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Stewart, Judy

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## REFLEXIVE LEGAL PROCESSES FOR ENVIRONMENTAL BRIDGING ORGANIZATIONS IN THE CALGARY REGION

Article by Judy Stewart ♦

### A. Introduction

As population and economic growth continue in the Province of Alberta, Canada (the Province), municipal land use decisions are affecting regional-scale social-ecological systems,<sup>1</sup> by continuing to fragment the structural and functional connectivity of the landscape<sup>2</sup> and strip and grade away important ecological infrastructure, such as wetlands and riparian lands.<sup>3</sup>

In the Province, the emergence of new forms of social-political environmental governance<sup>4</sup> reflects social processes where “new patterns of interaction between government and the rest of society can be observed.”<sup>5</sup> In the Calgary Metropolitan Area (the Region),<sup>6</sup> a social-spatial region of approximately 17,000 km<sup>2</sup> in southern Alberta, the Calgary Regional Partnership (CRP); the Bow River Basin Council (BRBC); and the Calgary Region Airshed Zone (CRAZ) are examples of emergent regional-scale voluntary multi-actor<sup>7</sup> environmental governance networks.<sup>8</sup>

Stakeholders in the Region, with various interests in resource allocation and management, self-organize at the regional-scale to address shared issues, and bridge policy and regulatory gaps for land use, watershed, and airshed management that exist between the provincial and municipal levels of government. For the purpose of this article, ‘regional-scale’ means the transboundary and transjurisdictional social-spatial scale where people and the ecosystem interact and co-evolve, co-regulating change, instability and mutual adaptation across scales, as explained by Gunderson and Holling below:

In most terrestrial systems, geophysical controls dominate at scales larger than tens of kilometers. At smaller scales than this, biotic processes, interacting with abiotic ones, can control structure and variability. They produce volumes and patterns of vegetation and soil, for example that moderate external extremes of temperature, conserve moisture and nutrients, and even affect regional climate and the timing of seasons. These are also the scale ranges where human land use transformations occur so that the arena where plant-and animal-controlling interactions unfold is the same arena where human activities interact with the landscape.<sup>9</sup>

Through social learning<sup>10</sup> and consensus decision-making processes, the organizations co-create regional-

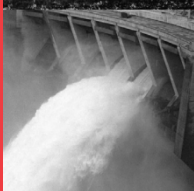
scale natural resource management plans<sup>11</sup> that emerge as new forms of transdisciplinary knowledge. However, not all environmental governance networks are structured to perform strategic bridging functions as “bridging organizations.”<sup>12</sup> Crona and Parker provided a working definition of bridging organizations, and summarized the criteria that define a bridging organization illustrated in Table 1 (see Appendix). They said that:

Given the lack of a generally accepted definition of bridging organizations, and our aim to delineate a framework for systematically investigating such organizations, we propose a working definition that builds on Westley and Vredenburg (1991): bridging organizations are organizations that link diverse actors or groups through some form of strategic bridging process. They are organizations in their own right and are relatively distinct in terms of resources and personnel from the parties they seek to integrate. This degree of formalization distinguishes bridging organizations from informal social networks revolving around a few individuals that can also provide a bridging function in adaptive governance contexts.<sup>13</sup>

CRP, BRBC, and CRAZ are all structured and function as environmental bridging organizations,<sup>14</sup> performing various strategic bridging processes, including connecting people and organizations that would otherwise not be connected at the regional-scale to collaboratively resolve complex resource management issues.<sup>15</sup> They are:

- formalized organizations, with resources and personnel to develop and implement bridging processes for environmental management;
- third party brokers, providing arenas for learning; co-creation of knowledge; trust building; and conflict resolution;
- facilitators, mediators, and negotiators;
- attractors of expertise, knowledge, and resources necessary for social learning and system transformation; and
- diffusers of innovations throughout the networks and the Region.<sup>16</sup>

Through the environmental bridging organizations, municipal and provincial decision-makers are connected with representatives from various sectors that benefit





from licensed resource use and approved levels of substance release into the environment, and other stakeholders who are affected by these licensed uses or approvals. The organizations have no delegated authority to make rules or decisions about resource allocation; to enforce rules preventing resource degradation; or to resolve conflicts. At best, they advise the Alberta provincial government (the Province) and municipal governments in the Region about emergent environmental management issues and propose transdisciplinary strategies to solve common problems. They monitor the state of the resource, and periodically report their findings to their own members and the Province. Their operations “do not rest on recourse to the authority or sanctions of government”, and, as such reflect Gerry Stoker’s five governance propositions, as follows:

- Governance refers to a set of institutions and actors that are drawn from but also beyond government.
- Governance identifies the blurring of boundaries and responsibilities for tackling social and economic issues.
- Governance identifies the power dependence involved in the relationships between institutions involved in collective action.
- Governance is about autonomous self-governing networks of actors.
- Governance recognizes the capacity to get things done which does not rest on the power of government command or use of its authority. It sees government as able to use new tools and techniques to steer and guide.<sup>17</sup>

Environmental bridging organizations achieve their ‘public purpose’ goals through collaboration and voluntary adoption of strategies to improve environmental management to everyone’s benefit. However, they appear to lack sufficient social legitimacy to influence wholesale implementation of the co-generated natural resource management plans by either the Province or municipalities in the Region, even though both levels of government participate in and fund network operations and the development of these management plans. As self-selecting networks of stakeholders with no legal mandate or authority to engage in regional-scale environmental management planning or implementation processes, the organizations may lack ‘democratic anchorage.’<sup>18</sup>

The Province’s legal processes and institutions for environmental regulation and management in the Region are evolving to stabilize “normative expectations”<sup>19</sup> about roles and responsibilities for managing the cumulative effects of human activities on the natural environment through policy documents such as the *South Saskatchewan Regional Plan (SSRP)*.<sup>20</sup> SSRP is a provincial land use management plan, enacted as a regulation pursuant to the *Alberta Land Stewardship Act (ALSA)*<sup>21</sup> that operates at a watershed-scale, which is a vast land mass that takes in the whole of southern Alberta. The Region is embedded in the SSRP planning area as a nested complex, dynamic social-ecological system.<sup>22</sup>

SSRP includes some verbiage about the work being done by environmental bridging organizations in the watershed, without recognizing the organizations as official “partners”. This article examines how the deliberate introduction of four reflexive legal

processes into the Province’s environmental regulation and management system might legitimize the functions of environmental bridging organizations engaged in regional-scale environmental governance and management processes.

