the EU (described further below).

At the federal level, the 2019 “Final Report of the Expert Panel on Sustainable Finance” made a number of recommendations including a recommendation for the expansion of Canada’s green fixed income market – which includes bonds.³⁰² They highlight the problem with inconsistent definitions for ‘green’ bonds and recommend consistent taxonomies and accreditation standards. They suggest that Finance Canada, Canada’s financial institutions, and the Canadian Standards Association would be the group to collaborate on “establishing a Taxonomy Technical Committee (TTC) to develop Canadian green and transition-oriented fixed income taxonomies.”³⁰³ They argue that Canada should “adopt a single internationally-aligned taxonomy encompassing not just green definitions, but a broader mapping of transition and resiliency-linked economic activities and asset classes” but highlight that this will be a major undertaking, in part because of the coordination required.³⁰⁴

Further, the *Canada Business Corporations Act* – Part XIV ‘Financial Disclosure’ could be modified to include disclosure related to environmental or climate change risks.³⁰⁵ The Expert Panel on Sustainable Finance suggested encouraging “provincial governments to consider phasing in a TCFD framework to

²⁹⁸ *Financial Administration Act*, RSC 1985, c F-11.

²⁹⁹ *Financial Administration Act*, RSC 1985, c F-11, s 2.

³⁰⁰ *Financial Administration Act*, RSC 1985, c F-11, ss 60(1)(a), (b), & (c).

³⁰¹ *Domestic Bonds of Canada Regulations*, CRC c 698.

³⁰² Tiff Macklem et al., “Final Report of the Expert Panel on Sustainable Finance: Mobilizing Finance for Sustainable Growth” (2019) *Finance Canada & Environment and Climate Change Canada* at pg. 27 Recommendation 9 online: https://publications.gc.ca/collections/collection_2019/eccc/En4-350-2-2019-eng.pdf.

³⁰³ *Ibid* at pg. 29 Recommendation 9.1.

³⁰⁴ *Ibid*.

³⁰⁵ *Canada Business Corporations Act*, RSC 1985, c C-44; Tiff Macklem et al., “Final Report of the Expert Panel on Sustainable Finance: Mobilizing Finance for Sustainable Growth” (2019) *Finance Canada & Environment and Climate Change Canada* at pg. 19 Recommendation 5.3 online: https://publications.gc.ca/collections/collection_2019/eccc/En4-350-2-2019-eng.pdf.

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guide the disclosures of provincial Crown corporations.”³⁰⁶ This would enable the same disclosure requirements and could be done by the provincial governments including Alberta.

For privately issued securities, the Expert Panel on Sustainable Finance recommended a focus on encouraging the Toronto Stock Exchange to help “set a minimum reporting standard” and “be more transparent in their own disclosures” as they relate to environmental issues (or successes) of the companies being invested in.³⁰⁷

In Alberta, the bond market is managed by the Alberta Securities Commission (“ASC”) through the *Securities Act* which defines a ‘security’ to include bonds.³⁰⁸ Part 7 of the Act regulates the trading of securities and derivatives generally, including requirements for the confirmation of trades, prohibited transactions, as well as disclosure and representation requirements.³⁰⁹ The ASC purports to harmonize their rules with other securities regulators in Canada – called National Instruments (Multilateral Instruments if not all jurisdictions are on board.)³¹⁰ Rules include disclosure obligations and reporting requirements.³¹¹

Under the *Securities Act*, section 223 enables the Lieutenant Governor in Council to make regulations governing trades including advertising relating to trading in securities and derivatives and respecting the listing and trading of securities.³¹² This could enable the creation of a regulation limiting how a green bond could be advertised and/or listed. Regulations can also be passed “requiring any information, documents, records or other materials to be filed, furnished, or delivered” which could be used to require certain disclosure requirements for green bonds.³¹³ The regulation-making power is very broad in this section. Currently, disclosure requirements include annual audited financial statements, quarterly/interim financial statements, annual information forms, and more and are obligations set out under the “National Instrument 51-102 Continuous Disclosure Obligations’.³¹⁴ Disclosure requirements could be updated to include information regarding the use of security proceeds including for ‘green’ projects.

Provincially issued green securities would be regulated by the Alberta Securities Commission. This is beneficial in part because the ASC is also focused on harmonizing standards across jurisdictions. The

³⁰⁶ Tiff Macklem et al., “Final Report of the Expert Panel on Sustainable Finance: Mobilizing Finance for Sustainable Growth” (2019) *Finance Canada & Environment and Climate Change Canada* at pg. 19 Recommendation 5.3 online: https://publications.gc.ca/collections/collection_2019/eccc/En4-350-2-2019-eng.pdf.

³⁰⁷ *Ibid.* at p 20 online: https://publications.gc.ca/collections/collection_2019/eccc/En4-350-2-2019-eng.pdf.

³⁰⁸ *Securities Act*, RSA 2000, c S-4, s 1(ggg).

³⁰⁹ *Securities Act*, RSA 2000, c S-4, ss 90, 92, 93, 98, & 101.

³¹⁰ Alberta Securities Commission, “Securities Law & Policy” online: <https://www.asc.ca/en/securities-law-and-policy>.

³¹¹ Alberta Securities Commission, “Regulatory Instruments” online: <https://www.asc.ca/en/Securities-Law-and-Policy/Regulatory-Instruments>.

³¹² *Securities Act*, RSA 2000, c S-4, ss 223(a)(i) & (iii).

³¹³ *Securities Act*, RSA 2000, c S-4, s 223(b).

³¹⁴ National Instrument 51-102, “Continuous Disclosure Obligations” (18 Nov 2020) online: <https://www.asc.ca/-/media/ASC-Documents-part-1/Regulatory-Instruments/2018/10/5931703-v1-51-102-NI-Consolidation-Eff-November-18-2020.ashx>.

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Canadian Securities Administrators is the umbrella organization for securities commissions across Canada and has the objective to “improve, coordinate and harmonize regulation of the Canadian capital markets.”³¹⁵

Before 2020, the Alberta Capital Finance Authority was the organization responsible to act as a “financial agent for a local authority that is a shareholder in negotiating loans for the local authorities” – including municipalities.³¹⁶ However, the *Alberta Capital Finance Authority Act* was repealed and replaced by the *Local Authorities Capital Financing Act*.³¹⁷ Alberta Municipalities (previously the AUMA) passed a resolution advocating for the continuation of municipal bonds in 2020 after the dissolution of the Alberta Capital Finance Authority.³¹⁸ An update in 2022 notes that there is still no regulatory framework in place for municipalities to issue their own bonds.³¹⁹

The *Municipal Debentures Act* enables a municipality, school division, irrigation district, or other public corporation with the power to issue a bond to make the bond payable to the bearer or another person named in the bond and to sell the instrument at a price less than the amount set out in the legislative authority unless specifically prohibited from doing so.³²⁰

Regulatory Standards for Green Securities would require some changes to regulation but appear to be enabled through existing law. Guidance around green securities continue to evolve however a regulatory standard, both provincially and federally, does not appear to be likely to be passed in the near future.

Standardizing bonds and bond impact oversight in Canada and Alberta

Alberta’s foray into green bonds is largely limited to private firms and Crown corporations, such as AIMco marketing opportunities around “green” initiatives. This leaves it to individual investors to determine the efficacy of the environmental impacts resulting from the investments. Similarly, federally issued bonds are difficult to evaluate with certainty about their green impacts.

³¹⁵ Canadian Securities Administrators, “FAQ” online: <https://www.securities-administrators.ca/frequently-asked-questions/>.

³¹⁶ Alberta Capital Finance Authority, “ACFA Mandate” online: https://www.alberta.ca/AGS-directory/MR_8_acfa-roles-and-mandate.pdf.

³¹⁷ *Local Authorities Capital Financing Act*, SA 2019, c L-20.8.

³¹⁸ Alberta Municipalities: Strength In Members, “Continuation of Municipal Bonds in Alberta” (2020) online: <http://www.abmunis.ca/resolution/continuation-municipal-bonds-alberta>.

³¹⁹ Alberta Municipalities: Strength In Members, “Below-Market Rate Loans No Longer Offered to Local Authorities” (19 Jan 2022) online: <https://www.abmunis.ca/news/below-market-rate-loans-no-longer-offered-local-authorities>.

³²⁰ *Municipal Debentures Act*, RSA 2000, c M-25, s 1(1).

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At both the federal and provincial level there would be increased accountability and transparency in standardizing green securities and regulation. It is likely that investors will need to push to have these changes made.

Recommendation: To ensure accountability and transparency for green investments provincial and federal regulatory standards for securities to qualify as “green” should be promulgated. This approach can be modeled after the EU draft regulation.

