

## **Ecological integrity in Canada's national parks: The false promise of law**

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### **I. Introduction**

Since the late 1960s preservationists have battled the 'parks for people' ideology governing Canada's national parks, applying continuous pressure on Parliament to assert the preservation of nature in an unaltered state as the primary purpose in the parks. This pressure, in conjunction with various government studies conducted during the 1980s and 1990s, led to the enactment of new federal national parks legislation in 2001 which categorically mandates the maintenance or restoration of ecological integrity as the first priority in the national parks. In doing so, Parliament seemingly charted a preservationist direction for the parks and established a new purpose for them: The preservation of nature for *its own sake* – apart from any human consideration. This ecological integrity mandate promised stronger legal support for preservationists in their ongoing opposition against proposals to develop tourism and other human activities in the national parks.

This promise of legal strength has yet to materialize. This paper sets out to explain why the 2001 ecological integrity amendments have not, and likely will not, erode the 'parks for people' ideology that has governed Canada's national parks since their inception. The paper begins by tracing the evolution of ecological integrity from a scientific and ethical principle into a legal rule. The examination describes the various meanings attributed to ecological integrity and suggests implications they have for employing ecological integrity in decision-making. More specifically, the paper studies the introduction and development of ecological integrity in policy and law governing Canada's national parks leading up to the 2001 amendments. After demonstrating that the ecological integrity mandate has not resulted in a new preservationist direction for the national parks, the paper concludes with two explanations for this result. Both reasons suggest there is a limit on the extent to which law can effect social change with respect to environmental preservation.

## II. Perspectives on ecological integrity

### (a) Introduction

Integrity has a long association with North American environmental discourse dating back to Aldo Leopold's 1949 *Land Ethic*: "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."<sup>1</sup> With this one sentence, Aldo Leopold empowered integrity as a foundational value from which to construct human obligation to the entire biotic community.

Integrity entered North American environmental policy and law in the late 1960s and early 1970s, a time period of mounting public concern over environmental pollution. Literature such as Rachel Carson's 1962 *Silent Spring* documented the bio-accumulation of pesticides and linked this to increased mortality in marine and terrestrial life.<sup>2</sup> Similarly, Barry Commoner's 1971 *The Closing Circle* described the socio-ecological impacts of using synthetic chemicals in manufacturing.<sup>3</sup> This rising environmental awareness led to the inaugural Earth Day in 1970, spawned philosophical inquiry into valuing nature apart from humans, and furthered explorations into ecological integrity as the foundational value in life.

In 1972 the United States government amended its *Federal Water Pollution Control Act* (referred to as the *Clean Water Act*) by adding that the objective of the legislation be ". . . to restore and maintain the chemical, physical, and biological integrity of the Nation's waters."<sup>4</sup> Thomas Jorling, a primary advocate of these amendments, later remarked that implementing the legislation would prove more difficult than its enactment, in part

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<sup>1</sup> Aldo Leopold, *A Sand County Almanac and sketches here and there* (New York: Oxford University Press, 1949) at 224-225.

<sup>2</sup> Rachel Carson, *Silent Spring* (New York: Houghton Mifflin, 1962).

<sup>3</sup> Barry Commoner, *The Closing Circle* (New York: Alfred Knopf, 1971).

<sup>4</sup> Section 101, 33 U.S.C. 1251.

because the term ‘biological integrity’ did not have definitive meaning.<sup>5</sup> Integrity is indeed an elusive term whose normative characteristics are difficult to implement into decision-making. Consider what environmental ethicist Holmes Rolston III had to say in 1994:

Perhaps we cannot be rigorous about integrity; the idea is soft, visionary, rhetorical, politically and emotionally correct, but philosophically and biologically suspect because it cannot be made operational. Integrity can mean anything you choose it to mean; it has begun to slip around as soon as we start to think about it.<sup>6</sup>

Notwithstanding this challenge, the search for meaning in ecological integrity occupies significant amounts of literature; a search that continues to this day.<sup>7</sup>

Much of the literature is linked to one of several research forums exploring ecological integrity since the 1970s. Early discussion on integrity took place in United States congressional hearings preceding the 1972 *Clean Water Act* amendments. On the heel of these amendments, the United States Environmental Protection Agency convened a symposium to explore the meaning of biological integrity in 1975.<sup>8</sup> Similar ecological integrity objectives for water quality were included in the 1978 Canada-United States Great Lakes Water Quality Agreement which, in turn, led to a 1990 forum on the

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<sup>5</sup> Thomas Jorling, “Incorporating Ecological Principles into Public Policy” (1976) 2 *Environmental Policy and Law* 140 at 141.

<sup>6</sup> Holmes Rolston III, “Foreword” in Laura Westra, *An Environmental Proposal for Ethics: The Principle of Integrity* (Lanham, Md: Rowman and Littlefield, 1994) at xii.

<sup>7</sup> A good introduction is provided by John Lemons and Laura Westra, “Introduction to Perspectives on Ecological Integrity” in Laura Westra and John Lemons, eds., *Perspectives on Ecological Integrity* (Dordrecht, The Netherlands: Kluwer Academic Publishers, 1995) at 1 [*Perspectives on Ecological Integrity*]. A more recent overview is provided in Turner and Beazley, “An exploration of issues and values inherent in the concept of ecological integrity” (2004) 32(2) *Environments* 45.

<sup>8</sup> The 1975 symposium publication is partially available online. See Ballentine and Guarraia, *The Integrity of Water*, online: U.S. Environmental Protection Agency <http://www.epa.gov/bioiweb1/html/publications.html> (date accessed: 12 June 2009). Henry Regier and Robert France also published a summary of perspectives on the meaning of ecological integrity offered during the 1975 symposium. See Henry Regier and Robert France, “Perspectives on the Meaning of Ecosystem Integrity in 1975” in Clayton Edwards and Henry Regier, eds., *An ecosystem approach to the integrity of the Great Lakes in turbulent times* (Ann Arbor, MI: Great Lakes Fishery Commission, 1990) 1. See also the U.S. Environmental Protection Agency’s overview on biological integrity, online: <http://www.epa.gov/bioiweb1/html/biointeg.html> (date accessed: 25 May 2009).

meaning of the term.<sup>9</sup> The most thorough investigation into the policy, science, and ethics of ecological integrity has been conducted by the Global Ecological Integrity Group, an international research initiative, funded by Canada's Social Sciences and Humanities Research Council between 1992 and 1999, which has produced volumes of scholarship on ecological integrity.<sup>10</sup>

What follows is a literature review on attempts to give meaning to ecological integrity. This review focuses on examining how the maintenance of ecological integrity can guide decision-making.<sup>11</sup> The literature is mixed in science and ethics, with science-based accounts concerned with identifying ecological integrity in the field while ethical accounts are concerned with justifying obligation to maintain ecological integrity. The literature is divided across whether or not human presence and ecological integrity are mutually exclusive, with some commentators arguing ecological integrity can only be present in the absence of humans (what I label natural ecological integrity) while others view ecological integrity as contingent on human judgment (what I label socio-ecological integrity). Related to this, commentators split over whether to define ecological integrity instrumentally as a desirable condition that serves human interests.

The division over humans and ecological integrity has been operative in the literature since the initial forums in the 1970s, as the United States Environmental Protection Agency summarizes on its website:

Two definitions of biological integrity were informally proposed at the forum. The first was by Cairns (1977) who felt that "biological integrity may be defined

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<sup>9</sup> See *An ecosystem approach to the integrity of the Great Lakes in turbulent times*, *ibid.*

<sup>10</sup> See online: Global Ecological Integrity Group <http://www.globalecointegrity.org>. Organizing members include two Canadian scholars: (i) Laura Westra, whose area includes environmental ethics, law, and policy with a focus on human rights and justice, was the Principal Investigator for the SSHRC funded ecological integrity research; and (ii) Colin Soskolne, a Professor of Epidemiology at the University of Alberta School of Public Health, who studies the link between ecological integrity and human health.

<sup>11</sup> There is disagreement over whether ecological integrity can be normative. See e.g., Kristin Shrader-Frechette, "Hard Ecology, Soft Ecology, and Ecological Integrity" in *Perspectives on Ecological Integrity*, *supra* note 7 at 125 and Wicklum and Davies, "Ecosystem health and integrity?" (1995) 73 *Can. J. Bot.* 997. These commentators argue that any assessment on ecological integrity is entirely subjective. Without quantifiable rigour, ecological integrity offers no basis upon which to make rational, objective decisions. Since my purpose here is to apply the literature to critique the use of ecological integrity in legislation, my analysis presumes some normative role for ecological integrity.

as the maintenance of community structure and function characteristic of a particular locale or deemed satisfactory to society." The second definition was proposed by Frey (1977) who defined the integrity of water as "the capability of supporting and maintaining a balanced, integrated, adaptive community of organisms having a composition and diversity comparable to that of the natural habitats of the region".<sup>12</sup>

The following sections demonstrate that the natural ecological integrity perspective aligns most closely with the preservation of nature for its own sake and is, accordingly, the core principle underlying the cause for preservation in the national parks.

**(b) Natural ecological integrity**

For certain scholars, an obligation to maintain ecological integrity is the keystone of an altered worldview that respects intrinsic value in all life. Thinking of ecological integrity reminds us that a tree is alive, and is not just a source of lumber. This view on ecological integrity joins in a wider call to reject the mainstream, instrumental, reductive human-centred account of life as a collection of resources to further human needs, desires and interests.<sup>13</sup> The central premise here is that ecological integrity exists apart from humans. Human activity harms the landscape, impairs ecological integrity, and thus paradigm ecological integrity is found in landscape preserved apart from humans.

Natural ecological integrity, and the modern preservation movement generally, has its roots in the 19<sup>th</sup> century romantic accounts of wilderness. As the North American landscape succumbed to the settler axe, plough, and railway, the diminishing frontier inspired writers and artists to portray wilderness in more favourable terms.<sup>14</sup> Hence, the sublime and the romantic accounts of wilderness from the early 19<sup>th</sup> century writing of David Thoreau in the eastern United States to the early 20<sup>th</sup> century writing of Mary Schaffer in Jasper National Park, both of whom contrast a pristine and untouched

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<sup>12</sup> Environmental Protection Agency, *supra* note 8.

<sup>13</sup> An example of environmentalism that rejects a reductive account is Neil Evernden, *The Natural Alien* (Toronto: University of Toronto Press, 1985).

<sup>14</sup> See generally Greg Garrard, *Ecocriticism* (New York: Routledge, 2004); Roderick Nash, *Wilderness and the American Mind*, 4<sup>th</sup> ed. (New Haven: Yale University Press, 2001).

wilderness with the gloomy and desolate city.<sup>15</sup> For the romantics, wilderness is an idealized escape from civilization gone awry. Paradigm natural ecological integrity, and places where it is present, is similarly idealized by its proponents.

