

British Columbia's

Water Act

Modernization

Report on Engagement



BRITISH
COLUMBIA

The Best Place on Earth

"British Columbians are proud
of our rivers, lakes, streams and watersheds and recognise that keeping
them healthy is important to all of us. A plentiful amount of clean
water is needed for our growing communities, economic growth,
healthy food, clean energy and our beautiful environment.

As a finite resource, water's limits must be recognized,
which means that the days of taking our 'unlimited'
supply of water for granted have passed."

Premier Gordon Campbell
Living Water Smart

Executive Summary

The British Columbia Government is looking at ways to modernize the *Water Act* to respond to new challenges that exist for managing our water, including dealing with population growth and climate change. Modernizing the *Water Act* is an important commitment in *Living Water Smart: BC's Water Plan*. A modernized *Water Act* will better protect our water resources, and helping to keep our environment, economy and investment climate strong for future generations.

In December 2009, the Government initiated its engagement process on *Water Act* Modernization by launching the Living Water Smart Blog. The purpose of the Blog is to provide information and a forum for British Columbians to discuss water issues and options for legislative change.

In February 2010, the Government invited submissions from British Columbians on a *Water Act* Modernization (WAM) Discussion Paper. The Discussion Paper proposed eight principles to underpin a modernized *Water Act* as well as four goals, supporting objectives and possible solutions. The Discussion Paper and a supporting Technical Background Report were developed to further encourage dialogue on ways to modernize the *Water Act* and describe opportunities for using, sustaining and managing water resources in our changing environment.

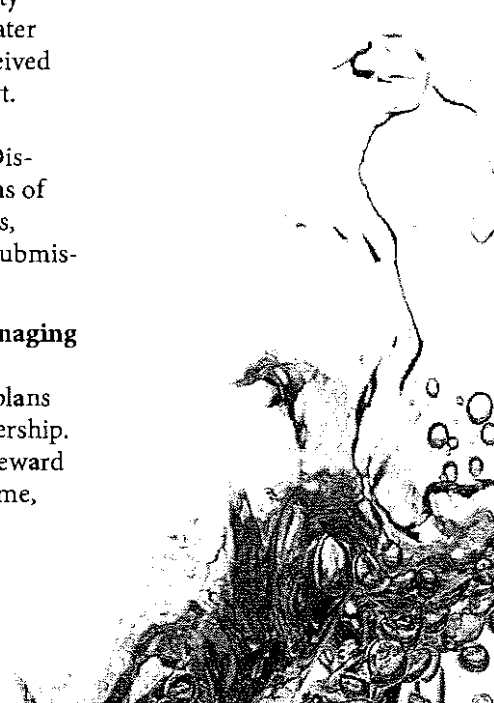
In addition to the Discussion Paper and submission process, the Ministry of Environment held a series of 12 one-day public workshops across the province during March and April 2010, including three sessions specifically for First Nations. The objectives of the workshops were to provide participants with contextual information about *Water Act* Modernization and explore potential solutions for water management.

In response, the Ministry received approximately 900 written submissions from a range of individuals, First Nation organizations and stakeholder groups. In addition, over 500 participants attended the *Water Act* Modernization workshops. Over 80 percent of submissions came from individual British Columbians. Formal submissions were made by a variety of sector groups including agriculture, energy, forestry, local government, mining, water industry, professional, community and environmental organizations. Comments received covered a broad range of interests and perspectives and are summarized in this report.

Overall, there was broad support for the eight principles and goals described in the Discussion Paper. Many submissions only addressed specific principles, goals and options of particular interest; others also provided valuable commentary on additional measures, concerns, suggestions as well as comments on the process itself. Key messages from submissions on *Water Act* Modernization included the following:

- **Develop clear standards, processes, responsibilities and expectations for managing BC's water.**

Respondents strongly supported standards-based, mandatory water allocation plans that are developed collaboratively, under the guidance of strong provincial leadership. Key to the success of these plans are proactive measures which encourage and reward efficient practices and reduce demand. This included calls to examine first-in-time, first-in-right and priority of use allocation options in times of scarcity.



- **Regulate groundwater extraction and use.**
Respondents who addressed this issue strongly supported the regulation of groundwater in BC. Recognition of the important connection between surface and groundwater was a recurring theme in many submissions.
- **Improve current water governance arrangements.**
Respondents strongly supported improving water governance but overall, expressed no clear preference for centralized, delegated or shared water governance options. Many submissions acknowledged that the specific approach will likely be a function of local conditions and interests, management issues and capacity. Respondents requested the opportunity to further evaluate the spectrum of options in greater detail.
- **Proactively protect drinking water, food production, clean energy and ecological health.**
Respondents called for a water allocation system that prioritizes drinking water, food production, clean energy production and protects ecosystems. There was strong support for environmental flow and stream health standards while promoting efficiencies and recognizing non-consumptive water use in industry.
- **Recognize land - water connection.**
Many respondents highlighted the land-water interrelationship and how land use practices affect water quality, quantity and timing of flow. There was substantial support for a modernized *Water Act* to protect watershed health in land use and resource development decisions and practices.
- **Balance ecological protection with economic priorities.**
Many submissions called for balancing these competing interests through adaptive standards and effective, enforceable rules, integrated with related legislation and fee equity practices to create clear expectations and certainty for all water users.
- **First Nations interests must be respected.**
First Nations view water of utmost importance and of high cultural and economic value. First Nations maintain that the WAM process does not meet the standards set in the *New Relationship* nor constitute meaningful consultation. These submissions maintained that further, continued dialogue is required.
- **The Province's timelines for modernizing the *Water Act* are too short.**
Most submissions requested more time and additional opportunities to comment on *Water Act* Modernization proposals before final options are recommended to Government.