Community Revitalization Levies

Community revitalization levies (“CRL”) are another financial tool that may be used to borrow money for conservation at the municipal level.³²¹ CRL are enabled under the *Municipal Government Act* and are defined as a “levy in respect of the incremental assessed value of property in a community revitalization levy area to raise revenue to be used toward the payment of infrastructure and other costs associated with the redevelopment of property in the community revitalization levy area.”³²² A CRL authorizes council to impose a levy in respect of the incremental assessed value of property in a community revitalization area to raise revenue to be used for infrastructure and other costs associated with redevelopment of the area.³²³

These levies can be used for development, infrastructure, and environmental clean-up and, in most cases, last for 20 years.³²⁴ The Government of Alberta notes that some of the “benefits” of CRLs are that they can be used to clean up environmental damage in areas where development is needed and improve environmental conditions through new building practices.³²⁵ Therefore, ostensibly a CRL could be used for conservation purposes – for example to create an urban green space. They work on the principle that public-space improvements will attract private investment and development, leading to higher property taxes which are used to repay the borrowed funds.³²⁶

Generally, the test to determine whether a CRL is appropriate for development in the area involves two steps – the “but for” test and the “blight” test.³²⁷

³²¹ Environmental Law Centre, “Paying for conservation: Municipal powers to generate revenue for conservation” (May 2021) *Community Conserve* at 14 online: https://www.communityconserve.ca/wp-content/uploads/2021/05/Paying-for-Conservation_final-May-17-2021.pdf.

³²² *Municipal Government Act*, RSA 2000, c M-26, s 381.2(2).

³²³ *Municipal Government Act*, RSA 2000, c M-26, ss. 381.1-381.5.

³²⁴ *Municipal Government Act*, RSA 2000, c M-26, s 381.4(2)(a).

³²⁵ *Municipal Government Act*, RSA 2000, c M-26, s 381.4(2)(a).

³²⁶ Marina Spahlinger & Nancy Wanye, “Community Revitalization Levy as a Municipal Financing Mechanism in Alberta” (February 2019) 12:4 *The School of Public Policy Publications SPP Research Paper* at 2.

³²⁷ *Ibid* at 3.

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1. The “but for” test asks whether private investment would have occurred in the absence of the CRL; and
2. The “blight” test looks at whether the area has low property values and taxes prior to the CRL.

However, past examples including the City of Calgary Rivers District Community Revitalization Levy and the City of Edmonton Capital Downtown Community Revitalization Levy have not had the expected outcome. In both instances the plans anticipated an increased demand for office space and relied, at least in part, on this growth to realize CRL revenues. Pre-COVID, the economic downturn in the province of Alberta and resulting office vacancy rates already posed a threat to realizing projected CRL revenues.³²⁸ The current pandemic has exacerbated these issues and there is a real risk that, at least for the Rivers District CRL which is set to expire in 2027, there will be a shortfall in CRL revenues to cover the revitalization costs. If this occurs, it will result in a shift in tax revenue and inevitably a shortfall in municipal funding and an increase in overall property taxes.³²⁹

In their analysis of existing CRLs in Alberta, researchers Marina Spahlinger & Nancy Wanye make recommendations to improve the use of CRLs including:³³⁰

- developing a CRL-specific legislation;
- ensuring that the cost-benefit analysis conducted prior to instituting a CRL is publicly available;
- demonstrating that the CRL is in the public interest in both the short and long terms; requiring public consultation;
- obtaining city council approval;
- releasing a CRL plan; and
- requiring the CRL revitalization to be complete at the end of the 20 years.

Even if these recommendations were implemented, a CRL is a risky investment option for conservation funding. The success of a CRL turns on whether the investment causes a rise in property values such that the increased taxes are sufficient to repay the loan.³³¹ A municipality would have to be confident that improving green space or conserving an area would lead to increased land values and property taxes.³³² It is unlikely that CRL could be used for the majority of conservation projects.

³²⁸ *Ibid.* at 19.

³²⁹ *Ibid.* at 19.

³³⁰ *Ibid.* at 18.

³³¹ Environmental Law Centre, “Paying for conservation: Municipal powers to generate revenue for conservation” (May 2021) *Community Conserve* at 16 online: https://www.communityconserve.ca/wp-content/uploads/2021/05/Paying-for-Conservation_final-May-17-2021.pdf.

³³² *Ibid.*

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Part 3: Linking of tax revenue to environmental spending

Taxation and the spending of general revenue is often how governments pay for monitoring and managing the environment. In this regard, conservation priorities and environmental spending are competing with other budgetary priorities. In this part will review opportunities and powers to raise environmentally linked taxes. The focus of this part is the enabling of legislative mechanisms to earmark the disbursement of tax funds.

We look to the United States and elsewhere in Canada for examples of approaches.

Earmarking taxes and fees for conservation in the United States

In the United States, one approach to earmarking funds is to embed the mechanism in the state's constitution. For instance, in Colorado all lottery funds are put in a Conservation Trust Fund for the purpose of disbursements "for distribution to municipalities and counties for park, recreation, and open space purposes".³³³ The administration and use of funds is further defined in state statutes (Title 29, article 21) and related regulations.³³⁴ Similarly, the Florida Constitution reserves 33% of specified taxes for a land acquisition fund that is to be used for the "acquisition and improvement of land, water areas, and related interests...for conservation lands...drinking water sources...beaches and shores", recreation and various other purposes.³³⁵ The Constitution further notes that the funds cannot be comingled with general revenue of the State.³³⁶

³³³ ARTICLE XVIII, section 2 (7) of the Colorado Constitution; <https://leg.colorado.gov/sites/default/files/images/olls/crs2016-title-00.pdf>.

³³⁴ C.R.S. 2020, Article 29, online: <https://leg.colorado.gov/sites/default/files/images/olls/crs2020-title-29.pdf>.

³³⁵ Article X, section 28, online: <https://www.flsenate.gov/laws/constitution#A10S28>.

³³⁶ *Ibid.* at s28(4). For further examples see Kelly Pohl & Megan Lawson Ph.D., "State Funding Mechanisms for Outdoor Recreation" (August 2017) *Outdoor Industry Association* at 9 online: <https://headwaterseconomics.org/wp-content/uploads/state-rec-fullreport.pdf>.

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Alberta's opportunity to earmark environmental funds

Under our current provincial legislative landscape we see some designated funds occurring, such as hunting and angling licences funding the work of the Alberta Conservation Association (as described earlier in this report). We have also seen a discrete fund legislated in the form of the Heritage Fund (through the *Alberta Heritage Savings Trust Fund Act*). The Heritage Fund legislation dictates the management of the fund but doesn't speak to disbursements from the fund. A similar piece of legislation, a Natural Heritage or Nature Fund, could be put in place to ensure that Alberta's natural spaces are restored and protected for future generations.

The earmarking of funds to be held in trust in Alberta can be seen as an essential approach to ensure future environmental management, as certain areas of environmental management are likely to be felt far into the future, such as monitor abandoned and reclaimed oil and gas infrastructure, particularly of shut in sour gas wells. The revenue for these funds could come from the general tax base or could come directly from revenue from specific sectors.

Recommendation: The Government of Alberta pass a bill to outline the administration and disbursement of funds to monitor, assess, plan, manage and restore Alberta's natural environment and biodiversity.

Direct Democracy & Conservation

One approach to raising sustainable, large-scale funding for conservation is the use of direct democracy measures that permit citizens to vote on and approve public funding for a variety of conservation purposes, such as the protection of natural landscapes, bodies of water, and agricultural lands.³³⁷

Funding for these direct democracy measures is generated through either a reallocation of existing general fund resources or the creation of new revenue through additional taxes or fees.³³⁸ Financing mechanisms can include general obligation bonds, lottery revenue income, sales tax, corporate-business tax, real estate transfer fees, and property tax.³³⁹ The source of the funding itself is not necessarily novel as all or most of these funding mechanisms would already be available to various levels of governments. What is unique about direct democracy measures is that they offer the electorate the opportunity to

³³⁷ Craig Hansen & Logan Yonavjak, "Funding for Forests: The Potential of Public Ballot Measures", *World Resources Institute Issue Brief No. 4* (April 2011) at 2-3, online: <https://www.wri.org/research/funding-forests>.

³³⁸ Natalie Woolworth & Hazel Wong, "Ballot Measures" (November 22, 2017), online: *Conservation Finance Network* <https://www.conservationfinancenetwork.org/2017/11/22/ballot-measures> [archived URL].

³³⁹ Natalie Woolworth & Hazel Wong, "Ballot Measures" (November 22, 2017), online: *Conservation Finance Network* <https://www.conservationfinancenetwork.org/2017/11/22/ballot-measures> [archived URL].

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weigh in directly on matters of conservation and environmental funding, either through initiating a source of conservation funding directly or providing legitimacy to a government proposal for one.

What is direct democracy?