Laura Westra, whose work forms the core of the Global Ecological Integrity Group, is paramount among advocates for the need to preserve the ecological integrity of pristine landscape (wilderness) untouched by humans.<sup>16</sup> Westra identifies several characteristics of natural ecological integrity, including resilience and the ability to function at optimum capacity. In ecosystem terms, resilience is the measure of an ability to absorb unexpected surprise or changing externalities and maintain ongoing functions.<sup>17</sup> Optimum capacity is a particular state whereby an ecosystem is most capable of excellence or well-being. Paradigm ecological integrity exists in the absence of human influence: “[W]hen . . . the system’s optimum capacity for the greatest possible on-going development options within its time/location, remains undiminished . . . The system will possess integrity, if it retains the ability to continue its ongoing change and development, unconstrained by human interruptions past of present.”<sup>18</sup>

Westra constructs an ethic that posits ecological integrity as a life-supporting function and, on the basis of the need to preserve life, she asserts ecological integrity as the ultimate value on Earth. Since life cannot exist in the absence of ecological integrity, any human activity that degrades ecological integrity, or disrupts the ability of an ecosystem from functioning at its optimum capacity, is immoral.<sup>19</sup> In terms of obligation, Westra

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<sup>15</sup> See Henry David Thoreau, “Walking” reprinted in Robert Finch and John Elder, eds., *Nature Writing: The Tradition in English*, 2<sup>nd</sup> ed. (New York: Norton, 2002) at 180 and Pearlann Reichwein and Lisa McDermott, “Opening the Secret Garden” in Maclaren, ed., *Culturing Wilderness in Jasper National Park* (Edmonton: University of Alberta Press, 2007) at 155.

<sup>16</sup> Laura Westra, *An Environmental Proposal for Ethics: The Principle of Integrity* (Lanham, Maryland: Rowman & Littlefield, 1994) [Westra, *Principle of Integrity*].

<sup>17</sup> C.S. Holling and Lance H. Gunderson, “Resilience and Adaptive Cycles” in C.S. Holling and Lance H. Gunderson, eds., *Panarchy: Understanding Transformations in Human and Natural Systems* (Washington: Island Press, 2002) 25 at 50.

<sup>18</sup> Westra, *Principle of Integrity*, *supra* note 16 at 41. See also Laura Westra *et al.*, “Ecological Integrity and the Aims of the Global Integrity Project” in David Pimental, Laura Westra & Reed Noss, eds., *Ecological Integrity: Integrating Environment, Conservation, and Health* (Washington: Island Press, 2000) 19 at 20-22

<sup>19</sup> Westra, *Principle of Integrity*, *supra* note 16 at 91-101.

argues ecological integrity commands our respect and “. . . obliges us to refrain from interfering in the healthy functioning of life-support systems and to curb whatever choices or activities might disrupt the freedom of such systems to develop to their full potential . . .”<sup>20</sup> Westra expressly rejects any consequential, instrumental, or balancing approach to assessing ecological integrity.<sup>21</sup> Her theory precludes the possibility that the maintenance of ecological integrity be simply one factor for consideration among others in a decision-making process. The duty to preserve ecological integrity stands alone and is justified apart from any human considerations.

Here, a parallel can be seen between Westra’s absolutism and Tom Regan’s preservation principle which calls for the “. . . nondestruction, non-interference, and, generally nonmeddling”<sup>22</sup> with nature. Regan asserts that any consideration of human interests necessarily negates the possibility of adhering to the preservation principle:

If the sort of value natural objects possess is inherent, then one fails to show a proper respect for these objects if one is willing to destroy them merely on the grounds that this would benefit human beings. Since such destruction is precisely what the human interests principle commits one to, one cannot *both* accept the preservation principle, absolute or *prima facie*, *and* also accept the human interests principle. The common enemy of all preservationists are those who accept the human interests principle.<sup>23</sup>

Westra acknowledges any principle that commands complete non-interference with nature is not operational, so she accepts the need for human intervention with natural ecological integrity in very limited circumstances: (1) to restore or remedy an impact caused by human activity; and (2) to preserve our species in the face of threat.<sup>24</sup> In operational terms, Westra argues core areas of ecological integrity are to be surrounded by a buffer zone where human activity exists only to the extent it respects the integrity of

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<sup>20</sup> *Ibid.* at 109.

<sup>21</sup> *Ibid.* at 47.

<sup>22</sup> Tom Regan, “The Nature and Possibility of an Environmental Ethic” (1981) 3 *Environmental Ethics* 19 at 31-32. Regan is noted for his Kantian defence of animal rights. See e.g. Tom Regan, *The Case for Animal Rights* (Berkeley: University of California Press, 1983).

<sup>23</sup> Regan, *The Nature and Possibility of an Environmental Ethic*, *ibid.* at 32 [emphasis in original].

<sup>24</sup> Westra, *Principle of Integrity*, *supra* note 16 at 124.

the core area. The ecological integrity of a core area guides and limits acceptable human activity in buffer zones and beyond.<sup>25</sup>

Laura Westra's ethic builds on descriptive accounts of ecological integrity that similarly view it as a state with minimal or no human influence, and identify ecological integrity using ecological indicators and trends analysis. The general framework involves identifying ecological integrity for a selected area (an undisturbed point of reference) and measuring the integrity of comparable areas by the extent to which measurements in these areas deviate from the undisturbed state. Ecological integrity is typically assessed on a continuum from high to low, with an accompanying trends analysis describing whether integrity is improving, stable or in decline.

James Karr is prominent here and is commonly referenced in the literature for his seminal research in developing the Index for Biological Integrity: A tool that uses various indices to measure the integrity of water ecosystems. The Index functions by compiling several data indices from water ecosystems relatively uninfluenced by humans and considered to exhibit integrity, and then applying these indices to assess the integrity of analogous systems that have been subjected to human activity.<sup>26</sup> Karr defines ecological integrity as a state apart from human influence with “. . . the ability to support and maintain a balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of natural habitat of the region.”<sup>27</sup> The United States Environmental Protection Agency reports that nearly all state jurisdictions now employ a variation of the Index of Biological Integrity in their

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<sup>25</sup> This core/buffer land use strategy is not exclusive to Westra. See e.g. Michael Soule and John Terborgh, *Continental Conservation: Scientific Foundations of Regional Reserve Networks* (Washington: Island Press, 1999). Soule and Terborgh likewise assert core areas as places where human activity is not dominant on the landscape, and such areas provide sanctuaries for endangered species, baseline information from which to assess changes to the land outside of the core area, and opportunities to experience the aesthetic beauty of nature (*ibid.* at 99-106).

<sup>26</sup> For a detailed discussion of the Index of Biological Integrity see James Karr, “Biological Integrity: A Long-Neglected Aspect of Water Resource Management” (1991) 1 *Ecological Applications* 66.

<sup>27</sup> *Ibid.* at 69. Other Karr articles include Paul Angermeier and James Karr, “Biological Integrity versus Biological Diversity as Policy Directives: Protecting biotic resources” (1994) 44(10) *BioScience* 690 and James Karr and Ellen Chu, “Ecological Integrity: Reclaiming Lost Connections” in *Perspectives on Ecological Integrity*, *supra* note 7 at 34. For a similar definition of ecological integrity, see Callicott et. al., “Current Normative Concepts in Conservation” (1999) 13:1 *Conservation Biology* 22 at 24.

water management program.<sup>28</sup> The literature suggests this science-based approach to defining and assessing ecological integrity using indices, indicators, and measures to compare disturbed and undisturbed ecosystems is widely employed.<sup>29</sup>

**(c) Socio-ecological integrity**

Others reject the very possibility of a worldview that is not human-centred, noting that even a decision to “let it be” is based on human interests. According to this view the decision to preserve is a human choice to prefer one ecological regime over others, rather than maintaining some pre-existing or pristine state. There is no place on Earth untouched or undisturbed by humans that accords with the pristine wilderness idealized by natural ecological integrity. In this view, ecological integrity must be considered in the context of human judgment and becomes another factor, albeit an important one, to be weighed alongside other socio-economic interests in our decision-making processes.

Often labelled as shallow environmentalism or enlightened utilitarianism by proponents of natural ecological integrity, this socio-ecological approach views ecological integrity as having instrumental value towards serving social needs or preferences. For commentators in this group, human obligation to nature is contingent and indirect; in contrast with the categorical and direct human obligation to respect the intrinsic value of natural ecological integrity advocated by others. For example, the obligation to reduce effluent in a river or preserve it from pollution in the first instance is contingent on such activity serving some human interest or preference.

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<sup>28</sup> U.S. Environmental Protection Agency, “An Introduction to the Index of Biotic Integrity”, online: <http://www.epa.gov/bioiweb1/html/ibi-hist.html> (date accessed: 25 May 2009).

<sup>29</sup> Recent examples of the literature include Borja *et. al.*, “Overview of integrative tools and methods for assessing in estuarine and coastal systems worldwide” (2008) 56 Marine Pollution Bulletin 1519; Llanso, Dauer, & Volstad, “Assessing ecological integrity for impaired water decisions in Chesapeake Bay, U.S.A.” (2009) 59 Marine Pollution Bulletin 48; Beyene *et. al.*, “Urban impact on ecological integrity of nearby rivers in developing countries: the Borkena River in highland Ethiopia” (2009) 153 Environ Monit Assess 461; Arimoro and Ikomi, “Ecological integrity of Upper Warri River, Niger Delta using aquatic insects as bioindicators” (2009) 9 Ecological Indicators 455; Esbah, Cook & Ewan, “Effects of Increasing Urbanization on the Ecological Integrity of Open Space Preserves” (2009) 43 Environmental Management 846.

The work of the James Kay and Henry Regier features prominently here. Kay and Regier observe that human and ecological interests co-exist as our social systems draw upon the energy and components of their surrounding ecological systems for sustenance and enjoyment. And in the process, we alter the structure and processes of the ecological systems. These alterations, in turn, influence the structure and processes of our social systems in desirable or undesirable ways. Feedback loops are created and eliminated as social and ecological systems self-organize and influence each other. So, for Kay and Regier, ecological integrity is a system state that represents a desirable relationship between social and ecological systems, and as such necessarily involves human judgment because there is no objective or ‘scientific’ reason to prefer one state over another.<sup>30</sup>

Kay and Regier define ecological integrity in terms of resiliency and an ability to self-organize:

Put in the parlance of complex systems, ecological integrity is about maintaining the integrity of the process of self-organization. This has three facets, a) the current organizational state of the system, b) the ability of the system to reorganize in the face of environmental change, c) the system’s ability to continue to self-organize in its normal environment. The latter two facets of ecological integrity (resiliency and self-organization) are what distinguishes it from the concept of ecological health.<sup>31</sup>

Self-organization describes non-mechanical behaviour. Structures and processes mutually influence each other to create emergent properties that cannot be explained solely by reducing the whole to its parts. Systems theory suggests ecosystems self-organize towards mutually exclusive attractors or states, with the propensity to remain

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<sup>30</sup> James Kay and Henry Regier, “Uncertainty, Complexity and Ecological Integrity: Insights from an Ecosystem Approach” in P. Crabbe *et. al.*, eds., *Implementing Ecological Integrity: Restoring Regional and Global Environmental and Human Health* (Dodrecht, The Netherlands: Kluwer Academic Publishers, 2000) 121 at 134. See also James Kay, “On the Nature of Ecological Integrity: Some Closing Comments” in Stephen Woodley, James Kay, & George Francis, eds., *Ecological Integrity and the Management of Ecosystems* (U.S.A.: St. Lucie Press, 1993) 201; James Kay and Eric Schneider, “Embracing Complexity: The Challenge of the Ecosystem Approach” in *Perspectives on Ecological Integrity*, *supra* note 7 at 49; and Clayton J. Edwards and Henry A. Regier, eds., *An ecosystem approach to the integrity of the Great Lakes in turbulent times* (Ann Arbor, MI: Great Lakes Fishery Commission, 1990).

