

Evaluating Stakeholder Input in Environmental Decision Making: ENGO contributions to the BC *Water Act* reform

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EXECUTIVE SUMMARY

Enacted in 1909, British Columbia's outdated *Water Act*, the primary law for managing water resources in the province, poses a number of challenges in responding to the impacts of climate change, population growth and shifting industrial and economic priorities. To better address these challenges, the government of British Columbia (BC) has initiated policy reform. The BC *Water Act* modernization is currently in its second phase, engagement and policy development. Public engagement is a critical component in the modernization process, occurring primarily through the submission of formal statements by stakeholders. ENGOs represent a key stakeholder group participating in the process. ENGOs play a vital and influential role in environmental planning and policymaking, exerting influence through policy formation and implementation, providing valuable environmental data and expertise and generating public awareness and education. The vitality of these organizations lies in their diversity; ENGOs display variation in size, identity, issue focus, goal and approach. This study takes a deeper look at the shared and differing views of these important stakeholders and their contributions to policy development in the *Water Act* reform process.

Content analysis of the 43 ENGO submission statements revealed several shared viewpoints among ENGOs. Of primary importance to ENGOs is the protection of stream health and aquatic environments; however, ENGOs argue that protection should be extended to include wetlands. Arguments also held that improved monitoring, compliance and enforcement was needed, in addition to integrated ground and surface water management. Additionally, ENGOs consider groundwater regulation to be a decisive move in the reform. Significant themes identified in the submissions include:

- Linking concerns with local issues;
- Incorporating water management in land use planning and decision making;
- Importance of applying the precautionary principle;
- Need for adequate funding and human resources; and
- Lack of opportunities for further engagement in the reform process.

The greatest discrepancy among ENGOs is seen in the issues ENGOs were vocal on. There is a sharp differentiation between ENGOs that were vocal on each issue and those that emphasized particular concerns. The issues that ENGOs were vocal on provided insight into the identity, objectives and approach of each organization. It is apparent that while shared views persist, ENGOs are not a homogeneous voice. The

vitality of ENGOs hinges on their variation, provincial agencies need to keep an open ear to all willing participants in this sector.

Based on the 43 ENGO submission statements, some tentative recommendations on BC's *Water Act* reform and related actions can be made. First, the provincial government should look to improve the scope and frequency of water monitoring to ensure adequate data is available for decision making. Second, mechanisms to carry out compliance and enforcement of new regulations need to be established. Third, better linkages between land use planning and water management need to be created. Fourth, policy reforms should look to capture local concerns. Fifth, adequate funding and resources for newly established water governance and planning agencies needs to be provided.

Comparative analysis of the research findings with the engagement results derived by the BC government shows that, in their evaluation and interpretation of ENGO submissions, several important comments were missed, including: recognition and protection of wetlands and incorporating water management in land use planning and decision making. To ensure a thorough evaluation process agencies should use multiple methods when evaluating submissions to better account for substantive issues and substantive issues should be included in policy formation.

Findings suggest that ENGOs make a positive contribution to environmental policy considerations. ENGOs provide a voice to ecological needs, they fill a gap in environmental accounting by highlighting on the ground issues that are a result of existing legislation, and they provide for agency (government) accountability by calling out past actions to identify potential issues with new policy directions. Providing implementation strategies could strengthen their contribution.

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1.0 INTRODUCTION

Responding to new challenges in water management, including population growth, shifting industrial and economic priorities and climate change, the Province of British Columbia (BC), Canada has set out to modernize its *Water Act*. These efforts come after recent engagement in the issuing of new strategies and amendments to water laws across Canada and internationally (Nowlan, 2008). A critical component in the modernization process is that of public engagement, an intention of which is to build an understanding of the need to collaborate on water issues (Province of British Columbia, 2010a). Public engagement is a common trend in environmental decision making, following citizens' expectations to participate in policymaking activities. It is also driven by government's acknowledgement of the need to incorporate a range of values and perspectives in order to secure political legitimacy and successful water management outcomes (Nowlan and Bakker, 2007). Public engagement in the *Water Act* modernization (WAM) process has occurred primarily through the submission of formal statements by stakeholders. This research will examine these submissions, focusing specifically on one group of stakeholders, environmental non-governmental organizations (ENGOS). With the public engagement phase now complete, BC's current WAM process provides a good opportunity to take a deeper look at stakeholder perspectives in environmental planning and policymaking and to understand how these views and opinions have been interpreted.

ENGOS play a significant and influential role in environmental policymaking, resource management and governance. Environmental organizations exert influence through policy formulation and implementation (Mangun and Henning, 1999) and play a role in domain creation and regime change (Whitelaw *et. al.*, 2008). Furthermore, ENGOS have been found to generate public awareness and provide for social learning around the environment (Mangun and Henning, 1999), in addition to providing valuable environmental data and expertise, improving the quality of environmental planning (Brody, 2003). Dominant players in environmental management, ENGOS bring an important environmental perspective to progressive planning and policymaking, a perspective that needs to be accounted for in decision making. Accounting for this perspective entails an understanding of the views of these organizations and how these views are shared.

1.1 Research Questions and Scope

Focusing on the BC *Water Act* reform, this research explores the views of ENGOS on

water management and governance, and the evaluation and interpretation of these views by the BC government. Specifically, this research answers three important questions, while addressing five associated objectives:

1 What critical views are expressed by ENGOs on the *Water Act* reform?

1.1 To understand the views and opinions of ENGOs on water management and governance in BC, gaining awareness of water issues and planning and policy needs.

1.2 To develop an understanding of the goals and objectives of the *Water Act* reform, how these goals and objectives look to improve water management and governance, and issues with the proposed goals and objectives.

2 How diverse are the views of ENGOs?

2.2 To understand the diversity of views and opinions among ENGOs to better interpret and evaluate these views.

2.3 To foster greater appreciation for the number of active environmental organizations and their efforts and contributions.

3 How have the views of ENGOs been evaluated and interpreted by the BC government and what has been missed in this evaluation?

3.1 To understand how stakeholder input, particularly that of ENGOs, is evaluated and how well this evaluation accounts for the views and opinions put forward.

This study will focus only on the submissions of ENGOs presented to the BC government for consideration in the development of policy to modernize the current *Water Act*. The BC government has categorized all submissions by stakeholder group, this study will look only at those submissions found under the ENGO category; the submissions of other stakeholders will not be addressed. This study will not examine the opinions and comments expressed through the other engagement processes, that is workshops and the *Living Water Smart* blog.¹

The term ENGO(s) (environmental non-governmental organization) is used throughout this report. This is to be consistent with the use of the term by the BC government. The term represents a stakeholder group that encompasses international, national and provincial bodies, as well as regional and local stewardship and community groups

¹ Further information on the Living Water Smart blog can be found at <http://www.livingwatersmart.ca/blog>. The blog is set to close March 2011.

(Province of British Columbia, 2010c). The use of the term is meant to include those organizations connected with the environmental movement. ENGOs may be defined as belonging to the so-called “third sector” between the State and the Market, that is stakeholders that do not represent government or corporations (Finnigan *et. al.*, 2003). These stakeholders are involved in environmental planning and resource management through diverse means but do not have any direct pecuniary interest in resource management decisions (Finnigan *et. al.*, 2003). Though often categorized together in the ENGO sector, ENGOs display significant variation in size, identity, issue focus, goal and approach (see Section 1.4.2).

1.2 Rationale

Public engagement is increasingly recognized as a tenet of good environmental planning and policymaking. Fostering engagement demonstrates recognition of the important perspectives stakeholders and the public bring to policy development and the contribution these stakeholders make to improving plans and policy. The ENGO sector in particular brings forward a critical environmental perspective. While some attention has been paid to understanding what stakeholder perspectives are (Corburn, 2003), little attention has been paid to understanding how stakeholder views are evaluated and interpreted in order to generate improved policy outcomes. Better understanding of the arguments made by stakeholders, particularly those arguments made *within* each sector, and the evaluation and interpretation of these views is needed to ensure multiple perspectives are accounted for. The capacity for engagement to improve environmental planning and policymaking is only as strong as the evaluation and interpretation of the views put forward.

1.3 Context

This research covers three important topics, each of which will be discussed briefly below. The first explores public participation in environmental planning and policymaking, this sets up the context within the framework of public participation. The second takes a deeper look at ENGOs, specifically at the roles they take and how they exert influence, as well as the diversity among organizations expressed in type, identity, focus, goal and approach. The last section takes a detailed look at water management and governance in British Columbia, going into further depth on the WAM process. Sections one and two will be used to enrich the analysis, while the third section lays the foundation for the research.

1.3.1 Public Participation in Environmental Planning and Policymaking

Drawing on public input is a common trend in environmental planning and resource management (Brody, 2003; Diduck and Sinclair, 2002; Finnigan *et. al.*, 2003; Frame *et. al.*, 2004; Koehler and Koontz, 2008). Balancing the “seemingly disparate goals of environmental protection and resource development” is a challenge for government institutions; public participation is an approach utilized to better meet this balance (Finnigan *et. al.*, 2003, 14). Public participation may be defined as “a mode of relationship between the state and civil society that involves the public in decision making. In contrast to top-down or command-and-control relationships, it seeks to increase popular influences over government policies” (Laurian and Shaw, 2009, 294). Citizen involvement in decision making is recognized as a fundamental characteristic of democratic governance. Beyond democratic fulfillment, public participation has been stated to produce better plans and more effective policy (Burby, 2003; Corburn, 2003). This section draws upon a number of studies that highlight the benefits and barriers to participation, while emphasizing the importance of public engagement. The intent is to demonstrate the gap in the literature with respect to the evaluation of public input. Evaluation is a key component in deriving influence from participation.

Evolution of participation in environmental decision making in Canada

Since the 1970s, public participation in environmental decision making has gained widespread support in Canada (Diduck and Sinclair, 2002; Shrubsole and Draper, 2007), this support is evident in legislation, such as the *Canadian Environmental Assessment Act* and British Columbia’s *Environmental Assessment Act* and *Environmental Management Act*. Support for public participation follows from the recognition of planning and policymaking as a value laden process (Gunton and Day, 2003). This recognition has led to broad acceptance of various types of public participation to assist decision makers in what are “democratically” determined goals and values (Gunton and Day, 2003).

Conventional approaches to participation are often consultative and informative (public meetings for example). Planning theory has tended to support moving beyond these conventional approaches toward more open, deliberate or discursive models such as collaborative planning (Laurian and Shaw, 2009). But collaborative approaches are subject to scale, resources and time. As such, public participation in practice often lands just beyond consultation but notably behind collaboration. Public participation approaches that are not fully collaborative must be designed to ensure that involvement

is not simply tokenistic but open and effective. Choices made must be fair, transparent and justified.

Benefits of public participation

Public participation is most often endorsed as a commitment to the principles of democratic governance, principles that include “the right to be informed, to be consulted, and to have the opportunity to express [one’s] views on government decisions” (Brody *et. al.*, 2003, 246). Yet, there are other, empirically demonstrated benefits to citizen involvement. Corburn (2003) suggests that local knowledge is a significant contribution of community participation in environmental decisions, providing both political and technical insight. Burby (2003) argues that with broad stakeholder involvement plans are not only stronger but also more likely to be implemented. Yet, despite these benefits, planning processes are often limited to relatively few stakeholders, generally those with local business and development interests, local elected and appointed government officials, and neighbourhood groups (Burby, 2003). Burby (2003) argues that limiting participation to these interests effectively stifles citizen involvement. In contrast to these findings, Brody (2003) would argue that broad stakeholder representation does not necessarily guarantee higher quality plans. In a study of stakeholder participation in ecosystem management strategies, Brody (2003) found that broad representation did not necessarily guarantee higher quality plans; rather, a wide range of stakeholders could actually lead to a “lowest common denominator” when it comes to plan quality. However, Brody (2003) would agree with Burby (2003) that limiting participation to narrow interests so that key participants are overlooked has a significant detrimental effect on plan quality. In Brody’s (2003) case, resource based industries and non-governmental organizations (NGOs) are key participants that should be involved in the environmental planning process. Brody (2003) establishes that environmental groups (ENGOS) provide valuable environmental data and expertise.

Barriers to effective participation processes

Public involvement in environmental management is subject to a number of barriers and limitations, which pertain to agencies, participants, processes and outcomes (Laurian and Shaw, 2009). Agencies make critical choices when designing participation programs; a lack of commitment to the process often results in insufficient mechanisms or outlets for effective involvement. Burby (2003) has identified five key choices and related advice for agents to increase and improve public involvement, these are: 1) choice of objectives, includes providing information to and listening to citizens; 2) choice

of timing, involving the public early; 3) choice of whom to target, which stakeholders to involve, as already seen this can have a significant impact on plan quality; 4) choice of techniques, use a number of information sharing techniques and provide opportunities for dialogue; and 5) choice of information, information provided should be clear and easily understood. Failure to consider these choices may translate into barriers pertaining to participants. Nonparticipation from stakeholders may result due to lack of information, lack of resources, unequal opportunities to participate, lack of impact on ultimate decisions, and lack of motivation or time (Diduck and Sinclair, 2002). Most relevant to this research is the lack of impact on ultimate decisions. Diduck and Sinclair (2002) argue:

“lack of impact could be linked to scarcity of opportunities to have arguments evaluated in a systematic fashion. It could also be related to lack of openness to alternative perspectives on the part of the dominant parties in the proceedings. Lack of impact could also signal that approval decisions were forgone conclusions, and in such a case people will not participate or choose to participate in other ways” (579).

Participant involvement may be inhibited if they feel their participation will have little impact on ultimate decisions. Agencies must demonstrate the influence of public input on planning and policymaking to continue to encourage participation. This means evaluating input in a systematic and comprehensive manner, being open and transparent about how input will be utilized in policy and plan formation, and justifying the choices made. Input evaluation clearly plays an important role in engagement, Question 3 and Objective 3.1 of this research takes a look at the evaluation of stakeholder input, specifically the feedback received from ENGOs.

Barriers also pertain to the process and outcome. As stated by Matthews *et. al.* (2007), participation does not ensure consensus, “especially in decision making about a crucial resource under unsustainable pressures from many contending interests, even the most admirably participative processes will leave unresolved conflicts and unpleasant choices” (343). This is not to argue that in these cases participation is not applicable, rather that it is even more critical that participation processes be transparent. As this research will provide an understanding of the diversity of views and how well the BC government has accounted for these views (Questions 2 and 3), it is important to remember that not all views can be incorporated into policy development.

1.3.2 Environmental Non-Governmental Organizations: Role, Influence and Diversity

According to Simmons (1998), non-governmental organizations (NGOs) exert influence on governance in four ways: setting agendas, negotiating outcomes, conferring legitimacy, and implementing solutions. Agenda setting occurs through mobilizations, campaigning and scientific and technical research. And can lead to domain creation and regime change within planning systems (Whitelaw *et. al.*, 2008). Influence on policy outcomes occurs when NGOs are invited by proponents to participate in decision making activities. Environmental groups increasingly provide government institutions with expert advice. Opportunities to provide input and advice ensure government legitimacy, especially when ENGOs endorse the solutions adopted (Whitelaw *et. al.*, 2008). Brody (2003) has demonstrated that the involvement of ENGOs can improve the quality of environmental planning by providing valuable data and expertise. With respect to implementing solutions, environmental organizations take part in policy monitoring, looking to ensure accountability, and education and voluntary work (Diani and Donati, 1999; Whitelaw *et. al.*, 2008); often assuming the role of agents of social learning (Princen and Finger, 1994).

Diversity of organizations

Environmental organizations display variation in size, identity, issue focus, goal and approach (Castells, 2004; McKenzie, 2002; Wilson, 2001). This diversity is evident in the number and type of organizations operating in Canada. Diversity makes it difficult to classify environmental organizations, attempts at categorizing has been described as “an exercise in pounding square pegs in round holes” (Wilson, 1992). Nevertheless, Castells (2004) has come up with a typology to characterize environmental organizations. Castells (2004) draws on Alain Touraine’s characterization of social movements to come up with five major varieties of environmental organizations: 1) Conservation of Nature; 2) Defense of own space; 3) Counter-culture, deep earth ecology; 4) Save the planet; and 5) Green politics. These varieties are based on identity, adversary and goal; however, McKenzie (2002) argues this classification fails to take into account other important characteristics including organization, strategies and targets. Attempts to develop such typologies demonstrates how classifying environmental organizations is a difficult task. Castells (2004) typology also demonstrates a few varieties of organizational forms.

Variety is also seen in the different niches occupied by organizations in the effort to protect the environment. In Canada, for example, the World Wildlife Fund (WWF) has a broad mission to conserve nature and ecological processes while Ducks Unlimited Canada pursues wetland conservation (Wilson, 2001). The WWF and Ducks Unlimited Canada are just two of many large national organizations; there are also hundreds of small local, grassroots groups that occupy other niches in environmental protection. This exemplifies the diverse identities, agendas and goals of environmental groups. Recognizing the significant diversity of organizations, this research works to understand if this diversity is reflected in the views of ENGOs, as expressed in the BC *Water Act* reform (Questions 1 and 2).

The division between large national organizations and small local organizations is evident in the literature (see McKenzie, 2002; Rootes, 1999; Wilson, 1992; Wilson, 2001); there is much discussion on the role of large international and national versus small regional and local groups. Large organizations are often described as occupying the conservative, cautious side of the spectrum (Wilson, 2001). Compared to these large and somewhat stultified groups, the hundreds of smaller organizations offer different approaches and strategies to a wider range of issues (Wilson, 2001). Rootes (1999) argues:

“increasing disillusionment with the major US EMOs [United States environmental movement organizations],² seen by many as disempowering, paternalistic and exclusive, has fuelled attempts to develop new forms of organisation sufficiently flexible to accommodate the diversity of the environmental justice movement and to respond to changing circumstances at the local level” (5-6).