Both the United States (“US”) and Canada primarily follow a representative democracy model, whereby voters elect officials to represent them and determine policy on their behalf.³⁴⁰ However, nearly all US states and most Canadian provinces also permit some forms of direct democracy. The term “direct democracy” refers to the process whereby voters make decisions on specific policies themselves.³⁴¹ The instruments of direct democracy include:

- **Referendum** – a method of referring a question or set of questions to the public directly.³⁴² There are three common types of referendums: (1) ratification referendums, where citizens are asked at the final stage to approve a bill or measure already adopted by the government; (2) consultative referendums, where citizens are asked to express their opinion on a matter but the government is not legally bound by the results (often referred to as a plebiscite); and (3) arbitration referendums, where citizens are asked to resolve a disagreement between public authorities.³⁴³
- **Popular initiative** – a process whereby a specific number of voters initiate a bill or demand to amend/repeal a law. The initiative may be direct (i.e. the proposal is submitted directly to a vote) or indirect (i.e. the proposal is first submitted to the legislature which can decide whether or not to undertake the proposal and, if not, the proposal is submitted to a vote);³⁴⁴

³⁴⁰ Chad Stachowiak et al., “Protected Areas Established by Local Communities through Direct Democracy Encompass Habitat for Species as Effectively as Protected Areas Planned over Large Spatial Scales” (2020) 67: *Environmental Management* 242–250 at 243 online: <https://doi.org/10.1007/s00267-020-01403-4>.

³⁴¹ Benjamin J. Crain et al., “Species protection in areas conserved through community-driven direct democracy as compared with a large private land trust in California” (2020) 47: *Environmental Conservation* 30-38 at 31.

³⁴² Pierre Marquis, *Referendums in Canada: The Effect of Populist Decision-Making on Representative Democracy*, (Canada: Government of Canada, Political and Social Affairs Division, 1993) online: <https://publications.gc.ca/Collection-R/LoPBdP/BP/bp328-e.htm>.

³⁴³ Charlotte Perreault, France Lavergne & Julien Côté, *Instruments of Direct Democracy in Canada and Québec*, 3rd ed. (Québec: Elections Québec, 2001) at 4-5, online: https://www.electionsquebec.qc.ca/documents/pdf/dge_6350.3_v.a.pdf.

³⁴⁴ Pierre Marquis, *Referendums in Canada: The Effect of Populist Decision-Making on Representative Democracy*, (Canada: Government of Canada, Political and Social Affairs Division, 1993) online: <https://publications.gc.ca/Collection-R/LoPBdP/BP/bp328-e.htm>; Marquis; Charlotte Perreault, France Lavergne & Julien Côté, *Instruments of Direct Democracy in Canada and Québec*, 3rd ed. (Québec: Elections Québec, 2001) at 8 online: https://www.electionsquebec.qc.ca/documents/pdf/dge_6350.3_v.a.pdf.

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- **Recall** - an electoral procedure whereby constituents have the power to remove a political representative before their term is expired.³⁴⁵ Recalls are usually triggered by petition,³⁴⁶ and
- **Popular veto** – a process whereby a specific number of voters may demand the repeal of a law.³⁴⁷

In particular, direct democracy measures have been used widely and frequently in the US to raise funds for conservation at both the state and local levels. The following section discusses the use of these ballot measures and a few successful examples of conservation funding in the US.

Direct Democracy: Ballot Measures in the United States

The use of ballot measures in the US to advance conservation and open space preservation is currently unmatched by any other country.³⁴⁸ The Trust for Public Land maintains a database that tracks two types of conservation ballot measures in the US.³⁴⁹ Since 1988, at least 2,823 ballot measures have been proposed and 2,156 have passed, an approval rate of 76%, and they have raised more than \$82 billion in conservation funds.³⁵⁰

While most states have experience with conservation-related ballot measures (48 states have at least one city that allows the use of local-level ballot measures),³⁵¹ they tend to be more popular in states and counties with large population centres.³⁵² This may be due to the fact that these areas tend to be more affluent and therefore feel they can afford to put public funds towards conservation, or because they are experiencing greater rates of population growth and responding to increased development pressure.³⁵³

³⁴⁵ *Ibid.*

³⁴⁶ *Ibid* at 3 & 9.

³⁴⁷ Charlotte Perreault, France Lavergne & Julien Côté, *supra* note 343. at 9.

³⁴⁸ Benjamin J. Crain et al., “Species protection in areas conserved through community-driven direct democracy as compared with a large private land trust in California” (2020) 47: *Environmental Conservation* 30-38 at 32.

³⁴⁹ The Trust for Public Land, “Summary of Measures by Year, 1988-present”, online: *TPL LandVote Database* www.landvote.org. The two types of conservation ballot measures are “pay as you go” measures that authorize sales, property, income and other taxes to pay for conservation, and bond measures.

³⁵⁰ The Trust for Public Land, “Summary of Measures by Year, 1988-present”, online: *TPL LandVote Database* www.landvote.org.

³⁵¹ Benjamin J. Crain et al., “Species protection in areas conserved through community-driven direct democracy as compared with a large private land trust in California” (2020) 47: *Environmental Conservation* 30-38 at 32.

³⁵² Craig Hansen & Logan Yonavjak, “Funding for Forests: The Potential of Public Ballot Measures”, *World Resources Institute Issue Brief* No. 4 (April 2011) at 3, online: <https://www.wri.org/research/funding-forests>.

³⁵³ *Ibid.* at 3-4.

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The process for passing a ballot measure is extensive and varies by jurisdiction. In all cases it takes significant time, money, and expertise.³⁵⁴ The process can include learning about the applicable state/local laws, developing a case for conservation funding, building a coalition of partners, identifying a funding mechanism, conducting public-opinion research, drafting legislation, crafting persuasive ballot language, developing a campaign, and raising campaign funds.³⁵⁵

Generally speaking, statewide measures are undertaken by large, professional organizations such as The Nature Conservancy and the Trust for Public Land (TPL) because they have the necessary networks, experience, and funding.³⁵⁶ However, there is still often opportunity for local organizing at the county level.³⁵⁷

Examples of US Ballot Measures

The following four examples help provide a glimpse into how ballot measures (and a variety of funding mechanisms) have been used to generate significant revenue for conservation in the US:

Colorado – Question 7A (November 2020)

In the November 2020 election, the 15 counties within the Colorado River Water Conservation District (“River District”) voted in favour of Question 7A which proposed to increase property taxes to generate additional funds for projects to protect and safeguard Western Colorado water.

The River District was created by the state legislature in 1937 to develop and protect water supplies in western Colorado and its general fund is funded by a property tax within the 15 counties it serves.³⁵⁸ However, by 2020 the River District was experiencing increasing pressure due to long-term drought and external pressures while its budget was being negatively impacted by declining revenues.³⁵⁹

Question 7A proposed to increase the River District’s mill levy from .252 to .5 mills, or \$1.90 per \$100,000 of residential property value.³⁶⁰ Businesses would pay \$7.72 per \$100,000 of commercial property value.³⁶¹ The River District estimated these increases would generate an additional \$4.9 million

³⁵⁴ Natalie Woolworth & Hazel Wong, “Ballot Measures” (November 22, 2017), online: *Conservation Finance Network* <https://www.conservationfinancenetwork.org/2017/11/22/ballot-measures> [archived URL].

³⁵⁵ *Ibid.*

³⁵⁶ *Ibid.*

³⁵⁷ *Ibid.*

³⁵⁸ Colorado River District, “FAQs”, online: *Colorado River District* <https://www.coloradoriverdistrict.org/faqs-2/>.

³⁵⁹ Colorado River District, “Colorado River District To Ask Voters For Money To Bolster Protection of West Slope Water”, online: <https://www.coloradoriverdistrict.org/colorado-river-district-to-ask-voters-for-money-to-bolster-protection-of-west-slope-water/>.

³⁶⁰ YES ON 7A, “Frequently Asked Questions”, online: *YES ON 7A* <https://yeson7a.org/faq/>.

³⁶¹ *Ibid.*

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annually for the district to use for projects to protect and safeguard Western Colorado water.³⁶² At least 86% of these monies would go towards funding water projects aimed at the following five categories: productive agriculture, infrastructure, healthy rivers, watershed health and water quality, conservation and efficiency.³⁶³ The rest would address budgetary reductions.

Question 7A was ultimately passed with approximately 72% of the vote.³⁶⁴

Michigan – Proposal 1 (November 2020)

In November 2020, Michigan residents voted in favour of Proposal 1, a state constitutional amendment aimed at making various changes to how the state uses royalties and earnings from oil and gas extraction on public lands.

Previous constitutional amendments had already established the Michigan Natural Resources Trust Fund (“MNRTF”) and State Parks Endowment Fund (“SPEF”). The MNRTF gives money to local governments to acquire land for recreational use, conservation, and to construct recreational facilities.³⁶⁵ It was funded by oil and gas revenues until it reached its cap of \$500 million dollars in 2011.³⁶⁶ Meanwhile, the SPEF provides a permanent source of money for the state parks system and to acquire and preserve land.³⁶⁷ The SPEF has a cap of \$800 million and held a balance of around \$300 million in the fall of 2020.³⁶⁸

Proposal 1 put forth the following changes:

- Lift the \$500 million cap on the MNRTF and allow it to once again receive oil and gas revenues once the SPEF reaches its asset cap (estimated to occur in 30 years), rather than allowing those monies to go into general revenue;
- Allow the MNRTF to expend up to 50% of its annual revenue, plus interest and earnings in each fiscal year;
- Require at least 20% of the SPEF to go towards capital improvements at state parks;

³⁶² *Supra* note 359.