<sup>31</sup> Kay and Regier, “Uncertainty, Complexity, and Ecological Integrity Insights from an Ecosystem Approach”, *ibid.* at 134.

there until disturbed by an external stimulus.<sup>32</sup> While there is overlap between Westra's definition of ecological integrity and this one (Westra expressly adopts some of Kay's work in her theory), the two approaches sharply divide over the instrumental or utilitarian basis of ecological integrity employed by Kay and Regier.

A good illustration of how socio-ecological integrity may guide decision-making – and how it differs from the categorical normative guidance offered by natural ecological integrity - recently unfolded near my home.<sup>33</sup> There is a nearby creek flowing through a wooded ravine which had experienced an increase in beaver population. With increased numbers, the beavers felled relatively more trees and began to clog the water flow in the creek with dams and lodges. The once fast-moving brook had become segmented into slow-moving pools separated by short sections of fast-moving water. Species more suited to slow-moving, wetlands habitat were attracted to the ravine, while species more suited to fast-moving water were dissipating. In response to concerns from local residents complaining of an increase in mosquitoes and flooded pathways in the ravine, town officials removed some of the beavers and their associated dams along the creek to restore water flow. Rather than let it be, town officials intervened in an effort to alter the *undesirable* trajectory of the region towards wetlands and re-establish the fast-moving creek to maintain socio-ecological integrity in the region. In terms of the systems theory described by Kay and Regier, the ravine was self-organizing (or attracted) towards beaver habitat, and would continue on this trajectory until external change caused the system to move towards a new attractor.<sup>34</sup>

Paul Haught offers a similar view on ecological integrity, employing ethics rather than science to construct a narrative approach to defining ecological integrity, whereby the ecological integrity of a particular place is the coherence of its historical narrative.<sup>35</sup> Haught believes that science alone is incapable of providing a normative basis for

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<sup>32</sup> See generally *ibid.*

<sup>33</sup> The example is based on events taking place in my hometown of Cochrane, Alberta but my insights are based on a similar example provided by Kay and Regier, *ibid.* at 132-133..

<sup>34</sup> For an earlier discussion of domain attractors and flips in system behaviour see C.S. Holling, "Resilience and Stability of Ecological Systems" (1973) 4 Annual Review of Ecology and Systematics 1.

<sup>35</sup> Paul Haught, *Ecosystem Integrity and its Value for Environmental Ethics* (M.A. Diss. Philosophy, University of North Texas, 1996) [unpublished].

ecological integrity; that ecological indicators or measurements can determine a particular state of ecosystem but do not establish why humans ought to preserve that state. Haught argues integrity relates to the manner by which something develops and, in itself, does not imply good or bad development. In this regard, Haught makes an analogy with the work of Mark Halfon on the integrity of individuals:

[T]he concept of integrity is not logically or conceptually tied to any specific principle or ideal. What makes men and women persons of integrity is that they exhibit commitments to do what they believe is best and that they maintain their commitments consistently under conditions of adversity.<sup>36</sup>

In ecological terms, Haught argues integrity relates to the ability of an ecosystem to maintain its ecological and historical identities in the face of adversity. Ecological and historical identities are formed from narratives told by humans connected to the place(s) in question. Just as Kay and Regier argue there is no objective basis upon which to prefer one socio-ecological state to another, Haught similarly acknowledges there is no objective basis for choosing between narratives, but rather that ecological integrity of a particular place is maintained by adhering to those narratives true to its historical identity.

#### **(d) Conclusion**

The ecological integrity literature includes both ethical and scientific accounts of what it means to maintain ecological integrity, and is sharply divided over the categorization of human activity. Commentators who define ecological integrity as natural ecological integrity view human activity as a *disturbance* that necessarily compromises ecological integrity by, for example, introducing a population of non-native species or reducing a population of native species. Central to the task of natural ecological integrity proponents, and most problematic, is to identify what is *native* to the region in question. Proponents of socio-ecological integrity, on the other hand, view human activity along with any other ecological process and consider human judgment and narratives as key towards identifying ecological integrity in a socio-ecological context. Central to the task of socio-ecological integrity proponents, and most problematic, is to ask whether the

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<sup>36</sup> Mark Halfon, *Integrity: A Philosophical Inquiry* (Philadelphia: Temple University Press, 1989) at 165.

effect of an activity on the landscape is desirable. Who's view on desirability counts, and how does one adjudicate between competing ecological narratives or identities?

Both perspectives have merit for decision-making purposes, but natural ecological integrity seems more supportive of prohibiting human activity in the interests of preservation. While perhaps setting an unachievable objective (preserving unaltered nature) on questionable justification (what is natural), the preservation norm advanced by maintaining natural ecological integrity allows its proponents to assert a categorical position rather than engage in the balancing of interests. Asserting the need to maintain natural ecological integrity allows one to draw the line and take a stand. Not surprisingly then, natural ecological integrity is used extensively in national parks discourse.

### **III. The law and policy of ecological integrity in Canadian national parks**

#### **(a) Introduction**

It is of little surprise that ecological integrity figures prominently in the legal and policy framework governing Canada's national parks. Canadians expect protected areas to shoulder a significant environmental load whether as sanctuaries for endangered species, a baseline for measuring the effects of climate change, or as opportunities to escape the gloom of urban life. Canadian national parks are no exception to this. A concept such as ecological integrity, in any of its various identities, attracts favourable consideration as a governing norm for managing protected areas.

Perhaps not the learning experience that most associate with a national park, but examining the history behind legislating ecological integrity as the first priority in Canada's national parks and its subsequent policy and legal application in parks decision-making demonstrates the difficulties inherent in implementing a scientific or ethical premise into a legal rule. Parliament responded to the modern science and ethics of preservation in 2001 by legislating the maintenance or restoration of natural ecological integrity as the first priority in the parks, thereby culminating a shift in parks policy to establish the preservation of nature for its own sake as the primary purpose in Canada's national parks. However, subsequent parks decision-making has not implemented the

preservation norm called for by natural ecological integrity, and has seemingly adopted the maintenance of socio-ecological integrity as the priority in the parks.

**(b) Ecological integrity legislation**

Legislative jurisdiction in the national parks is vested predominately with Parliament,<sup>37</sup> with its delegate Parks Canada having extensive decision-making power within their boundaries. Parks Canada manages the national parks under authority provided in various statutes including the *Canada National Parks Act*,<sup>38</sup> the *Parks Canada Agency Act*,<sup>39</sup> and the *Canadian Environmental Assessment Act*.<sup>40</sup>

Ecological integrity first entered national parks legislation in 1988 when Parliament legislated the maintenance of ecological integrity as the first priority in national park zoning and visitor use management.<sup>41</sup> While this statutory provision was judicially cited in several subsequent judgments, it was not the focus of litigation and its meaning and scope was never thoroughly considered.<sup>42</sup>

Pressure to strengthen the preservation mandate in the national parks continued subsequent to the 1988 enactment, and in 1998 the Minister of Canadian Heritage appointed a panel of scientists to assess the strengths and weaknesses in Parks Canada's management for ecological integrity in the national parks. In 2000 the panel provided the Minister with recommendations to further the ability of Parks Canada to meet its ecological integrity goals.<sup>43</sup> Among many recommendations intended to reinforce the

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<sup>37</sup> Readers interested in the constitutional status of Canada's national parks and the federal-territorial-provincial division of legislative jurisdiction should consult Nigel Bankes, "Constitutional Problems Related to the Creation and Administration of Canada's National Parks" in J. Owen Saunders, ed., *Managing Natural Resources in a Federal State* (Toronto: Carswell, 1986) at 212.

<sup>38</sup> S.C. 2000, c. 32.

<sup>39</sup> S.C. 1998, c. 31.

<sup>40</sup> S.C. 1992, c. 37.

<sup>41</sup> *National Parks Act*, R.S.C. 1985, c. N-14, s. 5(1.2).

<sup>42</sup> The ecological integrity provision contained in section 5(1.2) of the *National Parks Act*, R.S.C. 1985, c. N-14, was cited in seven Federal Court judgments, several of which involved an environmental assessment dispute concerning expansion at Sunshine Village in Banff National Park. See e.g., *Sunshine Village Corp. v. Canada (Minister of Environment and Minister of Canadian Heritage)*, [1996] F.C.J. 1118 (FCA)(QL).

<sup>43</sup> Parks Canada, "*Unimpaired for Future Generations*" ? *Conserving Ecological Integrity with Canada's National Parks*, 2 volumes, (Ottawa: Minister of Public Works and Government Services, 2000) [Ecological Integrity Panel Report].

preservationist direction for the national parks, the Ecological Integrity Panel Report called for legislative amendments to ensure the maintenance or restoration of ecological integrity be the *overriding* priority in all parks management.<sup>44</sup> The consensus among panel members was that a stronger legal mandate was necessary to remedy the noted ecological decline in the parks and to provide authority for Parks Canada to say “no” to human activity in the parks.<sup>45</sup>

Parliament responded in February 2001 by legislating an expanded ecological integrity mandate in the *Canada National Parks Act* with the following additions in sections 2 and 8:

#### Section 2(1) - Definitions

“ecological integrity” means, with respect to a park, a condition that is determined to be characteristic of its natural region and likely to persist, including abiotic components and the composition and abundance of native species and biological communities, rates of change and supporting processes.

#### Section 8(1) – Management by Minister

The Minister is responsible for the administration, management and control of parks, including the administration of public lands in parks and, for that purpose, the Minister may use and occupy those lands.

#### Section 8(2) – Ecological integrity

Maintenance or restoration of ecological integrity, through the protection of natural resources and natural processes, shall be the first priority of the Minister when considering all aspects of the management of parks.