Fiorino explained reflexive law in the context of “new environmental regulation”, as follows:

The existing regulatory system is based largely on what Gunther Teubner terms substantive law, which is the law of the regulatory state. Governments use substantive law to intervene in private social and economic arrangements and promote collective goals, such as safety, environmental quality, and equity. It differs from the more traditional formal law, such as contracts and torts, by which government defines relationships among private actors in order to structure social and economic arrangements. **Reflexive law is a third stage, after formal and substantive law.** It has social purposes, like substantive law, but achieves them differently. The aim of a reflexive legal strategy is to create incentives and procedures that induce people to continually assess their actions (hence the ‘reflexivity’) and adjust them to society’s goals, for example, by creating less pollution, using fewer resources or protecting endangered species (emphasis added).<sup>23</sup>

The Region, CRP, BRBC and CRAZ provide the demonstration context for exploration and discussion of reflexive legal processes for environmental bridging organizations.

## B. The Problem with Legal Pluralism in the Region

Albertans involved in processes of environmental governance in the Region are confronted with ‘legal pluralism:’ an uncoordinated array of overlapping and sometimes conflicting policies, laws, regulations, bylaws, codes of practice, guidelines, operating protocols, negotiated rules, statutory planning documents, co-created management plans, etc. Gunther Teubner explained that “legal pluralism is non-legalistic, non-hierarchical, and non-institutional. It focuses on a multitude of “legal orders” within one social field”,<sup>24</sup> for example, the field of environmental governance and management. Teubner referred to legal pluralism as being:

at the same time both: social norms and legal rules, law and society, formal and informal, rule-oriented and spontaneous. And the relations between the legal and the social in legal pluralism are highly ambiguous, almost paradoxical: separate but intertwined; autonomous but interdependent, closed but open.<sup>25</sup>

Tamanaha explained that conflicts arise in conditions of legal pluralism, as follows:

What makes this pluralism noteworthy is not merely the fact that there are multiple uncoordinated, coexisting or overlapping bodies of law, but that there is diversity amongst them. They may make competing claims of authority; they may impose conflicting demands or norms; they may have different styles and orientations. This potential conflict can generate uncertainty or jeopardy for individuals and groups in society who cannot be sure in advance which legal regime will be applied to their situation. This state of conflict also creates opportunities for individuals and groups within society, who can opportunistically select from among coexisting legal authorities to



advance their aims. This state of conflict, moreover, poses a challenge to the legal authorities themselves, for it means that they have rivals. Law characteristically claims to rule whatever it addresses, but the fact of legal pluralism challenges this claim.<sup>26</sup>

Legal pluralism in the environmental regulatory and management system is particularly problematic for municipalities in the Region, because land developers can literally shop among the various municipal governments to find the one with the least onerous environmental management provisions in its land use bylaw. As a consequence, municipal environmental management systems remain inconsistent throughout the Region, leading to fragmented landscapes and resource degradation at the regional-scale where there is no provincial mandatory land use plan in place for all stakeholders.

### C. The Emergence of Reflexive Law

In 2006, Walker and Salt<sup>27</sup> said society is a complex, dynamic system of communications and interrelationships. In recent years, the legal subsystem of society has been studied within complex, dynamic social-ecological systems.<sup>28</sup> In that context, feedbacks from within both the legal and political subsystems, functioning in the broad social context affect the evolution of legal institutions to address emergent social-ecological phenomena, such as environmental governance networks; bridging organizations; environmental adaptive co-management<sup>29</sup> resilience thinking and practice;<sup>30</sup> as well as public sector co-creation of environmental knowledge.<sup>31</sup> All of these emergent phenomena seem to embed reflexive legal processes.<sup>32</sup>

Based on general systems theory, Luhmann claimed that the legal system is an autopoietic subsystem of society that functions to stabilize normative expectations of society's other subsystems, for example, politics; government; the economy; mass media; science; education, etc.<sup>33</sup> In the early 1980s, based on the work of Niklas Luhmann and others,<sup>34</sup> Teubner developed the neo-evolutionary idea of 'reflexive law.' As Teubner explained it, reflexive law is the "process-oriented structuring of institutions and organizing of participation"<sup>35</sup> in the aftermath crisis of the regulatory or welfare state. Teubner said that law "seeks to design self-regulating social systems through norms of organization and procedure" and "tends to rely on procedural norms that regulate processes, organization, and the distribution of rights and competencies."<sup>36</sup> Teubner framed reflexive law as an emergent form of legal proceduralism necessary to support society's complex, dynamic subsystems as they respond to communications or feedbacks that drive system adaption and evolution over time.

Communications necessary for internal operations within one of society's subsystems define the subsystems' boundaries, distinguishing it from its environment. According to Luhmann and Teubner, the legal subsystem's self-referential communications for internal operations are "closed" to the rest of society. However, to function within society, the legal subsystem must communicate with and respond to feedback from other subsystems. Functionally, the legal system is "open", because the rest of society affects its operations. The legal subsystem receives and interprets external communications as

inputs for legal operations, and delivers outputs, such as judicial decisions. Society's response and feedbacks to legal outputs are external drivers for further self-reference and change in the legal subsystem.

Teubner explained that the "role of law is ... not substantive regulation but the procedural and organizational structuring of "autonomous" social processes."<sup>37</sup> He stated that:

The concept of self-reference of the legal system is a vital aspect of neo-evolutionary thought. It presents the legal system as, at the same time, both a 'closed' and an 'open' system. In this way, neo-evolutionary thought avoids the fallacies of theories which see legal change as either purely internal and independent or exclusively the result of external events. Legal and social changes are, for the neo-evolutionist, related yet distinct processes. Legal change reflects an internal dynamic, which, nevertheless, is affected by external stimuli and, in return, influences the external environment.<sup>38</sup>

According to Teubner, the legal subsystem goes through four evolutionary phases for norm selection: variety, selection, retention, collapse, and variety, and so on,<sup>39</sup> in much the same iterative fashion as the "adaptive cycle metaphor" in Gunderson and Holling's adaptive phases of self-organizing living systems: "exploitation, conservation, release, reorganization",<sup>40</sup> exploitation, and so on.