³⁶³ *Supra* note 359.

³⁶⁴ Heather Sackett “Colorado River District Issue 7A: Voters overwhelmingly pass River District tax hike”, *The Aspen Times* (November 3, 2020) online: <https://www.aspentimes.com/news/colorado-river-district-issue-7a-river-district-tax-hike-sees-voter-support-in-early-results/>.

³⁶⁵ Lester Graham “Election 2020: Michigan voters overwhelmingly approve Proposal 1, changing park funding”, *Michigan Radio* (November 4, 2020) online: <https://www.michiganradio.org/post/election-2020-michigan-voters-overwhelmingly-approve-proposal-1-changing-park-funding>.

³⁶⁶ *Ibid.*

³⁶⁷ *Ibid.*

³⁶⁸ Lawrence Cosentino, “Michigan’s Proposal 1 divides environmentalists” *Landing City Pulse* (October 30, 2020) online: <https://www.lansingcitypulse.com/stories/michigans-proposal-1-divides-environmentalists,15124>.

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- Require at least 25% of MNRTF to go towards land acquisition and protection and another 25% be made available for the development, renovation, and redevelopment of public recreation facilities.³⁶⁹

Michigan legislators in the House of Representatives and the Senate unanimously approved the constitutional amendment be presented to voters. The proposal had broad support from environmental groups (including the Nature Conservancy), hunting and fishing groups, and businesses, but was opposed by the Sierra Club and the Green Party of Michigan.³⁷⁰

Proposal 1 was passed with nearly 85% of the vote.³⁷¹

California – Proposition 68 (June 2018)

In June 2018, Californians voted in favour of Proposition 68 to authorize \$4 billion in general obligation bonds for state and local parks, natural resources protection projects, climate adaptation projects, water quality and supply projects, and flood protection projects.

Proposition 68, also known as *The California Drought, Water, Parks, Climate, Coastal Protection, and Outdoor Access for All Act of 2018*, was put forward by then Senate President Kevin de León (a Democrat) and received enough votes to be referred to the ballot.³⁷² The bond revenue was slated to go to a number of projects, with the largest amount (\$725 million) dedicated to the creation and expansion of safe parks in park-poor neighbourhoods.³⁷³ In addition to the \$4 billion in general obligation bonds, Proposition 68 also proposed to reallocate \$100 million of unused bond authority from prior bond acts for the same purposes.³⁷⁴ The bonds would be repaid with monies from the General Fund.

There were seven ballot measure committees registered in support, that collectively raised \$6.63 million and expended \$6.23 million.³⁷⁵ The largest contributor was the Nature Conservancy with \$1.29 million.³⁷⁶

³⁶⁹ Michigan Water, Wildlife & Parks, “Key Facts About Prop 1”, online: *VOTE YES ON PROP 1 FOR MI WATER, WILDLIFE & PARKS* <https://miwaterwildlifeparks.com/>.

³⁷⁰ *Supra* note 368.

³⁷¹ Michigan Water, Wildlife & Parks, “Partners & Supporters”, online: *VOTE YES ON PROP 1 FOR MI WATER, WILDLIFE & PARKS* <https://miwaterwildlifeparks.com/partners-supporters/>; Graham.

³⁷² Ballotpedia, “California Proposition 68, Parks, Environment, and Water Bond (June 2018)”, online: *Ballotpedia* [https://ballotpedia.org/California_Proposition_68,_Parks,_Environment,_and_Water_Bond_\(June_2018\)](https://ballotpedia.org/California_Proposition_68,_Parks,_Environment,_and_Water_Bond_(June_2018)).

³⁷³ *Ibid.*

³⁷⁴ *Ibid.*

³⁷⁵ *Ibid.*

³⁷⁶ *Ibid.*

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Proposition 68 was passed with nearly 58% of the vote.³⁷⁷

Montana – Initiative No. 190 (November 2020)

Also in the November 2020 election, a majority of voters in Montana approved the Marijuana Legalization Initiative (I-190) which proposed to legalize, regulate, and tax marijuana in the state. I-190 was on the ballot as an initiated state statute, in other words, a citizen-initiated ballot measure that amends state law.³⁷⁸ In addition to legalizing the possession and use of non-medical marijuana, I-190 imposes a 20% sales tax, of which 20% would go towards conservation and an additional 4% (up to \$650,000) to state parks, trails, recreational facilities, and wildlife protection.³⁷⁹

New Approach Montana led the campaign in favour of I-190 and reportedly received \$7.4 million in contributions.³⁸⁰ I-190 passed with nearly 57% of the vote.

Clearly, ballot measures in the US are an entrenched tool used widely to fund conservation goals, mainly at the state level. These four examples represent a variety of project types but are by no means an exhaustive list.

Direct Democracy in Canada

Direct democracy instruments also exist in Canada, however to a much lesser degree than in the US. Moreover, other than select conservation funds in British Columbia (“BC”) (which are discussed in greater detail below), they have not been used for the purpose of generating revenue for environmental outcomes.

The following section takes a look at the direct democracy instruments currently available in Canada generally, and in Alberta, and considers whether they could be used to raise money for conservation. If not, should Canadians seek access to additional direct democracy measures? And what are the advantages and disadvantages of direct democracy measures in Canada?

Federal Government

At the federal level, Canada does not have much in the way of direct democracy instruments. There have only ever been three consultative referendums at the national level: (1) on the issue of Prohibition

³⁷⁷ *Ibid.*

³⁷⁸ Ballotpedia, “Initiated state statute”, online: *Ballotpedia* https://ballotpedia.org/Initiated_state_statute.

³⁷⁹ Ballotpedia, “Montana I-190, Marijuana Legalization Initiative (2020)”, online: *Ballotpedia* [https://ballotpedia.org/Montana_I-190,_Marijuana_Legalization_Initiative_\(2020\)](https://ballotpedia.org/Montana_I-190,_Marijuana_Legalization_Initiative_(2020)).

³⁸⁰ *Ibid.* New Approach Montana, “CI-118 & I-190 will legalize, regulate, and tax marijuana in Montana”, online: *Yes on 118 Yes on 190* <https://newapproachmt.org/initiatives>.

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in 1898, (2) on Conscriptio in 1942, and (3) on the renewal of the Canadian Constitution (re the Charlottetown Agreement) in 1992.³⁸¹

In terms of legislation, the federal government enacted the *Referendum Act* in 1992 specifically to facilitate the referendum on the Constitution; however, the Act may only be used for questions relating to the Constitution of Canada.³⁸² Accordingly, there are currently no direct democracy measures at the federal level that may be used to help with raising funds for environmental outcomes. Lobbying the government on budget allocation remains the focal point at the federal level.

Provincial Governments

Direct democracy measures, in the form of referendums, are more common at the provincial and territorial level in Canada. Since Confederation, every jurisdiction in Canada, except the Yukon, has held at least one referendum.³⁸³ They appear to be more popular in Western Canada, with Manitoba, Saskatchewan and Alberta all holding at least seven, and British Columbia holding at least 13 provincial referendums.³⁸⁴

Saskatchewan appears to be the only jurisdiction in Canada that permits a referendum (or plebiscite as it is referred to in the applicable legislation) to be initiated by petition. The *Referendum and Plebiscite Act* provides that, upon receipt of a petition, signed by at least 15% of electors, and that requests that a question concerning a matter within the jurisdiction of the Government of Saskatchewan be put to electors on a plebiscite, the Minister shall direct that a plebiscite be conducted.³⁸⁵

The province of BC also has a *Recall and Initiative Act* that permits an elector to petition for new laws or changes to an existing law.³⁸⁶ To do so, the elector must apply to the Chief Electoral Officer for an initiative petition. If approved, the elector has 90 days to collect signatures from 10% of the registered voters in each of the province's electoral districts.³⁸⁷ If the petition is successful, it will be sent to the Select Standing Committee on Legislative Initiatives to determine whether a new law or changes to an

³⁸¹ Charlotte Perreault, France Lavergne & Julien Côté, *Instruments of Direct Democracy in Canada and Québec*, 3rd ed.

(Québec: Elections Québec, 2001) at 11 online: https://www.electionsquebec.qc.ca/documents/pdf/dge_6350.3_v.a.pdf.

³⁸² *Referendum Act*, SC 1992, c. 30, s. 3(1); Charlotte Perreault, France Lavergne & Julien Côté, *Instruments of Direct Democracy in Canada and Québec*, 3rd ed. (Québec: Elections Québec, 2001) at 23 online:

https://www.electionsquebec.qc.ca/documents/pdf/dge_6350.3_v.a.pdf.