Smaller regional and local groups are critical in providing for organizational fluidity. These organizations build on the diversity of the environmental movement. It is important to recognize the wide and thriving collection of smaller organizations, too easily forgotten as the large major organizations dominate the media (Wilson, 2001, 59). As Wilson (2001) argues: “the public face of the movement now reflects more strongly the priorities and perspectives of large national organizations” (46). There needs to be recognition of the distinct and often place based priorities of local and regional groups.

² There is inconsistency in the literature with respect to the use of the terms environmental movement organizations and environmental non-governmental organizations. For the purposes of this report, environmental movement organizations are equated with environmental non-governmental organizations.

Even while environmental organizations demonstrate diversity, there is often a tendency for groups to cooperate and form coalitions for political purposes (Mangun and Henning, 1999). National and local levels of action appear symbiotic (Rootes, 1999). It is most often the case that major environmental campaigns involve coordinated efforts by a team of organizations (Wilson, 2001); yet, even in smaller cases, coalitions among organizations form. Wilson (2001) gives the example of the campaign to protect Clayoquot Sound in BC. Coalitions mean organizations must form similar aims and objectives; combined efforts are to work toward the same goal. Further, Rootes (1999) suggests that local groups may actually play a 'discovery' role in relation to environmental issues; once an issue is on the political agenda efforts are passed on to better resourced environmental organizations. Here local groups establish the agenda then pass the negotiations on to larger regional or national groups. One would expect to see similar views between groups in such a case.

ENGOS in British Columbia

The hundreds of ENGOS active in BC play a vital role in environmental stewardship for the province. The vitality of these organizations lies in their number, size and diversity. Even among the forty-six ENGOS involved in the *Water Act* reform there is significant variation in membership size, scope, issue focus, objectives, approach and resources.³ The following describes some of this variation.

With respect to membership size, some of the organizations such as the World Wildlife Fund Canada have the active support of more than 150,000 Canadians. Moreover, the British Columbia Wildlife Federation claims to be the largest and oldest conservation organization in BC, boasting of a membership of over 38,000 people. On the other hand there are organizations like the Island Waters Fly Fishers club that has an approximate membership of just 40 people and the North Columbia Environmental Society, which has a membership of 95 people. Scope also differs dramatically among organizations. For example, the Driftwood Foundation works and direct its research into plans for the Bulkley Valley and Northwest BC, while BC Nature works across the province. The issues which organizations focus on also vary, ranging from the protection of old growth forests to stream restoration to groundwater protection. For example, Arrowsmith Parks and Land-Use Council formed to protect the old growth forests in the Arrowsmith

³ While the Fraser Basin Council could be considered an environmental organization playing an important role in water stewardship for the province of BC, the BC government categorized the Fraser Basin Council not as an ENGO but as a partnership organization. As such, the Fraser Basin Council is not one of the forty-six environmental organizations considered in this report.

watershed region; whereas, Water Across Time our Environmental Responsibility was formed by a group of citizens in and around the Village of Valemount, looking to ensure the adequate protection of groundwater from extraction. Nevertheless, most of the issues are interconnected in that all relate to water management.

As the issues at hand vary, so do the objectives of the different organizations. Organizations like the Burke Mountain Naturalists have broad objectives including promoting the enjoyment of nature, fostering an interest in our environment and pursuing conservation and preservation of the natural world. These objectives are approached and accomplished through action and education. Organizations like the Harrop-Procter Watershed Society have specific objectives- to assure the consistent quality and quantity of water in the Harrop-Procter community. These objectives are approached and achieved through ecosystem research and public education. Finally, resources vary among organizations. Resources include membership size and volunteer base but also financial resources. A number of the organizations are registered charities, while others are not. Many depend heavily on member donations, while others rely on government grants. Financial resources have a significant impact on the mobilization, actions and research capabilities of organizations; consequently, resources have an impact on the degree of influence achieved.

The diversity of the organizations participating in the *Water Act* reform is apparent, however, a number of these organizations do claim to work in partnership with other organizations or form coalitions with other groups on issues to generate further support. For example, the Burke Mountain Naturalists organization is a member club of BC Nature, working in partnership on different types of conservation work. Also, the Jewell Lake Environmental Protection Society is a regional group of the BC Lake Stewardship Society. And as a final example, the Pacific Salmon Foundation works with other non-profits to bring salmon back to streams.

The formation of coalitions is also evident in the Statement of Expectations. The Statement of Expectations is a document responding to the *Water Act* reform sent by BC Nongovernmental Organizations to the provincial government in December 2009 (prior to the official call for submissions). The Statement of Expectations was undersigned by 29 environmental groups, 12 of which sent in submissions representing their independent organizations during the public engagement period, that is, they are a part of the 43 ENGO submissions analyzed in this report (there are actually 46

ENGOs that sent in submission statements, but 3 submissions were unavailable).⁴ A list of the undersigned environmental groups is provided in Appendix A. Developed through study and consultation, the Statement of Expectations outlines BC's water risks, expectations for participation in the legislative reform process, and expectations for a modernized *Water Act* with emphasis placed on the four goals of the legislative reform- in the perspective of the undersigned organizations (see Section 1.3.3 and Table 2.1 in Section 2.1.2 for an understanding of the WAM process and a description of these goals). The Statement of Expectations demonstrates that while organizations vary in identity, focus, objectives and approach, they can hold similar views with respect to particular environmental management issues. Forming coalitions enables them to increase pressure. On the other hand, the document was not undersigned by every participating ENGO, which lends to the idea that diverse views will be expressed in the submission analysis.

1.3.3 Water Management and Governance in British Columbia

First enacted in 1909, the *Water Act* is over 100 years old making it one of the oldest statutes in the province (Province of British Columbia, 2010a). The legislation has seen a number of amendments, none of which constitute significant reform. As such, the Act continues to reflect the conditions of a younger, relatively unpopulated province, when agricultural and industrial development was just emerging and water was seen as plentiful (Province of British Columbia, 2010a). The outdated legislation poses a number of challenges to effective water management and governance, providing little room to adapt to, mitigate and/or accommodate the impacts of climate change, population growth and shifting economic priorities.

Current trends in water use work to exacerbate the pressures for change. British Columbian's are among the highest volume water users in the world, what is perhaps an effect of the myth of water abundance perpetuated by the few water wealthy lakes and many small, shallow lakes that spread across the province and the country (Sprague, 2007). The myth of water abundance is the perception that BC is rich in water, or has unlimited supplies across the province (Province of British Columbia, 2010b; Sprague, 2007). Those who believe in the myth forget that much of this water supply is non-renewable. In addition to high per capita water consumption, urban expansion, agricultural production and natural resource extraction are also contributing

⁴ Please note that the Statement of Expectations was not included in my analysis as this meant accounting for some organizations twice. Additionally, it fails to demonstrate the particular views of each organization.

to high volume water consumption (Province of British Columbia, 2010b). Combining these trends with climate change and population growth pressures, water issues will expand without a shift in management. Conversely, there is growing awareness of current and potential water issues and the need for conservation. There are a number of communities, organizations and agencies dedicated to conservation efforts and resource protection. The *Water Act* reform can be seen as a response to growing awareness and expectations for change.

Trends in water management and governance

Across Canada, systems of water governance and management have seen a number of important changes. According to Nowlan and Bakker (2007), these changes are characterized by the shift to watershed-based delegated governance models in a number of provinces; legislative and policy reform, improving source water protection; and greater citizen involvement in environmental policy making and resource management. These changes have occurred for a number of reasons, four points most critical to this research are offered:

1. Increased awareness of expertise available outside government;
2. New approaches to citizen participation;
3. Greater emphasis on ecosystem based approaches to environmental management, integrated water resources management and watershed based management; and
4. Concern over the implications of climate change on water resources emphasizing the need for adaptability and flexibility (Nowlan and Bakker, 2007; Province of British Columbia, 2010d).

Following these trends, the BC government has recognized the need to update and improve its systems of water management and governance. In 2008, the provincial government developed *Living Water Smart: British Columbia's Water Plan*. *Living Water Smart* is a comprehensive plan that lays out the province's commitments with respect to water management. The plan includes detailed short term targets divided into three sections: Doing Business Differently; Preparing Communities for Change; and Choosing to be Water Smart (Brandes and Curran, 2009; Nowlan, 2008). Modernization of the *Water Act* is a critical component in following through with the plan. Many of the commitments stated in *Living Water Smart* will be advanced through the WAM process.

Water management and governance through the Water Act

The *Water Act* is BC's primary law for managing water resources. The *Water Act*

functions to allocate and regulate the diversion, storage and use of water, including the regulation of changes in and about a stream (Province of British Columbia, 2010b).⁵ It has an influence on the quantity and timing of stream flow and plays a large role in maintaining stream health (Province of British Columbia, 2010b). In addition, water management planning, water allocation planning and drought management are also included in the Act (Province of British Columbia, 2010a).

Underlying water management is governance; ‘governance’ “refers to the decision-making process we follow, whereas ‘water management’ refers to the operational approaches we adopt” (Bakker, 2007, 16). Governance may be defined as “... the structures that frame who makes decisions and how decisions are made” (Brandes and Curran, 2009, 1). More than just government, contributors to governance may include First Nations, professional associations, industry, business, non-governmental organizations, and citizens. Governance is also made up of the policies, laws, institutions, processes, and scientific, local and traditional knowledges that inform decision making. Water governance in BC is complex as a number of federal, provincial and local institutions and agencies share power and responsibility around water (Province of British Columbia, 2010b). In addition, BC has established a number of delegated governance bodies and arrangements, both formal and informal with responsibility around water management. This approach to delegated water governance has been criticized for being too fragmented and ad hoc. Nowlan and Bakker (2007) argue delegated arrangements in the province are characterized by a patchwork of jurisdictions, authorities, differing governance models and mandates. To date, the performance of these delegated arrangements is mixed (Nowlan and Bakker, 2007). As the *Water Act* is the primary statute affecting water governance in the province, reform offers an opportunity to improve governance; discussion has revolved around centralized, shared and delegated approaches.

The Water Act modernization process

The *Water Act* reform process is occurring in four phases (see Fig. 1.1). Phase one, scoping and jurisdictional review and background research, is complete. Phase two, engagement and policy development is underway, with policy development taking place. Intentions are to complete phases three, request for legislation and legislative

⁵ The term stream as it is used in this report is defined as “a natural watercourse or source of supply, whether usually containing water or not, and a lake, creek, spring, ravine, swamp and gulch” (Province of British Columbia, 2010a, 1). This definition is taken from the *Water Act* Modernization Discussion Paper (2010a).

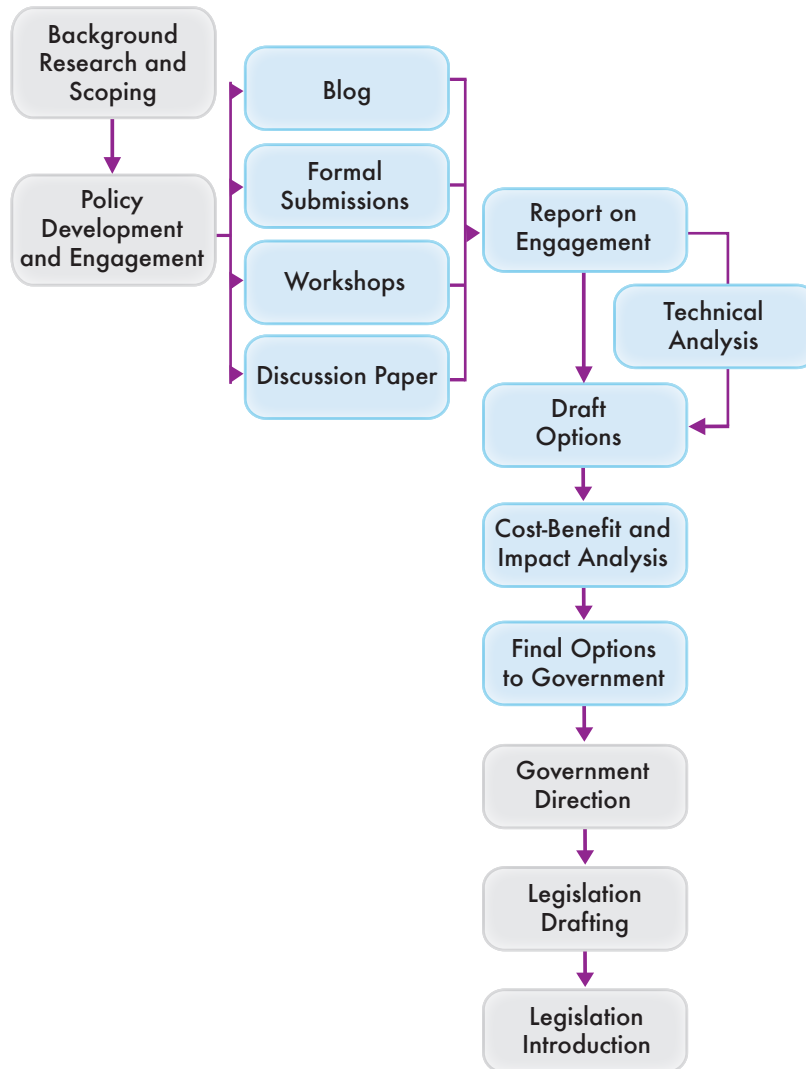


Figure 1.1 The Water Act Modernization Process.
Adapted from: Province of British Columbia, 2010a, 2.

drafting, and four, bill introduction and approval, by 2012 (chronology of reform activities is provided in Table 1.1). There are four goals shaping the scope and vision of the WAM process, these are: 1) protect stream health and aquatic environments; 2) improve water governance arrangements; 3) introduce more flexibility and efficiency in the water allocation system; and 4) regulate groundwater extraction and use. Each goal is associated with a number of objectives, and each objective has a list of options (see Table 2.1 in Section 2.1.2). The goals and objectives were developed based on a number of proposed principles that are to guide the policy development process; these principles are listed in Table 1.2. These principles, goals and objectives emerged from the commitments in *Living Water Smart* and were informed through engagement with stakeholders. Public engagement is a key component in the WAM process. The

Reform Activities Undertaken by the BC Government	Date Occurred
Background research and scoping	Prior 2009
Blog activated	December 2009
Discussion Paper and Technical Report released	February 2010
Call for public submissions on the Discussion Paper	February -April 2010
Workshops held	March- April 2010
Report on Engagement released	September 2010
Policy development	September 2010- Spring 2011
Legislative drafting	Spring and Summer 2011
Legislation introduction	2012

Table 1.1 Chronology of reform activities.

Adapted from: Province of British Columbia, 2010d.

BC government recognizes that water issues are complex and usually best solved collaboratively (Province of British Columbia, 2010d). In part, public involvement is to meet the principles of good water governance, characterized by participation, transparency, accountability and responsiveness, to name a few (De Loe *et. al.*, 2007; Nowlan, 2008). Public involvement in the WAM process mimics the trend of greater citizen involvement in environmental planning and policymaking, a trend that has followed new approaches to citizen participation.

The public engagement phase occurred over a period of five months, beginning in December 2009 after the launch of the *Living Water Smart* blog; however the call for formal submissions and the hosting of the workshops did not occur until February 2010, the BC Government timed this with the release of the WAM Discussion Paper. The intention of the Discussion Paper was to encourage reflection on the reform and to help interested parties and individuals prepare their submission of suggestions. The Discussion Paper has three parts: First, the paper describes the legislative reform process, including scope and intentions; second, the proposed principles, goals, objectives and possible solutions for a modernized *Water Act* are presented (Table 1.2 and Table 2.1 in Section 2.1.2); and third, the paper explains how to provide feedback.

Proposed Principles
1. BC's water resources are used within sustainable limits.
2. First Nations social and cultural practices associated with water are respected.
3. Science informs water resources management and decision making.
4. Water resource legislation, policy and decision making processes as well as management tools are integrated across levels of government.
5. Rules and standards for water management are clearly defined providing a predictable investment climate across the province.
6. Flexibility is provided to adapt to extreme conditions or unexpected events on a provincial, regional or issue-specific level.
7. Incentives are created for water conservation that consider the needs of users and investors.
8. Rights to use water come with responsibilities to be efficient and protect stream health.

Table 1.2 Proposed principles to guide the policy development process.

Source: Province of British Columbia, 2010a, 5.

All of the input received at the workshops and from the submissions was assessed based on the goals and objectives presented in the paper.

To supplement the Discussion Paper the BC Government also released the WAM Technical Background Report. The Technical Report functions as a companion document, it provides information on historical background, technical information and detail into leading thought and practice, information that fed into the ideas expressed in the Discussion Paper.

Once the engagement phase was complete,⁶ all of the feedback obtained was gathered and analyzed. Submissions were assigned to one of 11 *broad* stakeholder categories; Ministry of Environment policy analysts carried out a systematic review of each category (Province of British Columbia, 2010c). Feedback was managed and tracked in a database management system (Province of British Columbia, 2010c). The principal themes from each submission were identified and entered into the database, this allowed for information to be quantified (Province of British Columbia, 2010c). It was recognized that much of the information in the submissions was qualitative, “review and interpretation by staff along with the database developed by the Ministry, provided a system for quantifying some of the qualitative information inherent in *most* submissions” (Province of British Columbia, 2010c, 14. *Italics added*). This raises the question: was the information that could not be quantified left out? It was recognized that there are limitations to this kind of analysis, the Ministry states: “the results are intended

⁶ The submission process was closed April 30, 2010, marking the end of the public engagement phase; however, the public was still open to comment on the *Living Water Smart* blog.

to illustrate broad trends, preferences and themes, rather than detailed statistics” (Province of British Columbia, 2010c, 15).