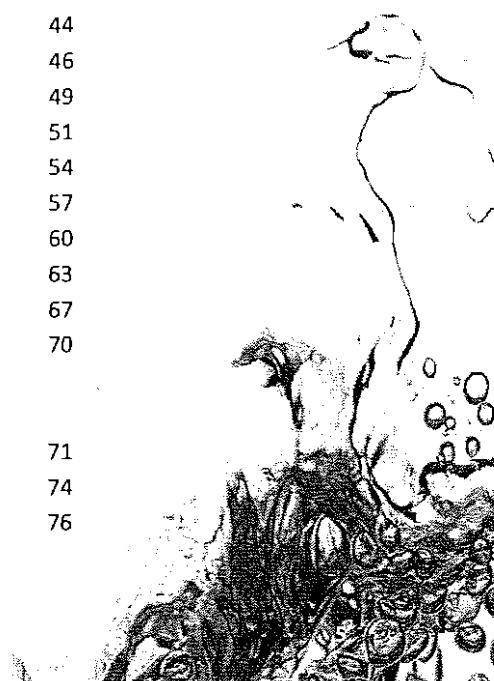
With help from experts and advisors in and outside of government, all feedback is being carefully considered and analyzed. Draft options to change the *Water Act* are currently being formulated. Further analysis of draft options will be undertaken on the costs, benefits, and the social, economic and environmental implications of proposed changes prior to making final recommendations to Government.

In reviewing this report, it is important to recognize the limitations of the analysis; the results are intended to illustrate broad trends, preferences and themes, rather than present detailed statistics. Moreover, government recognizes that some submissions were made by representative organizations or associations on behalf of many individuals or companies. As part of the Province's commitment to transparency, all submissions received are available online through www.livingwatersmart.ca. To protect privacy, personal contact information in these submissions has been removed.

Government will continue to use the Living Water Smart Blog, email updates and further releases to keep respondents, workshop participants and those interested in a sustainable future for BC's water, informed about the *Water Act* Modernization process.

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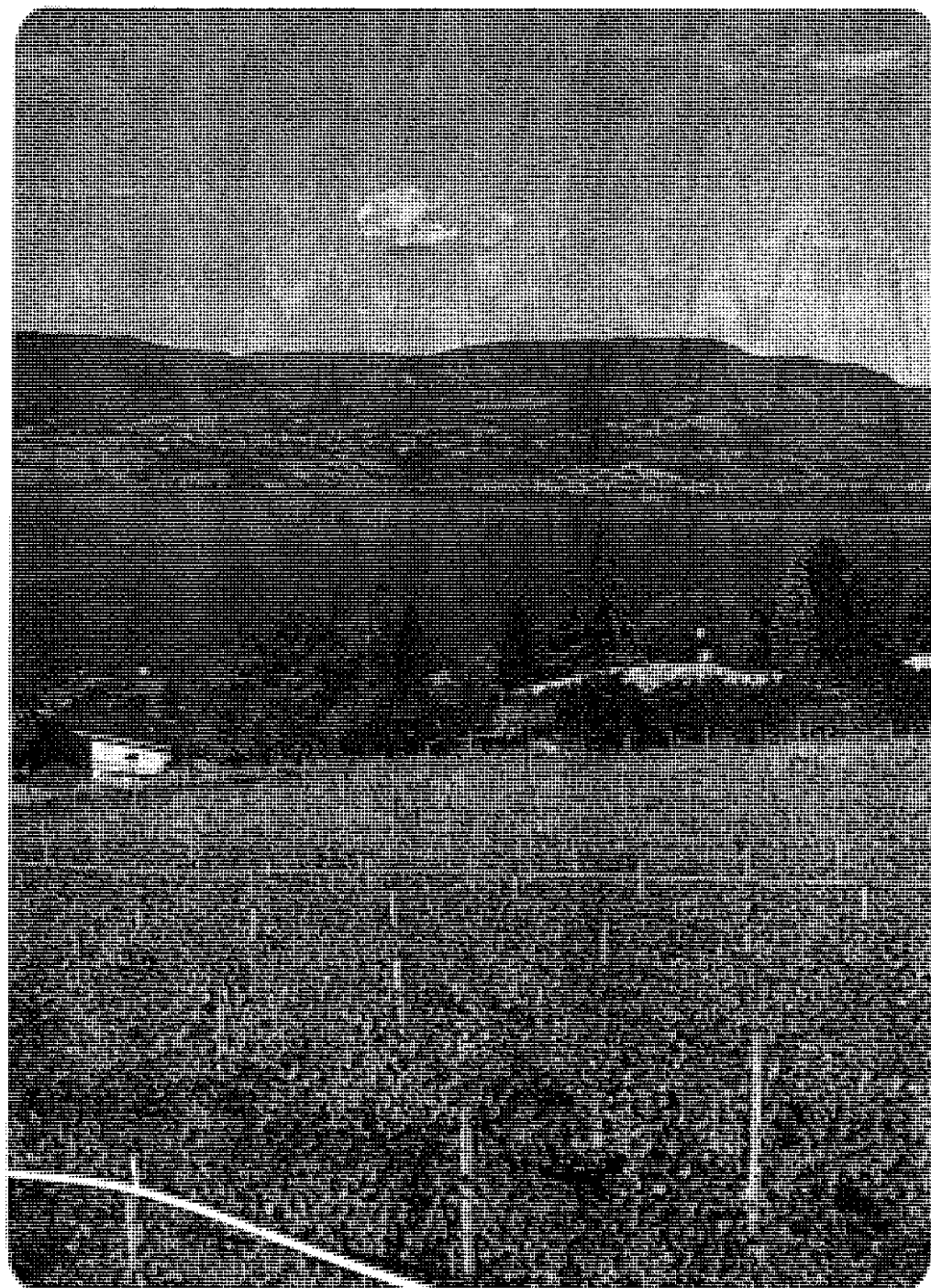
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Agriculture and urban
development in the
Okanagan Valley