³⁸³ Tim Mowrey & Alain Pelletier, "Referendums in Canada: A Comparative Overview" (January 2001) 3:1 *Electoral Insight* 18, online: *Elections Canada* <https://www.elections.ca/content.aspx?section=res&dir=eim/issue4&document=p6&lang=e>.

³⁸⁴ Tim Mowrey & Alain Pelletier, "Referendums in Canada: A Comparative Overview" (January 2001) 3:1 *Electoral Insight* 18, online: *Elections Canada* <https://www.elections.ca/content.aspx?section=res&dir=eim/issue4&document=p6&lang=e>; Justin McElroy, "3 strikes and you're out: Decisive referendum sounds death knell for electoral reform in B.C.", *CBC* (December 20, 2018) online: <https://www.cbc.ca/news/canada/british-columbia/electoral-reform-referendum-result-1.4955171>.

³⁸⁵ *Referendum and Plebiscite Act*, SS 1990-91, c R-8.01, s. 7.

³⁸⁶ *Recall and Initiative Act*, RSBC 1996, c 398.

³⁸⁷ Elections BC, "Guide to the Initiative Process" at 6 online (pdf): <https://elections.bc.ca/docs/guidebooks/869.pdf>.

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existing law should be introduced as a draft bill or whether it should be put to a province-wide initiative vote.³⁸⁸ Since its inception, about a dozen initiative petitions have been commenced, but only one (on the issue of the extinguishment of the harmonized sales tax) was successful.³⁸⁹ None were aimed at generating funds for conservation more generally.

Consultative referendums are permitted in Alberta pursuant to the *Referendum Act*.³⁹⁰ The Act allows the Lieutenant Governor in Council to order a referendum on constitutional questions and requires a referendum before the Legislative Assembly can vote on any resolution authorizing an amendment to the Constitution of Canada.³⁹¹ The result of the referendum is binding on the Government of Alberta, which must take any steps within its competence that it considers necessary or advisable to implement the results.³⁹²

In 2020, the *Referendum Act* was also amended to permit the Lieutenant Governor in Council to order a referendum on non-constitutional matters where they consider “an expression of public opinion is desirable on any matter of public interest or concern”.³⁹³ A non-constitutional referendum may be binding on the government that initiated the referendum so long as the question specified the results would be binding and a majority of the ballots validly cast voted in favour of the stated question.³⁹⁴

Meanwhile, in June 2021, two pieces of legislation that permit popular initiatives and recalls respectively received royal assent. The *Citizen Initiative Act* permits an elector to apply to the Chief Electoral Officer for the issuance of an initiative petition concerning a legislative, policy, or constitutional referendum proposal.³⁹⁵ If the application is approved, the petitioner must obtain signatures from at least 10% of the total number of electors province-wide for legislative and policy initiatives, or 20% of the total number of electors province-wide, along with that same level of support in two-thirds of Alberta’s constituencies, for constitutional initiatives.³⁹⁶

Successful legislative and policy initiatives are then referred to a committee of the Legislative Assembly of Alberta for consideration, which can either recommend that a bill be introduced/propose a policy or, if the committee does not support the initiative, refer the matter to a public vote.³⁹⁷ Meanwhile, successful constitutional initiatives must proceed through the process established in the *Referendum*

³⁸⁸ Elections BC, “Guide to the Initiative Process” at 6 online (pdf): <https://elections.bc.ca/docs/guidebooks/869.pdf>.

³⁸⁹ Elections BC, “Summary of Initiative Petitions” online (pdf): <https://www.elections.bc.ca/docs/init/Summary-of-Initiative-Petitions.pdf>.

³⁹⁰ *Referendum Act*, RSA 2000 c R-8.4.

³⁹¹ *Referendum Act*, RSA 2000 c R-8.4, ss. 1-2.

³⁹² *Referendum Act*, RSA 2000 c R-8.4, s. 4.

³⁹³ *Constitutional Referendum Amendment Act*, 2020, SA 2020, c 20, s. 4 (assented to July 23, 2020); *Referendum Act*, RSA 2000 c R-8.4, s. 5.1.

³⁹⁴ *Referendum Act*, RSA 2000 c R-8.4, s. 5.2.

³⁹⁵ *Citizen Initiative Act*, SA 2021 c C-13.2, s. 2.

³⁹⁶ *Citizen Initiative Act*, SA 2021 c C-13.2, ss. 4(4), 6(2).

³⁹⁷ *Citizen Initiative Act*, SA 2021 c C-13.2, ss. 14-15.

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Act.³⁹⁸ The Act includes rules with respect to financing, advertising, disclosure, and third party initiative advertising.

The second piece of legislation, the *Recall Act*, permits eligible Alberta voters to initiate a process to remove and replace elected officials including MLAs, municipal officials, and school board officials.³⁹⁹ Petitioners must gather signatures from at least 40% of eligible voters in the relevant constituency to trigger a recall vote. The Act also sets contribution, expense, and third-party advertising rules for a recall petition and vote.⁴⁰⁰

Both the non-constitutional referendum set out in the *Referendum Act* and the *Citizen Initiative Act* are new within the last year or so. Still, these direct democracy instruments offer both governments and electors the opportunity to introduce questions on conservation funding to a popular vote. In particular, the *Citizen Initiative Act* offers electors the opportunity to petition for legislative or policy initiatives that could potentially serve conservation funding purposes.

Getting sufficient support from electors may be a major challenge however, particularly early on, and before there is proof of the effectiveness of such an initiative. (For comparison, an Alberta initiative requires 10% of electors, whereas in California and Colorado require only 5% of the voters who voted in the year previous in prescribed votes, gubernatorial or secretary of state respectively. If Alberta had similar requirements it would mean that a petition would require ~95,000 signatures based on the 2019 provincial election turnout (x5%) not 280,000, which reflects 10% of the electors).⁴⁰¹

Municipal Governments

Direct democracy measures such as ballot initiatives and consultative or binding referendums, usually initiated by petition, are much more common and found in numerous municipalities.⁴⁰² For example, in Saskatchewan, voters may petition municipal council to hold a referendum on a matter and, if approved, the outcome of the referendum is binding on council.⁴⁰³ In BC, electors in a municipality may petition for a local area service pursuant to the *Community Charter* or an electoral area service pursuant to the *Local Government Act* (both of which are discussed in greater detail below).⁴⁰⁴

³⁹⁸ *Citizen Initiative Act*, SA 2021 c C-13.2, s. 16.

³⁹⁹ *Recall Act*, SA 2021 c R-5.7.

⁴⁰⁰ Government of Alberta, “Holding elected officials accountable” online: *Alberta* <https://www.alberta.ca/holding-elected-officials-accountable.aspx>.

⁴⁰¹ See Cal. Const., art. II, § 8(b); Elections Code § 9035 and Col. Const. art V, s. 1(3).

⁴⁰² Pierre Marquis, *Referendums in Canada: The Effect of Populist Decision-Making on Representative Democracy*, (Canada: Government of Canada, Political and Social Affairs Division, 1993) online: <https://publications.gc.ca/Collection-R/LoPBdP/BP/bp328-e.htm>.

⁴⁰³ *The Municipalities Act*, SS 2005, c M-36.1, s. 130; *The Cities Act*, SS 2002, c C-11.1, ss. 104, 111.

⁴⁰⁴ *Community Charter*, SBC 2003, c 26, s. 210; *Local Government Act*, RSBC 2015, c 1, s. 337.

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With respect to Alberta, the *Municipal Government Act* (“MGA”) permits electors to petition for a number of matters, including a new bylaw or to amend or repeal a bylaw or resolution.⁴⁰⁵ A successful petition may require council to either pass the relevant bylaw or put it to a vote of the electors. Note, however, that a petition requesting a new bylaw (or the amendment/repeal of a bylaw) made under Part 8, 9, 10, 17 or 17.2 of the MGA has no effect.⁴⁰⁶ Electors may also petition for a clean energy improvement tax bylaw and/or a local improvement tax.⁴⁰⁷

Municipal councils are also permitted to put a question or plebiscite to the electors. The *Local Authorities Elections Act* permits for the submission of a bylaw or question to the electors for their assent or approval, in accordance with the Act.⁴⁰⁸ In the case of a vote on a bylaw or question, more than 50% of the persons must vote in favour of the bylaw or affirmatively on the question for it to be assented to by the electors.⁴⁰⁹

The *Recall Act* also applies at the municipal level and permits Alberta voters to initiate a process to remove and replace municipal officials.

To date, it does not appear that any of the aforementioned direct democracy measures have been used for the purpose of generating conservation revenue in Alberta. In large part this is due to limited municipal jurisdiction in relation to introducing new taxes and/or levies. There is, however, at least one jurisdiction in Canada where a popular initiative has translated into raising funds for conservation. As mentioned above, BC legislation permits electors to petition for a local area service and/or electoral area service. In some instances, electors have used these measures to create conservations funds in their community. The following section takes a look at conservation funds in BC and the ways in which they can be established.