These ecological integrity provisions were enacted by Parliament alongside the long-standing section 4(1) which dedicates the national parks to the use and enjoyment of Canadians:

#### Section 4(1) – Parks dedicated to public

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<sup>44</sup> Ecological Integrity Panel Report, *ibid.* at Appendix C.

<sup>45</sup> Ecological Integrity Panel Report, *ibid.* at 1-17.

The national parks of Canada are hereby dedicated to the people of Canada for their benefit, education and enjoyment, subject to this Act and the regulations, and the parks shall be maintained and made use of so as to leave them unimpaired for the enjoyment of future generations.

In 2003, I argued that section 8(2) and the legislated ecological integrity definition in section 2(1) aligns most closely with natural ecological integrity based on: (i) the categorical priority afforded to ecological integrity in section 8(2); (ii) the emphasis on natural conditions and native species in the legislated definition of ecological integrity; and (iii) the preservation focus of the Ecological Integrity Panel Report calling for parks to be landscapes not dominated by humans.<sup>46</sup> I offered the following interpretation of section 8(2) and its implications for national parks:

Together, natural ecological integrity and its place as the first priority in management decisions should significantly restrict or eliminate human activity within national parks. Management decisions consistent with Parks Act s. 8(2) require national parks to be managed as core preservation areas . . . . The parks are a place where the preservation of *nature* is the first priority, with human interests of secondary concern. The effect of s. 8(2) is to elevate ecological integrity, as a *natural* condition, to a position of dominance over humans.<sup>47</sup>

As noted in section III(d) below, reconciling this natural ecological integrity mandate with the section 4(1) dedication of parks to the use and enjoyment by Canadians has proven to be particularly troublesome for parks officials and the judiciary.

**(c) Ecological integrity policy**

**(i) Overview**

Parks Canada introduced ecological integrity into national parks policy in 1979 by stating: “Ecological and historical integrity are Parks Canada’s first considerations and

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<sup>46</sup> Shaun Fluker, “‘Maintaining ecological integrity is our first priority’ – Policy Rhetoric or Practical Reality in Canada’s National Parks? A case comment on *Canadian Parks and Wilderness Society v. Canada (Minister of Canadian Heritage)*” (2003) 13 J. Env. Law & Prac. 131 at 139-140. See also Clark, Fluker and Risby, “Deconstructing ecological integrity in Canadian national parks” in Hanna, Clark & Slocombe, eds., *Transforming Parks and Protected Areas* (New York: Routledge, 2008), c.8.

<sup>47</sup> Fluker, *Ibid* [footnotes omitted, emphasis in original].

must be regarded as prerequisites to use.”<sup>48</sup> The 1979 policy amendments carried forward into the 1988 legislative amendments which asserted the maintenance of ecological integrity as the first priority in park zoning and visitor use management.<sup>49</sup>

Stephen Woodley is a senior scientist with Parks Canada and is closely associated with ecological integrity policy in Canada’s national parks. His 1993 doctoral thesis constructs a framework for assessing the level of ecological integrity exhibited by a protected area and applies the framework to Fundy National Park.<sup>50</sup> Woodley provides a definition of ecological integrity that aligns closely with natural ecological integrity and is applied in the context of a protected area:

Ecological integrity is defined as a state of ecosystem development that is optimized for its geographic location. For parks and protected areas this optimal state has been referred to by such terms as natural, naturally evolving, pristine and untouched. It implies that ecosystem structures and functions are unimpaired by human-caused stresses, that native species are present at viable population levels and, within successional limits, that the system is likely to persist. Ecosystems with integrity do not exhibit the trends associated with stressed ecosystems. Parks and protected areas are part of larger ecosystems and determinations of integrity in national parks must consider these larger ecosystems.<sup>51</sup>

Woodley identifies ecological integrity measurement criteria based on ecosystem science, and he applies these criteria to assess the level of ecological integrity in Fundy National Park. His ecological integrity measures include: human disturbance; species richness; size of organisms; species reproduction; nutrient retention; landscape fragmentation; and native species population viability.

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<sup>48</sup> Canada, *Parks Canada Policy* (Ottawa: Minister of Indian Affairs and Northern Development, 1979) at 12.

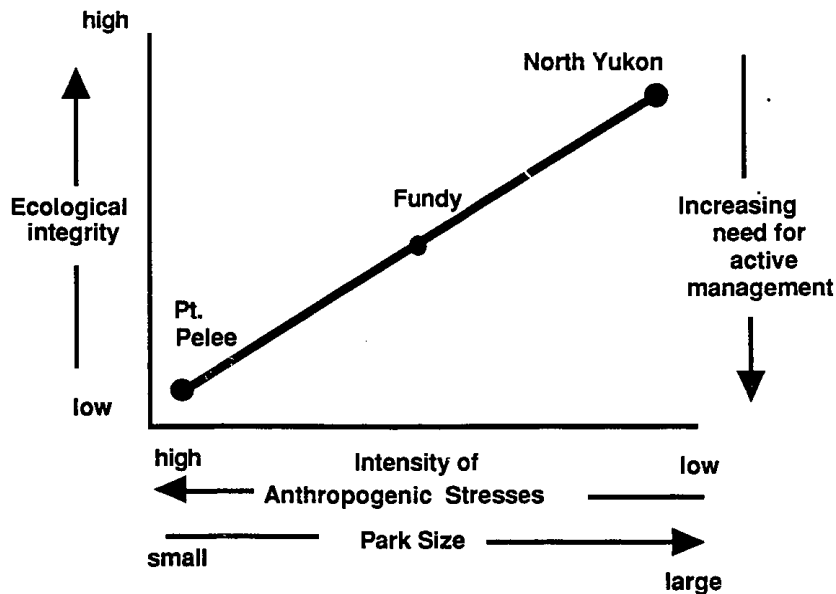
<sup>49</sup> *Supra* note 41.

<sup>50</sup> Stephen Jerome Woodley, *Assessing and Monitoring Ecological Integrity in Parks and Protected Areas* (Ph.D Diss. Geography, University of Waterloo, 1993) [unpublished]. An overview of his thesis findings is published in Stephen Woodley, “Monitoring and Measuring Ecosystem Integrity in Canadian National Parks” in Stephen Woodley, James Kay & George Francis, eds., *Ecological Integrity and the Management of Ecosystems* (Delray Beach, Florida: St. Lucie Press, 1993) 155.

<sup>51</sup> Stephen Jerome Woodley, *Assessing and Monitoring Ecological Integrity in Parks and Protected Areas*, *ibid.* at 6.

In applying his results, Woodley cautions that ecological integrity is best measured as a continuum.<sup>52</sup> For Woodley there is an inverse correlation between levels of ecological integrity in a national park and the extent of human activity (anthropogenic stress) therein, as his following diagram demonstrates:<sup>53</sup>

**Figure 5.2. The relationship of ecological integrity to National Parks management.**



Active management can be necessary to maintain or restore ecological integrity in a national park, with interventions such as culling hyper-abundant species, removing non-native species, and re-introducing native species.<sup>54</sup>

Woodley’s view on ecological integrity is deeply reflected in Parks Canada policy. In its 1997 State of the Parks Report, Parks Canada proposes a detailed monitoring program for ecological integrity, noting indicators such as species biodiversity, ecosystem function, and human stressors, as primary measurement factors.<sup>55</sup> The 1997 State of the Parks Report similarly associates high ecological integrity with the relative absence of human

<sup>52</sup> *Ibid.* at 144.

<sup>53</sup> *Ibid.* at 145.

<sup>54</sup> Stephen Woodley, “Planning and Managing for Ecological Integrity in Canada’s National Parks” in Dearden and Rollins, eds., *Parks and Protected Areas in Canada*, 3<sup>rd</sup> ed. (New York: Oxford, 2009) c.5.

<sup>55</sup> Parks Canada, *State of the Parks: 1997 Report* (Ottawa: Minister of Public Works and Government Services, 1998) at 23-47.

presence in the ecosystem.<sup>56</sup> Baseline or paradigm ecological integrity is identified in one or more parks and subsequently used as a comparative to measure the level of ecological integrity in remaining parks. Similar to Woodley's finding and using the same examples, the 1997 Report suggests highest levels of ecological integrity in the remote, recently established northern parks, with ecological integrity increasingly impaired in the more populated, southern parks:

Certainly large northern parks continue to have high levels of ecological integrity (ranking 1 to 2). They have a full complement of native species, with very little development and few visitors. A good example of a park that is as close to pristine as possible on our planet is Vuntut in the northern Yukon Territory. At the other end of the spectrum is a small park like Point Pelee (ranking 5) in Southern Ontario. This park is a small remnant of a formerly rich and diverse ecosystem now located in the midst of a heavily-populated and intensively-farmed area. Point Pelee still contains many elements of that former ecosystem but cannot be said to be pristine, and the integrity of the larger surrounding ecosystem is severely impaired.<sup>57</sup>

State of the parks reporting has evolved into park-specific reports, several of which have been published by Parks Canada.<sup>58</sup> These park reports demonstrate Parks Canada's continuing development of a science-based monitoring system for assessing ecological integrity. Each report assesses park ecological integrity based on a suite of indicators relevant to the specific park. Each indicator is graded on overall condition and trend, using several indicator-specific measures which may or may not have established threshold values for the park. Overall condition ranges from poor to fair to good, with trends as declining, stable, or improving. Ecological integrity for the park is subsequently assessed on a compilation of indicator results. These park specific monitoring programs are to be situated within a macro-monitoring system that assesses the ecological integrity of greater park ecosystems across Canada using satellite

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<sup>56</sup> *Ibid.* at 23.

<sup>57</sup> *Ibid.* at 46.

<sup>58</sup> See online: Parks Canada [http://www.pc.gc.ca/docs/bib-lib/docs5hi\\_e.asp](http://www.pc.gc.ca/docs/bib-lib/docs5hi_e.asp).

observation technology.<sup>59</sup> Parks Canada's ecological integrity monitoring program is sufficiently established to have attracted scholarly feedback on its effectiveness.<sup>60</sup>

The following section reviews the ecological integrity reporting from Point Pelee National Park and Banff National Park. I chose these parks because the ecological integrity mandate has been judicially considered in relation to them (discussed in section III(d) below).

## **(ii) Ecological integrity in Point Pelee National Park**

Parks Canada assesses the ecological integrity in Point Pelee National Park using four indicators in its 2006 State of the Park Report: forest, wetland, great lakes shore, and non-forest.<sup>61</sup> The forest indicator, for example, is rated as in fair and stable condition based on an overall assessment of the following measures:

- Forest birds (forest bird diversity, birds of deciduous or mixed open woodland, tree-nesting birds of closed forest, primary cavity-nesters, and generalists)
- Southern flying squirrel
- Forest landscape characteristics (amount and connectivity)
- Exotic invasive species
- Hyper-abundant deer
- Hyper-abundant double-crested cormorants
- Human footprint
- Contaminants<sup>62</sup>

The cormorant and human footprint measures are within the category of “stressor” in the park, suggesting some form of inverse relation between cormorants/humans and ecological integrity.