PART ONE

Water Act modernization overview

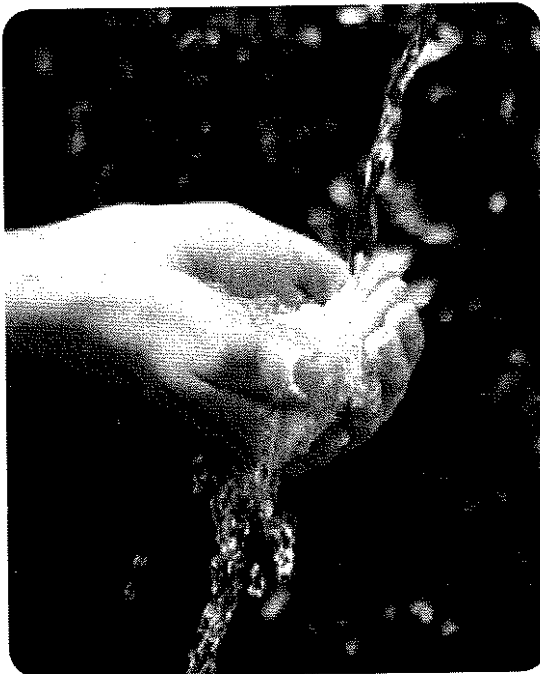
1 Introduction

The *Water Act* is the primary law in British Columbia for managing our water resources and has a key role in ensuring the sustainability of BC's water resources. Under the *Water Act*, government makes decisions on licences to divert and use water in streams (water allocation); the construction of works or other changes in and about a stream; and any change or transfer of water licences. Water management planning, water allocation planning and drought management are included in the *Water Act*.

Government is looking at ways to modernize the *Water Act* to respond to new challenges that exist for managing our water, including dealing with population growth and climate change. Modernizing the *Water Act* is an important commitment in *Living Water Smart*, BC's *Water Plan*. A modernized *Water Act* will better protect our water resources, thereby helping to keep our environment, economy and investment climate strong for future generations.

In February 2010, government released the *Water Act* Modernization Discussion Paper. The Discussion Paper and an associated Technical Background report describe opportunities for using, sustaining and managing water resources in a changing environment. They were developed to encourage dialogue on ways to modernize the *Water Act*. The Discussion Paper proposed principles to underpin a modernized *Water Act* and presented goals, supporting objectives and possible solutions.

This Report on Engagement provides a summary of the comments received from stakeholders, First Nations and individuals in response to the Discussion Paper. This report is also informed by the extensive dialogue that occurred during multi-stakeholder and First Nations workshops held in March and April 2010. The report provides an overview of the public input that is being considered by government in modernizing the *Water Act*. The report does not include all detailed comments but intends to capture trends, themes and key themes expressed in the submissions and at workshops. Also, the report and the associated summaries do not reflect government's position on any aspect of *Water Act* Modernization.



All submissions received through the engagement process are listed in Appendix One to this report and are available along with workshop summaries and background information on the Living Water Smart website at www.livingwatersmart.ca.

2 Organization of this report

Part One of this report describes the *Water Act* Modernization process, engagement opportunities and provides an overview of participation. Then, it outlines what participants shared through the *Water Act* Modernization engagement process in two ways.

Part Two – *What we heard: Principles & Goals* – presents feedback on the principles and goals. Graphs and content illustrate the overall trends as expressed by all submissions. Input received through dialogue at multi-stakeholder and First Nations workshops is also referenced.

Part Three – *What we heard: Sector-level Reports* – provides a more detailed picture of the perspectives on principles and goals as shared by different sectors. Inputs from regional workshops are tied to stakeholder findings where applicable. The stakeholder and First Nations reports illustrate the broad diversity of perspectives on WAM and provide a closer look at the interests, preferences and key messages of each group.

Finally, Part Four – *Appendices* – includes a list of submissions received and details on the regional multi-stakeholder and First Nations workshops. It also includes a list of the proposed *Water Act* Modernization goals, objectives and principles for reference.