The input received was summarized in the WAM Report on Engagement. The Report on Engagement lays out the overall trends and areas of broad support as well as trends and preferences heard from each stakeholder group. The responses received on the proposed principles and goals are provided. Figures highlight the overall response received on the goals, objectives and proposed solutions. In each stakeholder section, further detail is offered on the trends and preferences found. Additionally, key messages derived from each sector are stated. For the ENGOs, the following key messages were received:

- ENGOs strongly support WAM components including ecosystem management, maintaining instream flows and groundwater regulation.
- ENGOs support managing water in its entirety (streams, wetlands, and groundwater) from a watershed perspective.
- Meeting ecosystem needs is of the highest priority.
- ENGOs favour a shared or delegated approach to water governance guided by provincial standards. They contend that the current approach is fragmented so there is a need to consolidate legislation into a single, over-arching “Water Act.”
- Science based decision making is a key construct and many ENGOs support adhering to the precautionary principle where data is unavailable or unreliable (Province of British Columbia, 2010c, 41).

ENGO submissions were clearly analyzed looking for majority opinions and general views. The Ministry recognized the limitations inherent in their analysis, but there is no doubt that this kind of data management has an impact on the diversity of opinions captured. This research will work to get at the particular views and opinions expressed by those organizations categorized as ENGOs.

1.4 Organization of the Report

This report is structured to provide the reader with:

1. An introduction into the BC WAM process, particularly the public engagement stage. A clear understanding of the research questions and objectives, aimed at analyzing the views of ENGOs on the goals and objectives of the legislative reform. And a detailed look at the research context, focusing on public participation in environmental planning and policymaking, the influence and diversity of ENGOs and water management and governance in British Columbia. All of these sections are addressed in this chapter, Chapter 1.

2. Detailed methods on how the research was carried out, drawing heavily on content analysis of the ENGO submission statements. And an understanding of how the researcher sought to ensure validity and reliability, while acknowledging the limitations of the research. This is covered in Chapter 2.
3. Clear and detailed findings from the submission analysis. This includes a thorough understanding of the views and opinions of the ENGOs on each of the four goals and the associated objectives and options, as well as significant themes pulled from submissions. This also includes a comparative analysis of results with the findings derived by the BC government in their evaluation of submissions. This is covered in Chapter 3.
4. Conclusions and a list of recommendations for evaluating public input, as well as tentative recommendations for the *Water Act* reform based on the 43 ENGO submission statements. Recommendations were derived from the findings of the submission analysis and comparative analysis with the BC government's stated results. In addition, as the BC government produced a list of proposed policies for the new *Water Act* (now called the Water Sustainability Act) while this report's recommendations were being drafted, a brief look at the policies proposed by the BC government and how they compare with the recommendations. This is covered in Chapter 4.

2.0 RESEARCH APPROACH AND METHODS

Adopting a qualitative approach, this research draws primarily on content analysis to make innovative use of the formal submission statements to elicit the views of ENGOs. A literature and document review provided context for the research and informed the submission analysis, while comparison of the results from the submission analysis with the WAM Report on Engagement supplemented the findings. This chapter provides further detail on the use and purpose of each method, in addition to outlining the steps taken to ensure validity and reliability, and a brief discussion on research limitations.

2.1 Approach and Methods

A qualitative approach was employed in conducting this research. Merriam (1988) describes qualitative research as exploratory and inductive, emphasizing processes rather than ends. Qualitative methods “provide a means of accessing unquantifiable facts about the actual people researchers observe and talk to or people represented by their personal traces [including written statements];” as such, researchers are able to “share in the understandings and perceptions of others...” (Berg, 2007, 8-9). A qualitative approach was selected because of the exploratory and descriptive nature of this research.

This research drew primarily on content analysis of the ENGO submission statements for the BC *Water Act* reform. Submissions are the primary documents through which stakeholder opinions were expressed. Literature and document review supplemented the analysis. Research methods were broken down into five steps as follows:

1. Reviewed relevant literature to provide a framework and context for the research.
2. Documented key elements in the reform process by reviewing all relevant policy documents.
3. Used the established goals, objectives and options stated in the BC WAM Discussion Paper to begin coding of ENGO submissions to determine what views were held by each organization and the diversity of views.
4. Analyzed results.
5. Compared results with the findings from the ENGO sector stated in the BC WAM Report on Engagement.

2.1.1 Literature and Document Review

A literature review of mainly peer-reviewed journal articles as well as document review of reports and relevant papers developed by or produced for the Province of BC served

a number of research objectives.

1. Provided a background on water management and governance in BC, contributing an understanding of why BC's current *Water Act* is being updated and an understanding of the government's reform objective (Brandes and Curran, 2009; Nowlan and Bakker, 2007; Province of British Columbia, 2010a; Province of British Columbia, 2010b; Province of British Columbia, 2010d).
2. Provided a brief overview of public participation in environmental planning and policymaking (Brody, 2003; Burby, 2003; Corburn, 2003; Diduck and Sinclair, 2002; Finnigan *et. al.*, 2003; Gunton and Day, 2003; Laurian and Shaw, 2009).
3. Demonstrated the role and influence of ENGOs in planning and policymaking, as well as the diversity amongst environmental organizations (Castells, 2004; McKenzie, 2002; Rootes, 1999; Simmons, 1998; Wilson 2001; Wilson, 1992).
4. Informed the themes and categories used in analyzing the submissions (Province of British Columbia, 2010a).
5. Assisted in determining the appropriate methods to carry out the research (Burby, 2003; Province of British Columbia, 2010c).

This literature is extensively discussed in Sections 1.3.1, 1.3.2 and 1.3.3.

2.1.2 Content Analysis

The primary method used was content analysis of 43 submission statements prepared by ENGOs in response to the goals, objectives and options put forward in the WAM Discussion Paper by the BC government.⁷ Content analysis is “a careful, detailed, systematic examination and interpretation of a particular body of material in an effort to identify patterns, themes, biases and meanings” (Berg, 2007, 304). Inductive and deductive approaches were used to develop the themes and concepts used for analysis. Inductive analysis pulls categories directly from the data, while deductive analysis uses existing theory or prior research to identify key concepts or variables that are then used as coding categories (Hseih and Shannon, 2005). With deductive analysis coding can begin immediately using predetermined concepts or variables. Once analysis has begun new themes or concepts may emerge, emerging themes then become new codes.

Deductive analysis began with the goals, objectives and options outlined in the WAM Discussion Paper (Table 2.1 lists the goals and associated objectives and options, in

⁷ Forty-six ENGOs submitted feedback on the *Water Act* reform, three of these submission statements were not available.

addition to providing a brief description of each goal). Each goal is associated with a number of objectives. And each objective is associated with a number of options, where each option contains a number of sub-options. To enable discussion, each option was labeled. If there was one option under an objective, this was labeled as Option 1. The associated sub-options were then labeled as 1A, 1B and so forth. If there were two options under an objective, then the options were labeled Option 1 and Option 2. Sub-options were labeled Option 1: 1A, 1B and so forth, Option 2: 2A, 2B and so forth. Each organization's submission was coded to determine which goals, objectives and options were supported and why. Views were indicated on a table developed for each goal (see Tables 3.2, 3.5, 3.7 and 3.9 in Sections 3.1, 3.2, 3.3 and 3.4 respectively). Support was indicated if it was directly expressed by the ENGO, where the ENGO did not comment on the proposed goal, objective or option, support was not indicated. If the ENGO disagreed, a (D) was indicated. It was often the case that an ENGO would demonstrate support for an objective, but not for any of the options listed under the objective. Justification from organizations for supporting particular goals or objectives provided understanding of the views expressed and alluded to significant themes and concerns.

Significant themes were also derived inductively throughout the coding process. A theme was determined to be significant based on the number of times it appeared in the submissions and the emphasis given to it by an organization, *i.e.* repeated throughout a submission. This analysis was critical in enabling the researcher to determine what views are held by each organization and how diverse these views are.

After the submission analysis, research findings were compared with the results stated in the WAM Report on Engagement, limited to the section in the Report on Engagement on ENGOs (further detail on the WAM Report on Engagement can be found in Section 1.3.3). The Report on Engagement highlights the key messages received from ENGOs and the support found and views expressed for each goal by majority organizations. Comparative analysis enabled an understanding of how the views of ENGOs were evaluated and interpreted by the BC government. Most importantly, it demonstrated which critical views were missed.

Goals and Objectives of the Water Act Reform	Description of the Goal or Objective and List of Options provided for each Objective
<p>Goal One: Protect Stream Health and Aquatic Environments</p>	<p>The scope of the Water Act with respect to protecting stream health is:</p> <ul style="list-style-type: none"> • ensuring adequate water flows are maintained for stream health • protecting habitat in and adjacent to streams; and • reducing water quality impacts by prohibiting dumping of debris and other material into streams.
<p>Objective 1. Environmental flows are considered in all water allocation decisions to protect stream health.</p>	<p>Options for how environmental flow is to be considered in decisions: A) Environmental flow guidelines, decision maker may deviate in certain circumstances; OR B) Environmental flow standards, decisions maker must adhere.</p>
<p>Objective 2. Watershed-based water allocation plans include environmental flow needs and the water available for consumptive use.</p>	<p>Options for including water allocation plans in the Water Act: A) The development of a water allocation plan is optional, developed at the discretion of the Regional Water Manager or at the request of a water user community; OR B) The development of water allocation plans is required, with plans developed province-wide or in priority areas determined based on a criteria; AND C) The decision maker must consider the water allocation plan, decision maker is not bound by the plan; OR D) The decision maker must follow the water allocation plan, no exceptions.</p>
<p>Objective 3. Habitat and riparian area provisions are enhanced.</p>	<p>Options for protecting habitat and riparian areas: A) Maintain the requirement for an engineer’s order to prohibit dumping of material into streams, reflects current situation; OR B) Amend the Water Act to include a prohibition against dumping of a wider range of debris and materials into stream, with a requirement for the person responsible for dumping to restore stream health.</p>
<p>Goal Two: Improve water governance arrangements</p>	<p>Water governance in BC is primarily set out in the Water Act which, together with the Water Protection Act, determines that water resources are owned by the Crown. Crown ownership will not be revisited under WAM. Under the Water Act, provincial decision makers licence and regulate only the use of surface water from streams as well as authorize and regulate changes in an about streams. Enabling changes to water governance in the Water Act could allow for the delegation of certain responsibilities or decisions, with the province keeping a standard setting and oversight role.</p>
<p>Objectives: 1. Governance roles and accountabilities are clarified in relation to the allocation of water and the protection of stream health 2. Governance arrangements are flexible and responsive to future needs and values 3. Management is coordinated with neighbouring jurisdictions across all levels of government and those with a major interest in the watershed</p>	<p>Options for improving water governance (all three objectives): A) Centralized approach, provincial planning and decision making, few delegated responsibilities; B) Shared approach, provincial government and partner-led planning and decision making within a provincial framework; OR C) Delegated approach, watershed agency planning and decision making within a provincial framework.</p>

Goals and Objectives of the Water Act Reform	Description of the Goal or Objective and List of Options provided for each Objective
Goal Three: Introduce more flexibility and efficiency in the water allocation system	BC's current Water Act adopted the 'first-in-time, first-in-right' FITFIR method of water allocation which assigns a higher priority to water licences according to the date of precedence. Aside from power licences, water licences generally do not expire or come up for review. In addition, actual water use is often not measured. There are three key ways in which the Water Act could be updated to address current water allocation challenges. One is by improving the ability to review licence terms and conditions. The second is to require decision makers to consider the actual and potential impacts on the watershed as a whole when making decisions under the Water Act. The third is to encourage water users to maximize the use of their water and encourage the uptake of efficient tools, practices and infrastructure.
Objective 1. The water allocation system emphasizes and encourages efficiencies in both water use and the administration of water as a natural resource.	Options to encourage water use efficiency: A) Government determines actual needs in relation to a proposed undertaking on the basis of efficient practices and works, potential for licence cancellation exists; or B) Codes for efficient infrastructure and practices in different sectors are developed, the modernized Water Act requires compliance with these codes; AND C) The use of incentives and economic instruments is enabled to encourage water efficiency, such as rebates for water reclamation; OR D) Review rules for the transfer and apportionments of existing water rights. Options to encourage administrative efficiency: E) Permitted uses would be defined and allowed under the Act in accordance with regulations applied in a consistent manner throughout the province; OR F) Permitted uses would be defined and allowed under the Act in accordance with regulations, regulations might apply differently throughout the province based on risk or a water allocation plan; AND G) Voluntary self-registration of permitted use withdrawal; OR H) Required self-registration of permitted use withdrawal. Additional options are listed, any combination of which is suggested.
Objective 2. Flexibility is provided to water users and decision makers to quickly adapt to changing environmental, economic and social conditions.	Options to provide water users and decision makers the flexibility to adapt: A) Provide decision makers and licence holders with the ability to seek amendments of water licences' terms and conditions based on: New information about watershed issues, priorities or changes in supply; the ability to use water differently; incentives to consolidate licences with a community/watershed; adverse impacts on aquifers or groundwater recharge zones; or monitoring information that shows stream health is deteriorating.
Objective 3. The water allocation system integrates the management of groundwater and surface water resources where required in problem areas.	Options for the water allocation system: A) First-in-time first-in-right–FITFIR; OR B) Priority of use, determined either in the Water Act or with community involvement in the water allocation plan process.

Goals and Objectives of the Water Act Reform	Description of the Goal or Objective and List of Options provided for each Objective
Objective 4. Water users will be required to conserve water during drought or when stream health is threatened.	<p>Options to address temporary water scarcity: A) Discretionary, decision-maker determines approach on a case-by-case basis; OR B) Sharing, all water users would reduce use on a proportional basis depending on water supply forecast; OR C) Hierarchy of uses, guides how water use is reduced; OR D) Priority date, follows FITFIR.</p> <p>Options to address long-term water scarcity: E) Through a mandatory Water Management Planning process; OR F) At the request of water users or communities, water licences and other interested parties may develop a plan that addresses long term scarcity on a watershed basis.</p>
Goal Four: Regulate groundwater extraction and use	Currently, groundwater extraction and use in BC is not regulated and government's ability to control its use is limited. Regulating the extraction and use of groundwater can provide the necessary controls to resolve conflicts over well drilling activities and the impacts of groundwater use.
Objective 1. Groundwater extraction and use is regulated in priority (critical) areas and for all large withdrawals.	<p>Options for determining the thresholds for large groundwater withdrawals: A) The threshold for large could be: 500 m³/day for wells drilled in unconsolidated, sand and gravel aquifers or if otherwise determined to be large by a Water Management Plan; 100 m³/day for wells drilled into consolidated bedrock aquifers or if otherwise determined to be large by a Water Management Plan; OR B) The threshold for large could be: 250 m³/day for wells drilled in unconsolidated, sand and gravel aquifers or if otherwise determined to be large by a Water Management Plan; 100 m³/day for wells drilled into consolidated bedrock aquifers or if otherwise determined by a Water Management Plan.</p> <p>Options for determining priority areas to regulate groundwater extraction and use: A) Heavy groundwater extraction and use; OR B) Area of known quantity concern; OR C) Groundwater in direct hydraulic connection with surface water in areas of known quantity concerns; OR D) Significant population that is reliant on groundwater for drinking water; OR E) Trans-boundary aquifers; OR F) Basins where surface water is at or near the allocation limit; OR G) Any combination of the above.</p>

Table 2.1 Proposed Goals, Objectives and Options for a Modernized Water Act.
Source: Province of British Columbia, 2010a, 6-32.

2.2 Validity and Reliability

Validity and reliability are concerns relating to trust in the research study; concerns that “can be approached through careful attention to a study’s conceptualization and the way in which the data were collected, analyzed and interpreted” (Merriam, 1988, 165). These concerns may be described as tests that ensure the quality of the research design (Yin, 2009).

Content validity relates to data collection. To ensure content validity, qualitative research methods should draw on multiple sources (data triangulation) and establish a chain of evidence (Yin, 2009). Internal validity relates to data analysis, it “deals with the question of how one’s findings match reality” (Merriam, 1988, 166). To ensure internal validity a researcher can employ a number of strategies, including: 1) data and methods triangulation; 2) member checks; 3) long term observation; 4) peer examination; 5) participatory modes of research and 6) addressing researcher bias at the outset (Merriam, 1988). To address content and internal validity, this research uses multiple sources of data obtained through reports and the submission statements. Peer examination occurred consistently throughout the report process, peers were drawn upon to review the analysis and results. Researcher bias is addressed in the following paragraphs. Member checks, long term observation and participatory modes of research were not possible given the time and resource constraints of this project.

External validity relates to the overall research design. This concept may be better understood by the terms transferability and/or generalizability. Transferability is “the ability of others to apply the findings to their situation, the worth of the findings in refining or extending theory, and the applicability of lessons learned to other situations” (Whitelaw, 2005, 62). This term may be defined as synonymous with generalizability. Beyond the immediate study, this research does not have (statistical) generalizability, however, it may have analytic generalizability. That is, a number of questions and themes raised in this study could be asked in other situations. Whitelaw (2005) argues: “to maximize transferability, qualitative research methods should clearly articulate methods, and results should include thick and dense narratives” (62). The researcher has sought to ensure transparency of the methods and visible evidence for results.

Reliability is related to data collection and depends on consistent application of the research technique. The emphasis here is “demonstrating that the operations of a study- such as the data collection procedures- can be repeated...” (Yin, 2009, 40). To

ensure reliability, research steps should be as operational as possible, that is, carefully documented (Yin, 2009). Efforts have been made to ensure clear documentation.

2.3 Research Limitations

This research faces a number of inherent limitations, most importantly researcher bias, time and resources. Potential researcher bias is significant throughout this study, likely to have come through in the content analysis during the coding of submissions and interpretation of the text. Researcher bias is due to the theoretical and/or social lens through which the researcher interprets and understands the data. To reduce bias, efforts were made to ensure transparency of methods, validity and reliability (as discussed in the previous section) and a multiplicity of data sources. A final limitation relates to time and resources. The depth of the literature and document review, and submission analysis were limited to the time and commitment of one researcher. Additionally, member checks and/or interviews to confirm results were not possible due to the time constraints of both the researcher and potential participants.