Parks Canada describes the cormorant indicator as poor and declining based on a hyper-abundant population that continues to adversely impact other species in the park:

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<sup>59</sup> Fraser, Olthof & Pouliot, “Monitoring land coverage change and ecological integrity in Canada's national parks” (2009) 113 *Remote Sensing of Environment* 1397.

<sup>60</sup> Joleen Timko and John Innes, “Evaluating ecological integrity in national parks: Case studies from Canada and South Africa” (2009) 142 *Biological Conservation* 676.

<sup>61</sup> *Point Pelee State of the Park Report 2006*, online: [http://www.pc.gc.ca/pn-np/on/pelee/plan/rpts/sop-edp/images/PtPeeleNP\\_SOP2006\\_e.pdf](http://www.pc.gc.ca/pn-np/on/pelee/plan/rpts/sop-edp/images/PtPeeleNP_SOP2006_e.pdf) at 13.

<sup>62</sup> *Ibid.* at 15-24.

The Lake Erie population of the double-crested cormorant has increased 150-fold over the past 25 years. (Hebert et al. 2005) The dramatic recovery of doublecrested cormorant populations from near extirpation from the Great Lakes in the early 1970's is believed to be in response to reduced levels of toxic chemicals such as DDT, reduced human persecution and changes in the prey base such as increases in forage fish in natural water and the development of large-scale aquaculture facilities. (Christie 1974, Hartmann 1988, Weseloh and Collier 1995, Wires and Cuthbert 2006) Three doublecrested cormorant nesting pairs colonized Middle Island in 1987. A survey in 1995 determined the population had exploded to 5,202 nesting pairs. (Hebert et al. 2005) Aerial photo analysis has shown a 41% loss of healthy forest canopy on Middle Island between 1995-2006, a change attributed to double-crested cormorant disturbance. (Herbert et al. 2005, Duffe 2006) The absence of six plant species at risk in a 2000-2003 survey of the island was attributed to double-crested cormorant guano. (North- South Environmental Inc. 2004) It is predicted that the Carolinian vegetation that covers much of the island will be largely eliminated if double-crested cormorant numbers are not controlled. (North-South Environmental Inc. 2004).

The double-crested cormorant measure is assessed to be in poor condition and declining due to the current high number of nesting double-crested cormorants on Middle Island and the corresponding impacts on vegetation communities and island fauna.<sup>63</sup>

Parks Canada has begun to cull the cormorant population in the interests of restoring ecological integrity in Point Pelee, and this cull program was the focus of a Federal Court order that considered the section 8(2) ecological integrity mandate and is discussed in section III(d) below. The human footprint in Point Pelee is sharply lower relative to historic measures, with the removal of cottages, farms and related roads. The 2006 report according observes the human stressor measure as good and improving.<sup>64</sup>

### **(iii) Ecological integrity in Banff National Park**

The 2008 Banff State of the Park Report provides a recent indication of how Parks Canada interprets its legislated ecological integrity mandate:

A national park has ecological integrity if all of the native plants and animals still thrive and if natural processes like fire, predation and avalanches are allowed to operate and continue to be the dominant forces affecting their habitats. . . . Determining whether or not a park is successful in maintaining [ecological

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<sup>63</sup> *Ibid.* at 17.

<sup>64</sup> *Ibid.* at 17-18.

integrity] requires information from a comprehensive set of indicators and measures that reflect trends in a broad array of species, communities, and ecological processes. Changes in the conditions of these indicators are meant to act as early warning bells to stimulate management actions necessary to maintain [ecological integrity].<sup>65</sup>

Parks Canada assesses the ecological integrity in Banff National Park using five indicators: native biodiversity, climate and atmosphere, aquatic ecosystems, terrestrial ecosystems, and regional landscapes. The 2008 Banff State of the Park Report identifies native biodiversity as a key indicator, defining it as “. . . the variety of life that was historically present prior to the establishment of the park. It excludes introduced species, ecosystems, functions or processes.”<sup>66</sup> The 2008 report concludes native biodiversity as in fair and stable condition based on an overall assessment of measures including:

- Ungulates
- Grizzly bear habitat and mortality
- Species at risk
- Birds
- Wildlife mortality
- Amphibians
- Harlequin ducks
- Wildlife corridors<sup>67</sup>

Despite the overall fair assessment for native biodiversity in the park, the 2008 report notes that grizzly bear and woodland caribou populations are in significant decline. Another key finding in the report is the declining condition of the climate and atmosphere indicator, with data confirming a significant recession of glaciers in the park along with declining precipitation amounts over the past fifty (50) years. Making reference to the legislated definition of ecological integrity (reproduced in section III(b) above), the report concludes historic climate characteristics of the park are not persisting.<sup>68</sup> Of final note here, the Banff Report indicates the presence of 93 non-native plant species in the park as a stressor on ecological integrity.<sup>69</sup>

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<sup>65</sup> *Banff State of the Park Report 2008*, online: < [http://www.pc.gc.ca/pn-np/ab/banff/plan/REP\\_SPR\\_e.pdf](http://www.pc.gc.ca/pn-np/ab/banff/plan/REP_SPR_e.pdf)> at 15.

<sup>66</sup> *Ibid.* at 16.

<sup>67</sup> *Ibid.*

<sup>68</sup> *Ibid.* at 19-21.

<sup>69</sup> *Ibid.* at 25.

**(iv) summary**

Parks Canada policy appears to select attributes from both natural and socio-ecological integrity. Ecological integrity in the national parks is clearly segregated from humans by Parks Canada, who categorizes human activity as a disturbance or ecological stressor. As well, parks policy distinguishes native from non-native species, and generally idealizes the undisturbed, untouched national park in a pristine state. In this sense, parks policy aligns with natural ecological integrity. At the same time however, parks policy calls for active management to maintain or restore ecological integrity with ongoing monitoring and assessments. This interventionist and quantitative character distinguishes parks policy from the romantic ‘let it be’ ontology of natural ecological integrity and suggests more of a socio-ecological approach to ecological integrity.

**(d) Ecological integrity case law**

The Federal Court of Canada has considered section 8(2) of the *Canada National Parks Act* several times since its proclamation in 2001. The first interpretation of this ecological integrity mandate was provided by Justice Frederick Gibson in the Federal Court Trial Division, subsequently endorsed by Justice John Evans at the Federal Court of Appeal, in a judicial review of the Parks Canada decision to approve a road crossing Wood Buffalo National Park.<sup>70</sup> This interpretation remains the leading authority on the meaning and scope of section 8(2).<sup>71</sup> All judicial consideration of section 8(2) thus far has involved a judicial review, with the applicant challenging a Parks Canada decision to approve a road, renew a water usage permit, close a fishery, or cull a bird population.

Federal Court justices have afforded significant deference to Parks Canada’s interpretation of its ecological integrity mandate, and have refused to set aside the impugned decision in every case. Thus, the maintenance or restoration of ecological integrity required by section 8(2) is applied in accordance with Parks Canada policy;

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<sup>70</sup> *Canadian Parks and Wilderness Society v. Canada (Minister of Canadian Heritage)*, 2001 FCT 1123, aff’d 2003 FCA 197 [*Wood Buffalo Road Decision*].

<sup>71</sup> In 2003, I criticized the Federal Court’s interpretation of section 8(2) in the *Wood Buffalo Road Decision*. See Shaun Fluker, *supra* note 46.

which means a scientifically informed, somewhat quantitative ecological integrity that doesn't comply precisely with either natural ecological integrity or socio-ecological integrity.

That the judiciary defers to Parks Canada is not surprising in light of the general jurisprudence in substantive judicial review.<sup>72</sup> However, the Federal Court's section 8(2) interpretation that maintaining ecological integrity is simply one of many factors for Parks Canada to weigh in parks decision-making is surprising and of some concern given the literal reading of the ecological integrity mandate in the *Canada National Parks Act* and the recommendations of the Ecological Integrity Panel Report that led to its enactment in 2001, both of which suggest the preservation of nature apart from humans (natural ecological integrity) is the priority in the national parks.

**(i) A winter road in Wood Buffalo National Park**

Wood Buffalo National Park straddles the northeast corner of Alberta and southern edge of the Northwest Territories, covering approximately 45,000 square kilometres. In 1983 the park received international recognition as a United Nations World Heritage Site as habitat for threatened wood bison and whooping crane species, as well as for protecting one of the world's largest inland freshwater deltas.

In 1998 the municipality of Fort Smith, located on the northern boundary of the park in the Northwest Territories, submitted an application to Parks Canada seeking approval to construct and operate a road crossing the park from east to west. The 1985 Wood Buffalo National Park management plan approved of the road in principle subject to an environmental assessment and, accordingly, Parks Canada commissioned an environmental assessment which concluded the winter road, taking into account mitigation measures, was not likely to cause significant adverse environmental effects.

In May 2001 the Minister of Canadian Heritage, via Parks Canada as her delegate, approved construction of the road. The Canadian Parks and Wilderness Society

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<sup>72</sup> *Dunsmuir v. New Brunswick*, 2008 SCC 9.

(CPAWS), presumably seeking to test the scope of the recently proclaimed ecological integrity provisions, sought judicial review of Parks Canada's approval primarily on the basis that Parks Canada had exceeded its section 8 management authority by approving a road for non-park purposes (acknowledged by Parks Canada in the evidence) and by failing to adhere to its section 8(2) ecological integrity obligation (Parks Canada did not mention ecological integrity in its decision).

In the Trial Division, Gibson J. agrees with the government's argument that the *Canada National Parks Act* grants wide discretion to Parks Canada to manage the national parks, and that this discretion includes the power to approve the winter road even if it is not expressly for a parks purpose. In rejecting CPAWS' argument that the approval contravenes section 8(2), Gibson J. provides a remarkable interpretation of the ecological integrity mandate and its relationship to the parks purpose statement in section 4(1):

Further, I agree with counsel for the respondents that the record, when read in its totality, is consistent with the Minister and her delegates according first priority to ecological integrity in arriving at the decision under review. That the decision is clearly not consistent with treating ecological integrity as the Minister's sole priority is clear. However, that is not the test. I reiterate: subsection 4(1) of the new *Act* requires a delicate balancing of conflicting interests which include the benefit and enjoyment of those living in, and in close proximity to, Wood Buffalo National Park. . . . In the circumstances, while Wood Buffalo National Park, like other National Parks, is dedicated to the people of Canada as a whole, it is not unreasonable to give special consideration to the limited number of people of Canada who are by far most directly affected by management or development decisions affecting the Park. I am satisfied that it was reasonably open to the Minister and her delegates to conclude that the interest of those people overrode the first priority given to ecological integrity where impairment of such integrity can be minimized to a degree that the Minister concludes is consistent with the maintenance of the Park for the enjoyment of future generations.