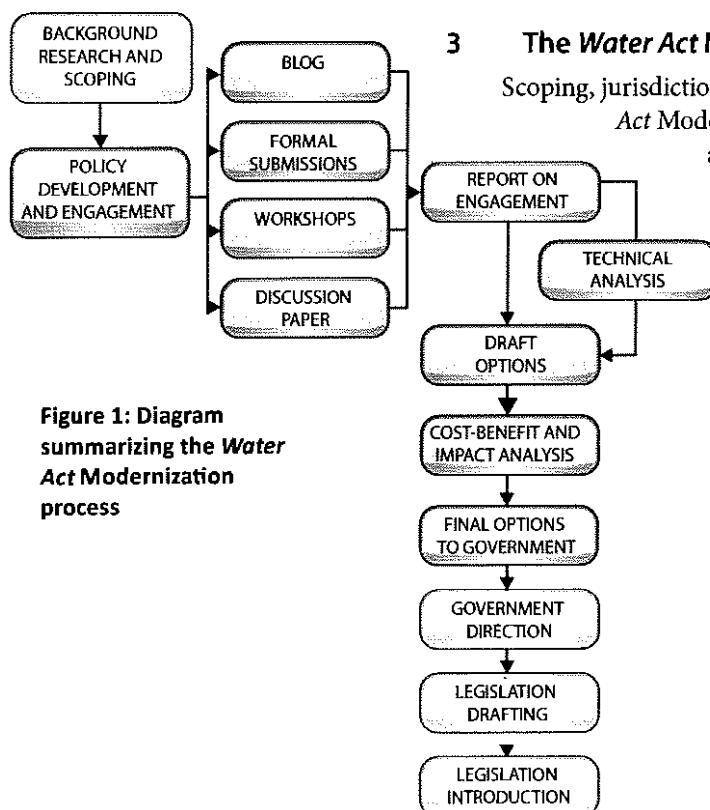


Figure 1: Diagram summarizing the *Water Act* Modernization process

Scoping, jurisdictional review and background research for *Water Act* Modernization was completed in 2009 and included a review of science and monitoring information as well as Canadian and international best practices.

As described in this report, the views of stakeholders, First Nations and individual British Columbians were gathered through the blog, workshops, and by formal submissions on the Discussion Paper.

The input was reviewed, analyzed and summarized into this Report on Engagement. The report along with all submissions, workshop results and other input is being assessed using the proposed principles and objectives under each goal area.

With help from internal and external technical experts and advisors, public input is being carefully considered and further analyzed.

Draft options to change the *Water Act* are being formulated. Further analysis of draft options will be undertaken on the costs, benefits, and the social and environmental implications of proposed changes.

Final options will be recommended to Government for consideration and final decisions will be made through the BC Government parliamentary and law-making process.

4 Engagement opportunities

The BC government recognizes the value of engaging citizens in policy development and understands that there is a diverse range of interests and perspectives on a modernized *Water Act*. Objectives of the engagement process were to:

- Provide opportunities for First Nations, stakeholders and the public to participate in modernizing the *Water Act* and help shape water policies;
- Demonstrate transparency and inclusiveness in the policy development process; and
- Build trust and align relationships for collaborative water stewardship and Living Water Smart implementation

Public engagement on modernizing the *Water Act* occurred from mid December 2009 to early May 2010 and included the key elements described below.

Moderated Blog and website

The Ministry of Environment launched the Living Water Smart Blog and an updated website on December 16, 2009. The Blog provides a forum for British Columbians to discuss the Living Water Smart plan including the commitment to modernize the provincial water laws. The Blog is also used to provide regular updates on the WAM process. The website complemented the Blog and included background material and references on the modernizing the *Water Act*. From December 2009 to April 2010, the Blog received a total of 6,214 visits. In addition, seventeen blog posts generated 108 public comments which ranged from detailed WAM submissions to inquiries on the engagement workshop locations.

The Living Water Smart website also offered visitors the opportunity to use an online feedback form to prepare their WAM submission. A total of 95 submissions were collected through the online feedback form. When combined, feedback provided through the Blog and via the online feedback form accounted for nearly 20 percent of total WAM submissions.

Discussion paper and submission process

A Discussion Paper was released in February 2010 to stimulate discussion on modernizing the *Water Act* and help British Columbians prepare their comments and submissions. The Discussion Paper was supported by a Technical Background Report released in March 2010.

Over 1,500 copies of the Discussion Paper were distributed during the period from February to May 2010. Copies of the Discussion Paper were also sent to all 203 First Nations organizations and a further 1,600 copies were downloaded from the Living Water Smart website.

In response to the Discussion Paper the Ministry received many substantive and thoughtful comments from across the province. In total, the Ministry received 899 submissions

from a wide range of stakeholder groups, individuals and First Nations organizations. Comments were submitted by email, fax, mail and via an on-line feedback form that was accessible from the Living Water Smart website.

Figure 2: Summary of written submissions on *Water Act* Modernization

<i>Submission Type</i>	<i>Stakeholder Groups</i>	<i>First Nations Organizations</i>	<i>Individuals</i>	<i>Total</i>
Email	125	5	578	708
Fax/Post	23	10	11	44
Blog comment	10	0	42	52
On-line Form	16	0	79	95
Total	174	15	710	899

Regional workshops

The Ministry delivered a series of 12 workshops around the province during March and April 2010. Three of the workshops were organized specifically for First Nations. The purpose of the full-day sessions was to interact face-to-face with British Columbians to share information, discuss principles for a new *Water Act*, and explore opportunities for change.

The facilitated workshops included presentations, breakout sessions and plenary discussions. Policy development staff from the Ministry of Environment were directly involved in workshop delivery a dialogue. This helped to ensure that staff heard the interests and ideas expressed by participants first hand.

Workshops were promoted through the Blog, a stakeholder email list, a press release, and via direct mail and telephone. In total, over 500 participants attended the 12 sessions and included participants representing a range of interests and regions of the province.

Figure 3: Overview of workshop opportunities and participation

<i>Date</i>	<i>Workshop Location</i>	<i>Registrants</i>	<i>Participants</i>
March 5	Nanaimo	109	91
March 8	Prince George	29	21
March 11	Kamloops	61	54
March 12	Kelowna	105	82
March 29	Langley	67	46
March 31	Kamloops*	31	28
April 1	Nanaimo*	24	17
April 13	Smithers	24	13
April 14	Terrace*	24	26
April 16	Nelson	101	78
April 20	Fort St. John	51	48
April 21	Vancouver	107	78
TOTAL		654	511
*First Nations sessions			

Other engagement activities

As part of the engagement process Ministry of Environment staff also met with representatives of other provincial ministries as well as federal government agencies including Environment Canada and Fisheries and Oceans Canada. In addition, the Ministry of Environment worked with the Union of BC Municipalities (UBCM) to ensure local government was made aware of the WAM process, Discussion Paper and opportunities to participate. Specific activities included

a workshop at the 2009 UBCM Annual Conference and four conference calls with local government associations during February 2010.