Direct Democracy and Conservation Funds in British Columbia

In BC, local governments are empowered to establish conservation funds through the implementation of taxes. Of particular interest is the use of “local area service” taxes.

The authority and process for establishing a conservation fund differs for BC municipalities and regional districts. The municipal process is mostly governed by the *Community Charter* whereas regional districts are governed by the *Local Government Act*.⁴¹⁰

⁴⁰⁵ *Municipal Government Act*, RSA 2000, c M-26, s. 232-235.

⁴⁰⁶ *Municipal Government Act*, RSA 2000, c M-26, s 232(2).

⁴⁰⁷ *Municipal Government Act*, RSA 2000, c M-26, ss 390.8, 392-393.

⁴⁰⁸ *Local Authorities Elections Act*, RSA 2000, c L-21, ss 1(l), 7, 11(1).

⁴⁰⁹ *Local Authorities Elections Act*, RSA 2000, c L-21, s 95(2).

⁴¹⁰ *Community Charter*, SBC 2003, c 26; *Local Government Act*, RSBC 2015, c 1.

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The Municipal Process

The *Community Charter* provides the statutory framework for all municipalities in BC (except the City of Vancouver which has its own *Vancouver Charter*). Various sections of the *Local Government Act* also apply to municipalities (e.g., municipal sales tax, planning, land use, and elections). The *Community Charter* gives BC municipalities fairly broad powers. Section 8 of the Act lays out the “fundamental powers” bestowed on municipalities. Section 8(2) gives municipalities the authority to provide any service that council deems necessary or desirable, and section 8(3) states council may, by bylaw, regulate, prohibit, and impose requirements in relation to, among other things, public places and protection of the natural environment.

A municipal council may establish a conservation fund service to benefit part or the whole of a municipality. If the conservation fund will benefit (and be paid for by) the entire municipality, council can choose to authorize the fund by resolution or bylaw and elector approval is not required.⁴¹¹ However, practically speaking municipalities will often seek elector approval on the issue to ensure there is community support for the fund. Financing may be achieved through a property tax, parcel tax, or fee for service basis.⁴¹²

Meanwhile, if the conservation fund will only benefit (and be paid for by) a part of the municipality, council must pass a bylaw to establish a “local area service”.⁴¹³ A “local area service” is a municipal service that is to be paid for in whole or in part by a local service tax.⁴¹⁴ Council may adopt a bylaw for a local area service with elector approval in the following circumstances:

1. The service and its cost recovery methods have been proposed by petition (specific content requirements apply) and the petition is signed by owners of at least 50% of the parcels and represent at least 50% of the assessed value of land and improvements that would be subject to the local service tax;⁴¹⁵
2. The service and its cost recovery methods have been proposed by council initiative and in accordance with the Act and a sufficient petition opposing the service is not received;⁴¹⁶ or

⁴¹¹ South Okanagan-Similkameen Conservation Program, *Local Conservation Funds in British Columbia: A Guide for Local Governments and Community Organizations*, 2nd ed. (Penticton: South Okanagan-Similkameen Conservation Program) at 4, online: <https://soscp.org/wp-content/uploads/2017/12/Conservation-Fund-Guide-2nd-Edition-2017.pdf> at 23.

⁴¹² *Ibid.* at 7 & 22.

⁴¹³ *Community Charter*, SBC 2003, c 26, s 210.

⁴¹⁴ *Ibid.* ss 210, 216.

⁴¹⁵ *Ibid.* ss 210, 212.

⁴¹⁶ *Ibid.* s 213. A “sufficient petition” means one that is signed by owners of at least 50% of the parcels and represent at least 50% of the assessed value of land and improvements that would be subject to the local service tax.

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3. The service and its cost recovery methods have been proposed by council initiative (specific content requirement applies) and the bylaw establishing the service has received the assent of the electors in the local service area.⁴¹⁷

In all cases, a local service tax may be imposed by way of a property value tax (imposed on land, improvements, or both) and/or a parcel tax.⁴¹⁸ Revenue from a local service tax may only be expended for the local area service to which it is imposed, meaning the conservation fund must be located in and benefit the local area.⁴¹⁹

The Regional District Process

The *Local Government Act* is the primary legislation for regional districts in BC. Regional districts are composed of municipalities, electoral areas, and in some cases, Treaty First Nations.⁴²⁰ The governing body of a regional district is its board.⁴²¹ The *Local Government Act* sets out the main powers and responsibilities of regional districts as well as the framework for structure and operations.⁴²²

A regional district conservation fund must be established by bylaw and specify the method of cost recovery for the service.⁴²³ The owners of parcels in an electoral area may also petition the regional district for a conservation fund service in all or part of the electoral area.⁴²⁴ In order for a petition to be sufficient it must be signed by the owners of at least 50% of the parcels subject to the charges for the proposed service and must represent 50% of the net taxable value of all land and improvement within the proposed service area.⁴²⁵

The conservation fund service may be established to benefit the entire region (i.e., all electoral areas and municipalities), all or some electoral areas, or any combination of electoral areas and/or municipalities.⁴²⁶ The bylaw must be approved by electors (a sufficient petition will also suffice).⁴²⁷ Financing may be achieved through a property tax, parcel tax, or fee-for-service.⁴²⁸

⁴¹⁷ *Ibid.* s 214.

⁴¹⁸ *Ibid.* s 216.

⁴¹⁹ *Ibid.* s 216.

⁴²⁰ Government of British Columbia, "Regional Districts in B.C.", online: *British Columbia*

<https://www2.gov.bc.ca/gov/content/governments/local-governments/facts-framework/systems/regional-districts>.

⁴²¹ *Local Government Act*, RSBC 2015, c 1, s 194.

⁴²² Government of British Columbia, "Local Government Legislative Framework", online: *British Columbia*

<https://www2.gov.bc.ca/gov/content/governments/local-governments/facts-framework/legislative-framework>.

⁴²³ *Local Government Act*, RSBC 2015, c 1, ss 338-339.

⁴²⁴ *Ibid.* s 337.

⁴²⁵ *Ibid.* s 337(3).

⁴²⁶ *Supra* note 411 at 24.

⁴²⁷ *Local Government Act*, RSBC 2015, c 1, ss 342, 347(a).

⁴²⁸ *Ibid.* s 378.

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Examples of Conservation Funds in B.C.

In B.C. the following regional districts have established conservation funds:

- **Regional District of East Kootenay (“RDEK”)** – RDEK established the Columbia Valley Local Conservation Fund (“CVLCF”) in 2008, the first of its kind in Canada. The CVLCF provides funding for projects in the Columbia Valley region that benefit conservation through the CVLCF. The original goal was to have all municipalities and electoral areas in the RDEK participate in the service, however, the conservation fund idea only received support from the Upper Columbia Valley portion of the RDEK. A referendum was conducted in conjunction with a general election in 2008. Property owners in the area pay a parcel tax of 5 cents per \$1000 of taxable assessed value up to a max of \$230,000 annually, which works out to about \$20 per parcel.⁴²⁹
- **Regional District of Central Kootenay (“RDCK”)** – RDCK established the Kootenay Lake Local Conservation Fund in 2014 after a successful vote in the local election. The financing mechanism is a parcel tax of \$15 per parcel per year, which is applied to all parcels (residential, industrial, commercial) in the service area.⁴³⁰
- **Regional District of Okanagan-Similkameen (“RDOS”)** – RDOS adopted a bylaw (with public assent) to establish the South Okanagan Conservation Fund (“SOCF”) in 2016. The SOCF supports conservation efforts in the communities of Summerland, Penticton, Oliver, and a number of rural electoral areas. The amount collected at a maximum of the greater of \$450,000 annually or \$0.0372 per \$1000 of net taxable value of land and improvements.⁴³¹ This was changed to 2.92 cents per \$1000 of net taxable value in 2021 or \$450,000, whichever is greater.⁴³²

Meanwhile, the following districts have established parkland acquisition funds:

- **Capital Regional District (“CRD”)** – The CRD is the regional government for 13 municipalities and three electoral areas of southern Vancouver Island and the Gulf Islands.⁴³³ In 2000, the CRD Board established the Land Acquisition Fund to purchase land for regional parks and trails.⁴³⁴

⁴²⁹ Kootenay Conservation Program, “Columbia Valley Local Conservation Fund”, online: <https://kootenayconservation.ca/columbia-valley-local-conservation-fund/>.

⁴³⁰ *Ibid.*

⁴³¹ Regional District of Okanagan Similkameen, “South Okanagan Conservation Fund Terms of Reference” (2017) at 3, online (pdf): <https://www.rdos.bc.ca/assets/bylaws/leg-services/RDOS/2016/BL2690.pdf>.

⁴³² Regional District of Okanagan Similkameen, “South Okanagan Conservation Fund Terms of Reference” (2021) at 3, online: https://soconservationfund.ca/wp-content/uploads/2021/08/SOCF-Terms-of-Reference-August_2021.pdf.