. . . Subsection 8(2) of the *Act* does not require that ecological integrity be the "determinative factor" in a decision such as that under review. Rather, it simply requires that ecological integrity be the Minister's "first" priority and, as indicated immediately above, I am satisfied on the totality of the evidence before the Court that it was her first priority in reaching the decision here under review. . . . I am

further satisfied that it was, as well, given first priority notwithstanding that it was not found to be the determinative factor in all of the circumstances.<sup>73</sup>

Gibson J.'s attempt to distinguish first priority from determinative factor is a red herring for the utilitarian logic he employs to frame the issue as balancing competing interests of humans (represented by local communities) and nature (represented by CPAWS).

CPAWS fares worse at the Federal Court of Appeal where Evans J.A. upholds the Parks Canada road approval and further restricts the scope of ecological integrity in the *Canada National Parks Act*. Evans J.A. confirms that Parks Canada is owed significant judicial deference with respect to the exercise of its section 8 parks management authority, and holds Parks Canada has wide-ranging authority in section 8(1) to manage national parks subject to *constraints* imposed by section 8(2). Evans J.A. confirms that where the Court is satisfied that Parks Canada acted within its legislated authority and considered ecological integrity as its first priority among other factors, the Court will not revisit how Parks Canada weighs ecological integrity and other factors in its management decision.<sup>74</sup>

The *Wood Buffalo Road Decision* stands for the view that ecological integrity is just one of several factors for Parks Canada to consider in park management decisions, that section 8(2) simply clarifies the pre-existing section 4(1) direction that parks remain unimpaired for the use of Canadians, and that ecological integrity is just a fancy way to describe a constraining factor on Parks Canada's management authority in the national parks.<sup>75</sup>

## **(ii) A water permit in Banff National Park**

Banff National Park is Canada's oldest and most famous protected area situated along the Continental Divide in the Canadian Rocky Mountains, stretching from the Columbia

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<sup>73</sup> *Canadian Parks and Wilderness Society v. Canada (Minister of Canadian Heritage)*, 2001 FCT 1123 at paras. 52,53.

<sup>74</sup> *Canadian Parks and Wilderness Society v. Canada (Minister of Canadian Heritage)*, 2003 FCA 197 at para. 99.

<sup>75</sup> Parks Canada's approval was ultimately set aside in separate challenge filed by the Mikisew Cree First Nation, who successfully argued that the road approval infringed their constitutional right to consultation by the Crown (*Mikisew Cree First Nation v. Canada (Minister of Canadian Heritage)*, 2005 SCC 69, rev'g 2004 FCA 66).

Icefield in the north and generally following the Bow River from its glacial origin to the foothills along the eastern slopes of the mountain range. This spectacular setting encouraged the Canadian Pacific Railway to open its castle-like Banff Springs Hotel in 1888 and, two years later, its Chateau Lake Louise to draw tourists to the park and view glacial-fed lakes surrounded by snow-capped 11,000 foot peaks.

Shortly after the *Wood Buffalo Road Decision*, park preservationists again turned to section 8(2) in seeking judicial review of a Parks Canada decision. This time it was the Mountain Parks Watershed Association seeking to have the Federal Court set aside a water permit renewal issued by Parks Canada to Chateau Lake Louise pursuant to section 18(1) of the *National Parks General Regulations*.<sup>76</sup> This dispute was part of a battle between preservationists and tourism over the size and scope of operations at Chateau Lake Louise, with preservationists looking for legal assistance to prevent further expansion of operations. The new legislated ecological integrity mandate provided the impetus to challenge what was otherwise a longstanding practice of water diversion by the Chateau Lake Louise to service the needs of its guests.

The Mountain Parks Watershed Association argued the water withdrawal from Lake Louise would impair the ecological integrity of Banff National Park, and that accordingly Parks Canada had contravened its section 8(2) obligation in renewing the permit. Parks Canada had come to the opposite conclusion based on an environmental assessment conducted on the water diversion and various planning documents that contemplated the activity, including the 1997 Banff National Park Management Plan. In denying the Association's application, Federal Court Justice Rouleau interprets sections 4(1) and 8(2) along similar lines to that provided in the *Wood Buffalo Road Decisions*: These sections of the *Canada National Parks Act* require parks decision-making to strike a balance between human use and preserving ecological integrity, and the Court will not revisit

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<sup>76</sup> SOR /78-213.

how Parks Canada weighs ecological integrity as one of the considerations in its decision.<sup>77</sup>

### **(iii) Cormorants in Point Pelee National Park**

Point Pelee National Park occupies just 16 square kilometres in the southernmost tip of Ontario along Lake Erie. The park was established in 1918 as a migratory bird sanctuary. Conditions for migratory cormorant survival have improved in last few decades, resulting in a sky-rocketing population of the nesting birds on Lake Erie's Middle Island within the national park. What is good for the cormorant is apparently not so good for property values, sport fishing, and island vegetation: The estimated 8000 nesting cormorants are apparently turning away visitors with their "chicken coop" smell, insatiable diet for small fish (which is also food for local salmon), and destructive impact on island vegetation and soil.

In April 2008 Parks Canada announced its intention to cull approximately 90% of the cormorant population (reducing it to approximately 500 birds) nesting on Middle Island pursuant to its authority granted by section 15(1) of the *National Parks Wildlife Regulations*.<sup>78</sup> Parks Canada asserts the cull, to be completed over five years, is necessary to protect rare species located on Middle Island and its current ecosystem which are endangered by the 'hyper-abundant' cormorants deforesting the island and shifting it to an alternate ecosystem state.<sup>79</sup> Some argue, in response, that Parks Canada is simply appeasing the tourism and recreational concerns over the cormorant population.

ZooCheck Canada, one of the voices in opposition, applied to the Federal Court to challenge Parks Canada on judicial review, and initially sought an interlocutory injunction to prevent the cull before its review application was heard. Justice Russell Zinn denied the injunction application, and ecological integrity figures prominently for Zinn J. who notes ecological integrity as having a special place in parks management

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<sup>77</sup> *Mountain Parks Watershed Assn. v. Chateau Lake Louise*, 2004 FC 1222 at paras. 16, 19-23 [*Lake Louise Water Decision*].

<sup>78</sup> SOR/81-401.

<sup>79</sup> Parks Canada details its position in the 2006 Point Pelee park report.

because of section 8(2).<sup>80</sup> Ultimately Zinn J. agrees with Parks Canada that maintaining or restoring park ecological integrity demands the cull:

Parks Canada and the Canadian Wildlife Service have been monitoring and studying the ecosystem of Middle Island for several years. There has been a decline in forest cover and ground vegetation. . . . During the same period Parks Canada has noted an increase in the number of cormorant nests on Middle Island. . . . Parks Canada's experts have concluded that the deforestation of Middle Island is caused by the increased number of nesting cormorants. Parks Canada is concerned that the damage to the Middle Island ecosystem may result in an ecosystem shift. . . . Professor Hebert, an expert witness for the Respondents, explained an ecosystem shift by analogy to the rivets in an airplane. One may remove rivets from an airplane one by one with little change being noticed, because there are so many rivets, until suddenly too many have been removed and there is a catastrophic failure of the aircraft. In a similar fashion, he explained, one may remove species of plants and animals from an environment with little notice until suddenly there is a shift in the ecosystem from what it once was to what it has become. . . . Parks Canada argues that immediate steps are required to reduce the number of breeding cormorants on Middle Island before its unique ecosystem is so damaged that the tipping point has been reached and there is an ecosystem shift. If that were to happen, it argues, Middle Island's unique Carolinian ecosystem would be lost and the Minister would not have satisfied the first priority in section 8(2) of the Canada National Parks Act of maintaining ecological integrity. . . .

It may be, to use the analogy provided by Professor Hebert, that 2008 will be the last rivet in the airplane and the failure to stop the destruction of vegetation on Middle island will precipitate the ecosystem shift.<sup>81</sup>

Parks Canada's arguments, upheld in the *Point Pelee Cormorant Decision*, confirm its view that maintaining ecological integrity does not mean "let nature be" and that active management can be necessary to steer an ecosystem towards a desirable trajectory. Zinn J. accepts Parks Canada's interpretation of its ecological integrity obligation, and ironically, considers section 8(2) as justification for the exact opposite of preservation – the cull of thousands of migratory cormorants.<sup>82</sup>

**(iv) A clam fishery in Kouchibougauc National Park**

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<sup>80</sup> *ZooCheck Canada v. Parks Canada Agency*, 2008 FC 540 [*Point Pelee Cormorant Decision*].

<sup>81</sup> *Ibid.* at paras. 15-22, 61.

<sup>82</sup> *Ibid.* at paras. 60-62.

Kouchibouguac National Park is located along the eastern shoreline of New Brunswick, and contains a variety of habitats including forest, peat bogs, intertidal shoreline, lagoons, and salt marshes. The park also contains a clam fishery, with an open season between May and September each year. On July 31, 2007, Parks Canada closed the fishery for the balance of the 2007 season pursuant to its authority under section 35(1) of the *National Parks of Canada Fishing Regulations*.<sup>83</sup> Members of the Kouchibouguac Commercial Clam Fishermen Association challenged the closure with a judicial review application in Federal Court, arguing: (1) the closure was not necessary for conservation or protection of the clam population; and (2) the closure did not further the objectives of the governing legislation including the *Canada National Parks Act*.<sup>84</sup> In affording significant deference to Parks Canada, Madam Justice Dawson upheld the closure as reasonable in light of Parks Canada's view it was necessary because of an absence of enforcement personnel.<sup>85</sup> Dawson J. also finds the closure as consistent with Parks Canada's ecological integrity mandate in section 8(2), and she asserts the first priority of ecological integrity in relation to other parks objectives in related legislation:

While, in its preamble, the Agency Act speaks to the protection of cultural heritage and the encouragement of stewardship, these goals, in separate but related legislation, cannot trump subsection 8(2) of the Act which makes the maintenance or restoration of ecological integrity the first priority in a national park. The Act clarifies in subsection 2(1) that "ecological integrity" includes "the composition and abundance of native species and biological communities, rates of change and supporting processes."<sup>86</sup>

Notable here is that Dawson J. finds the ecological integrity priority cannot be overridden by other goals, unlike the earlier 2001 interpretation provided by Gibson J. in the *Wood Buffalo Road Decision* that ecological integrity may be overridden by other interests where impairment is minimal.

#### (v) Analysis

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<sup>83</sup> C.R.C., c. 1120

<sup>84</sup> *Burley v. Attorney General (Canada)*, 2008 FC 588 [*Kouchibouguac Fishery Decision*].

<sup>85</sup> *Ibid.* at paras. 47-55.

<sup>86</sup> *Ibid.* at para. 59.