Stakeholders participate in a workshop break-out session.

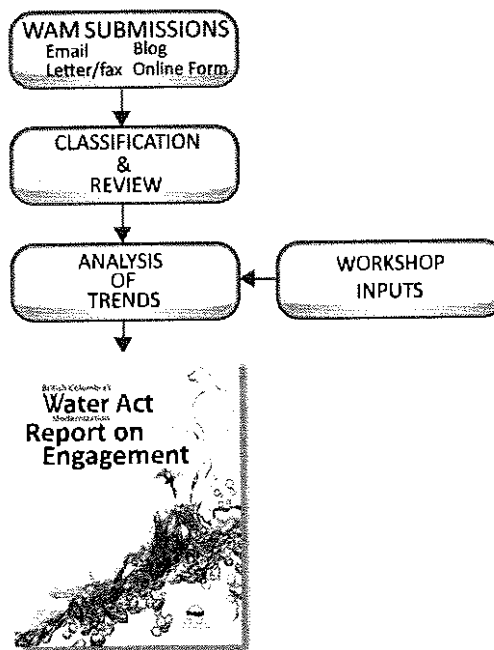
During the engagement period, the Ministry of Environment responded to a number of formal requests from stakeholder groups who wanted to discuss their ideas and comments on *Water Act* Modernization. Although Ministry staff were unable to accommodate all requests, presentations were made to the Salt Spring Island Water Council, Canadian Water Resources Association, Partnership Committee on Agriculture and the Environment, Cowichan Watershed Board and the Association of Kootenay Boundary Local Government.

5 How input was managed

Over the course of the WAM engagement period, almost 900 unique submissions were received and over 200 pages of workshop feedback were collected.

In order to organize the large number and wide range of comments, the submissions were assigned to one of 11 broad stakeholder categories as well as a specific category for Individuals and First Nations submissions. These categories were used for analysis purposes and were based on submitters self-identifying as a representative of a particular group or organization. Submissions that did not self-identify or were not affiliated with a specific organization or group were classified as "Individuals." In total, Individual submissions comprised the largest proportion (over 80 percent) of total submissions received. Individual submissions were further classified into five sub-categories, and included four different "shared-form" submissions similar to form letters. Appendix One

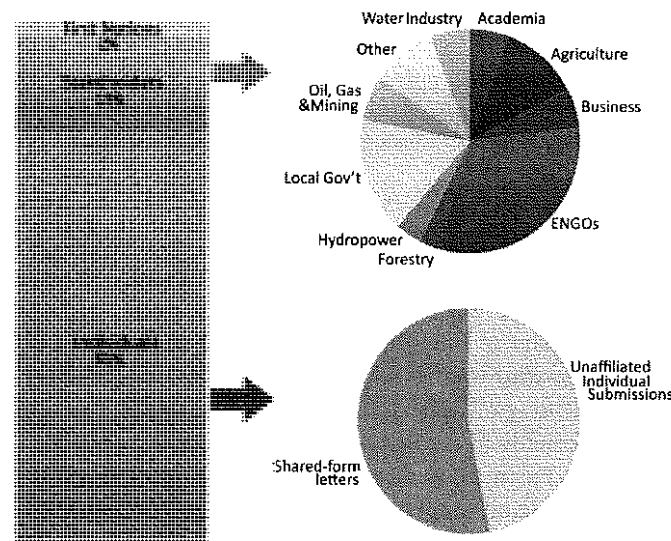
Figure 4: Process for developing the Report on Engagement



of this report contains a list of the stakeholder groups and First Nations organizations that made submissions.

A database management system was used to manage and track the information generated through the engagement process. Submissions in each stakeholder or First Nations category were systematically reviewed by Ministry of Environment policy analysts, including staff directly involved in developing water policy options.

Figure 5: Water Act Modernization submissions received by sector



Principal themes and concerns from each submission were also identified and captured during the review of submissions and entered into the database. Some of the input received, such as the number or percentage of submissions that supported a given WAM principle, could readily be quantified. However, much of the comment in submissions was qualitative, for example policy

suggestions or the expression of concerns about the direction that water policy may take in BC. 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.

It is important to note that many respondents did not provide specific comments on all aspects of the WAM principles, goals and objectives, but instead chose to focus on areas of highest concern to their organization or to them personally. Where there was no specific response, Ministry analysts would record "no comment" in the database. The Ministry did not interpret "no comment" as indifference to a particular topic, or use this as a measure of importance British Columbians attached to a topic. Rather, the Ministry concentrated its assessments of these areas using only those definitive comments it received.

Once all the submissions were entered into the database, the Ministry was able to generate summary reports showing general trends and levels of support for the WAM principles, goals and options proposed in the Discussion Paper. Overall trends were determined and further analysis enabled an assessment of general trends and preferences for each stakeholder group, First Nations and Individual submission categories. This approach also helped to identify conflicts as well as similarities in preferences on WAM topics among the different sectors. Many of these summaries form the basis of this Engagement Report.