As noted earlier in this article, some legal and political theorists, such as Lobel and Fiorino respectively, claim that the legal system is evolving from a substantive or regulatory stage to a "reflexive" stage.<sup>41</sup> The evolutionary stages of law are illustrated in Figure 1 (see Appendix).

According to Luhmann and Teubner, while the legal system is structurally coupled to the political system, it draws a circle around itself and everything inside is "law", and everything outside is "not law." What is "not law" is the legal system's environment, which is the rest of society with all its perturbations.

It is posited that CRP, BRBC, and CRAZ operate in the Region at the nexus of law and politics, and they perform strategic bridging functions to connect what is law with what is not law. These organizations operate in oscillating spaces where law and politics intersect, and where legal pluralism dominates, but where no law is definitive. For example, to achieve the environmental management outcomes as stated in *Water For Life: Alberta's Strategy for Sustainability* (Water For Life),<sup>42</sup> the *Land-use Framework* (LUF),<sup>43</sup> and *Clearing the Air: Alberta's Renewed Clear Air Strategy* (Clearing the Air),<sup>44</sup> the Province recommended partnerships between all levels of government with non-government actors (such as the three organizations) at a 'watershed' regional-scale.<sup>45</sup> However, the Province did not require or recommend that the organizations adhere to or adopt the provincial policy or strategy documents when co-creating regional-scale natural resource management plans, even though representatives from the Province are actively engaged in the organizations and in funding the development of the plans. CRP, BRCA, and CRAZ rarely function as true 'partners' to the Province in any sense of the term. Rather, as explained in *Enabling Partnerships*,<sup>46</sup> a guidance document that came out with Water For Life, the Province clearly articulated what it meant by 'partnership' for the purpose of watershed





management, as follows:

'Partnership' is a complex term with many different meanings. In this document, 'partnership' is used to define a voluntary organization of provincial, watershed, community and/or individual stakeholders who agree to undertake common or complementary activities, enter into agreements, and work together for the orderly, efficient and accountable achievement of results. While these partnerships do not have regulatory authority, they can make recommendations to those bodies that do, to improve watershed management.

In that context, the Province clearly retained all authority for decision-making about watershed management. While organizations like BRBC were considered 'partners' as described, they were given no legal mandate or sanction to develop watershed management policy, rules or conflict resolution processes. Their role was to make recommendations about watershed management to provincial water use decision-makers.

#### D. Reflexive Environmental Governance

In response to the emergence of the environmental bridging organizations in the Region, the Province may need to shift from a substantive system of environmental government regulation to reflexive governance of social-ecological systems. According to Brousseau, et al. reflexive governance is "democratic, reflexive and knowledge-based."<sup>47</sup> As Fiorino explained:

Where society demands flexibility and dynamism, the state offers bureaucracy and rules. Where society requires legal instruments that are almost self-implementing, the state builds an elaborate oversight apparatus. While societies need a legal system that induces self-reflection toward "sustainable" behavior, the state maintains a legal strategy of forcing desired behavior from outside the firm, through threats of exposure and punishment.<sup>48</sup>

Breuillard<sup>49</sup> recognized that society was shifting "from the static description of political and governmental functions or responsibilities, as laws and statutes enact them, to the dynamic analysis of mechanisms and processes at work which determine actions but also re-actions within socio-political systems." van Vliet<sup>50</sup> proposed "a preventative and source-oriented approach to environmental problems, which is not enforceable by a unilateral rule-making government but which depends on the cooperation and responsibility of the main relevant social and economic sectors."

More recently, Lobel summarized how reflexive lawmaking, "which is process oriented and tailored to local circumstances" might be the best fit for the 'governance model':

Lawmaking shifts from a top-down, command-and-control framework to a reflexive approach, which is process oriented and tailored to local circumstances. At the same time, by linking together geographically and materially dispersed law reform efforts, the model provides innovative ways to coordinate local efforts and to prevent the isolation of problems. Scaling up, facilitating innovation, standardizing good practices, and encouraging the replication of success stories from local or private levels become central goals of government. **Legal orchestration**

is achieved through interpenetration of policy boundaries, new public/private partnerships, and next-generation policy strategies such as negotiated rulemaking, audited self-regulation, performance-based rules, decentralized and dynamic problem solving, disclosure regimes, and coordinated information collection (emphasis added).<sup>51</sup>

Using Luhmann's terms, the author suggests that the normative expectations of volunteer actors in the environmental bridging organizations about their roles in regional-scale environmental governance and management could be 'stabilized' through Lobel's interpenetration of policy boundaries, new public/private partnerships, and next-generation policy strategies.<sup>52</sup> Even without a major overhaul of Alberta's environmental regulatory regime, Lobel's 'next-generation policy strategies' could be implemented at the regional-scale. If applied to environmental bridging organizations, these policy strategies could legitimize natural resource planning, monitoring and reporting programs, and provide feedback to the political system for regulatory change that might be needed to address unintended consequences of next-generation policy interventions.<sup>53</sup> When considered legitimate partners to government decision-makers, environmental bridging organizations could gain social legitimacy to operate and influence social learning for transformation in municipal natural resource management systems.