In contrast with the earlier *Wood Buffalo Road* and *Lake Louise Water* interpretations the ecological integrity obligation is not balanced against competing interests in the *Point Pelee Cormorant* and *Kouchibouguac Fishery* decisions. No need to balance the interests of anglers against birdwatchers, or that of fishers against clams. Rather than simply be one factor in national park decision-making alongside the multitude of interests captured by section 4(1), the Minister's section 8(2) obligation is viewed by the Court as the priority in national parks. However neither of the more recent Federal Court decisions makes reference to the earlier *Wood Buffalo Road* or *Lake Louise Water* section 8(2) interpretations, and thus it is unclear whether the Court has revisited its view of ecological integrity as simply another factor to consider in parks management decision-making.

There are reasons to believe that the *Point Pelee Cormorant* and *Kouchibouguac Fishery* decisions do not represent a change in direction on section 8(2) by the Federal Court, as these decisions can be distinguished from the earlier *Wood Buffalo Road* and *Lake Louise Water* decisions. First, the section 8(2) mandate is not the focus of litigation in these two more recent decisions and the Court considers section 8(2) in obiter; unlike in *Wood Buffalo Road* and *Lake Louise Water* where a Parks Canada decision is expressly challenged for contravening section 8(2). Second, the issue in the *Point Pelee Cormorant* and *Kouchibouguac Fishery* decisions is framed by the Court as managing non-humans (cormorants or clams). Thus section 4(1) has no direct application, leaving section 8(2) to be considered alone; unlike in *Wood Buffalo Road* and *Lake Louise Water* where Court frames the issue as managing humans (road construction or water diversion) and section 4(1) seemingly trumps section 8(2) with the Court directing that the maintenance or restoration of ecological integrity simply be another factor for Parks Canada to take into account, rather than as its first priority in parks decision-making.

**(e) conclusion**

What is clear from the ecological integrity jurisprudence thus far is that the 2001 legislative enactment asserting the maintenance or restoration of ecological integrity as the first priority in Canada's national parks, when called upon by preservationists, has

done little to advance the cause for preservation in the national parks. Not only is preservation not the first priority in the national parks, section 8(2) does not even create a presumption in favour of preservation. This is a remarkable observation given that advancing preservation over human use was the impetus for adding section 8(2) to the *Canada National Parks Act*.

Parks Canada policy on ecological integrity appears consistent with natural ecological integrity in some ways, such as identifying human activity as an ecological stressor and in observing paradigm ecological integrity in the least habituated, northern parks. Yet its policy and decision-making subsequent to the 2001 legislative enactment seems to align mostly with socio-ecological integrity by actively managing national parks towards a desirable state. And when called upon by preservationists to review Parks Canada decisions that seem contrary to preservation, the Federal Court interprets section 8(2) to be little more than clarifying the direction in section 4(1) that parks are to remain unimpaired for future generations of Canadians. Both Parks Canada and the Federal Court adopt a utilitarian view on the parks ecological integrity mandate that allows for a balancing of interests whereby the maintenance of ecological integrity can be overridden by other considerations.

#### **IV. Parks for People**

The section 8(2) ecological integrity mandate in the *Canada National Parks Act* was enacted by Parliament to establish the preservation of nature for its own sake as the priority in today's national parks. The parks are to be places where nature takes precedence over people. The implementation of section 8(2) in law and policy by the judiciary and Parks Canada, however, tells a much different story of parks and people. A story that has been told since the inception of national parks; a story whereby people take priority over nature. Parks decision-making strikes a balance between use and preservation, but the scale tips in favour of use to address conflicts. Ecological science makes the balancing exercise more sophisticated than it once was, providing Parks Canada with knowledge to manage the dynamics of a park ecosystem.

In this final section, I offer two explanations for why the enactment of section 8(2) has failed to fulfill its promise to rewrite the national parks narrative. One reason lies in the entrenched utilitarian logic underlying the history of the national parks, the *Canada National Parks Act*, and the officials that manage the parks. Legal rules do not determine how they will be applied, so that even a categorical prescription like section 8(2) becomes a considered assessment of competing interests. The second reason lies within the preservation norm and its romantic roots. The separation of humans from nature embedded within the meaning of natural ecological integrity results in a paradox that renders it non-operational.

**(a) The inertia of history**

The national parks, referred to as dominion parks in their early years, were designated by the federal government within the larger forestry reserve lands set aside for resource conservation.<sup>87</sup> In 1911, the *Dominion Forest Reserves and Parks Act*<sup>88</sup> declared that the dominion parks be maintained and made use of as public parks and pleasure grounds for the benefit and enjoyment of all Canadians. This enactment codified the vision of early park advocates and the first Commissioner of Dominion Parks, J. B. Harkin, appointed in 1911.<sup>89</sup> Harkin's vision of 'parks for people' distinguished the park lands from the forestry reserves they were designated within: The parks were for recreation and

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<sup>87</sup> The literature on the history of Canada's national parks is extensive. Notable sources include Lothian, *A History of Canada's National Parks*, 2 volumes, (Ottawa: Minister of Indian Affairs and Northern Development, 1976); Dearden and Rollins, eds., *Parks and Protected Areas in Canada*, 3<sup>rd</sup> ed. (New York: Oxford, 2009); Nelson and Scace, eds., *Canadian Parks in Perspective* (Montreal: Harvest House, 1970); Leslie Bella, *Parks for Profit* (Montreal: Harvest House, 1987); Eleanor Luxton, *Banff: Canada's First National Park*, 2<sup>nd</sup> ed (Banff: Summerthought, 2008); Sid Marty, *A Grand and Fabulous Notion: The First Century of Canada's Parks* (Toronto: NC Press, 1984); McNamee, "Preserving Canada's Wilderness Legacy: A Perspective on Protected Areas" in Nelson et. al., eds., *Protected Areas and the Regional Planning Imperative in North America* (Calgary: University of Calgary Press and Michigan State University Press, 2003), c.2; Maclaren, ed., *Culturing Wilderness in Jasper National Park* (Edmonton: University of Alberta Press, 2007).

<sup>88</sup> S.C. 1911, c. 10, s. 18. This was the first Canadian statute to regulate a system of parks. Previously, parks were designated by individual statutes. See Ian Attridge, "Canadian Parks Legislation: Past, present, and prospects" in John Marsh and Bruce Hodgins, eds., *Changing Parks* (Toronto: Natural Heritage, 1998) 221.

<sup>89</sup> See e.g., Bella, *supra* note 87, c.4; Michael Payne, "Following the Base of the Foothills – Tracing the Boundaries of Jasper Park and its Adjacent Rocky Mountains Forest Reserve" in Maclaren, *supra* note 87, c.3.

dedicated to the use and enjoyment of people while the surrounding forestry reserves were withdrawn from public occupation for resource conservation.

Harkin later introduced the concept of preservation into parks discourse to further distinguish the national parks as unique societal institutions.<sup>90</sup> His view of preservation was strictly utilitarian - advocating for the preservation of nature as a means towards promoting tourism and recreation in the parks.<sup>91</sup> National parks served to protect pristine, untouched nature for the benefit and enjoyment of Canadians.

Harkin's view of preservation in the parks was eventually codified with the enactment of the 1930 *National Parks Act*, the first dedicated national parks legislation in Canada, whereby Parliament dedicated the parks to be preserved for the use and enjoyment of Canadians:

The Parks are hereby dedicated to the people of Canada for their benefit, education and enjoyment, subject to the provisions of this Act and Regulations, and such Parks shall be maintained and made use of *so as to leave them unimpaired* for the enjoyment of future generations.<sup>92</sup>

With its reference to 'unimpaired', this new provision (which remains substantially unchanged as section 4(1) in the *Canada National Parks Act*) charted a new direction for the parks; a shift that was not unanimously endorsed, but had come about largely due to the relentless advocacy by Commissioner Harkin.<sup>93</sup>

Harkin's utilitarian view of preservation resulted in a dual use-preservation mandate for the parks; lands to be made use of but yet remained unimpaired. This dual mandate

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<sup>90</sup> Taylor, "Legislating Nature: The National Parks Act of 1930" in Lorimer *et al.*, eds., *To see ourselves/to save ourselves: Ecology and culture in Canada* (Victoria: Association for Canadian Studies, 1990) 125

<sup>91</sup> *Ibid.*; Bella, *supra* note 87 at 58.

<sup>92</sup> *National Parks Act*, S.C. 1930, c. 33, s. 4 [emphasis added]. This legislation officially changed the name of the parks from dominion parks to national parks, and set the boundaries of the parks in a schedule to the Act rather than simply by Order in Council.

<sup>93</sup> Taylor, *supra* note 90.

remained workable only while the intensity of use was low.<sup>94</sup> By the 1960s, the days of benign tourism were gone and conflicts were inevitable as tourism skyrocketed in the national parks.<sup>95</sup> In the Canadian mountain parks, lift-serviced ski resorts developed in the late 1950s and early 1960s became flash points for controversy between use and preservation.<sup>96</sup>

By the early 1960s, opposition to tourism in the national parks became organized into groups such as the National and Provincial Parks Association of Canada.<sup>97</sup> The federal government responded in 1964 with the enactment of its first national parks policy wherein it emphasized preservation in the administration of the parks: “Our most fundamental and important obligation in the administration of the Act is to preserve from impairment all significant objects and features of nature in the parks. This is the very reason the parks were established.”<sup>98</sup> This policy was enhanced in 1979 with the introduction of ecological integrity into policy discourse. Notwithstanding these policy developments, preservation failed to erode the dominance of ‘parks for people’ in the field.

Sid Marty offers a compelling narrative of these competing park visions from his perspective as a park warden during the 1970s in his book *Men for the Mountains*.<sup>99</sup> Park wardens were thrust into the heart of the preservation versus use dispute in relation to the bear (or human garbage) management problem that surfaced in the national parks during the early 1970s. Tourism interests continued to prevail over preservation in the field despite the policy shift, as Marty reflects in his account on bear maulings in Banff during 1980: “In 1980, one seldom heard of ecological integrity: what we heard was ‘Parks are

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<sup>94</sup> Joseph Sax makes this point with respect to the United States national parks in *Mountains Without Handrails: Reflections on the National Parks* (Ann Arbor: University of Michigan Press, 1980) at 9-11.

<sup>95</sup> The number of annual visitors entering Banff, Jasper, Kootenay and Yoho National Parks increased from approximately 500,000 in 1947 to approximately 4,000,000 in 1966 (Taylor, “The Changing Habit of Jasper Tourism” in MacLaren, *supra* note 87 at 226-227).

<sup>96</sup> Bella, *supra* note 87 at 121-127.

<sup>97</sup> The National and Provincial Parks Association of Canada is now known as the Canadian Parks and Wilderness Society.

<sup>98</sup> Canada, *National Parks Policy* (Ottawa: Department of Northern Affairs and National Resources, 1964) at 5.