⁴³³ Capital Regional District, “What is CRD”, online: <https://www.crd.bc.ca/about/what-is-crd>.

⁴³⁴ Capital Regional District, “Land Acquisition Fund”, online: <https://www.crd.bc.ca/parks-recreation-culture/parks-trails/crd-regional-parks/land-acquisition-fund>.

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Monies are collected through municipal property taxes. Initially the fund was set at a rate of \$10 per average residential household but gradual increases over the years have increased it to \$20 per average residential household.⁴³⁵ The fund has acquired approximately 4,800 hectares of land to date.⁴³⁶

- **Cowichan Valley Regional District (“CVRD”)** – The CVRD established a Regional Parkland Acquisition Fund by bylaw in 2008. The CVRD sought electoral assent through a referendum.⁴³⁷ The fund was initially financed by a property value tax that was capped at a maximum of the greater of \$715,000 or an amount equal to \$0.5942 per \$1000 of net taxable value of land and improvements within the service area.⁴³⁸ In 2014, the bylaw was amended and increased the allowable limit to \$958,000 or an amount equal to \$0.07427 per \$1000 of net taxable value of land and improvements.⁴³⁹

The BC example provides a framework of how both electors and local governments can, with access to the correct tools, raise funds through property and/or parcel taxes to support conservation and stewardship in their communities. To be sure, conservation funds can be challenging to implement as they require leadership, planning, and significant community outreach to achieve consensus and/or electoral approval. Nevertheless, they appear to give local governments in BC some measure of financial power and independence with respect to generating revenue for local conservation.

Could Albertan municipalities enact local taxes for environmental services?

Alberta municipalities have limited taxation powers under the *MGA* and, unlike BC, are not able to enact a conservation fund service and impose a property or parcel tax to specifically pay for said service. However, Alberta municipalities do have the power to enact a “local improvement tax”. A local improvement tax is a tax on properties within a defined area of a municipality for the purpose of funding a local improvement (i.e., sidewalks, lane lighting, paving, etc.).⁴⁴⁰ Council may propose a local

⁴³⁵ *Ibid.*

⁴³⁶ *Ibid.*

⁴³⁷ The results can be seen online at <https://www.bclaws.gov.bc.ca/civix/document/id/bcgaz1/bcgaz1/1596628362>

⁴³⁸ Cowichan Valley Regional District, CVRD Bylaw No. 3163, *A Bylaw to Establish a Service to Provide a Regional Parkland Acquisition Fund within the Cowichan Valley Regional District* (July 15, 2008), in Minutes of CVRD Board Meeting on December 10, 2008 at 55-56.

⁴³⁹ Cowichan Valley Regional District, CVRD Bylaw No. 3772, *A Bylaw to Amend Regional Parkland Acquisition Fund Service Establishment Bylaw No. 3163* (December 11, 2013), in Minutes of Council of the Town of Ladysmith Meeting on January 6, 2014 Board Meeting 19-20, online (pdf): <https://www.ladysmith.ca/docs/2014-council-documents/2014-01-06-council-agenda.pdf>.

⁴⁴⁰ *Municipal Government Act*, RSA 2000, c M-26, s 397-403.

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improvement or a group of owners in a municipality may petition council for one.⁴⁴¹ Either way, a local improvement plan must describe the local improvement and its location, identify all parcels of land in respect of which the tax will be imposed, estimate the cost, and state the period over which the cost will be spread.⁴⁴²

Meanwhile, as set out above, section 216 of BC's *Community Charter* permits a local service tax which has been used to establish a "local area service", including conservation funds. The question arises whether the Alberta *MGA's* "local improvement tax" is sufficiently similar to the BC *Community Charter's* "local service tax" such that Alberta municipalities could also use it to pay for a conservation fund service?

A comparison of the relevant legislation suggests, while there are similarities between the two provisions, there are slight differences that make it unlikely Alberta could enact a conservation fund and achieve the same result under the current *MGA*.

The primary distinction between the two provinces is that while the Alberta legislation characterizes the tax as being for a local improvement "project", in BC it is characterized as a local area "service". In Alberta, a local improvement is defined as a project that council considers to be of greater benefit to an area of the municipality than to the whole municipality and is paid for by a local improvement tax.⁴⁴³ Meanwhile, in BC under the *Community Charter* a local area service is defined as a municipal service that provides a particular benefit to part of the municipality and/or business improvement area services that are paid for by a local service tax.⁴⁴⁴ The difference may be subtle, but a "project" suggests something that takes place within a finite amount of time, whereas a service suggests something that is more likely to be ongoing (although it could be temporary as well – in fact the original RDEK bylaw establishing the CVLFC had an expiry clause that was later removed). This distinction is also borne out in the legislation. Alberta's *MGA* requires a local improvement plan to "state the period over which the cost of the local improvement will be spread" while there is no mention of a timeline in B.C.'s *Community Charter*.⁴⁴⁵

That said, while a local improvement tax may not be suitable for establishing a conservation fund for the provision of general conservation services, it is possible this mechanism could be used to raise funds for a parkland or conservation land acquisition fund. Characterizing the local improvement as a "one-time" acquisition fund that seeks to raise a specific amount of money over a defined period of time and for a select purpose makes it more akin to a "project" than a "service". There also appears to be support in the *MGA* for such a project - the *MGA* provides that the estimated cost of a local improvement may

⁴⁴¹ *Municipal Government Act*, RSA 2000, c M-26, s 393.

⁴⁴² *Municipal Government Act*, RSA 2000, c M-26, s 395.

⁴⁴³ *Municipal Government Act*, RSA 2000, c M-26, s 391.

⁴⁴⁴ *Community Charter*, SBC 2003, c 26, s 210.

⁴⁴⁵ *Municipal Government Act*, RSA 2000, c M-26, s 395(1)(e).

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include the actual cost of buying land necessary for the local improvement and/or the capital cost of undertaking the local improvement.⁴⁴⁶

Finally, there is also the issue of whether the local improvement project in question is of greater benefit to one area of the municipality than to the municipality as a whole. That is to say, is the project really “local”? Depending on the size, nature, and location of the conservation area there is a risk the tax may give rise to a taxpayer’s challenge based on the fact that it benefits the municipality as a “whole”. This is particularly the case where conservation areas may run along water bodies, connecting multiple areas of a municipality. In the case of a challenge, a reviewing court may seek to determine whether it is reasonable for a local rate payer to pay for a conservation area or service that potentially benefits the whole of the municipality.

Pros and Cons of Direct Democracy

As outlined above, there are options for the legal use of direct democracy to fund environmental measures in Alberta. But do the pros of direct democracy outweigh the cons? One of the first concerns is the connection between direct democracy and populism. Populist themes including distrust of politicians and political parties; demands for more popular control over government spending; and calls for greater citizen involvement are on the rise.⁴⁴⁷ There is academic research which suggests the disenchantment in representative institutions and increasing endorsement of populist values may also contribute to a push for more direct democracy.⁴⁴⁸

Another challenge associated with direct democracy is allowing for direct democracy to occur while also preventing an instance of tyranny of the majority. One of the principal features of Canadian democracy is the protection of minority interests designed to prevent the minority from becoming subject to the rule of the majority.⁴⁴⁹ This is particularly acute when low voter turnout means the ‘majority’ is a small number. To manage this, direct democracy measures can differ in the degree to which they default to the opinion of the majority.⁴⁵⁰ For example, the process can incorporate practices to promote compromises between competing interests, while providing protection for minority interests.⁴⁵¹ One way to do this is through an indirect initiative. This is a ballot initiative wherein the initial petition does not move directly to a vote. Instead, the petition is taken up by the legislature and goes to a legislative

⁴⁴⁶ *Municipal Government Act*, RSA 2000, c M-26, s 395(2)(a).

⁴⁴⁷ Susan E. Scarrow, “Direct Democracy and Institutional Change: A Comparative Investigation” (2001) 34:6 *Com Pol Stud* 651 at 652.

⁴⁴⁸ *Ibid.* at 653.

⁴⁴⁹ Matthew Mendelsohn & Andrew Parkin, “Introducing Direct Democracy in Canada” (2001) 7:5 *Choices* 1 at 2.

⁴⁵⁰ *Ibid.* at 6.