#### E. Using Reflexive Legal theory to Anchor Bridging Organizations in Legitimacy

According to Teubner, reflexive law is "legal self-restraint" where the legal system restricts itself to the installation, correction, and redefinition of democratic, self-regulatory mechanisms.<sup>54</sup> Table 2 (see Appendix) provides Teubner's description of the 'characteristics of reflexive law' or law's 'new proceduralism.'<sup>55</sup>

Based on a review of reflexive law literature by political and legal theorists<sup>56</sup> and Teubner's description of the characteristics of reflexive law,<sup>57</sup> four reflexive legal processes are proposed that could anchor environmental bridging organizations, and their co-created natural resource management plans in stakeholder acceptance and democratic legitimacy:

- 1) regulating environmental bridging organization design and internal governance structures to ensure democratic anchorage and appropriate self-regulation and reporting protocols are in place;
- 2) officially recognizing the value of environmental bridging organizations by requiring that relevant co-generated plans be considered by provincial and municipal land use and natural resource decision-makers;
- 3) delegating some provincial and municipal powers to environmental bridging organizations for adaptive co-management of natural resources at both local and regional scales; and
- 4) introducing policy learning opportunities to be explored through bridging processes, such as negotiated rule-making, audited self-regulation, performance based rules, decentralized and dynamic problem solving, disclosure regimes, and coordinated information collection.<sup>58</sup>



## 1. Regulating Environmental Bridging Organization Design and Internal Governance

As brokers of information and influence, environmental bridging organizations need a regulatory design and internal governance framework to build legitimacy and improve democratic anchorage. Fiorino suggested that several dimensions of new forms of social-political interactions, such as environmental bridging organizations need to be recognized in any attempt to provide a new regulatory framework to legitimize their operations. First, these forms are not temporary but structural and enduring, and are institutionalized in some way. Second, "distinctions between the public (the state, regulatory agencies) and the private (society, markets) are blurred as the boundaries between them become fluid and permeable." Third, government "acts not on, but with non-governmental and commercial entities. There is a shift from governance as one-way traffic toward a two-way traffic in which the 'aspects, qualities, problems and opportunities' of those governing and of those being governed are considered."<sup>59</sup>

If environmental bridging organizations are to be considered legitimate partners of government and other sectors, Kouwenhoven<sup>60</sup> said they must satisfy "primary and secondary start conditions." These start conditions may not be inherent in an association or a society formalized under Alberta's laws for private social organizations. Kouwenhoven maintained that "primary start conditions" for private-public-partnerships (which describe connections made through environmental bridging organizations) are "interdependence of actors" with respect to a resource, coupled with "convergence of objectives" for resolution of a problem. Secondary start conditions are the "presence of a network", and "presence of a broker." Kouwenhoven cautioned that a number of "process conditions" must be present before taking action, for example co-creating a natural resource management plan. These process conditions include:

mutual trust; unambiguity and recording of objectives and strategy; ... the division of costs, risks and returns; ... the division of responsibilities and authorities; phasing of the project; conflict regulation laid down beforehand; legality; protection of third parties' interests and rights; adequate support and control facilities; business and market oriented thinking and acting; internal coordination; and adequate project organization.<sup>61</sup>

Echoing Kouwenhoven, Pomeroy stated:

... government action to establish supportive legislation, policies, rights, and authority structures must be addressed. Policy and legislation need to spell out jurisdiction and control; provide legitimacy to property rights and decision-making arrangements; define and clarify local responsibility and authority; clarify the rights and responsibilities of partners; support local enforcement and accountability mechanisms; and provide ... groups or organizations the legal right to organize and make arrangements related to their needs. The legal process formalizes rights and rules and legitimizes local participation in co-management arrangements.<sup>62</sup>

Fiorino stressed that several elements of the "old regulation" are essential to ground new forms of social-political interactions in legitimacy: these are:

- 1) "a system of core normative standards";
- 2) "government must have legal authority and enforcement capability to hold firms accountable for meeting core standards";
- 3) "transparency"; and
- 4) "credible, accurate information and independent advocacy."<sup>63</sup>

These elements might be used by environmental bridging organizations to frame the basic collaborative processes and contents of co-created natural resource management plans in order for them to be considered legitimate decision support tools by provincial and municipal law-makers and decision-makers.

## 2. Officially Recognizing Co-created Natural Resource Management Plans

A regulation, such as the SSRP could be used to officially recognize plans co-created through strategic bridging processes, requiring that provincial and municipal decision-makers "consider" these plans when making decisions that may affect the natural resource management systems. For example, the *Calgary Metropolitan Plan* (CMP),<sup>64</sup> which was co-created by the CRP might be considered a sub-regional plan under ALSA provisions that must be considered by all land use decision makers in the Region. The Province might also recognize BRBC's Watershed Plans, and CRAZ' PM03 Plan,<sup>65</sup> and require that all land use, water use, and air quality regulatory agencies and land use decision-makers consider the plans as decision-support tools. This would add an extra layer to decision-making, but would ensure that co-created plans are officially recognized and legitimized by the Province and municipalities.

The *Municipal Government Act* (MGA)<sup>66</sup> provisions enacted in 2013, that enable the formation of growth management boards and the creation of growth plans<sup>67</sup> through voluntary collaborative processes provide formal structures, planning protocols, and prescribe the effect of co-created growth plans, such as the CMP created by CRP in 2014. Although the growth management board provisions were untested in the Region in February 2016, the provisions provide a good example of reflexive legal institutions that recognize, support and legitimize the work of voluntary environmental bridging organizations. Recently, however, the Alberta Minister of Municipal Affairs confirmed that the Province will establish a mandatory growth management board for the Calgary Metropolitan Region.<sup>68</sup> This would effectively allow the Minister of Municipal Affairs to define and close the boundaries of the Region for growth management planning purposes. The rationale for doing so is stated by the Minister: "to ensure efficient and effective regional planning and service delivery, and to promote economic prosperity."<sup>69</sup> However, based on the results of research done by the author in the Region in 2016,<sup>70</sup> such unilateral action by the provincial government could seriously undermine the existing trust relationships and collaborations between municipalities that CRP has developed over the last fourteen to fifteen years. The Region's existing municipal environmental collaboration network, that evolved on a voluntary basis is already breaking apart into several components as a result of the Minister's announcements in 2015 and 2016 about making a growth



management board mandatory for the Calgary Metropolitan Area.<sup>71</sup>

### 3. Delegating Powers for Adaptive Co-management

Unlike adaptive management arrangements or “learning by doing” in the United States<sup>72</sup> or adaptive co-management,<sup>73</sup> there is no delegation of decision-making authority from the Province or municipalities to the CRP, BRBC or CRAZ: they are tacitly supported to recommend natural resource policy, co-create natural resource management plans, and monitor the state of the resource. The Province is involved in social learning processes through the organizations’ strategic bridging processes, but they still regulate through command-and-control legislation that ignores the parallel governance processes of the environmental bridging organizations, and their co-created natural resource management plans. For example, the Region’s environmental bridging organizations were not consulted while the Province was conceptualizing or developing the *Integrated Resource Management System*,<sup>74</sup> which considers the environmental bridging organizations to be partners to government in the system. The co-created natural resource management plans are clearly not adaptive management or co-management plans.