<sup>99</sup> Sid Marty, *Men for the Mountains* (Toronto: McLelland & Stewart, 1978).

for People'. . . . The political climate of the 1980s meant that any decision that denied access to the public was met with controversy, and the policy was to reopen such areas as quickly as possible.”<sup>100</sup>

Writer Rick Searle also worked for Parks Canada during the 1970s, and his experiences as a park interpreter led him to study why ‘parks for people’ seemed to trump preservation despite policy direction that favoured the latter. In the late 1990s, Searle visited twenty-seven national parks to investigate the overall consensus, both within Parks Canada and the public generally, that despite several decades of preservationist policy direction and the 1988 legislative amendments, the parks were in ecological peril from over-use.<sup>101</sup>

Searle attributes the continued ecological decline to several causes, some of which originate outside parks boundaries.<sup>102</sup> However, his primary culprit is Parks Canada; in particular, a significant divide within Parks Canada staff over whether to assert ecological integrity as the dominant parks purpose. He notes that the maintenance of ecological integrity is viewed by some as just one of several park objectives; the true parks mandate, according to one park superintendent interviewed by Searle, is to balance visitor use with preservation.<sup>103</sup> Another senior parks official interviewed by Searle claimed at the time there was an onus on ecological integrity proponents to defend their position; in other words, the presumption in favour of use remained into the late 1990s despite policy direction to the contrary. The parks for people ideology is firmly entrenched in parks personnel and policy.

The utilitarian logic advanced by Commissioner Harkin and codified by Parliament in 1930 remains entrenched within both Parks Canada and the judiciary, who accordingly

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<sup>100</sup> Sid Marty, *The Black Grizzly of Whiskey Creek* (Toronto: Mcllelland and Steward, 2008) at 175.

<sup>101</sup> He published his research findings in Rick Searle, *Phantom Parks: The Struggle to Save Canada's National Parks* (Toronto: Key Porter Books, 2000).

<sup>102</sup> Searle documents both regional and global external threats to ecological integrity in the parks (*ibid.*, c. 3, 4).

<sup>103</sup> *Ibid.* at 128. See also Graham Henning, *Understanding the Guided Hiking Experience: A Theatrical Model of Organizational Performance and Hiker Reception* (Ph.D. Diss. Business, University of Calgary, 2007) [unpublished] at 137-150.

interpret the ecological integrity mandate as simply one factor among many that need to be reconciled in a park management decision and/or have chosen to interpret ecological integrity in its utilitarian or instrumental socio-ecological integrity meaning.

Early environmental legal scholars such as Christopher Stone<sup>104</sup> and Laurence Tribe<sup>105</sup> criticized the utilitarian basis of preservation codified in environmental law during the 1970s. With their criticism, Stone and Tribe joined others who cautioned against the articulation of environmental preservation goals in terms of satisfying human interests or preferences. Eric Katz succinctly describes the shortcomings of utilitarian logic with respect to a preservation norm: “Any ethical theory which places its emphasis on the satisfaction of human needs can support a policy of preservation only on a contingent basis. Obligations to preserve natural objects and resources are overridden whenever a greater amount of human satisfaction can be attained by non-preservation.”<sup>106</sup> The *Wood Buffalo Road* and *Lake Louise Water* decisions demonstrate just how easily preservation is overridden by utilitarian logic.

Sean Coyle and Karen Morrow suggest utilitarian reasoning is embedded within the modern legal system that employs statutory law to address environmental concerns.<sup>107</sup> They argue legislation replaced the common law during the 19<sup>th</sup> century as the favoured legal tool to provide a collective response to the socio-ecological impacts of the industrial age precisely because statutory enactments were better suited than the common law to balance collective (environmental) and individual (development) interests. Modern environmental law remains dominated by statutory (primary and subordinate) rules, and is thus predisposed towards the maximization social welfare (balancing competing interests) rather than implementing a moral principle such as the preservation of nature for its own sake. Statutory rules are policy driven, have little connection to moral principles, and thus can support the preservation of nature only after a considered

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<sup>104</sup> Christopher Stone, “Should Trees Have Standing? Toward Legal Rights for Natural Objects” (1972) 45 Southern California Law Review 450.

<sup>105</sup> Lawrence Tribe, “Ways Not To Think About Plastic Trees: New Foundations for Environmental Law” (1974) 83 Yale Law Journal 1315.

<sup>106</sup> Eric Katz, “Utilitarianism and Preservation” (1979) 1 Environmental Ethics 357 at 362.

<sup>107</sup> Coyle and Morrow, *The Philosophical Foundations of Environmental Law* (Portland: Hart Publishing, 2004).

assessment of interests for and against it; rather than implementing preservation on the basis it is the morally *right* course of action.<sup>108</sup>

The ecological integrity mandate in the *Canada National Parks Act* and its implementation by the Federal Court and Parks Canada provides support for the argument that statutory environmental law is inevitably utilitarian and unable to implement categorical moral principles such as the maintenance of natural ecological integrity. Indeed, it is difficult to envision how a rule dictating the preservation of nature for its own sake should read if section 8(2) and the associated definition of ecological integrity in the *Canada National Parks Act* does not accomplish this.

**(b) The wilderness paradox**

The law, however, is not solely to blame for the unfulfilled promise of section 8(2). The preservation norm itself, expressed by the maintenance of natural ecological integrity, partially explains why the section 8(2) ecological integrity mandate has yet to constrain human activity in the national parks.

Canada's early mountain national parks (Banff, Jasper, Waterton Lakes, Yoho, and Glacier) were formed within wilderness narratives that contrast pristine, rugged, and untouched wilderness with civilization, and construct the parks as an idealized escape from the gloom of urban life. These narratives construct wilderness as an 'other': That which is wild is not human.<sup>109</sup> Yet paradoxically, this narrative also posits being in the wild as the most authentic human experience. The section 8(2) mandate and associated definition of ecological integrity in the *Canada National Parks Act* codify this wilderness narrative for the national parks. The ecological integrity of national park wilderness is idealized as superior to humans, whose activities generally taint otherwise pristine nature.<sup>110</sup>

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<sup>108</sup> The close connection of statutory law with legal positivism is also of some relevance here. Legal positivism, which views law as a collection of empirically validated rules with no necessary connection to morality, seemingly rejects arguments of intrinsic value in nature.

<sup>109</sup> See Garrard, *supra* note 14.

<sup>110</sup> Bruce Morito, "Examining Ecosystem Integrity as a Primary Mode of Recognizing the Autonomy of Nature" (1999) 21 *Environmental Ethics* 59 at 66.

Indeed, a policy of strict preservation has been questioned by parks officials precisely because it artificially separates humans from nature. Kevin Van Tighem, then a parks interpreter with Parks Canada and now the superintendent of Banff National Park, clearly states the concern in his 1988 observation:

In a national park one is not allowed to pick a flower. One is discouraged from – and could be fined for – eating a berry. One must stay on the trail. . . . [T]he unfortunate collary of these restrictions is that they perpetuate the myth that Humans and Nature are not compatible; that humans are not full members of the biotic community. Humans are not brought nearer to Nature in a national park; they are taught to be outsiders. By extension, they are encouraged to believe that outside the parks, in those places not fortunate enough to be protected from our alien influence, Nature must be – at least to a large extent – written off. Destructive development? Unwise land use? That’s the nature of the beast, after all; thank God that at least we have our national parks.<sup>111</sup>

Environmental historian William Cronon labels this ‘the trouble with wilderness’: Being in wilderness is the most authentic human experience, yet wilderness is idealized as a place where humans are absent.<sup>112</sup> The preservation of wilderness provides no opportunities for humans to understand how they interrelate with the non-human world, and thereby offers little towards addressing the core of the environmental problem. Moreover, wilderness narratives construct nature as the ultimate good, using science, ethics, or both as justification, yet neither scientists nor philosophers have been able to specify exactly what is, and what is not, ‘natural’.<sup>113</sup>

The wilderness paradox embedded within the section 8(2) ecological integrity mandate implicates its interpretation. In the *Wood Buffalo Road Decision* Gibson J. rejects the CPAWS argument that section 8(2) requires the maintenance of natural ecological

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<sup>111</sup> Kevin Van Tighem, “Have Our National Parks Failed Us?” (1988) 5:2 *Trumpeter* 36 at 37.

<sup>112</sup> William Cronon, “The Trouble with Wilderness: or, Getting Back to the Wrong Nature” in Cronon, ed. *Uncommon Ground: Rethinking the Human Place in Nature* (New York: Norton, 1996) 69. Zezulka-Mailloux explores the various paradoxes of wilderness in Canada’s national parks (See Gabrielle Zezulka-Mailloux, “The Nature of the Problem: Wilderness Paradoxes in Jasper National Park” (Ph.D. diss. English and Film Studies, University of Alberta, 2005).

<sup>113</sup> K.S. Schraeder-Frechette and E.D. McCoy, *Method in Ecology: Strategies for Conservation* (Cambridge: Cambridge University Press, 1993); William Cronon, “Introduction: In Search of Nature” in *Uncommon Ground: Rethinking the Human Place in Nature*, *ibid.* at 23.

integrity precisely because this interpretation conveys a narrative that excludes people from the national park. This vision is untenable to Gibson J. who accordingly flips the human-nature dualism embedded in the ecological integrity mandate to assert human interests over the preservation of nature.

## **V. Conclusion**

The maintenance or restoration of ecological integrity is the legislated first priority in Canada's national parks. This mandate, added to the *Canada National Parks Act* in 2001, and was intended to chart a new direction for parks by asserting preservation over use. Subsequent interpretation by Parks Canada and the Federal Court, however, has read down the ecological integrity first priority as simply a factor to be taken into account in parks decision-making. Not only is the preservation of nature not the first priority in the national parks, it isn't even a presumption in parks decision-making.

This paper has canvassed the various perspectives on ecological integrity and examined the social history of the national parks, to deconstruct the legislated ecological integrity mandate in the *Canada National Parks Act*. The analysis demonstrates that the legislated definition of ecological integrity is but one of several alternatives, and aligns most closely with the view that ecological integrity is found in landscape preserved apart from humans. The legislated ecological integrity mandate categorically states the preservation of nature for its own sake as the primary purpose in Canada's national parks. This preservationist direction conflicts with the traditional 'parks for people' ideology that has governed Canada's national parks since their inception. And subsequent implementation of the ecological integrity mandate by Parks Canada, and judicial consideration thereof, remains true to the 'parks for people' ideology by adopting a utilitarian view on ecological integrity that allows for a balancing of interests whereby the maintenance of ecological integrity can be overridden by other considerations.

This result is notable in light of the fact that advancing preservation over use in the national parks was the impetus for strengthening the legislated ecological integrity mandate in 2001. That such a significant legislative act has resulted in no change to how

national parks are managed tells us that either Parks Canada, and the judiciary, has simply got it wrong in terms of implementing the law, or that there is a limit to the ability of statutory law to effect social change where it involves asserting controversial positions that challenge entrenched worldviews. Proponents of such positions, such as park preservationists, are left to contemplate the false promise of law.