3.0 FINDINGS AND DISCUSSION

This chapter provides the results from the analysis of the submission statements. A discussion of each of the four goals of the WAM is provided, highlighting a number of critical views addressing each particular goal, associated objectives and options (for a detailed understanding of the four goals see Sections 1.3.3 and Table 2.1 in Section 2.1.2). After examining each goal, objective and option in detail, significant themes pulled from the submissions are discussed. These themes emphasize the critical concerns of ENGOs. Lastly, results from the submission analysis are compared with the results found by the BC government as stated in the WAM Report on Engagement. Comparative analysis of the results provides further clarity on the diversity of views and, importantly, better understanding of the evaluation of ENGO submissions as performed by the BC government.

3.1 Goal One- Protect Stream Health and Aquatic Environments

Goal One of the *Water Act* is to protect stream health and aquatic environments, where stream health is defined as “the combined measure of a stream’s ecological integrity and function” (Province of British Columbia, 2010a, 6). The *Water Act* is one of a number of environmental laws and policies to protect stream health in BC (Province of British Columbia, 2010a, 6). Goal One received support from 72% of ENGOs (Tables 3.1 and 3.2; a list of the abbreviated names for ENGOs is provided in Appendix B). In expressing their support for this goal, ENGOs clearly emphasize the importance of maintaining ecological integrity. For example, BC Wildlife Federation states: “The Act should contain an overarching principle that defines and protects watershed integrity and maintains the integrity of watercourse/aquatic and terrestrial ecosystems.” Nine of the 43 ENGOs expressed strong concern that the goal and objectives do not include further considerations such as water quality and wetland habitat, arguing for efforts to better consider water quality and wetland habitat in stream health (the 9 organizations include the Alberni Valley Enhancement Association; BC Nature; BC Wildlife Federation; Ducks Unlimited Canada; Queens Bay Residents Association; Sierra Club- Quadra Island; West Coast Environmental Law; Wildsight; World Wildlife Fund Canada).

The views of ENGOs with respect to Goal One are rather uniform. This was expected given the nature of the overall goal and the objectives of ENGOs. But 12 ENGOs did fail to comment on Goal One. A number of these organizations, including Freedom in Canadian Health Care, the Driftwood Foundation and Water Across Time our Environmental Responsibility, have a specific mandate or vision, failure to comment on

Goal, Objectives and Options	Number of supporting ENGOs	Percentage of supporting ENGOs
Goal 1	31	72%
Objective 1	29	67%
Option 1A	3	7%
Option 1B	20	47%
Objective 2	16	37%
Option 1A	2	5%
Option 1B	12	28%
Option 2A	3	7%
Option 2B	12	28%
Objective 3	22	51%
Option 1A	0	0%
Option 1B	15	35%
n= 43		

Table 3.1 Percentage of ENGOs that expressed support for Goal One and associated Objectives and Options.

Source: Author.

Goal One reflects the use of the submission statements to push forward their specific agenda. For example, Water Across Time our Environmental Responsibility states:

“As a publicly recognized citizen’s water group, we are hereby objecting to many of the changes to B.C.’s Water Act... Our position on the vulnerability of B.C.’s groundwater is one of protection from commercial exploitation; nowhere do we read that your ‘modernization’ guarantees this, which is a grave concern. We direct you to review the information, which we took a great deal of effort in providing to you previously, or visit the website at the address above.”

In this case, the opportunity to provide written feedback on the goals, objectives and options was used to push for measures to address particular concerns. Perhaps indicative of the lack of engagement opportunities at the beginning of the process. Specific concerns and issues are reflected in comments such as the view put forward by Water Across Time our Environmental Responsibility. These concerns would be better addressed at an earlier stage in the reform process, such as in the background research and scoping phase (see Fig. 1.1 in Section 1.3.3), so that the goals and objectives developed could better reflect these stakeholder concerns and issues. As argued by Burby (2003), timing for public involvement is key when designing participation programs, involving the public early is one of five key choices agencies can make to increase and improve public involvement.

GOALS AND OBJECTIVES OF THE WATER ACT MODERNIZATION					
Goal 1: Protect stream health and aquatic environments					
ENGOS	Goal 1	Objective 1 Options 1A; 1B	Objective 2 Options 1A; 1B Options 2A; 2B	Objective 3 Options 1A; 1B	Objective 4 Not Applicable
AVEA	●	●		●	
APLUK	●	●		●	
BC Nature	●	●	●	●	
BCTWA	●	●			
BCWF	●	● 1A & 1B	● 1B; 2B	● 1B	
BCWF- Van. Island	●	● 1A & 1B	● 1B; 2B	● 1B	
Burke Mountain [◇]					
CCConserv	●	● 1B	● 1B; 2B	● 1B	
CONC					
Cougar Creek	●	● 1B	● 1B; 2B	● 1B	
Council of Can. [◇]					
DSF	●	●		●	
Driftwood et. al.			● 1B; 2A		
DUC	●	●		●	
Ecojustice	●	● 1B		● 1B	
F in CHC					
HPWS	●	●			
Hornby WS	●				
IWFF- Submission 1	●	● 1B	● 1A	● 1B	
IWFF- Submission 2	●	● 1B	● 1B; 2B	● 1B	
Jewell Lake EPS	●				
Langley EPS	●	● 1B	● 1B; 2B	● 1B	
McConnell Creek	●	● 1B	● 1B; 2B	● 1B	
NCES [◇]					
PSF	●	● 1B		●	
Pembina Inst. et al.					
Perry Ridge	●	● 1B			
Queens Bay	●	● 1B	● 2B	● 1B	
SRES					
SC- Quadra Island	●	● 1B	● 1B; 2B	● 1B	
SVWA					
SWCS					
Stoney Creek					
T Buck Suzuki	●	● 1A	● 1A; 2B	● 1B	
TAPS					
Transition Nelson					
Trout Unltd. Can.	●	● 1B	● 1B; 2B	● 1B	
UniverCity	●	● 1B			
UVIC ELC and LTA	●	● 1B		●	
WATER					
WWSS	●	● 1B			
Waters Society	●	●			
WCEL	●	● 1B	● 1B; 2A & 2B	● 1B	
West Kootenay					
Wildsight	●	● 1B			
WWF Canada	●	● 1B	● 1B; 2A	● 1B	

● Indicates support (D) Indicates disagreement ◇ Submission not available for these organizations.

*Where a number and letter are shown that indicates support for the option listed under the objective. For example, under Objective 1 where 1A is listed that demonstrates support for option 1A.

Table 3.2 Expressed views of ENGOS on Goal One and associated Objectives and Options. Source: Author.

Furthermore, many of the specific concerns raised by local and community ENGOs are tied to local issues. To exemplify, Slocan Valley Watershed Alliance, an organization that states they do not support the process for the WAM, argues:

“Respect for water and protection of Watersheds and Aquifers is of primary importance over all other development activities. The Slocan Valley has been negatively affected in the past by Watershed logging, mining, and road-building activities which have resulted in dangerous and indeed, deadly changes to hydrology and negative effects on water quality, flow and timing.”

This suggests that the distinct and place based priorities of local and regional groups are not being addressed. It appears that local and regional ENGOs are using the opportunity to provide feedback as a way to gain recognition of issues happening on the ground and enable policy development to deal with these issues.

3.1.1 Objective 1- Environmental flow needs are considered in all water allocation decisions

Objective 1 reflects the capacity of the *Water Act* to ensure adequate water flows are maintained for stream health. Support for this objective was received from 67% of ENGOs. Support came primarily from those organizations that expressed support for Goal One. To strengthen this objective, the Island Waters Fly Fishers club (Submission 1) argues for the word “consider” to be replaced with “required.” That is to say that water allocation decisions *need* to account for environmental flow (stream flow) needs. West Coast Environmental Law echoes this statement by arguing that environmental flow (stream flow) needs to be maintained in water allocation decisions, not simply considered. Three ENGOs expressed some concern that minimum flows will not be strong enough. This is illustrated by a comment made by the Pacific Salmon Foundation, the organization argues that “minimum flows as typically used are unlikely to be sufficient for ecological function, particularly for the conservation of Pacific salmon under future scenarios of climate change.” Determining adequate flow levels to maintain stream health is complex, adaptive management should be employed in developing and applying stream flow minimums or thresholds. The need for adaptive management was a point raised by three ENGOs. Harrop-Procter Watershed Protection Society makes a strong argument in this regard:

“The use of thresholds to establish ‘safe’ levels of stream flow is scientifically credible, but complex... in the case of water allocation, the interaction of factors across the spatial and temporal scales that affect stream flow mean that even if a ‘safe’ threshold is established, there is no certainty that stream health can be maintained through changes to

allocation. The uncertainty surrounding thresholds implies that they are best applied in the context of other management practices that encourage caution and constant monitoring and improvement.... The application of thresholds must occur within a management regime that encompasses the precautionary principle and adaptive management.”

While the majority of ENGOs support the objective, there is clear concern, as evidenced by the above quote, over how adequate stream flows will be determined and considered.

The diversity of views among ENGOs for this objective is minimal, especially among ENGOs that supported Goal One. This response was expected as Objective 1 can be interpreted as the clearest reflection of the goal; that is, adequate stream flows have been recognized as essential in maintaining a stream’s ecological integrity (De Loe *et al.*, 2007; Province of British Columbia, 2010a). Yet, there is hesitation among a few organizations, including Pacific Salmon Foundation and Harrop-Procter Watershed Protection Society, over how this objective will be employed. A critical point is made on the need for a water management regime that embodies adaptive management.

Objective 1 has two options, Option 1A calls for environmental flow guidelines to be used in water allocation decision making, these would be guidelines from which the decision maker may deviate (Province of British Columbia, 2010a, 9). Option 1B calls for environmental flow standards, which the decision maker must adhere to. Option 1B, environmental flow standards, received the most support at 47%. Ecojustice argued that standards are stronger and less vulnerable to legal challenge. David Suzuki Foundation argued that guidelines do not adequately acknowledge the impacts of water withdrawal to the degradation of the ecosystem. Finally, Sierra Club- Quadra Island states that standards would provide needed legislated requirements. Of those that supported Option 1A, support was mostly in favour of local level guidelines that would fall under provincial standards (BC Wildlife Federation). The implication here would be stronger standards as the use of guidelines could only function to improve upon standards that are provincially legislated.

There is little diversity in the views of ENGOs with respect to the options provided. Of those ENGOs that provided written comment on the options, there is general agreement that standards are more robust. It is concerning that a number of ENGOs failed to comment on the options available, especially as stream health received support from a strong majority of ENGOs. But even as specific mechanisms for achieving stream health

are not supported (including the options provided), other management principles such as the precautionary principle and adaptive management are suggested to improve the mechanisms employed. These are critical arguments consistently raised by ENGOs.

3.1.2 Objective 2- Watershed-based water allocation plans include environmental flow needs and the water available for consumptive use

Objective 2 concerns the components included in water allocation plans. Water allocation plans are “operational planning tools that help determine the quantity of water that is required in a watershed to protect stream health and identify the quantity of water available for allocation” (Province of British Columbia, 2010a, 10). Water allocation plans are currently developed and used within government to aid decision making. This objective seems to call for environmental flow needs and consumptive uses to be included as components of a water allocation plan, however plans already include these components (see Table 3.3).

Purpose
<ul style="list-style-type: none"> • Quantify water available for allocation and how much is already allocated • Describe environmental flow recommendation for stream health • Reduced time required to process applications • Increased transparency in water allocation decisions
Primary Attributes of Plan
<ul style="list-style-type: none"> • Description of watershed hydrology and water quality • Summary of existing water uses and instream flow requirements • Evaluation of water required for ecosystem needs and potentially available for allocation • Description of possible conditions to be included in water allocation decisions • Defines specific results for stream flows to determine if stream health outcomes are being achieved • Sets out possible responses if stream flow results are not met

Table 3.3 Components of a water allocation plan.

Source: Province of British Columbia, 2010a, 10.

Objective 2 received support from 37% of ENGOs. Of the 16 ENGOs that expressed support for this objective, support comes from the desire to see human consumption and aquatic species needs defined as priority uses. Interestingly, the options provided to achieve Objective 2 do not directly address environmental flow needs or consumption uses, rather the options pertain to whether water allocation plans should be required

and whether they must be followed. It could be inferred that a lack of interest on the part of ENGOs for this objective is related to the options provided to achieve it.

There are two options listed under Objective 2. Option 1 pertains to the development of water allocation plans, 1A states the development of water allocation plans is optional, 1B states the development of water allocation plans is required (Province of British Columbia, 2010a, 11). Of the 14 ENGOs that expressed an opinion in the options available, 12 ENGOs supported Option 1B. Supporting ENGOs argued that required plans mean decision making is better informed. Without allocation plans there is a lack of information on which to base decisions, this scenario “almost inevitably leads to overallocation” (West Coast Environmental Law). There seems to be a concern among supporters that if plans are optional and not required, they will likely not be carried out. Only 2 ENGOs, the Island Waters Fly Fishers club (Submission 1) and T Buck Suzuki Foundation, expressed support for Option 1A. Island Water Fly Fishers club (Submission 1) justifies their support as a matter of efficiency, that is “water allocation plans would seem to be unnecessary for all situations.” This is an interesting argument for efficiency that stands in contrast to the arguments for greater effectiveness put forward by the other ENGOs that supported Option 1B. A difference that can be seen as a reflection of the variation in the scope, objectives and membership of ENGOs.

Option 2 pertains to whether consideration should be given to water allocation plans, 2A states the decision maker *must consider* the water allocation plan, while 2B states the decision maker *must follow the* water allocation plan (Province of British Columbia, 2010a, 11). Three ENGOs supported Option 2A. One supporter, World Wildlife Fund Canada, argues that flexibility needs to be provided to regulators, on the condition that regulators are transparent and accountable in decisions that deviate from the allocation plan. How ‘flexibility’ is applied is a concern for other organizations, leading to greater support for Option 2B (12 ENGOs supported 2B). One supporter, Ecojustice, argues that deviations should be done with the approval of the Minister; the organization wants to see a stronger upper hand with respect to when deviation is permitted. McConnell Creek Ratepayers Association, also in support of Option 2B, argues that if water allocation plans are developed with strong community involvement then a water allocation plan must be followed, otherwise community based decisions are given up to the decision maker.

Differing views among ENGOs on Objective 2 and the options provided is demonstrated. Twenty-seven ENGOs did not comment on Objective 2, presumably because the objective reflects current practice. Different views among ENGOs for Option 1 follow efficiency versus effectiveness argument lines. It can be speculated that the different arguments, efficiency versus effectiveness, reflect the variation in the scope, objectives and membership of ENGOs. Organizations occupy different niches in environmental protection (Wilson, 2001), which means their scope and objectives vary. To exemplify, Island Waters Fly Fishers club is a small organization of mainly private sector members based in Nanaimo, BC that promotes fly fishing, and fish conservation and enhancement. West Coast Environmental Law is a large organization, with a staff of environmental lawyers, that is provincially based and dedicated to safeguarding the environment through improvements to BC's environmental legislation. Effectiveness is clearly behind West Coast Environmental Law's mandate, while efficiency could be a concern for Island Waters Fly Fishers club, as it is comprised of mainly private sector members. Different views among ENGOs for Option 2 relate to whether ENGOs see a need for flexibility. Options 1 and 2 received no comment from 29 and 28 ENGOs respectively, presumably because water allocation plans are currently in use and a change is seen as unnecessary.

3.1.3 Objective 3- Habitat and riparian area protection provisions are enhanced

Objective 3 received support from 51% of ENGOs, a slim majority. Twenty-one ENGOs did not comment on this objective, perhaps a result of the options provided to achieve it. Options provided relate to regulations on the dumping of materials into streams. Option 1A would maintain the current requirement for an engineer's order to prohibit dumping of material into streams, while Option 1B would require amending the *Water Act* to include a prohibition against dumping of a wider range of debris and materials into streams, with the requirement that any person responsible for dumping must restore stream health (Province of British Columbia, 2010a, 12). Not a single ENGO expressed support for Option 1A. There is a clear concern over the impact of material dumping on stream health. BC Wildlife Federation argues that an amendment would be a proactive step against the current reactive situation. West Coast Environmental Law and World Wildlife Fund Canada argued that the objective and options provided do not go far enough and additional efforts are needed to protect habitat. For example, West Coast Environmental Law presented an interesting argument that the province does not have the constitutional authority to compromise aquatic habitats without federal authorization. Therefore, according to West Coast Environmental Law, the province has

a constitutional imperative to ensure that the *Water Act* maintains aquatic fish habitat and, as such, should be doing more with respect to protection.

Of those ENGOs supporting the objective, there is little diversity among views with respect to the options provided. ENGOs clearly see a need for prohibitions on material dumping in streams. Yet, twenty-one ENGOs did not comment on the objective. Recall that 9 ENGOs stress the need for further considerations such as water quality and wetland protections, it can be inferred that a lack of support for this objective is related to ENGOs wanting to see bigger steps taken to achieve stream health and habitat protection.

3.1.4 Summary

Goal One received the strongest support from ENGOs, compared to the other goals listed. Yet, weaker support was shown for the objectives and options provided to achieve and carry out the goal. A number of comments provided in the submissions highlight the use of the statements to push forward specific issues, rather than commenting specifically on the goals and objectives listed. These comments could have been more appropriately dealt with at an earlier planning stage. Critical views of ENGOs reflected on the need for further measures to address wetland protection and water quality and employ adaptive management. For the most part, views are consistent. Most support is in favour of robust standards and planning requirements to protect stream health, looking to achieve more effective regulations. A few contrasting ENGOs see these requirements as unnecessary in some cases, pushing for a more efficient approach.