Ruhl and Fischman studied how co-created adaptive management plans were being interpreted by judiciary in the United States.<sup>75</sup> They found that when adaptive management plans were framed by legality and normative expectations of third parties, that the courts were more likely to uphold plan objectives and implementation strategies. When describing an ideal adaptive management system for natural resource management Ruhl and Fischman stated:

Adaptive management has become the tonic of natural resources policy. With its core idea of “learning while doing,” adaptive management has breathed life and hope into a policy realm beset by controversy, uncertainty, and complexity. It offers what many believe is needed most in a world bombarded by ecological deterioration of massive scales - expert agencies exercising professional judgment through an iterative decision making process emphasizing definition of goals, description of policy decision models, active experimentation with monitoring of conditions, and adjustment of implementation decisions as suggested by performance results.<sup>76</sup>

Ruhl and Fischman cautioned: “In their haste to complete plans and to describe adaptive management procedures, agencies too often neglect the establishment of site-specific standards for measuring compliance with statutory or regulatory criteria .... Adaptive plans, to be effective, must translate the substantive standards of statutes, rules, and manuals into place-based objectives.”<sup>77</sup> Further, Ruhl and Fischman discovered that while “environmental managers and stakeholders approve of adaptive management in theory; disagreements focus on application in practice.”<sup>78</sup> They recommended that state governments, for example the Alberta government, regulate contents of adaptive management plans for legitimacy, interpretation, and reducing uncertainty:

Congress should explicitly require adaptive management plans to (1) clearly articulate measurable goals, (2) identify testable hypotheses

(or some other method of structured learning from conceptual models), and (3) state exactly what criteria should apply in evaluating the management experiments. ... These elements would provide judicially enforceable benchmarks for oversight of natural resources planning and management.<sup>79</sup>

These findings support Fiorino’s statements above about necessary elements of old regulation that must be articulated in new reflexive institutions designed to support the work of social-political actors in new governance arrangements.

### 4. Introducing Policy Learning Opportunities

Canada’s environmental regulatory system still relies heavily on *formal legal institutions*, like contracts, torts etc. which, according to Fiorino help governments “define and structure relationships among private actors to preserve economic and social order.”<sup>80</sup> However, in the mid to late 1900s, governments created *substantive laws* like environmental statutes, regulations and codes of practice to regulate how citizens use natural resources and interact with each other in the ecosystem. Political theorists, like Fiorino and legal theorists like Lobel suggested that as society continues to evolve, it might need to add reflexive legal processes and institutions to the substantive legal system to support social-political governance and opportunities for policy learning. Mayntz posed that “particular procedural rules and reflexive law aim to enhance the independent adaptive, reactive, and problem-solving capacity of societal actors, which means to motivate and enable them to react purposefully at any moment to changing conditions.”<sup>81</sup> Fiorino confirmed: “The aim of reflexive law is creating incentives and procedures that induce people and organizations to assess their actions ... and adjust them to achieve socially desirable goals, rather than tell them directly what to do in all cases.”<sup>82</sup>

Currently, CRP, BRBC and CRAZ have no delegated authority for ensuring that co-created plans are implemented by their own members. However, recent MGA amendments that enable voluntary growth management boards and give co-created growth plans authority are opportunities for voluntary collective action and policy learning that is officially recognized and supported by the Province: however, this would change if the Province mandates a growth management board in the Region. Table 3 (see Appendix) provides the four strategic or high level processes to legitimize environmental bridging organizations. Each of these processes requires further elaboration that appears as sub-headings in the Table, followed by an estimation of effectiveness in achieving legitimization. The author posits that once processes to legitimize environmental bridging organizations are in place, the Province could logically engage with the environmental bridging organizations in the Region to develop and encourage all engaged stakeholders to take responsibility to implement objectives and strategies included in co-created adaptive co-management plans. Adaptive co-management of natural resources will only be possible when environmental bridging organizations are legitimate partners to government, actively engaged in all aspects of complex decision-making processes.



## F. Conclusion

Reflexive law provides the procedural and organizational structuring of autonomous social processes. Environmental bridging organizations operating at the regional-scale are emergent phenomena where stakeholders with shared interests and values for resource allocation and management engage in autonomous social processes. The deliberate introduction of reflexive legal processes could anchor environmental bridging organizations and their role in regional-scale environmental governance and management in social and democratic legitimacy by:

- regulating the design and internal governance of environmental bridging organizations;
- recognizing their co-created natural resource management plans;
- delegating some provincial and municipal powers to environmental bridging organizations for adaptive co-management; and
- introducing policy learning opportunities.

Currently, environmental bridging organizations have no delegated authority for ensuring that co-created regional natural resource management plans are implemented by their members. They rely on social networks and trust relationships to influence their municipal members to adopt plan objectives and strategies. Using Luhmann's terminology, the Province's environmental regulatory and management system has not yet stabilized the normative expectations of stakeholders engaged in these organizations, who want their co-created natural resource management plans, funded largely by tax-payers to be considered by land use and resource management decision-makers in the Region.

◆ Judy Stewart, LL.M, PhD, practices law in Cochrane, Alberta, primarily at the nexus of water law and municipal law. Recently, she completed transdisciplinary research in a doctorate program in the Faculty of Environmental Design at the University of Calgary, where she assessed the reflexivity of Alberta's environmental policy and regulatory legal instruments in place in 2014 and designed a reflexive legal framework for bridging organizations in regional environmental governance and management. Her Master of Laws thesis was about municipal legal tools to protect wetlands and riparian lands. This article is adapted from Chapter 5 in the PhD dissertation.