Feedback and comments from the *Water Act* Modernization workshops were not included in the database, but are available in Appendix Two of this report. Workshops were

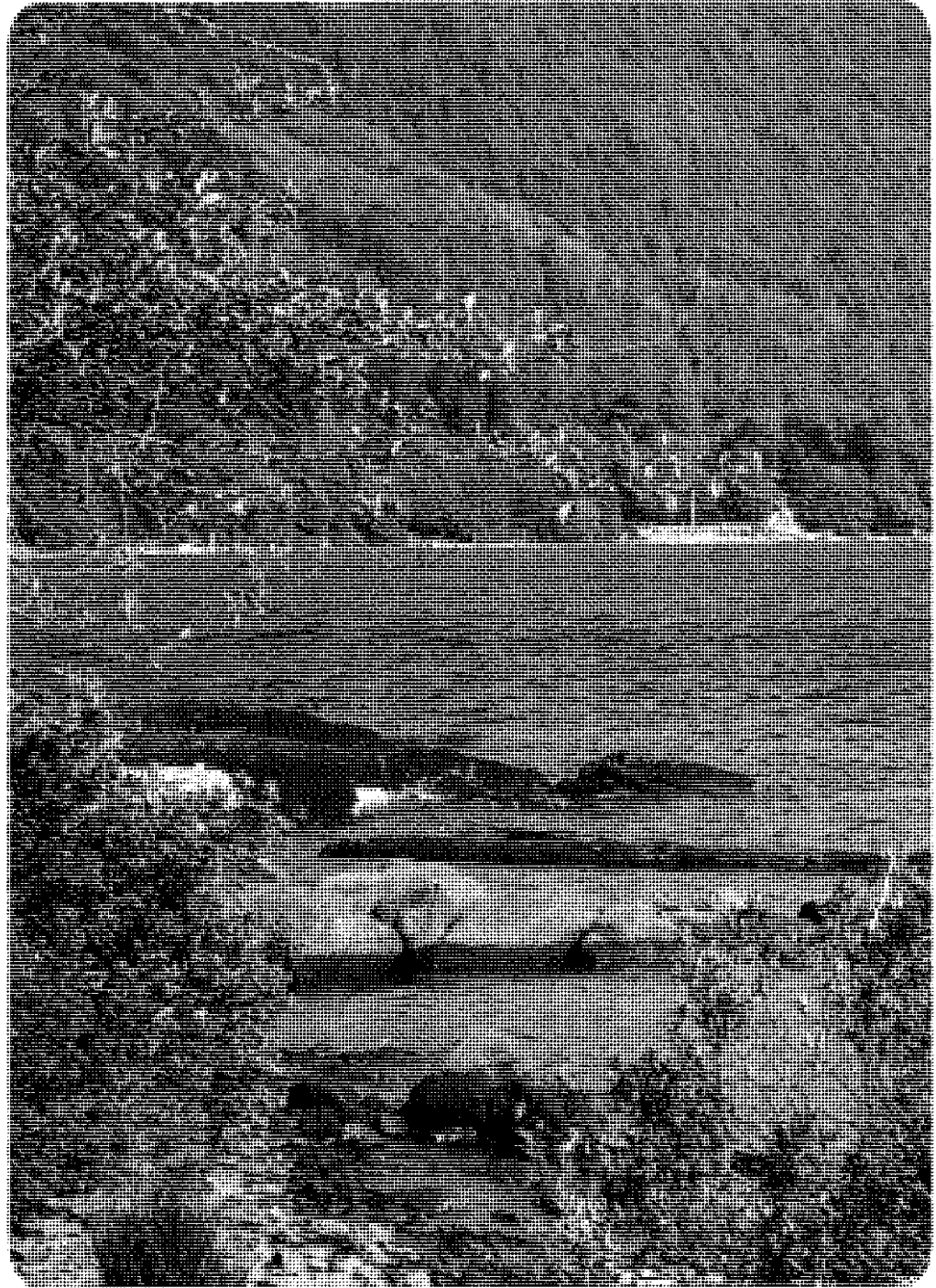
largely information sharing sessions and feedback from these sessions was summarized in a more general way. The results of the workshops also provide a valuable means for confirming trends and concerns revealed by the analysis of written submissions.

It is important to recognize the limitations of the analysis and note that the results are intended to illustrate broad trends, preferences and themes, rather than detailed statistics. Moreover, some submissions were made by representative organizations or associations on behalf of many individuals or companies. For example, a single submission made by a watershed stewardship group or industry association may represent the views of hundreds of individual members. While analysts considered this reality in their review of submissions, no attempt was made to adjust the data based on the size or membership of the organization.



Ministry of Environment staff reviewed thousands of pages of feedback

View of Cowichan Lake



PART TWO

What we heard - Principles & Goals

6 Principles

The Discussion Paper proposed eight principles to underpin a modernized *Water Act*. Over the course of the engagement period, British Columbians provided substantial input on the principles. Although not all WAM submissions commented directly, over 60 percent of submissions provided feedback on the principles. Principles were also discussed at all regional workshops and received extensive review at the First Nations session in Nanaimo.

With the exception of Principle 5, the principles were well-supported by a strong majority of respondents. Principles 5 and 7 attracted comment most frequently. In submissions and at some workshops, respondents questioned whether the frequent use of terms like “investors” implies that business interests are a higher priority than ecosystem maintenance in a modernized *Water Act*.

Principle 5 consistently attracted concern from many sectors, with the strongest reaction coming from Individuals. Overall, a majority of respondents do not support the principle and the language used frequently elicited a strong reaction. In particular, comments indicated that the term “predictable investment climate” should be more clearly defined or removed from the principle.

Principle 7 was supported by most stakeholder groups, although with notable pockets of concern. Like Principle 5, the most common concern communicated was a request for clearer language and definitions of terms such as “investment,” “investors” and “incentives.” Some stakeholders suggested including water re-use in Principle 7 while others identified specific incentives to encourage conservation.

Although Principles 5 and 7 received the highest degree of comment from the stakeholder engagement process, others received feedback as well.