3.2 Goal Two- Improve Water Governance Arrangements

Water governance arrangements in the province have been described as fragmented and ad hoc (Nowland and Bakker, 2007). Goal Two is about investigating governance arrangements, including new or existing institutions, roles and responsibilities for water management decisions (Province of British Columbia, 2010a, 15). Three objectives are listed under this goal, these are:

1. Governance roles and accountabilities are clarified in relation to the allocation of water and the protection of stream health, this includes roles for First Nations, industry, local communities and non-government organizations in planning and decision making;

2. Governance arrangements are flexible and responsive to future needs and values; and
3. Management is coordinated with neighbouring jurisdictions across all levels of government and those with a major interest in the watershed (Province of British Columbia, 2010a, 15).

To achieve all 3 objectives, 3 options are provided. These options offer different approaches to undertaking water governance: a centralized approach, a shared approach, and a delegated approach. In the centralized approach, the provincial government would continue to be the main decision making institution (Province of British Columbia, 2010a, 17). The improvements here would be with respect to resource management coordination among statutory decision makers and unified processes for environmental assessment and permitting (Province of British Columbia, 2010a, 17). In the shared approach, decision making responsibilities would be shared with a partner institution, such as a Regional District, or First Nation (Province of British Columbia, 2010a, 17). Government would continue to set strategic direction and policy, but partner institutions could lead regional visioning and planning processes for watershed planning, and extend current public education and outreach activities (Province of British Columbia, 2010a, 17). In the delegated approach, water management functions and decisions would be delegated to newly established watershed or regional-scale agencies, which could be called a 'watershed agency' (Province of British Columbia, 2010a, 18). Watershed agencies would need the ability to influence land use planning and development activities and would be responsible for local visioning, value setting, developing and implementing watershed management and water allocation plans (Province of British Columbia, 2010a, 18).

Improving water governance arrangements received majority support, 56% of organizations expressed support for this goal (Tables 3.4 and 3.5). Although, for a number of organizations this support was not direct, rather, support was expressed for a particular option. As the options provided would result in a change in current governance arrangements, support for an option listed under the goal was taken to be an expression of support for the goal. To illustrate, the David Suzuki Foundation stated:

“The monitoring and enforcement of ecosystem flow standards, the establishment and management of priority of water use, the allocation and reallocation of water licences, and managing water use conflict requires regional management authorities with representation and support from local communities.”

This was interpreted as support for Goal Two as it represents a change in current water governance arrangements.

Goal, Objectives and Options	Number of supporting ENGOs	Percentage of supporting ENGOs
Goal 2	24	56%
Objective 1	24	56%
Objective 2	2	5%
Objective 3	2	5%
Option 1A	1	2%
Option 1B	16	37%
Option 1C	14	33%
n= 43		

Table 3.4 Percentage of ENGOs that expressed support for Goal Two and associated Objectives and Options.

Source: Author.

One ENGO directly expressed disagreement with Goal Two. Cariboo Chilcotin Conservation Society argued the current governance model can be maintained if due diligence is given to the monitoring and enforcement of water rights and stream impacts, as well as watershed protection from industry, the provision of funding to governance bodies, and the use of traditional knowledge and collaborative science in allocation decisions. The organization’s disagreement is tied to a concern over resource provision for newly established governance bodies and participating communities, the organization notes the resource cuts already made to the Ministry of Environment.

It is concerning that almost half of the ENGOs, 44%, failed to address governance. ENGOs play a significant and influential role in governance through agenda setting, negotiating outcomes, conferring legitimacy and implementing solutions (Simmons, 1998). Avoiding the governance issue, ENGOs are missing a valuable opportunity to improve water governance arrangements. A new approach to governance would provide ENGOs with the most significant gains as improvements could provide more opportunities for participation and involvement in planning and decision making. Arguably, governance is the greatest mechanism to deal with the issues raised by ENGOs. Concerns over funding and resource provision were consistent throughout the submission statements, presumably ENGOs are hesitant to argue for a change in governance without the assurance that this will not result in responsibility downloading without the proper resources in place.

GOALS AND OBJECTIVES OF THE WATER ACT MODERNIZATION					
Goal 2: Improve water governance arrangements					
ENGOS	Goal 2	Objective 1	Objective 2	Objective 3	Objective 4 Not Applicable
		All objectives Options 1A; 1B; 1C			
AVEA					
APLUK	●	● 1B	●	●	
BC Nature			● 1B		
BCTWA					
BCWF	●	● 1B			
BCWF- Van. Island	●	● 1B & 1C			
Burke Mountain [◇]					
CCConserv	(D)	1C	(D)	(D)	
CONC		● 1B			
Cougar Creek	●	● 1C			
Council of Can. [◇]					
DSF	●	● 1C		●	
Driftwood et. al.	●	● 1C			
DUC					
Ecojustice	●	● 1C			
F in CHC					
HPWS					
Hornby WS	●	● 1B			
IWFF- Submission 1	●	● 1C			
IWFF- Submission 2	●	● 1B			
Jewell Lake EPS					
Langley EPS	●	● 1B			
McConnell Creek	●	● 1B			
NCES [◇]					
PSF	●	● 1B & 1C			
Pembina Inst. et al.	●	● 1B & 1C			
Perry Ridge					
Queens Bay	●				
SRES					
SC- Quadra Island	●	● 1B			
SVWA					
SWCS					
Stoney Creek					
T Buck Suzuki	●	● 1B			
TAPS					
Transition Nelson					
Trout Unltd. Can.	●	● 1A			
UniverCity	●	● 1B			
UVIC ELC and LTA	●	● 1C			
WATER					
WWSS	●	● 1B & 1C			
Waters Society					
WCEL	●	● 1C			
West Kootenay					
Wildsight	●	● 1B & 1C			
WWF Canada	●	● 1C			

● Indicates support (D) Indicates disagreement ◇ Submission not available for these organizations.

*Where a number and letter are shown that indicates support for the option listed under the objective. For example, under Objective 1 where 1A is listed that demonstrates support for option 1A.

Table 3.5 Expressed views of ENGOS on Goal Two and associated Objectives and Options. Source: Author.

3.2.1 Objective 1- Governance roles and accountabilities are clarified in relation to the allocation of water and the protection of stream health

Objective 1 received support from 56% of ENGOs. This was expected as, in the opinion of the researcher, the objective is most closely aligned with the goal; that is 'clarification' could be interpreted as a shift in governance roles and accountabilities.

3.2.2 Objective 2- Governance arrangements are flexible and responsive to future needs and values

ENGOs offered little commentary on Objective 2, the objective received support from only 2 organizations. Cariboo Chilcotin Conservation Society expressed disagreement with Objective 2, arguing that flexible governance will not consider long-term impacts on the watershed. It could be inferred that lack of support is related to the use of the term flexible. It is unclear what flexibility means for governance arrangements.

3.2.3 Objective 3- Management is coordinated with neighbouring jurisdictions and those with a major interest in the watershed

Only 2 ENGOs supported Objective 3. While there was a great deal of discussion about coordinating legislation, few ENGOs directly touched on this objective. One organization, Cariboo Chilcotin Conservation Society, argued that the objective is not clear, asking whether neighbouring jurisdictions should include provincial and international levels of government and if those with a major interest would include industry. How management is coordinated will likely depend on the governance approach adopted.

Options to achieve Objectives 1, 2 and 3

As for the options available, Options 1B, shared approach, and 1C, delegated approach, received the most support at 37% and 33% respectively. Only 1 ENGO supported a centralized approach, Trout Unlimited Canada- Kelowna Chapter. The organization echoed the argument made by Cariboo Chilcotin Conservation Society, which expressed the concern that new legislative authorities will be created without the provision of funding. A number of ENGOs also demonstrated concern over resource provision and the downloading of responsibility (including Driftwood *et. al.*; Perry Ridge Water Users' Association; Queens Bay Residents Association; University of Victoria Environmental Law Centre and Land Trust Alliance BC; Wildsight; World Wildlife Fund Canada), but this concern did not translate into support for a centralized approach or disagreement with the goal. Support for Option 1B was substantiated by the desire to

still maintain central management but have regional bodies that better understand the local context. Additionally, it was argued that a shared approach would provide for local participation and promote better understanding between groups (Island Waters Fly Fishers, Submission 1). Support for Option 1C was substantiated by the argument that a delegated approach focuses on the watershed scale and is the most collaborative. Two ENGOs demonstrated support for both shared and delegated approaches, the Pacific Salmon Foundation and Watershed Watch Salmon Society. The latter argued that both approaches are very similar in that each provides for shared decision making while maintaining accountability in the hands of the province.

3.2.4 Summary

The support received for Goal Two was minimal, that is just over half of ENGOs backed the goal. It is concerning that 19 ENGOs failed to comment on governance, especially given the role ENGOs play in water governance and management by undertaking research, monitoring and education (Brody, 2003; Diani and Donati, 1999; Whitelaw et. al., 2008). Of those that failed to comment, this silence could be interpreted as hesitation to deal with the complex issue of governance arrangements. Concerns over resource provision and responsibility downloading are also at play as these concerns were clearly expressed by at least 8 ENGOs. Of those that demonstrated support, there was clear favour for a shared or delegated approach to governance. There was little diversity seen in the views of ENGOs with respect to the governance approach, but the minimal support shown for the goal indicates a split in opinion on dealing with governance in the reform.

3.3 Goal Three- Introduce more Flexibility and Efficiency in the Water Allocation System

Goal Three is looking to improve the current water allocation system, which provides few opportunities to review and adjust the terms and conditions of water licences. There are four objectives listed under this goal:

1. The water allocation system emphasizes and encourages efficiencies in both water use and the administration of water as a natural resource;
2. Water users and decision makers have flexibility to quickly adapt to changing environmental, economic and social conditions;
3. The water allocation system integrates the management of groundwater and surface water resources where required in problem areas; and

4. Water users conserve water during drought or when stream health is threatened (Province of British Columbia, 2010a, 21).

Goal Three was the most controversial of all the goals, receiving the least support at just 23% (Tables 3.6 and 3.7). In this case, as the objectives and options varied quite substantially, support for a given objective or option was not interpreted as support for the goal. Controversy arose over the use and application of the term “flexibility,” as illustrated by this comment from BC Nature:

“We encourage responsiveness to changing conditions, particularly those caused by climate change, but caution against responding to changing values if those values compromise the future of the ecosystems that support the water sources that support our future.”

There was also significant concern over introducing greater efficiencies in the water allocation system. A number of organizations were apprehensive that improved efficiencies would compromise watershed health. Trout Unlimited Canada- Kelowna Chapter directly expressed disagreement with the goal. The organization was concerned with the impacts of efficiencies on environmental flows for fish.

Diversity in the views of ENGOs is most evident in Goal Three. Evidence is found in the mixed support for the goal, support that is lacking, and in the cautious responses of ENGOs. Whether demonstrating support or not, ENGO comments were often followed with a caution statement on how to interpret their response. This is evident in the BC Nature comment above, the organization stated they supported the goal but emphasized caution in its application. In another example, World Wildlife Fund Canada chose not to support the goal, stating that in general they support the application of flexibility and efficiency in water allocation but they are uncomfortable with the language used in Objective 3. Flexibility and efficiency are treated as broad terms by the BC government, in their definition and application. It is to be expected then that ENGOs would be hesitant to demonstrate support for improved flexibility and efficiency in water allocation, without knowing exactly how this will affect environmental management and protection.

3.3.1 Objective 1- The water allocation system emphasizes and encourages efficiencies in water use and administration

Objective 1 received support from 40% of ENGOs. Support for this objective reflects the desire to see better conservation of water use. Objective 1 had five options. Options

Goal, Objectives and Options	Number of supporting ENGOs	Percentage of supporting ENGOs
Goal 3	11	26%
Objective 1	17	40%
Option 1A	6	14%
Option 1B	8	19%
Option 2A	13	30%
Option 2B	4	9%
Option 3A	2	5%
Option 3B	6	14%
Option 4A	0	0%
Option 4B	8	19%
Option 5	12	28%
Objective 2	12	28%
Option 1	5	12%
Objective 3	23	53%
Option 1A	1	2%
Option 1B	17	40%
Objective 4	19	44%
Option 1A	1	2%
Option 1B	8	19%
Option 1C	13	30%
Option 1D	1	2%
Option 2A	9	21%
Option 2B	6	14%
n= 43		

Table 3.6 Percentage of ENGOs that expressed support for Goal Three and associated Objectives and Options.

Source: Author.

1 and 2 are about encouraging water use efficiency. Option 1A states that government would determine actual needs in relation to a proposed undertaking on the basis of efficient practices and works (Province of British Columbia, 2010a, 22). Option 1B states that codes for efficient infrastructure and practices in different sectors would be developed, the modernized *Water Act* requires compliance with these codes (Province of British Columbia, 2010a, 22). Six organizations supported Option 1A, while 8 organizations supported Option 1B. Supporting Option 1A, World Wildlife Fund Canada argued that the key to achieving success in this objective is to provide the provincial government with the authority to determine actual needs and revisit license terms and conditions. West Coast Environmental Law viewed government determined actual needs as more flexible, stating that province-wide codes may prevent greater efficiency

GOALS AND OBJECTIVES OF THE WATER ACT MODERNIZATION					
Goal 3: Introduce more flexibility and efficiency in water allocation system					
ENGOS	Goal 3	Objective 1 Options 1A; 2B Options 2A; 2B Options 3A; 3B Options 4A; 4B Options 5	Objective 2 Options 1	Objective 3 Options 1A; 1B	Objective 4 Options 1A; 1B; 1C; 1D Options 2A; 2B
AVEA					
APLUK					
BC Nature	●		●	● 1B	
BCTWA				●	
BCWF	●	● 1A;2A&2B;3B;4B;5	● 1	● 1B	● 1B&1C;2B
BCWF- Van. Island	●	● 1A;2A&2B;3B;4B;5	● 1	● 1B	● 1B&1C;2B
Burke Mountain [◇]					
CCConserv		● 1A;3A;5	(D)		● 1B;2A
CONC				●	
Cougar Creek	●	● 2A;4B			● 1C; 2A
Council of Can. [◇]					
DSF				● 1B	
Driftwood et. al.		●		● 1B	● 1C
DUC	●				
Ecojustice	●	● 1A&1B;2A (D2B)		● 1B (D1A)	● 1B&1C
F in CHC					
HPWS				● 1B	
Hornby WS			●		
IWFF- Submission 1	●	● 1B;2A;5		● 1B	● 1C;2A
IWFF- Submission 2	●	● 1B;2A;3A;5	● 1	● 1B	● 1C;2A
Jewell Lake EPS					
Langley EPS		● 1B;2A;3B;4B;5 (D2B)	●	● 1B	● 1B;2A
McConnell Creek	●	● 1B;2A;3B;4B;5	●	● 1B	● 1C; 2B
NCES [◇]					
PSF				●	● 1B
Pembina Inst. et al.		● 2A & 2B	● 1	● 1B	● 2A
Perry Ridge					
Queens Bay		● 1B;2A;5 (D3A-4B)	●	● 1A	● 1B&1C;2A
SRES					
SC- Quadra Island	●	● 1B;2A;4B;5	●		● 1D;2B
SVWA					
SWCS					
Stoney Creek					
T Buck Suzuki	●	● 1B;2A;3B	●	● 1B	● 1C;2B
TAPS					
Transition Nelson					
Trout Unltd. Can.	(D)	2B;3B;4B;5	(D)	● 1B	● 1A; 2A
UniverCity		●			
UVIC ELC and LTA				●	
WATER					
WWSS				●	● 1B&1C
Waters Society					
WCEL		● 1A;5 (D1B)		● 1B	● 1C;2A
West Kootenay					
Wildsight				● 1B	
WWF Canada		● 1A;2A;4B;5	● 1	● 1B	● 1C;2B

● Indicates support (D) Indicates disagreement ◇ Submission not available for these organizations.

*Where a number and letter are shown that indicates support for the option listed under the objective. For example, under Objective 1 where 1A is listed that demonstrates support for option 1A.

Table 3.7 Expressed views of ENGOS on Goal Three and associated Objectives and Options. Source: Author.

standards from being imposed. Supporting Option 1B, Island Waters Fly Fishers club (Submission 1) stated that codes would be easier to apply administratively and Queens Bay Residents Association understood codes as most useful in encouraging efficient use. Again, this reflects a kind of efficiency versus effectiveness argument. Although which option would be more efficient or effective is unclear. There was a clear split with respect to Option 1. What is interesting is this split appears to be between the views of larger scale organizations and smaller scale organizations. Larger scale organizations are arguing, or substantiating support, for Option 1A. Smaller scale or local organizations are arguing, or substantiating support, for Option 1B. In a way, reflecting the division between large national organizations and small local organizations seen in the literature (McKenzie, 2002; Rootes, 1999; Wilson, 1999; Wilson, 2001).

Option 2A states that the use of incentives and economic instruments would be enabled in a modernized *Water Act* to encourage water efficiency, examples provided include penalties and bonuses, water rentals and pricing structures, and rebates for water reclamation and non-potable water use (Province of British Columbia, 2010a, 22). Option 2B states that provincial government could review the rules for the transfer and apportionments of existing water rights, with the potential to permit water rights transfers, both short and long term, from 'lower value' uses to 'higher value' uses (Province of British Columbia, 2010a, 22-23). Option 2A received greater support than Option 2B, 30% and 9% respectively. As argued by Cougar Creek Streamkeepers and Ecojustice, economic incentives are an effective means to promote water efficiency. Additionally, there was a level of concern over reviewing the rules for the transfer of existing water rights. There was skepticism with respect to how this would work and concern over the employment of market mechanisms in determining 'higher value' uses. Support for Option 2A was expected, economic incentives have been demonstrated as an effective means of encouraging water use efficiencies (Province of British Columbia, 2010a, 22). Arguably, the lack of support for Option 2B was also expected given the lack of clarity as to whether the option will actually enable water rights transfers or not. There does not seem to be a good deal of understanding with respect to this option. Ecojustice was the most vocal on the issue, the organization stated:

“Ecojustice strongly opposes any amendments to the *Water Act* to facilitate water rights transfers without a more thorough examination and public debate about the risks of such markets. Ecojustice has written extensively about the risks of such markets in *Fight to the Last Drop* and *Share the Water*.”