⁴⁵¹ *Ibid.*

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hearing.⁴⁵² From there, the legislature can place the question on a ballot, make amendments, submit its own proposal along with the original one, or pre-empt the process by enacting legislation prior to engaging in the full ballot measure process.⁴⁵³ Indirect initiatives leave more room for debate, allows for more input from opposing parties, and enables the strengths and weaknesses of the proposal to be evaluated.⁴⁵⁴

Despite these concerns, it is worth considering whether the passage of anti-minority legislation would have occurred with or without the direct democracy initiative. In the United States, academics Shaun Bowler and Todd Donovan argue that there is no empirical evidence that direct democracy produces outcomes that are more anti-minority than would have occurred through the traditional legislative process.⁴⁵⁵

Government initiated direct democracy measures also raise similar concerns. This is because governments will rarely hold a direct democracy measure unless it is in their advantage to do so. This means that government-initiated measures can be used for strategic reasons which “undermines their effectiveness as a tool of public participation.”⁴⁵⁶

Finally, direct democracy is expensive, it requires the resources necessary to get your topic on the ballot, to raise awareness and hold debates, and to hold the final ballot measure.⁴⁵⁷ This limits participation in direct democracy to those with sufficient resources – for example, in California while direct democracy measures are common, there is a lack of transparency in the registration of intervenors and in the sources of campaign funding.⁴⁵⁸

Additionally, these costs may require a change in election and third-party spending rules. In Canada, spending rules differ depending on the level of government. At the federal level, contribution and third-party spending rules are set by Elections Canada and are fairly strict. For example, there is a contribution limit of \$1,650 annually to each federal party and to each parties’ riding association.⁴⁵⁹ While there are still concerns with election spending loopholes, they are significantly stricter than current election spending rules in the United States. In the United States, the individual spending limit is nearly double the Canadian limit and there are more options for political action committee donations.⁴⁶⁰ Due to the

⁴⁵² *Ibid.* at 10.

⁴⁵³ *Ibid.*

⁴⁵⁴ *Ibid.*

⁴⁵⁵ *Ibid.* at 20.

⁴⁵⁶ *Ibid.* at 15.

⁴⁵⁷ *Ibid.* at 9.

⁴⁵⁸ *Ibid.*

⁴⁵⁹ Elections Canada, “Limits on Contributions” (2021) online: <https://www.elections.ca/content.aspx?section=pol&document=index&dir=lim&lang=e>.

⁴⁶⁰ Federal Election Commission, “Contribution Limits” (2021) online: <https://www.fec.gov/help-candidates-and-committees/candidate-taking-receipts/contribution-limits/>.

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costs associated with running direct democracy measures, would Canada need to increase their contribution limits to be more in line with those in the United States? And would we even want to do this?

On the other hand, direct democracy may help fill some of the holes that exist in the current parliamentary system. In the current system, there is limited chance for citizen representation between elections and little time given to elected representatives to debate the merits of government legislation.⁴⁶¹ With the correct conditions and rules, direct democracy could enhance the quality of Canadian democracy and make government decisions more sensitive to the concerns of the public.⁴⁶²

Recommendation: The *Municipal Government Act* should be amended to allow municipalities to administer a “conservation services tax”. This tax should be held in municipal accounts for prescribed conservation and environmental stewardship purposes, as enumerated in regulation.

Other options to Generate Revenue: Licence Plates

In addition to taxation, optional fees can be directed towards conservation purposes. This section will look at one particular example, the sale of licence plates. The sale of conservation branded licence plates is used in the United States and Canada as a way to generate revenue for wildlife, conservation, and species at risk.

United States

Many states sell environmental licence plates and at least 29 states offer plates specifically to support species conservation.⁴⁶³ These plates are sold at a premium with the extra revenue directed to government agencies or NGOs.⁴⁶⁴

Colorado Great Outdoors Program

In Colorado, the Colorado Great Outdoors Program provides that a portion of the net proceeds of every state supervised lottery is “guaranteed and permanently dedicated” to the “protection and enhancement of state wildlife, parks, trails, river and open space.” It has been successful, resulting in money funneled to 1000s of conservation projects. This program represents a unique way of raising money for the protection and conservation of public lands.

⁴⁶¹ Matthew Mendelsohn & Andrew Parkin, “Introducing Direct Democracy in Canada” (2001) 7:5 Choices 1 at 4.

⁴⁶² *Ibid* at 7.

⁴⁶³ WWF, “Guide to Conservation Finance: Sustainable Financing for the Planet” at 44 online: http://awsassets.panda.org/downloads/wwf_guide_to_conservation_finance.pdf.

⁴⁶⁴ WWF, “Guide to Conservation Finance: Sustainable Financing for the Planet” at 44 online: http://awsassets.panda.org/downloads/wwf_guide_to_conservation_finance.pdf.

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For example, in Washington State, revenue from the sale of personalized conservation licence plates is directed, by law, to the Washington Department of Fish and Wildlife where it is to be used for the management of wildlife that are not hunted, fished, or trapped.⁴⁶⁵ The state of Arizona and the Arizona Sportsmen for Wildlife Conservation sells a specialty licence plate with the majority of the special licence fee going to the Arizona Sportsmen for Wildlife Conservation’s Wildlife Conservation Fund.⁴⁶⁶ Wisconsin also has a similar program where \$25 from your plate purchase goes to Endangered Resources Fund and which has accounted for up to 40% of all funding for endangered species conservation in some years.⁴⁶⁷

These programs have been successful. In Washington, the sale of these plates is claimed as the primary source of funding for the management of non-game wildlife and in Wisconsin, revenues from these sales has accounted for up to 40% of funding for endangered species conservation.⁴⁶⁸

Canadian examples

Conservation licence plate programs in Canada are not as numerous as in the United States; however, we do have examples to draw from.

In 2002, Service Nova Scotia, in partnership with the Department of Natural Resources, implemented the Nova Scotia Conservation Licence Plate Program.⁴⁶⁹ The purchase of one of these plates is accompanied by a \$60.50 donation fee which is directed to the Species at Risk Conservation Fund (the “Fund”).⁴⁷⁰ The Fund was established under the Nova Scotia *Endangered Species Act* and is intended to fund projects related to species at risk.⁴⁷¹ Money from the Fund can be used for:⁴⁷²

- the preparation of scientific status reports on species at risk;
- activities for the recovery of species at risk in the Province;
- activities including education and research to prevent species from becoming at risk in the Province; and
- **the acquisition of land for the maintenance and restoration or species at risk and species at risk habitats and ecosystems.**

⁴⁶⁵ Washington Department of Fish and Wildlife, “License plates” online: <https://wdfw.wa.gov/licenses/license-plates>.

⁴⁶⁶ Arizona Sportsmen for Wildlife Conservation, “License Plate” online: <https://azsfwc.org/license-plate-2/>.

⁴⁶⁷ Wisconsin Department of Natural Resources, “Endangered Resources License Plate” online: <https://dnr.wisconsin.gov/topic/endangeredresources/plate>.

⁴⁶⁸ *Ibid.*

⁴⁶⁹ Service Nova Scotia, “Registry of Motor Vehicles – Conservation Plates” online: <https://novascotia.ca/sns/rmv/registration/conservationplate.asp>.

⁴⁷⁰ Service Nova Scotia, “Registry of Motor Vehicles – Conservation Plates” online: <https://novascotia.ca/sns/rmv/registration/conservationplate.asp>.

⁴⁷¹ *Endangered Species Act*, SNS 1998, c 11, s 8.

⁴⁷² *Ibid.* At s 8(3).

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In British Columbia, BC Parks has also created a licence plate program under which net proceeds from the sale and renewal of BC Parks plates are re-invested back into provincial parks through the Park Enhancement Fund.⁴⁷³ The money donated to the fund is specifically excluded from general revenue.⁴⁷⁴ This project has sold more than 250k licence plates and funded over 275 projects.⁴⁷⁵ New Brunswick's program is similar with \$7 from your conservation licence plate purchase going to the New Brunswick Wildlife Trust Fund which helps fund organizations that help to enhance and improve the habitat of our fish and wildlife.⁴⁷⁶

While these are clearly not providing the majority of the funding necessary for conservation, they may be a useful tool for extra revenue, particularly if the revenue could be used for more than fish and wildlife purposes. As we seek to narrow the gap between funding available for conservation purposes and the need, creativity will be required.

Conclusion

Alberta has imposed a variety of regulatory costs on certain activities to mitigate effects on the environment. Examples of regulatory systems being used to require payments also exist, in the form of wetland restoration payments and air monitoring. There remain significant gaps in how we account for environmental harms and all that is entailed in environmental governance: monitoring, planning, assessing, regulation, enforcement and compliance of the full suite of impacts we have on the landscape.

Various jurisdictions from within Canada, the United States and Europe provide examples of alternative approaches to better resource our environmental management system. By adopting some of these revenue generating activities the province will be better prepared to identify, assess and respond to environmental challenges for current and future generations. Further, resource generation is needed to monitor, assess, plan and react to cumulative environmental effects on the landscape. This is particularly the case where it comes to non-point sources of pollution and impacts on habitat, area where we have sought to regulate.

⁴⁷³ BC Parks, "BC Parks Licence Plate Program" online: <https://bcparks.ca/licence-plates/>.

⁴⁷⁴ BC Parks, "Park Enhancement Fund" online: <https://bcparks.ca/partnerships/pef.html>.

⁴⁷⁵ BC Parks, "BC Parks Licence Plate Program" online: <https://bcparks.ca/licence-plates/>.

⁴⁷⁶ New Brunswick Wildlife Trust Fund, "How to Contribute" online: <https://www.nbwtf.ca/en/how-to-contribute-1/how-to-contribute>.