## Notes

1. PS Bourgeron, HC Humphries & L Riboli-Sasco, "Regional analysis of social-ecological systems" (2009) 17 *Natural Sciences Sociétés* 188.
2. Mary Ellen Tyler & Michael Quinn, "Identifying social-ecological couplings for regional sustainability in a rapidly urbanizing water-limited area of Western Canada" (2013) 173 *Sustainable Development and Planning VI* 175.
3. Judy Stewart, "Municipal 'Direction, Control and Management' of Local Wetlands and Associated Riparian Lands: Section 60 of Alberta's Municipal Government Act" (2009) 47 *Alta L Rev* 73 [Stewart, 2009].
4. Daniel Fiorino, *The New Environmental Regulation*, (Massachusetts: Massachusetts Institute of Technology, 2006) at 49-50: "The heart of social-political governance is new patterns of interaction between government and other groups in society. It

consists of more or less continuous processes of interaction between social actors, groups and forces, and public or semi-public organizations, institutions or authorities." For explanations of governance and the governance model see: Elinore Ostrom, *Governing the Commons: The Evolution of Institutions for Collective Action* (New York: Cambridge University Press, 1990); Elinore Ostrom, *Understanding Institutional Diversity* (Princeton: Princeton University Press, 2005); Jan Kooiman, ed, *Modern Governance: New Government-Society Interactions* (London: Sage Publications, 1993); J Kooiman et al, "Interactive Governance and Governability: An Introduction" (2008) 7:1 *The Journal of Transdisciplinary Environmental Studies* 1; and Gerry Stoker, "Governance as theory: five propositions" (1998) 50 *International Social Science Journal* 155.

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6. Along with over eighteen municipalities, including the City of Calgary, and one improvement district, there are three First Nations Reserves, the Banff National Park and several provincial parks in the Region. In the Calgary Regional Partnership's (CRP), *Calgary Metropolitan Plan, 2009*, the Region was mapped and included all the lands within the municipal boundaries of the member municipalities of CRP, circa 2007. That is the geo-political area known as the Region for the purpose of this article. Within the Region, there are four identified "natural regions" Government of Alberta, 2006: online: <[http://www.albertaparks.ca/media/2942026/nrsrcomplete\\_may\\_06.pdf](http://www.albertaparks.ca/media/2942026/nrsrcomplete_may_06.pdf)> that converge in Calgary along with transportation corridors, the Bow River and its tributaries, and a growing, mobile urban population. Calgary is the ecological, social, and economic hub of the Region. Small urban centers are connected to Calgary along transportation corridors that function like spokes on a wheel, connecting the city-hub to centers of urban population growth and economic expansion.
7. Peter Newell, Phillip Pattberg & Heike Schroeder, "Multiactor Governance and the Environment" (2012) 37:1 *Annual Review of Environment and Resources* 365.
8. Jens Newig, Dirk Günther & Claudia Pahl-Wostl, "Synapses in the network: learning in governance networks in the context of environmental management" (2010) 15:4 *Ecology & Society* 24.
9. Lance H Gunderson & CS Holling, eds, *Panarchy: Understanding Transformations in Human and Natural Systems* (Washington: Island Press, 2002) at 15.
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11. See Calgary Regional Partnership, *The Calgary Metropolitan Plan* (2014) [CMP], online: <<http://calgaryregion.ca/dam/Website/reports/General/CRP-current-general-documents/Calgary-Metropolitan-Plan---June-2014/Calgary%20Metropolitan%20Plan%20-%20June%202014.pdf>> (Last visited 9 April 2016). Bow River Basin Council, *Bow River Basin Watershed Management Plan*, Phase 1 and Phase II (2012) [BRBC Watershed Plans], online: <<http://www.brbc.ab.ca/resources/publications>> (Last visited 9 April 2016); and Calgary Region Airshed Zone, *Particulate Matter and Ozone Management Plan* (2014) [PMO3], online: <[http://craz.ca/downloads/craz-documents/Documents/PMO3-Management-Plan/CRAZ\\_PMOMP\\_FINAL.pdf](http://craz.ca/downloads/craz-documents/Documents/PMO3-Management-Plan/CRAZ_PMOMP_FINAL.pdf)> (Last visited 9 April 2016).
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  24. Teubner, *supra* note 19 at 125.
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  32. Orly Lobel, "The Renew Deal: The Fall of Regulation and the Rise of Governance in Contemporary Legal Thought" (2004) 89 Minn L Rev 262; Fiorino, *supra* note 4.
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  35. Teubner, *supra*, note 19 at 251-255.
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  49. M Breuillard, "Dynamics and Room to Maneuver in Governance: The Channel Tunnel Decision in France and Britain" in Kooiman, *supra* note 4 at 131.
  50. Martijn van Vliet, "Environmental Regulation of Business: Options and Constraints for Communicative Governance" in Kooiman, *ibid* at 111.
  51. Lobel, *supra* note 32 at 265.
  52. Lobel, *ibid* at 265.
  53. N Gunningham & D Sinclair, "Regulatory Pluralism: Designing Policy Mixes for Environmental Protection" (1999) 21:1 Law & Policy 49.
  54. Teubner, *supra* note 19 at 239.
  55. *Ibid* at 272-279.
  56. Fiorino, *supra* note 4; Lobel, *supra* note 32; JB Ruhl, "Regulation by Adaptive Management-Is It Possible?" (2005) 7:1 Minn JL Sci &