The organization appears to be leading ENGOs with respect to research in the area of water markets and, thus, dominates the discussion.

Options 3 and 4 are about encouraging administrative efficiency. In particular, Option 3 deals with how permitted uses, with respect to water rights, should be applied. Option 3A calls for permitted uses to be defined and allowed under the Act in accordance with regulations applied in a *consistent* manner throughout the province (Province of British Columbia, 2010a, 24). Option 3B calls for permitted uses to be defined and allowed under the Act in accordance with regulations, regulations might apply *differently* throughout the province based on risk or defined and applied through a water allocation plan (Province of British Columbia, 2010a, 24). Both options received little support, only 2 organizations supported Option 3A, while 6 organizations supported Option 3B. Of those who supported 3A, justification was not provided. Supporting 3B, BC Wildlife Federation argues that applying regulations in a consistent manner would only work for small volume, low risk uses. Option 4 deals with self-registration of the permitted use withdrawal. Option 4A calls for voluntary self-registration, while Option 4B calls for required self-registration (Province of British Columbia, 2010a, 24). No support was shown by ENGOs for 4A, while 4B received 19% support. Trout Unlimited Canada- Kelowna Chapter argued that required self-registration would provide for better documentation of use.

What is consistently raised by ENGOs is the need for improved environmental monitoring and greater compliance with, and enforcement of, regulations. At least 16 ENGOs bring up monitoring, compliance and enforcement. The support shown for Option 4B reiterates the monitoring argument. Required self-registration would improve documentation, which assists in monitoring and compliance. But, support was only at 19%. Given the push for monitoring, it was expected that support for this option would be higher.

Option 5 provides a list of options, for which existing water licence holders and applicants may be responsible for, to encourage administrative and water use efficiencies. The list includes:

- Providing more detailed information about the proposed use and efficiency measures for licence applications or changes;
- Documenting potential environmental impacts and effects on other users in licence applications or changes;

- Seeking consent from, or undertaking consultation with, affected parties for licence applications or changes;
- Measuring and reporting actual water use when demonstrating compliance with licence conditions;
- Reporting well levels for regulated groundwater users;
- Self-registering wells, especially where groundwater is in direct hydraulic connection with surface water or in areas of known quantity concern; or
- Any combination of the above (Province of British Columbia, 2010a, 25).

For this option, if an organization referenced any of the potential measures listed then support was indicated. Twelve ENGOs, or 28%, showed support for this option. Of those, most supported any combination of potential measures. Again, given the push for monitoring, compliance and enforcement, it is surprising there was not more support shown as all measures appear to relate to monitoring.

3.3.2 Objective 2- Flexibility is provided to water users and decision makers to quickly adapt to changing environmental, economic and social conditions

Objective 2 received support from 28% of ENGOs. According to BC Nature, flexibility enables effective response to changing conditions, particularly those caused by climate change. This objective has one option and no sub-options. The option pertains to providing water users and decision makers the flexibility to adapt by seeking amendments of water licences' terms and conditions based on:

- New information about watershed issues, priorities or changes in supply including addressing over-allocation and climate change impacts;
- The ability to use water differently or for a higher economic purpose;
- Incentives to consolidate licences within a community/watershed to inspire collaborative or shared management of the resource;
- Adverse impacts on aquifers or groundwater recharge zones; or
- Monitoring information that shows stream health is deteriorating because of lack of water (Province of British Columbia, 2010a, 26).

Only 12% of ENGOs supported the option. Sierra Club-Quadra Island and T Buck Suzuki Foundation stated their support was dependent on care being taken to define the term 'higher economic purpose'. This statement, "ability to use water differently... or for a higher economic purpose" (Province of British Columbia, 2010a, 26), caused the most concern. Two organizations expressed strong disagreement with the objective and option, Cariboo Chilcotin Conservation Society and Trout Unlimited Canada- Kelowna Chapter. The concern is most clearly expressed by the former: "I strongly disagree to 'use water for a higher economic purpose', since water is life, what economic purpose could outway that?" (Cariboo Chilcotin Conservation Society). ENGOs agree on the need for flexibility, but, arguably, the term is being equated with adaptive management.

Broad application of the term flexibility made ENGOs hesitant to support the objective and option. The objective is poorly defined and the option sweeping in its coverage. The need for a clearer definition of “higher economic purpose” is evident.

3.3.3 Objective 3- The water allocation system integrates the management of groundwater and surface water resources where required in problem areas

Objective 3 received support from 53% of ENGOs. Eight organizations directly stated a desire to see integrated management between surface and groundwater resources. The support received is a slim majority, but the objective reflects a significant issue. Harmonization between ground and surface water management was not only raised repeatedly by different ENGOs but was repeated throughout the submission of at least 2 organizations. Pacific Salmon Foundation strongly argues for the treatment of ground and surface water as an interconnected resource, repeating the argument at least twice in their submission. Watershed Watch Salmon Society emphasizes that “groundwater and surface water are one resource and licensing and allocation systems should recognize their interconnectedness.” The need for harmonization between ground and surface water management is repeated throughout their submission. Both Pacific Salmon Foundation and Watershed Watch Salmon Society highlight the need for integrated management of ground and surface water sources, arguments founded on the importance of groundwater in maintaining the health of wild salmon. This is not the only overlapping argument between these organizations, in fact Pacific Salmon Foundation cites Watershed Watch Salmon Society repeatedly throughout their submission. This reflects coordinated or combined efforts between these organizations (Wilson, 2001).

The options provided for Objective 3 relate to the water allocation system. Option 1A calls for new surface and groundwater, where regulated, to be allocated based on a modified first-in-time, first-in-right (FITFIR) approach, this is the approach currently in use to regulate surface water (Province of British Columbia, 2010a, 26). Option 1B calls for new surface water in streams and groundwater, where regulated, to be allocated based on priority of use determined either in the *Water Act* or in the water allocation plan process (Province of British Columbia, 2010a, 26). Option 1B, priority of use, received support from 40% of ENGOs, while Option 1A, FITFIR approach, received support from just 2% of ENGOs, or 1 organization. This reflects the numerous arguments that human consumptive use and environmental flow needs should be given highest consideration. There was strong consensus among the majority of organizations that the importance

of these uses needs to be emphasized. Option 1A received support from Queens Bay Residents Association; however, the organization states FITFIR should be modified to consider some priority uses. Ten ENGOs made strong arguments against the continued use of the FITFIR system, claiming the system is outdated. Support for priority of use is consistent with the support demonstrated for protecting stream health (Goal One). A priority of use approach can ensure that aquatic users are legitimized and accounted for. It is surprising that Objective 3 and the associated options did not receive greater attention from ENGOs given that water allocation is essentially the crux of the *Water Act*. Adopting an approach different from the current FITFIR system would have a significant impact on the value and security of water licences.

3.3.4 Objective 4- Water users will be required to conserve water during drought or when stream health is threatened

Objective 4 received support from 44% of ENGOs. There were a few strong opinions on the conservation approach to be employed to achieve this, conservation approaches are dealt with in Option 1. These approaches include: 1A Discretionary, decision-maker determines the approach on a case-by-case basis; 1B Sharing, all water users would reduce use on a proportional basis depending on the water supply forecast; 1C Hierarchy of uses, a hierarchy of use guides how water use is reduced; or 1D Priority date, this approach follows FITFIR, those with earlier issued licences retain rights to water use (Province of British Columbia, 2010a, 27-28). These approaches are to be employed to address temporary water scarcity. Only 1 organization, Trout Unlimited Canada- Kelowna Chapter, supported the discretionary approach, justification for support was not provided. Just 1 organization, Sierra Club- Quadra Island, supported the priority date approach, justification was not provided for their support. Option 1C, hierarchy of uses, received support from 13 ENGOs. Support was the result of a desire to see environmental flows and human uses prioritized, consistent with the support for Option 1B in Objective 3. Option 1B, sharing, received support from 8 ENGOs, largely as an initial conservation measure. Three organizations supported Options 1B and 1C together. BC Wildlife Federation argued for hierarchy of uses to be employed first, if additional restrictions are required then employ proportional reductions. Ecojustice and Watershed Watch Salmon Society argued proportional reductions should be employed first and hierarchy of use second, if more stringent cut backs are needed. Again, it is surprising there was not a greater response to Objective 4 and the options provided given the support demonstrated for protecting stream health (Goal One). As stated

under Goal One, a number of organizations focused on specific or local issues, as opposed to commenting on the specific goals, objectives and options.

Objective 4 has a second option relating to addressing long-term water scarcity. Here, there are two sub-options to choose from: 1A Where long-term water scarcity is felt, *require* a planning initiative such as a Water Management Plan to address water issues; or 1B Water users or communities *may* develop a plan to address long-term scarcity, here the plan would not be required but would be at the request of communities (Province of British Columbia, 2010a, 32). Nine ENGOs supported Option 2A, while six ENGOs supported Option 2B. Island Waters Fly Fishers club (Submission 1) argued for mandatory development of Water Management Plans, the organization suggests the alternative, development of plans at the request of communities, is likely to be motivated more by self-interest. The Pembina Institute and ForestEthics argued that if a plan is to be developed by request then it may only be applied in a reactive manner after conflicts emerge. On the other hand, World Wildlife Fund Canada viewed Water Management Plans as a tool that can be employed based on determined need. Additionally, BC Wildlife Federation argued that long-term water scarcity is best addressed at the local community level and thus the process should be employed based on community identification of need. Again, ENGOs raised the question of whether resources would be provided for the development of plans, this was an issue consistently raised in the submissions. It is interesting that Island Waters Fly Fishers club (Submission 1) demonstrates support for the mandatory development of plans, this stands in contrast with their earlier “efficiency” based arguments. There is a fair split between ENGOs on this option. Presumably, support is dependent on the value each organization places on water management planning.

3.3.5 Summary

The views of ENGOs on Goal Three and the associated objectives and options were the most diverse, largely a result of the broad definition and application of the terms “flexibility” and “efficiency” by the BC government. There is no clear or sweeping support for mechanisms to encourage water use and administrative efficiencies. And, while it is clear that a water allocation system based on priority of use is favoured, the options did not receive majority opinion. It is surprising that ENGOs did not have stronger opinions on water rights given the emphasis placed on securing water for environmental flow needs and for human consumption. Critical views of ENGOs reflected on the need for improved monitoring, compliance and enforcement, but it is unclear how this should

occur. Additionally, the need for integration between ground and surface water management was a significant point raised. And further research and public consultation on water rights transfers is recommended.

3.4 Goal Four- Regulate Groundwater Extraction and Use

Goal Four received support from 63% of ENGOs (Tables 3.8 and 3.9). Support came especially from local organizations based in communities that depend on groundwater. Larger organizations, such the Watershed Watch Salmon Society and Pacific Salmon Foundation, that push for stream health for aquatic users, *i.e.* salmon, also expressed a great deal of support for this goal. As groundwater is critical in regulating the temperature and volume of streams, these ENGOs recognized groundwater regulation as a critical move in legislative reform. Since BC is the only remaining province left to implement groundwater extraction regulations, most organizations were pleased to see this goal included. Six ENGOs stressed the importance of environmental monitoring and compliance and enforcement as critical to ensuring groundwater regulations are effective.

Goal, Objectives and Options	Number of supporting ENGOs	Percentage of supporting ENGOs
Goal 4	27	63%
Objective 1	16	37%
Option 1A	5	12%
Option 1B	4	9%
Option 2	10	23%
n= 43		

Table 3.8 Percentage of ENGOs that expressed support for Goal Four and associated Objectives and Options.

Source: Author.

3.4.1 Objective 1- Groundwater extraction and use is regulated in priority (critical) areas and for all large withdrawals

Goal Four had one objective, which received support from 37% of ENGOs. Support for this objective is not consistent with the support given to Goal Four. This is likely due to the fact that 5 of the organizations that did not support this objective argued for province-wide groundwater regulations, as opposed to regulations for priority areas and large withdrawals only. Ecojustice, The Pembina Institute and ForestEthics and Watershed Watch Salmon Society all expressed disagreement with this objective

GOALS AND OBJECTIVES OF THE WATER ACT MODERNIZATION					
Goal 4: Regulate groundwater extraction and use					
ENGOS	Goal 4	Objective 1 Options 1A; 2B Options 2	Objective 2 Not Applicable	Objective 3 Not Applicable	Objective 4 Not Applicable
AVEA					
APLUK					
BC Nature	●	●			
BCTWA	●	●			
BCWF	●	● 2			
BCWF- Van. Island	●	● 2			
Burke Mountain [◇]					
CCConserv	●	● 2			
CONC	●				
Cougar Creek	●	● 1A			
Council of Can. [◇]					
DSF					
Driftwood et. al.	●	● 2			
DUC	●				
Ecojustice	●	(D)			
F in CHC					
HPWS					
Hornby WS	●	● 2			
IWFF- Submission 1	●	● 1B;2			
IWFF- Submission 2	●	● 1A;2			
Jewell Lake EPS					
Langley EPS	●	● 1A;2			
McConnell Creek					
NCES [◇]					
PSF	●				
Pembina Inst. et al.	●	(D)			
Perry Ridge					
Queens Bay	●	● 1B			
SRES					
SC- Quadra Island	●				
SVWA					
SWCS					
Stoney Creek					
T Buck Suzuki	●	● 1A;2			
TAPS	●	●			
Transition Nelson					
Trout Unltd. Can.	●	● 1A;2			
UniverCity	●				
UVIC ELC and LTA	●				
WATER					
WWSS	●	(D)			
Waters Society					
WCEL	●	1B			
West Kootenay					
Wildsight	●	●			
WWF Canada	●	1B			

● Indicates support (D) Indicates disagreement ◇ Submission not available for these organizations.
*Where a number and letter are shown that indicates support for the option listed under the objective.
For example, under Objective 1 where 1A is listed that demonstrates support for option 1A.

Table 3.9 Expressed views of ENGOS on Goal Four and associated Objectives and Options. Source: Author.

because they feel all wells should be regulated. Ecojustice, The Pembina Institute and Watershed Watch Salmon Society all signed off on the Statement of Expectations (see Section 1.3.2 for an understanding of the Statement of Expectations document and Appendix A for the list of organizations that supported the Statement of Expectations). The Statement of Expectations argued for groundwater licensing in all areas of the province. This exemplifies the tendency for groups to cooperate and form coalitions for political purposes (Mangun and Henning, 1999; Wilson, 2001).

Objective 1 had two options. Option 1 pertains to determining the thresholds for large groundwater withdrawals. Option 1A states the threshold for large could be 500 m³/day for wells drilled into unconsolidated, sand and gravel aquifers and 100 m³/day for wells drilled into consolidated bedrock aquifers, or if otherwise determined to be large by a Water Management Plan (Province of British Columbia, 2010a, 31). Option 1B states the threshold for large could be 250 m³/day for wells drilled in unconsolidated, sand and gravel aquifers and 100 m³/day for wells drilled into consolidated bedrock aquifers, or if otherwise determined to be large by a Water Management Plan (Province of British Columbia, 2010a, 31). Both options received little support, 12% of ENGOs supported Option 1A, while 9% of ENGOs supported Option 1B. Justification for support for Option 1A was not provided by any organization. Of those who expressed support for Option 1B, 4 ENGOs, it was argued that this option provided for the greatest control and/or regulation of extraction. Option 2 pertains to determining priority areas for regulating groundwater extraction and use. Rather than presenting a couple of sub-options to choose from, a list of measures is provided. The measures are:

- Heavy groundwater extraction and use;
- Area of known quantity concern;
- Groundwater in direct hydraulic connection with surface water in areas of known quantity concern;
- Significant population that is reliant on groundwater for drinking water;
- Trans-boundary aquifers;
- Basins where surface water is at or near the allocation limit; or
- Any combination of the above (Province of British Columbia, 2010a, 32).

This option received support from 23% of ENGOs. Lack of support was most often related to the desire to see all areas regulated, not just priority areas. Of those that expressed interest in this option, the majority supported all measures listed. Driftwood *et. al.* recommend additional measures to include in Option 2. The organization argues that watersheds containing significant fish populations, areas with high productivity fish stocks and areas with sensitive yearly flows should all be measures used to determine priority areas for regulating groundwater extraction and use.

3.4.2 Summary

Strong support was demonstrated for Goal Four, especially in comparison with the other goals, objectives and options. Support was highly received from ENGOs whose focus and objectives revolve around groundwater protection. A weaker level of support was shown for the objective and options provided to achieve the goal. A key concern relates to regulating withdrawals for priority areas and large withdrawals only. A number of ENGOs would like to see regulations applied province-wide to ensure regulations are more effective than efficient. This argument is received from ENGOs who are collaborating, which gives more weight to their efforts.

3.5 Significant Themes

There are 9 significant themes that came out of the analysis of ENGO submissions that are discussed below.

Environmental monitoring and enforcement

Two themes that consistently appeared in the submissions were environmental monitoring and compliance and enforcement. As emphasized by the BC Wildlife Federation and Wildsight: “you can’t manage what you don’t measure.” Monitoring and compliance and enforcement are not addressed in the WAM Discussion Paper (West Coast Environmental Law). These issues possibly go beyond the scope of the WAM (West Coast Environmental Law), but they are of clear concern as policy development moves forward. This concern is likely a result of the current lack of baseline data for water quality and quantity within the province (BC Wildlife Foundation; Wildsight), and declining enforcement levels in the Ministry of Environment (Cariboo Chilcotin Conservation Society; West Coast Environmental Law).

Monitoring is critical in facilitating effective water management; high quality data provides the basis for decision making (Pacific Salmon Foundation; Queens Bay Residents Association). Specifically, monitoring provides for:

- Adequate records of water taking abstractions and discharges within BC (Central Okanagan Naturalists’ Club);
- An assessment of changing trends in stream flow (Arrowsmith Parks and Land Use Council);
- Updates on groundwater supplies (BCWF; Queens Bay Residents Association);
- Reporting on ecosystem health and seasonal instream flow requirements (David Suzuki Foundation); and
- Data to determine whether standards and thresholds for environmental flows are effective, permitting responsive management (Harrop-Procter).