Regarding Principle 1, some respondents requested a clearer definition for the term “sustainable limits,” while others argued that the principle should more explicitly promote the preservation of aquatic systems including wetlands. First Nations indicated that meaningful consul-

Proposed *Water Act* Modernization Principles:

1. BC’s water resources are used within sustainable limits.
2. First Nations social and cultural practices associated with water are respected and accommodated.
3. Science informs water resource management and decision making.
4. Water resource legislation, policy and decision making processes as well as management tools are integrated across all 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 help protect stream health.

“Principles 5 and 7 must recognize that the concerns of those investing human, social and cultural capital must be addressed along with those of individuals investing paper (financial) capital.”

Individual Submission

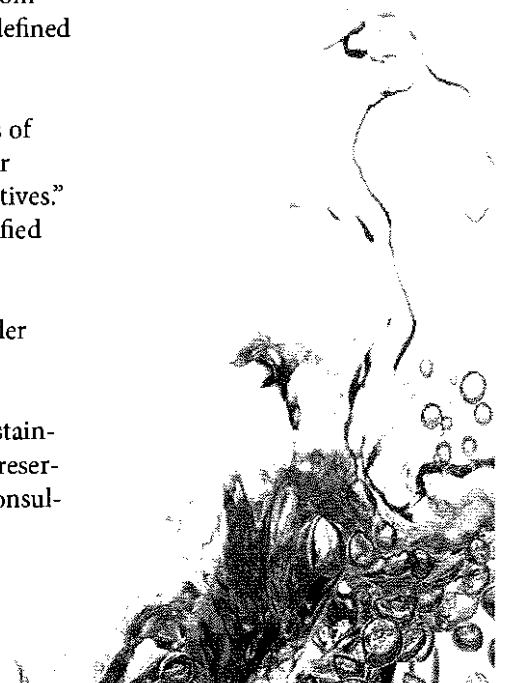
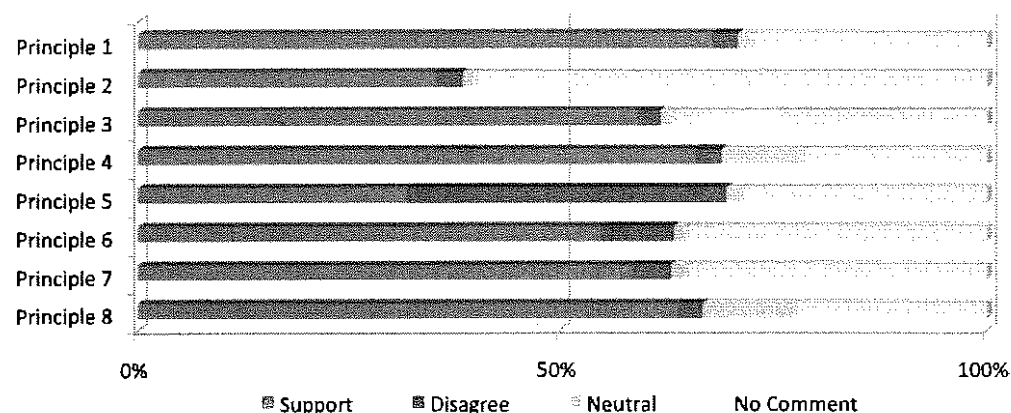


Figure 6: Overall response to the proposed *Water Act* Modernization principles from WAM submissions*



Principle 1

"All decisions regarding resource extraction activities and other activities in consumptive use watersheds need to put the precautionary principle first, meaning that any proposed activity must prove that it will do no harm to water quality, quantity, or timing of flow."

Herb Hammond
Silva Ecosystem Consultants Ltd.

* As illustrated in the figure above, a number of submissions did not directly comment on all principles. Principle 2 has a particularly low response rate. Those who did comment generally supported the proposed principles, with the exception of Principle 5.

tation is essential to the process of defining "sustainability." Many workshop participants and submissions also suggested that Principle 1 should reference the "precautionary principle," which they emphasize should be employed until "sustainable" is clearly defined within ecologically-based hydrologic limits. A common theme among most submissions and at workshops was an emphasis on taking an ecosystem-first approach to define sustainability.

Although Principle 2 received support overall, First Nations indicated that the language should also reflect their diverse ceremonial and economic interests. First Nations asserted that aboriginal title and rights are protected under Section 35 of the *Constitution Act of Canada*. First Nations indicated that they have unextinguished rights and title that include land and water. Further, they pointed to the principles in the *New Relationship* and shared decision-making as essential building blocks. Conversely, other groups suggested that *Water Act* Modernization is a public trust and suggested that all sectors, including First Nations, will need to change consumption behavior to make sustainable and responsible decisions regarding water resources.

Principle 3 was strongly supported by most submissions and in dialogue at workshops. A common theme was support for increased data collection, monitoring and transparent reporting. Some feedback expressed the need for further conversation regarding the definition of "science." Respondents suggested that science should include indigenous knowledge, best available technology and independent scientific research. As with Principle 1, a common suggestion that appeared throughout submissions and at multi-stakeholder workshops was the need to employ the precautionary principle where science is unclear.

Principle 4 was generally supported by most stakeholder groups and individuals. Submissions and workshop participants expressed strong support for more streamlined legislation, policy and decision-making. Many suggested that a modernized *Water Act* should take precedence over other legislation. First Nations expressed strong concerns regarding provincial jurisdiction to unilaterally govern and manage water in the province and suggested that First Nations should be specifically recognized in the language of the principle. Other submissions cautioned that great care is necessary to "avoid abuse of power at any level" and that changes should be "integrated across all levels of government to address the lack of

The *New Relationship* is a process by which the provincial government and BC First Nations organizations are working together towards shared goals founded on respect, recognition and reconciliation of Aboriginal rights and title.

integration within each government level.”