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  59. Fiorino, *ibid* at 161.
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  61. *Ibid*. Also see Ostrom, *supra* note 4.
  62. R Pomeroy, "Conditions for Successful Fisheries and Coastal Resources Co-Management: Lessons Learned in Asia, Africa, and the Wider Caribbean" in D Armitage, F Berkes & N Doubleday, eds, *Adaptive Co-management: Collaboration, Learning, and Multi-Level Governance* (Vancouver: University of British Columbia Press, 2007) at 175.
  63. Fiorino, *supra* note 4 at 190-191.
  64. CMP, *supra* note 11.
  65. BRBC Watershed Plans and PMO3 Plan, *supra* note 11.
  66. RSA 2000, c M-26 [MGA].
  67. *Ibid*, Part 17.1.
  68. Paragraph from a letter from Honourable Minister Danielle Larivee, Minister of Municipal Affairs to Judy Stewart, dated 4 March 2016 [Letter from Minister]: "Our government has concluded that growth management boards for the two metropolitan regions must be mandatory to ensure efficient and effective regional planning and service delivery, and to promote economic prosperity."
  69. Letter from Minister, *ibid*.
  70. Stewart, 2016, *supra* note 14.
  71. The Towns of Banff, Canmore and Nanton have dropped out as members of the CRP.
  72. Ruhl, and Ruhl & Fischman *supra* note 56.
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  74. Government of Alberta, "Integrated Resource Management System" (2016), online: <<http://oilsands.alberta.ca/2827.html>> (Last visited 16 April 2016).
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  79. *Ibid* at 296.
  80. Fiorino, *supra* note 4 at 19.
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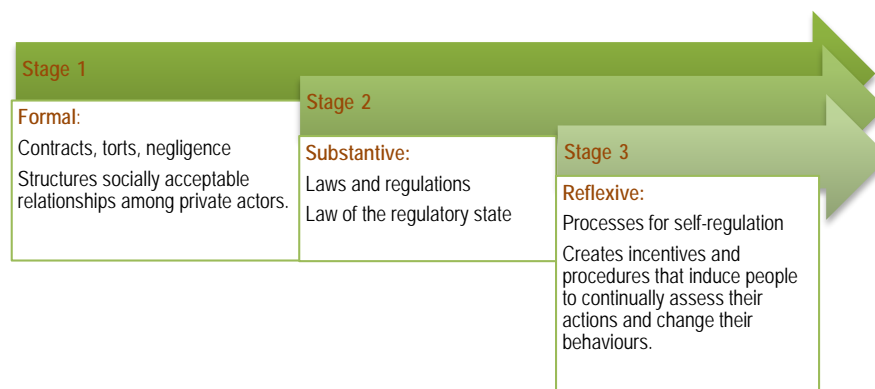
## Appendix

Table 1: Criteria that Define a Bridging Organization

Organizational Structure	Membership	Primary Objective	Goals
Formalized organization with own resources and personnel	Varying levels of stakeholder diversity with high degree of actor interpenetration	Develop a strategic bridging process to connect otherwise unconnected actors to a network  Third party to those it seeks to connect	<ol style="list-style-type: none"> <li>1. Provide an arena for:               <ul style="list-style-type: none"> <li>• Learning</li> <li>• Co-creation of knowledge</li> <li>• Building trust</li> <li>• Conflict resolution</li> </ul> </li> <li>2. Act as facilitators, mediators, and negotiators</li> <li>3. Attract expertise, knowledge, and resources.</li> </ol>

Source: Stewart 2016, based on Crona and Parker.

Figure 1: Theoretical Evolution of the Legal Subsystem of Society



Source: Stewart, 2016, based on Teubner and Fiorino.



Table 2: Teubner's Characteristics of Reflexive Law: "New Proceduralism"

Characteristics of reflexive law or "new proceduralism"
Law facilitates self-regulatory processes of communication and learning.
Law mediates between performance and function.
Law fosters mechanisms to further reflexion structures.
Law acts to install, correct and redefine democratic self-regulatory mechanisms.
Law guarantees coordination processes and compels agreement.
Law stimulates processes of social self-regulation.
Law's goal is to design organizational structures that have effective internal control.
Law utilizes and develops knowledge necessary to control self-regulatory processes.

Source: Stewart 2016, based on Teubner.

Table 3: Provincial Reflexive Legal Processes to Legitimize Environmental Bridging Organizations

Processes to Legitimize Environmental Bridging Organization Functions	Subheadings	Effectiveness in Legitimizing Environmental Bridging Organization Functions
<p><b>Regulating environmental bridging organization form and internal governance processes:</b></p> <p>Province recommends organizational form (<b>society or corporation</b>): guidance on minimum requirements in internal governance structure and processes to create internal governance policy; procedures for reaching agreement and conflict resolution; procedures for annual reporting to stakeholders and government; and processes for amending self-regulatory mechanisms.</p> <p>Province recommends a process for establishing boundaries and attracting memberships on a multi-sectoral and multi-level basis.</p> <p>Province recognizes bridges and brokers through Alberta stewardship awards.</p> <p>Province gives standing to environmental bridging organizations to appeal Directors' decisions to issue approvals and licenses.</p>	<p><b>Furthering reflection:</b></p> <p>Foster mechanisms to further reflection.</p> <p><b>Embed environmental law principles:</b></p> <p>Inclusion, openness, flexibility, broad participation, and democratic decision-making processes (consensus)</p> <p><b>Membership roles and responsibilities:</b></p> <p>Embed process for attracting and retaining members, defining roles and benefits of membership, and whether membership requires payment of fees, or contributions of capital.</p> <p>Brokers are recognized for furthering stewardship of natural resources.</p>	<p><b>Recognition:</b></p> <p>Recognizes environmental bridging organizations as formal institutional arrangements under Alberta's legal regime and provides guidance to all societies formed under the provincial protocol.</p> <p><b>Democratic anchorage:</b></p> <p>Democratic anchorage in regional-scale environmental governance and management.</p> <p>Brokers are recognized as valued stewards of Alberta's natural resources.</p> <p>Environmental Bridging organizations are able to ensure that approvals and licenses reflect regional co-created plans.</p>
<p><b>Public purposes, objectives or functions:</b></p> <p>Province recommends a range of strategic bridging functions that the organization might strive to achieve.</p>	<p><b>Introduced policy learning opportunities.</b></p> <ul style="list-style-type: none"> <li>• Provide an arena for learning, co-creation of knowledge, building trust and conflict resolution.</li> <li>• Attract expertise, knowledge and resources.</li> <li>• Act as facilitators, mediators and negotiators.</li> </ul>	<p>Strategic bridging functions are valued and legitimized as a "public purpose."</p>