Environmental monitoring is also critical for compliance and enforcement, monitoring can work to highlight where potential violations may be occurring (Driftwood *et. al.*). On the other hand, robust compliance and enforcement systems deter purposeful violations of licensing conditions (The Pembina Institute and ForestEthics). There is a definite push among ENGOs for effective and adequately resourced monitoring, compliance and enforcement systems. Yet, ENGOs provide little insight into what would be considered effective.

Recognition of wetlands

Through *Living Water Smart*, the BC Government committed to recognizing water flow requirements for ecosystems and species through legislation as well as protecting and rehabilitating wetland and waterway function (Alberni Valley Enhancement Association; Province of British Columbia, 2010d). Yet, the WAM process and Discussion Paper does not endeavour to provide recognition and protection of wetlands. Alberni Valley Enhancement Association argues that these commitments need to be upheld. A number of other organizations were vocal on this issue, arguing for better recognition of and protection given to wetlands (including BC Wildlife Federation; David Suzuki Foundation; Ducks Unlimited Canada; Pacific Salmon Foundation; Queens Bay Residents Association; Watershed Watch Salmon Society; Wildsight; World Wildlife Fund Canada). Moreover, BC Nature took the argument one step further, suggesting that water allocation plans should require a plan for wetland protection.

Concerns linked to local issues

Local issues were significant in substantiating the views of local and/or community ENGOs. Local issues demonstrated support (or lack thereof) for particular goals and objectives, in addition to highlighting problems with and impacts of the current *Water Act*. To demonstrate, Cariboo Chilcotin Conservation Society used local cases and examples to provide support for their comments. The organization argued for watershed protection from industry and resource users/extraction. This argument is linked to the case of Prosperity Mine, a proposed development in the Fish Lake area of the Cariboo region (Chilcotin). The development plans for the mine were to drain Fish Lake and several other small water bodies. The organization was seriously concerned over the impact of such a development on the watershed and First Nations social and cultural practices. Another example, Hornby Water Stewardship group drew on local groundwater issues to highlight problems with the current *Water Act*. At present, groundwater within BC is not regulated. This has led to aquifer stress on Hornby Island,

protection and management of groundwater has become difficult. The organization argued for Hornby Island to be designated a special area where special protective regulations should apply.

By linking their concerns to local issues, local and/or community organizations differentiate themselves from the larger organizations, which focus on research to defend their views. Highlighting local issues demonstrates what is occurring on the ground, particularly the conflicts that are occurring between users. This information could prove useful in determining necessary policies, priority areas and priority users (if the current allocation system makes a move toward priority of use instead of the current FITFIR system that upholds water licenses based on the date in which the license was issued).

Incorporating water management in land use planning and decision making

The apparent disconnect between water management and land use planning was a significant theme that reappeared throughout the submissions. Development has a considerable impact on water quality, flow and timing; yet, land use designations often fail to consider the impacts of development types on water quantity and quality (Cariboo Chilcotin Conservation Society; Perry Ridge Water Users' Association; Slocan Valley Watershed Alliance). There was little discussion on the relationship between water allocation and land use planning in the WAM Discussion Paper. West Coast Environmental Law argued for water allocation, along with water quality and health, to be included in land use decisions. The argument was justified in the following statement:

“We have frequently been consulted regarding new developments being proposed for areas of known water scarcity. There is currently no tool for the regulation of water use to inform local government zoning and land use decisions. As a result, new buildings are being built which will politically commit the province or local governments guaranteeing a flow of water in areas where the developer knows or should know that adequate water does not exist” (West Coast Environmental Law).

Pushing for land use plans to support plans for protection of the watershed, the Central Okanagan Naturalists' Club, Perry Ridge Water Users' Association, Slocan Valley Watershed Alliance and Wildsight echoed the argument made by West Coast Environmental Law. These organizations wish to see better consideration given to water impacts in land use planning.

Expectations for public engagement in the WAM process

There were significant concerns expressed over the level of public involvement in the WAM process. This concern was reflected in the short time period allotted for public input on the WAM Discussion Paper; the lack of additional opportunities for public input, namely after legislation has been drafted; and the forums for involvement. With respect to the time period allotted for input, the public had three months to comment through formal submission- February 2010 to April 2010. A few organizations felt the time period provided was too short; this is in light of the fact that a number of organizations did not hear about the process until late in the engagement period. Water Across Time our Environmental Responsibility stated that they did not see the advertisement in the local newspaper asking for public submissions on BC's WAM until April 21, 2010. Burke Mountain Naturalists asked for a week extension to enable them to make a submission. Finally, Perry Ridge Water Users' Association argued how April 30 was also the closing date for filing taxes, as a number of organizations run off volunteers, a closing date of April 30 for submissions does not reflect public consideration.

The issue over time period is amplified by the fact that the engagement period held between December and April 2010 is the only stage of public consultation provided for the WAM process (see Fig. 1.1 in Section 1.3.3). A number of organizations made a call for further opportunities to comment on draft legislation including BC Tap Water Alliance, Harrop-Procter Watershed Protection Society, McConnell Creek Ratepayers Association, The Waters Society, West Kootenay EcoSociety, and Wildsight. The argument was that input at this stage only was insufficient; the public should be involved at all levels in the process.

Additionally, certain ENGOs took issue with the forums provided for consultation, namely the workshops. Submissions allowed a few organizations to comment on WAM workshops they had attended, a few expressing discontent with the forum. For instance, Slovan Valley Watershed Alliance stated "I was not satisfied that it constituted public consultation," and Perry Ridge Water Users' Association argued the one day event failed to represent "everyone's business." As the government has stated that public engagement is a valuable part of the process, further consideration should be given to providing additional opportunities for input.

Harmonization between ground and surface water management

With respect to harmonization between ground and surface water management, the

BC government has listed it as an objective in the WAM Discussion Paper: “The water allocation system integrates the management of groundwater and surface water resources where required in problem areas” (Province of British Columbia, 2010a, 26). This objective is heavily emphasized by a number of ENGOs, organizations argued that ground and surface water have a direct hydraulic connection, planning and allocation needs to recognize these resources as deeply interconnected (Central Okanagan Naturalists’ Club; Driftwood *et. al.*; Ecojustice; Pacific Salmon Foundation citing Watershed Watch Salmon Society; The Pembina Institute and ForestEthics; Watershed Watch Salmon Society; West Coast Environmental Law; World Wildlife Fund Canada).

Adhering to the precautionary principle

Additionally, a significant number of organizations stress adherence to the precautionary principle (BC Wildlife Federation; BC Wildlife Federation- Vancouver Island Chapter; Harrop-Procter Watershed Protection Society; Pacific Salmon Foundation; Perry Ridge Water Users’ Association; Queens Bay Residents Association; Slocan Valley Watershed Alliance; Water Across Time our Environmental Responsibility; West Coast Environmental Law; Wildsight; World Wildlife Fund Canada). Precautionary principle should be applied to the *Water Act* in general and to allocation and management decisions in particular.

The use of tradable permits

There is a fair degree of concern expressed over the potential employment of tradable permits, or what is often known as water markets. The BC government, under options to encourage water use efficiency, provides “review rules for the transfer and apportionments of existing water rights” as an option (Province of British Columbia, 2010a, 22). A few organizations express strong discontent with the trading or ‘transfer’ of water rights. As stated by Queens Bay Residents Association: “There is strong distrust of employing market mechanisms in determining ‘highest value’ uses.” The consequences that would result from implementing such a market are not well understood, it is emphasized that the trading of water rights is a fundamental change to how water rights are allocated and requires additional explanation (West Coast Environmental Law).

Resource Provision

Finally, the issue of financial and human resources, particularly funding, was a reoccurring theme. The *Water Act* reform is an opportunity to introduce changes to

governance, either through the creation of new regional governance bodies or by expanding the mandates of existing bodies. There is a concern that agencies will not be provided with adequate funding to carry out the reforms proposed, such as mandatory development of Water Management Plans for priority areas. This is not to state that these organizations do not want to see these reforms, they just want assurance that responsibilities will not be downloaded without the appropriate funding in place.

3.6 Comparative Analysis of Results with Findings in the *Water Act Modernization Report on Engagement*

This section provides for comparison of the results derived from the submission analysis with the findings stated in the WAM Report on Engagement. The focus is on Section 11.4 of the Report on Engagement, which offers details on the trends and preferences found among the ENGO sector. Other stakeholder sectors are not addressed in Section 11.4. Comparative analysis provides further clarity on the views of ENGOs as it highlights the views and opinions gleaned from the submission analysis. Most importantly, it provides for a better understanding of the evaluation of submissions, particularly those submissions categorized under ENGOs, by the BC government. A review of the results stated in the Report on Engagement will demonstrate what trends and preferences were picked up in the evaluation process, as well as those that were missed. The Report on Engagement highlights the key messages received from ENGOs, the feedback received on the principles and the feedback received on the goals.

As stated in Section 1.3.3, the Report on Engagement lists the following key messages as received from the ENGO sector:

- ENGOs strongly support WAM components including ecosystem management, maintaining instream flows and groundwater regulation.
- ENGOs support managing water in its entirety (streams, wetlands, and groundwater) from a watershed perspective.
- Meeting ecosystem needs is of the highest priority.
- ENGOs favour a shared or delegated approach to water governance guided by provincial standards. They contend that the current approach is fragmented so there is a need to consolidate legislation into a single, over-arching “Water Act.”
- Science based decision making is a key construct and many ENGOs support adhering to the precautionary principle where data is unavailable or unreliable (Province of British Columbia, 2010c, 41).

Additionally, from the feedback received on the principles put forward, the BC government stated that submissions maintained that privatization is an unacceptable

approach to provincial water resources (Province of British Columbia, 2010c, 41).

With respect to the goals put forward, the BC government, in their analysis, heard the following:

- Goal One received “unanimous support” from responding ENGOs. The use of science-based instream flow standards was strongly supported and the majority of respondents favoured the required development of water allocation plans, plans that must be followed by the decision maker (Province of British Columbia, 2010c, 42).
- With respect to Goal Two, the majority of ENGO respondents supported a shared or delegated governance approach (Province of British Columbia, 2010c, 42).
- For Goal Three, ENGOs stated the need to “revamp the FITFIR water allocation,” giving priority to domestic use and maintaining stream flow standards. The majority of respondents indicated government determining actual needs in relation to a proposed undertaking on the basis of efficient practices and works as the preferred option to encourage water use efficiency. Some further suggested that a licence could be cancelled if not being used in a beneficial way as authorized, and then reallocated (Province of British Columbia, 2010c, 42).
- The majority of respondents supported Goal Four. Respondents often called for the integration of ground and surface water flow standards. There was also concern expressed over the current lack of data on groundwater supplies and the need for greater investment in data collection and monitoring (Province of British Columbia, 2010c, 42).

The findings stated in the Report on Engagement all correspond to the results found in the submission analysis. Similar key messages were received and support found for the goals was similar in both evaluation processes. Yet, several important comments were missed.

With respect to Goal One, the Report on Engagement does not acknowledge the importance placed on wetlands and the call for recognition and protection of wetlands in the new *Water Act*. With respect to Goal Two, the majority support demonstrated for a shared or delegated approach is accounted for, but two ENGOs made the argument that these approaches are very similar. Clear differentiation of the two approaches will be necessary as the reform moves forward. With respect to Goal Three, the Report on Engagement fails to mention concerns with the use of the term “flexibility,” this term needs clarification.

Moreover, the Report on Engagement indicates the majority of respondents preferred to encourage water use efficiency through government determined actual needs in relation to a proposed undertaking (Province of British Columbia, 2010c, 42), but a different result was obtained from the submission analysis. It was found that the use of codes for efficient infrastructure and practices in different sectors were equally supported as an approach to encourage water use efficiency. Additionally, the views on Option 2 for achieving water use efficiency were not reported. Support was expressed for the use of incentives and economic instruments, there is no mention of this in the Report on Engagement. Concern was expressed over the employment of tradable permits, or the transfer of existing water rights, this also receives no mention. And the support found for the options to deal with water scarcity are not addressed. The blending of the sharing and hierarchy of uses approaches, the approaches that received majority support for addressing temporary water scarcity, is an interesting recommendation that deserves consideration in the Report on Engagement. As Goal Three was found to be the most controversial of all the goals, the support and concerns expressed over these measures are important. Finally, with respect to Goal Four, there is no mention of the recommendation to extend groundwater licencing to all areas of the province.

In addition to the support and comments provided on the goals of the WAM, additional comments that were drawn out as significant themes deserve attention. Drawing on the local context was repeatedly performed in the submissions from local and/or community based organizations. It would be difficult to incorporate these stories and issues into the Report on Engagement, but they deserve consideration. The local context provides a clearer understanding of what is happening on the ground and how the *Water Act* may be used to address some of those issues. In addition, an understanding of local contexts can help in identifying priority (critical) planning areas, as well as aid in determining priority uses. Additionally, a number of ENGOs highlighted the apparent disconnect between water management and land use planning. This is a critical issue, which the *Water Act* could look to amend. Finally, a number of organizations put out a call for further public engagement in the WAM process, a significant priority that would need to be addressed immediately.

3.7 Chapter Summary

This chapter examined the shared and differing views of ENGOs on the *Water Act* reform. Where appropriate, connections with the literature were made. Substantive issues raised by ENGOs in their submissions were drawn out to highlight the

contribution of ENGOs to the policymaking process. Comparison with the findings of the WAM Report on Engagement revealed the evaluation and interpretation of ENGO submissions by the BC government.

4.0 RECOMMENDATIONS AND CONCLUSIONS

This chapter provides recommendations for evaluating public input. These recommendations were developed based on an understanding of the evaluation and interpretation of submission statements by the BC government and findings from the submission analysis. Additionally, some tentative recommendations for the *Water Act* reform are presented based on the submission statements of the 43 ENGOs. These recommendations are congruent with the findings. Following, the chapter takes a brief look at the policies proposed for the new Water Sustainability Act by the BC government. The release of proposed policies for public review was unexpected, this opportunity was not originally included as part of the WAM process. The document was released after recommendations for this report were developed; for that reason, a brief review is provided here. The chapter closes with general conclusions on the shared and differing views of ENGOs and the evaluation process, and directions for future research.

4.1 Recommendations for Evaluating Public Input

Following are recommendations for ensuring a thorough input evaluation process.

Recommendation 1: Ensure multiple methods are used when evaluating submissions to better account for substantive issues.

The absolute value of ENGO statements lies in the comments that substantiate the views expressed, as opposed to the comments that state supported goals, objectives and options. These are the *why* comments that are qualitative in nature and not readily accounted for when using quantitative methods of evaluation. In their evaluation process, the BC government identified principal themes based on the goals, objectives and options of the reform. Additional information that was qualitative in nature was reviewed and interpreted. All of this information was entered into a database to allow information to be quantified (Province of British Columbia, 2010c, 14). Without further detail on the methods used and without confirmation on methods from the BC government it is difficult to determine how rigorous the submission evaluation process was. What is clear is a number of substantive issues and comments were missed in the Report on Engagement. Ensuring multiple methods are used when evaluating submissions will enable better accounting of the diverse opinions expressed, namely the additional comments that are qualitative in nature. Methods include qualitative data management systems (software), peer review, and member checks.

Recommendation 2: Account for substantive issues in policy formation

The opportunity to comment on the *Water Act* reform goals, objectives and options was the first (and going to be the only) step in engaging the public in the reform process. Because the public was not invited to participate in the scoping (initial) phase of the process, a number of comments reflect substantive issues that either differ from or add to the goals and objectives proposed. To ensure an effective participation process and to demonstrate the influence of public input on policymaking, these substantive issues need to be accounted for in policy formation. Future processes should strive to involve the public at an earlier stage.

4.2 Tentative Recommendations for the *Water Act* Reform

Based on review of the 43 ENGO submission statements, some tentative recommendations for the *Water Act* reform can be made.

Recommendation 1: Improve the scope and frequency of environmental monitoring of water quality and quantity to ensure adequate data is available for decision making

Water monitoring is currently lacking within the province. Monitoring provides information on and enables understanding of ecosystem behaviour. The information developed is used to aid decision making. Monitoring is also a mechanism through which previous decisions are judged; the effectiveness of current management and allocation systems can be determined based on measurements and indicators of ecosystem function. The importance of and need for improved environmental monitoring across the province, both in scope and frequency, was a significant issue put forward by ENGOs. To achieve the goal of protecting stream health and aquatic environments monitoring is key. It provides an indicator of stream health and information for decision makers so that management can adapt to ensure the continued integrity of these environments. Improved environmental monitoring can occur through an increase in the provision of resources for carrying out monitoring, either at the provincial or regional level, or by expanding the volunteer and community based monitoring that is already occurring.

Recommendation 2: Establish mechanisms to carry out compliance and enforcement of new regulations

Robust compliance and enforcement mechanisms ensure policy objectives are achieved by maximizing compliance with legislation and deterring purposeful violations.

With declining enforcement levels in the Ministry of Environment, there is skepticism among a number of ENGOs as to the effectiveness of new legislation without proper enforcement. To ensure new legislation achieves its stated goals and objectives, effective compliance and enforcement mechanisms need to be established. Compliance measures could include raising awareness with respect to legislative requirements and promoting the objectives of legislation and regulations. Enforcement mechanisms could include employing enforcement officers, regular auditing of large water users and encouraging community involvement in compliance and enforcement through the reporting of violations. With respect to the reporting of violations there needs to be accountability, reporting must be followed through.

Recommendation 3: Establish better linkages between land use planning and water management.

Despite the impact development has on water quality and quantity, there is an apparent disconnect between water management and land use planning in the province. Under current legislation, the Minister may designate an area for the purpose of developing a Water Management Plan. In the development of these plans consideration must be given to the land use planning processes within the designated area. However, as it is the Minister that designates water management areas, few water management plans have been developed. In addition, there is currently no requirement for land use plans to consider water impacts.