<p><b>Province officially recognizes planning processes and co-created plans:</b></p> <p>Province recommends processes and minimum substantive requirements for adaptive co-management plans, planning processes; and plan implementation.</p> <p>Province has a process for authorizing Terms of Reference for plans and approving and reviewing plans.</p> <p>Province requires that plans be considered by all land use and natural resource management decision-makers in the applicable region.</p>	<ul style="list-style-type: none"> <li>• Planning Processes</li> <li>• Terms of Reference</li> <li>• Substantive requirements <ul style="list-style-type: none"> <li>○ Clearly articulated measurable goals,</li> <li>○ Stable hypotheses (or some method of structured learning from conceptual models), and</li> <li>○ What criteria should apply in evaluating performance and outcomes of adaptive co-management experiments?</li> </ul> </li> <li>• Effects of plans</li> <li>• Matters and factors that a decision-maker must consider when making land use or natural resource allocation or impact decisions.</li> <li>• Processes for plan review</li> </ul>	<p>Stakeholders engaged in regional-scale environmental governance and management and co-creation of plans will see the value in planning processes and outcomes. Plans will be implemented according to a standardized process that environmental bridging organizations can refine or improve within the applicable region.</p> <p>Plans will be recognized as decision-support tools and decision-makers will have to account for how the plans were considered during their decision-making processes, as is the case with Approved Water Management Plans under the <i>Water Act</i>.</p>
<p><b>Co-creation of knowledge:</b></p> <p>Province recommends how to compile baseline data sets, and how to monitor and evaluate trends over time.</p> <p>Province provides data sets online that can be accessed by environmental bridging organizations.</p> <p>Environmental bridging organizations are legitimate partners in co-creation of knowledge and providing feedback.</p>	<p><b>Access to provincial data:</b></p> <ul style="list-style-type: none"> <li>• Processes for compiling baseline data sets; monitoring; data analysis; data storage</li> <li>• Processes for accessing provincial data banks.</li> </ul>	<p>Bridging organizations have access to provincial data to assist in co-creation of knowledge that will also be used by the Province in regional-scale environmental governance and management in a feedback loop.</p> <p>Monitoring data over time leads to processes for data analysis, trend identification, identification of triggers, thresholds, etc. that require management responses.</p> <p>Dialogue among networked stakeholders creates mechanisms to adapt to feedback in the system.</p>
<p><b>Delegating some provincial and municipal powers to environmental bridging organizations for adaptive co-management:</b></p> <p>Province creates decision-making capacity criteria.</p> <p>Province enables environmental bridging organizations to educate stakeholders about, implement, and monitor and report on implementation of next generation “soft” regulations.</p> <p>Province delegates authority for co-creation of adaptive co-management plans to environmental bridging organizations, and to report on implementation and feedback in the SES, and create processes, programs and practices to continuously improve the plans.</p>	<ul style="list-style-type: none"> <li>• Environmental bridging organizations that meet decision criteria are delegated some decision-making authority, and ability to implement next generation policies to move beyond mere compliance.</li> <li>• Programs apply sector wide</li> <li>• Co-creation of best management practices</li> <li>• Monitoring of agreed to performance measures</li> <li>• Public reporting at regular intervals</li> <li>• Negotiated rules</li> <li>• Performance based rules apply to stakeholders</li> <li>• Stakeholders engage in audited self-regulation</li> <li>• Regional scale problem solving a formal function</li> <li>• Disclosure/ monitoring results are shared</li> <li>• Information co-created or collected is shared</li> <li>• Preparation and implementation of adaptive co-management plans in partnership with Province.</li> </ul>	<p>Authority is shared for adaptive co-management processes, programs and practices based on capacity of bridging organization.</p> <p>Moving beyond mere compliance.</p> <p>Plans are more than decision-support tools for government; stakeholders take responsibility for implementing objectives and strategies in adaptive co-management plans that they have co-created.</p>
<p><b>Funding arrangements:</b></p> <p>Province establishes sustainable funding model for environmental bridging organizations that satisfy criteria. The funding comes from resource management fees and fines directly related to the work being done at local and regional-scales by the organizations.</p> <p>The Province establishes an accessible process to apply for government funding and grants if they satisfy criteria.</p>	<ul style="list-style-type: none"> <li>• Partners bring something to the society and “co-own” the product.</li> <li>• Mechanisms to acquire funds to achieve regional scale public purposes, including strategic bridging functions.</li> <li>• Funding follows form, function, and performance</li> </ul>	<p>Environmental bridging organizations have sustainable funding if they meet the criteria established by the Province to qualify for grants and operational funding.</p> <p>Legitimized strategic functions are valued and considered during provincial budget deliberations. Funding is less of a political process and is tied to form, function and performance criteria.</p>

## SAVE THE DATE! – UPCOMING NATIONAL ENVIRONMENTAL LAW SYMPOSIUM – OCTOBER 13 & 14, 2016

The Canadian Institute of Resources Law (CIRL) and Dalhousie University Faculty of Law are organizing the national symposium **Environment in the Courtroom: Protection of the Marine Environment**. This symposium, funded by Environment and Climate Change Canada, is free of charge and can be attended in person at the Dalhousie University on October 13 & 14, 2016 or alternatively viewed online as a live webcast on the symposium dates.

This is the sixth national environmental law symposium organized by CIRL. In the past five years, practitioners, judges and academics from across Canada have attended and contributed to the discussion of current important environmental law issues. Attendees at previous symposiums have reported that the sessions are both practical and useful. We encourage questions from the audience after the presentations. The session papers, translated into both of Canada's official languages, will be posted on the CIRL website.

There will be networking opportunities with practitioners from throughout Canada to find out about recent developments and current issues in Canadian environmental law. Both days will include refreshment breaks.

CIRL will provide details and registration information at a future date.

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MFH 3353, Faculty of Law, University of Calgary, 2500 University Drive N.W.  
Calgary, AB T2N 1N4 Phone: 403.220.3200 Facsimile: 403.282.6182  
E-mail: [cirl@ucalgary.ca](mailto:cirl@ucalgary.ca) Website: [www.cirl.ca](http://www.cirl.ca)

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