In order to establish better linkages between land use planning and water management, the development of water management plans should be expanded. Where water management plans are developed, there should be a requirement in place that land use plans be consistent with the Water Management Plan. Moreover, establishing regional or watershed agencies will improve water considerations in land use planning processes.

Recommendation 4: Ensure that policy reforms capture local concerns

Local concerns demonstrate what is happening on the ground with respect to water management, particularly conflicts between users and water quality and/or quantity issues. Local concerns are an important source of information that can be used to improve policy development. Additionally, local knowledge highlights existing practices embedded in the community that might affect a policy intervention (Corburn, 2003). As

such, it is critical that proposed policies look to account for local concerns, this means providing opportunities for public review of policy drafts. The review period needs to be sufficient to ensure the public has adequate opportunities and time for review.

Recommendation 5: Ensure appropriate funding and resources are in place for newly established water governance and planning agencies

If legislation is to be effective, newly established agencies and programs need adequate funding and resources. This is in addition to addressing previous areas where funding shortages exist. There is a significant concern among ENGOs that adequate funding and resources will not be provided. The BC government foresaw funding as an issue, in the WAM Discussion Paper the government asked for suggestions on funding solutions to help implement new approaches to water management and governance. Consideration should be given to stakeholder feedback provided on funding mechanisms. Additionally, ensuring appropriate funding and resources are in place means not establishing new agencies and programs until funding and resources are secured.

4.3 The New Water Sustainability Act: A Brief Look at Proposed Policies

In developing the recommendations for this report, the BC government came out with a Policy Proposal on British Columbia's new Water Sustainability Act, which the public may comment on. The Water Sustainability Act is new legislation that will replace the current *Water Act*. This document release was unexpected; according to the schedule for the WAM process (see Fig. 1.1 in Section 1.3.3) the public was not going to have any additional opportunities to provide input. The policy proposal document was released in response to the high level of public interest and repeated requests for more participation from the public (Province of British Columbia, 2010e). An updated diagram of the WAM process is shown in Fig. 4.1, the additional opportunity for input is coloured in green. The policy proposal document lists seven policy directions. This section provides a brief look at some of these policies, namely those pertaining to the views and opinions expressed by ENGOs. This is an interesting opportunity to consider how the views of ENGOs are reflected in the policies proposed for the new Act.

4.3.1 Policy directions for the new Water Sustainability Act

The Water Sustainability Act will establish a provincial framework and enable an area-based approach for water management (Province of British Columbia, 2010e). An

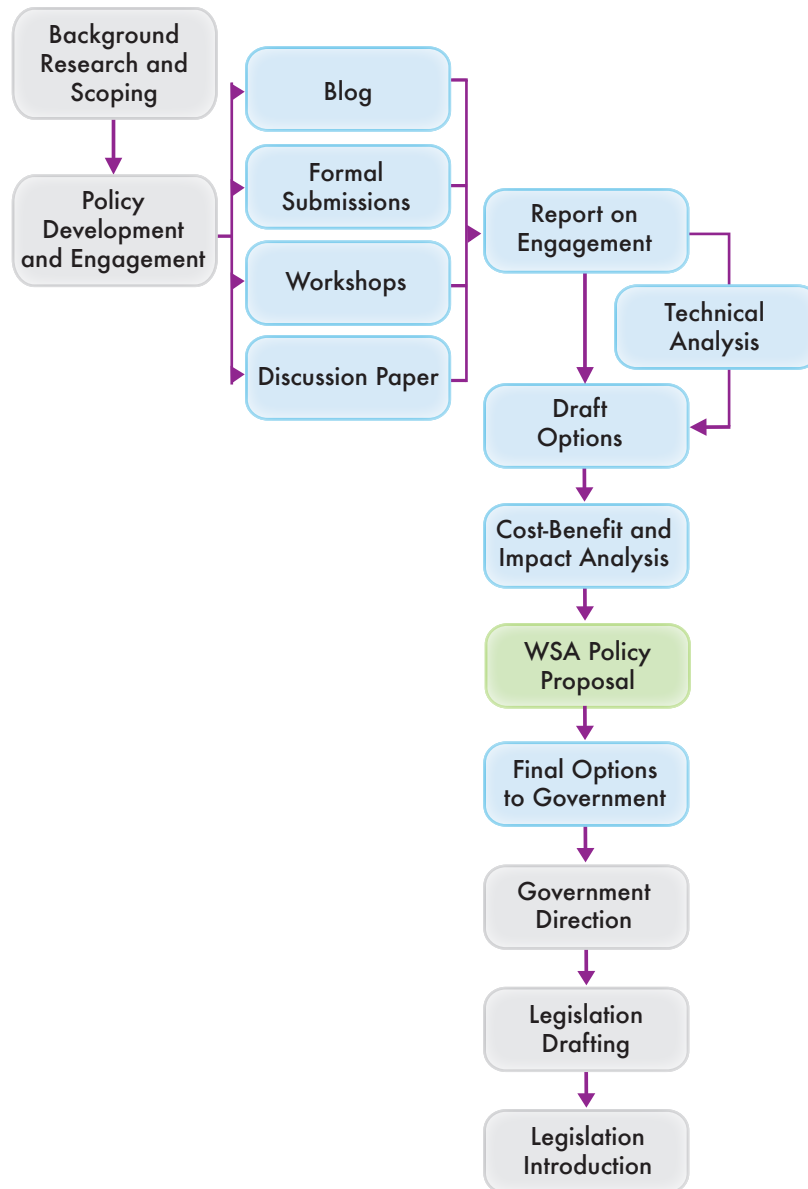


Figure 4.1 The updated *Water Act* Modernization Process, with the added policy proposal step in green.
 Adapted from: Province of British Columbia, 2010e, 4.

area-based approach means regions will be categorized into one of three levels of action based on risk, competing demands and scarcity (with respect to water supply, water quality and/or ecosystem health) (Province of British Columbia, 2010e, 5). At each level of action, different measures for improving water management will apply. Adopting an area-based approach “means that local conditions, issues and interest, and local knowledge and information, including traditional ecological knowledge, will influence water management and help inform decisions” (Province of British Columbia,

2010e, 5). This fits well with the need to incorporate local concerns in decision making, as expressed in Section 3.5 and in the tentative recommendations provided in Section 4.2. Yet, a number of ENGOs argued that regulations should apply province wide (see Section 3.4.1). Concern may arise over the application of less stringent measures in some areas of the province.

The first policy direction is to protect stream health and aquatic environments. Here, one of the key policies is the use of guidelines to determine instream flow, decision makers will be required to consider these in new water allocation decisions for both ground and surface water (Province of British Columbia, 2010e). This is an interesting development given that the province states they heard a preference for standards among stakeholders: “Guidelines are too flexible or not enforceable” (Province of British Columbia, 2010e, 8). The preference for standards was clear in ENGO submissions. Another key policy is the regulation of dumping activities, this fits with the support found among ENGOs for improved regulations on materials dumping in streams (see Section 3.1.3).

The second policy direction is to consider water in land-use decisions. Provincial water objectives will be established, these will be used to guide decisions made by statutory decision makers under the proposed Water Sustainability Act and other laws affecting land and resource use (Province of British Columbia, 2010e, 8). These objectives are to align how statutory decision makers under a variety of statutes consider water when making decisions regarding land use and water allocation (Province of British Columbia, 2010e, 8). This positively reflects the arguments for better connections between land use and water management, as expressed in the Section 3.5 and in the tentative recommendations made in Section 4.2.

Under the third policy direction, regulate groundwater use, it states: “Groundwater extraction and use will be regulated in problem areas and for all large groundwater withdrawals across BC” (Province of British Columbia, 2010e, 9). Those ENGOs that stressed the need for groundwater regulation across the province for all withdrawals may reiterate their concerns in commenting on this policy (see Section 3.4.1).

The fourth policy direction is to regulate water use during scarcity. Here a staged approach will be taken to managing water in times of scarcity. A staged approach involves, first, efficiency and conservation measures and proportional reductions

based on water supply forecasts (Province of British Columbia, 2010e, 10). If these measures are insufficient, water use will be regulated by priority date (Province of British Columbia, 2010e, 10). In exceptional circumstances, such as risk to municipal water supplies, deviations from priority date to importance of use will be enabled (Province of British Columbia, 2010e, 10). It appears that importance of use did not gain the priority so heavily stressed by ENGOs (see Section 3.3.3).

Under the fifth policy direction, improve security, water use efficiency, and conservation, it is stated that a range of economic instruments will be enabled to improve water use efficiency (Province of British Columbia, 2010e, 11). This could include: fee-based measures, rebates, liability and assurance regimes and tradable permits (Province of British Columbia, 2010e, 11). The use of tradable permits was a concern among a number of ENGOs, organizations argued for further research before employing such a measure (see Section 3.3.1).

Under the sixth policy direction, measure and report, “licensed ground and surface water users will be required to report actual water use and in some cases (e.g., in problem areas) stream flow, groundwater levels, well performance, and water quality” (Province of British Columbia, 2010e, 12). These requirements will only apply to large water users, domestic licensees and small private domestic well owners will not likely be required to measure and report (Province of British Columbia, 2010e, 12). This is a significant step to increase monitoring and reporting data. This should be followed up with regular auditing.

The seventh policy direction is to enable a range of governance approaches. Approaches include “the ability to delegate responsibility for activities and decisions to local or regional agencies” (Province of British Columbia, 2010e, 13). The province will remain accountable for environmental protection and will be responsible for deciding the institutions, systems and roles for any delegated responsibilities as well as the compliance and enforcement framework (Province of British Columbia, 2010e). This policy direction does not appear to resolve the current issues of water governance in the province. The approaches that will be taken, and when and why an approach will be adopted, is not clear. It seems the current ad hoc approach to governance will not be resolved if this policy moves forward. This does not fit with ENGO support for a shared or delegated approach (see Section 3.2.3). The compliance and enforcement framework will also need to be established prior to implementing new legislation.

Lastly, it is important to point out that the call for further public engagement opportunities was answered. While this step should have been part of the WAM process from the beginning, it demonstrates that the government listened to the arguments for additional opportunities for public input.

4.4 Conclusions

This research set out to identify the critical views expressed by ENGOs on the *Water Act* reform, how these views are shared and differ, and how the BC government has evaluated and interpreted the views of ENGOs. ENGOs have been found to play a significant and influential role in environmental policymaking, resource management and governance. The *Water Act* reform presented a good opportunity to take a deeper look at these important stakeholders, the views they hold with respect to water management and governance and their contributions to policy development.

Analysis of the submission statements put forward by ENGOs revealed several shared viewpoints on the goals, objectives and options of the reform, and, generally, what the *Water Act* reform should achieve. Note that the following views were not supported by all ENGOs. They represent views that: 1) were shared by any number of ENGOs and 2) received little to no opposition. Of primary importance to ENGOs is protecting stream health and aquatic environments. Protection should extend to wetlands and measures should include requiring robust standards for stream flow. ENGOs also established the relevance of water allocation and management plans for ensuring well informed decision making, however, plan development should be balanced with need. ENGOs advocated for improvements to governance arrangements to follow a shared or delegated approach. A shared or delegated approach would provide for participation, social learning, shared decision making, and consideration of the local context. In addition, accountability would remain in the hands of the province. ENGOs also felt that water use efficiencies should be encouraged, but instruments used should seek to balance effectiveness with efficiency. Moreover, ENGOs felt adaptive management should be employed, adopting this kind of practice in decision making and specifically in water allocation will provide flexibility to respond to changing conditions. Where new ground and surface water is being allocated, ENGOs felt allocation should be based on priority of use, with environmental flow (stream flow) needs and human consumption established as top priorities. In the case of temporary water scarcity, ENGOs advocated for water use cutbacks to be determined based on a hierarchy of use approach to guide how water is reduced, a shared approach where use is reduced on a proportional

basis, or a combined hierarchy of use and shared approach. ENGOs also consider groundwater regulation to be a decisive move in the reform. Consideration should be given to applying regulations province-wide and for all withdrawals. A number of substantive points were also shared by ENGOs, these include:

- The need for environmental monitoring and enforcement;
- The disconnect between land use planning and water management;
- The need for harmonization between ground and surface water management;
- The importance of the precautionary principle; and
- The concern over the use of tradable permits.

These views represent the key contributions of ENGOs to the legislative reform.

Submission analysis of ENGO statements also revealed several differing viewpoints among organizations. Discrepancies were apparent in how ENGOs interpreted the terms “flexibility” and “efficiency” in water allocation. ENGOs were cautious in their responses to objectives that emphasized flexibility and/or efficiency. ENGOs also disagreed over the application of stringent policies, favouring different requirements based on their contribution to effectiveness or efficiency. The greatest discrepancy was found in whether ENGOs responded to particular goals and objectives. There is a sharp differentiation between ENGOs that were vocal on each issue and those that emphasized particular concerns. The issues that ENGOs were vocal on provided insight into the identity, objectives and approach of each organization. It is apparent that while shared views persist, ENGOs are not a homogeneous voice. The vitality of ENGOs hinges on their variation, provincial agencies need to keep an open ear to all willing participants in this sector.

Comparing these results with BC government findings emphasized the missed contributions of ENGOs in the government evaluation process. Substantive issues that were missed include recognition and protection of wetlands, incorporating water management in land use planning and decision making and concerns with the use of tradable permits. Provided the number of submissions reviewed by the BC government, the evaluation and interpretation of ENGO submissions was fair. As policy development moves forward, continued efforts should look to ensure that the multiple perspectives of these stakeholders are accounted for.

This research has provided a better understanding of the perspectives of ENGOs with respect to water management and governance in BC. The findings suggest that ENGOs

make a positive contribution to environmental policy considerations. ENGOs provide a voice to ecological needs, they fill a gap in environmental accounting by highlighting on the ground issues that are a result of existing legislation, and they provide for agency (government) accountability by calling out past actions to identify potential issues with new policy directions. Providing implementation strategies could strengthen their contribution.

4.5 Directions for Future Research

Further research could be carried out to provide a clearer understanding of the role of ENGOs in the BC *Water Act* reform process and in environmental planning and policymaking in general. Additional research is particularly needed to better understand how agencies evaluate public input in participation processes.

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Appendix A. Non-governmental organizations supporting the “Statement of Expectations on Reform of the BC Water Act.” Source: Province of British Columbia, 2010d.

1. Allouette River Management
2. B.C. Federation of Drift Fishers
3. BC Nature (Federation of BC Naturalists)
4. Burns Bog Conservation Society
5. Burke Mountain Naturalists
6. Canadian Parks and Wilderness Society
7. David Suzuki Foundation
8. Ecojustice
9. Environmental Law Centre, University of Victoria
10. Fraser River Coalition
11. Georgia Strait Alliance
12. North Shore Wetland Partners
13. Pacific Streamkeepers Foundation
14. POLIS Water Sustainability Project
15. Raincoast Conservation Foundation
16. Salmon River Enhancement Society
17. Shuswap Environmental Action Society
18. Sierra Club BC
19. Skeena Watershed Conservation Coalition
20. Smart Growth BC
21. Squamish River Watershed Society
22. Steelhead Society of British Columbia
23. T. Buck Suzuki Environmental Foundation
24. The Pembina Institute
25. WA:TER (Wetland Alliance: The Ecological Response)
26. Watershed Watch Salmon Society
27. West Coast Environmental Law Association
28. Wilderness Committee
29. WWF-Canada

Appendix B. List of ENGO Abbreviations.

Abbreviation	Organization
AVEA	Alberni Valley Enhancement Association
APLUK	Arrowsmith Parks and Land-Use Council
BCTWA	British Columbia Tap Water Alliance
BCWF	British Columbia Wildlife Federation
BCWF- Van. Island	British Columbia Wildlife Federation- Vancouver Island Region Association
CCConserv	Cariboo Chilcotin Conservation Society
CONC	Central Okanagan Naturalists' Club
Council of Can.	Council of Canadians
DSF	David Suzuki Foundation
Driftwood et. al.	Driftwood Foundation, ForestEthics, Friends of Wild Salmon, North West Watch, Skeena Watershed Conservation Coalition
DUC	Ducks Unlimited Canada
F in CHC	Freedom in Canadian Health Care
HPWS	Harrop-Proctor Watershed Protection Society
Hornby WS	Hornby Water Stewardship
IWFF- Submission 1	Island Waters Fly Fishers Club- Submission 1
IWFF- Submission 2	Island Waters Fly Fishers Club- Submission 2
Jewell Lake EPS	Jewell Lake Environmental Protection Society
Langley EPS	Langley Environmental Partners Society
McConnell Creek	McConnell Creek Ratepayers Association
NCES	North Columbia Environmental Society
PSF	Pacific Salmon Foundation
Pembina Institute et. al.	The Pembina Institute and ForestEthics
Perry Ridge	Perry Ridge Water Users' Association
Queens Bay	Queens Bay Residents Association
SRES	Salmon River Enhancement Society
SC-Quadra Island	Sierra Club- Quadra Island Chapter
SVWA	Slocan Valley Watershed Alliance
SWCS	Soil and Water Conservation Society
Stoney Creek	Stoney Creek Environment Committee
T Buck Suzuki	T Buck Suzuki Foundation
TAPS	Thornhill Aquifer Protection Study
Transition Nelson	Transition Nelson and Future of Food in the Kootenays Working Group
Trout Unltd. Can.	Trout Unlimited Canada- Kelowna Chapter
UniverCity	UniverCity Neighbours for Environmental Sustainability
UVIC ELC and LTA	University of Victoria Environmental Law Centre and Land Trust Alliance British Columbia

Abbreviation

WATER

WWSS

WCEL

West Kootenay

WWF Canada

Organization

Water Across Time our Environmental Responsibility

Watershed Watch Salmon Society

West Coast Environmental Law

West Kootenay EcoSociety

World Wildlife Fund- Canada