Principle 6 was generally well supported in feedback. Some stakeholders who disagreed with Principle 6 encouraged the use of stronger language and more explicit reference to adaptability in the face of climate change. Others took exception to the use of the word “flexibility” suggesting that it may provide loopholes in legislation or enforcement resulting in environmentally damaging development. Conversely, others suggested that “flexibility” might introduce a greater risk to projects that require large capital investment and are made on the basis of a stable water supply. Comments from both perspectives stressed the need for clearly-defined, consistent and dependable standards.

Principle 8 was well supported by the majority of submissions and in dialogue at regional workshops. Frequently, those who disagreed with the principle did so because they wanted to see stronger language. Some suggested that the responsibility to protect water should be a mandatory component of rights to water use. As with Principle 1, some respondents suggested that Principle 8 should encourage an “ecosystem first” approach, which is broader than stream health. However, the Mining sector indicated opposition to the principle. Mining stressed that additional responsibilities to protect stream health should not create an inequitable burden for individual water users.

Missing from principles

During the WAM engagement process, submissions and workshop participants suggested additional themes that should be included in the principles shaping a modernized *Water Act*. Dominant themes suggested considering the following:

- Water should be a basic human right not a commodity and must be held in the public trust.
- Water for human consumption and ecosystem protection should take higher priority than business interests.
- The true value of water should reflect economic, ecological, social and cultural factors.
- Establish a priority-of-use framework that prioritizes human consumption, food security and ecosystems.
- Employ an adaptive management approach to respond to climate change impacts.
- Include an enforcement principle and create legislation “with teeth.”
- Include public education, clear communication and outreach campaigns to better engage the public.

Principle 6

“Business arrangements and investments are based on the current system and any changes could be very disruptive.”

Richard Deane
Teck Metals Ltd.

“The sixth principle discusses flexibility. While flexibility is often more desirable than rigid and unbending rules, strong guidelines are required to prevent abuse.”

Individual Submission

7 GOAL ONE

Protect stream health and aquatic environments

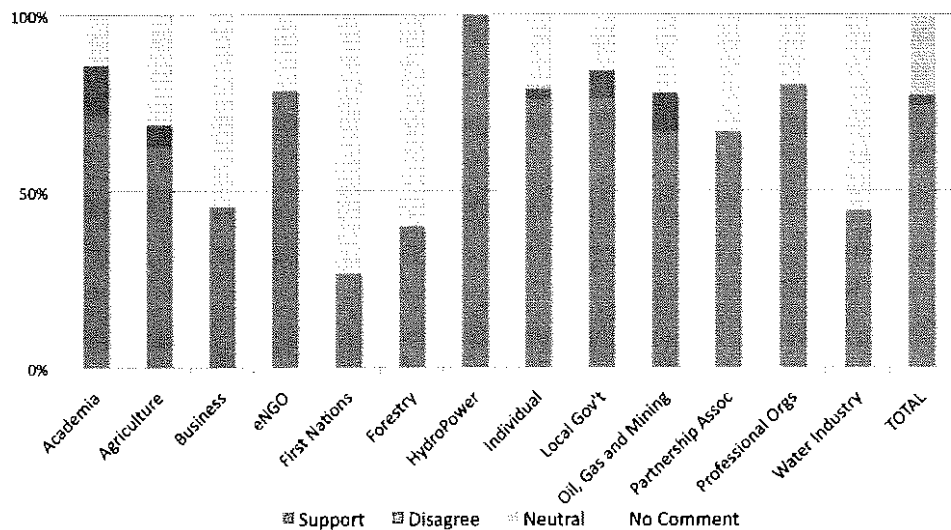
Protecting stream health relies on effective governance, laws, and management to regulate the wide range of activities that may degrade stream health. To protect stream health, the Discussion Paper proposes options for: how environmental flows can be included in decisions; including water allocations plans in the *Water Act*; and improving protection of aquatic habitat and riparian areas. Specific details on Goal 2 including background on environmental flows can be found in the Discussion Paper and are not repeated here.

Overall, strong support for Goal 1 was expressed in written submissions and at the workshops. Protecting stream health and aquatic environments was the goal that was most strongly supported and addressed with greatest frequency and is clearly a priority of British Columbians. Figure 7 illustrates the response to the goal statement of protecting stream health and aquatic environments by stakeholder group and for First Nations. More detail on the comments of stakeholders and First Nations can be found in Section 4 of this report.

"The development of mandatory environmental flow standards is the only effective way to protect stream health."

Mike Donnelly
Regional District of Nanaimo

Figure 7: Response to the proposed Goal 1 objectives from WAM submissions by sector



Despite the broad support, several areas of disagreement emerged during a review of the submissions. Written submissions included concerns that maintaining environmental flows, water allocation plans and dumping prohibitions may not be sufficient to protect aquatic environments. Academic and Education stakeholders suggested that the Province lacks the resources to enforce the proposed environmental flow measures. Similarly, a number of Local Government stakeholders noted that they lack the resources to enforce new protections should that responsibility fall to them. Some Individual submissions suggested that proposed environmental flow measures are not sufficient to safeguard stream health and that the governance arrangements proposed in Goal 2 would enable off-loading and poor

delivery of enforcement responsibilities.

Some Agriculture stakeholders suggested that stream health and environmental flow standards could place the health of aquatic environments at a higher priority than food production and food security. The Mining sector expressed concern that the Goal 1 protections as proposed in the Discussion Paper create an imbalance between environmental flows and economic benefits of industrial water use. First Nations generally supported Goal 1, but did not endorse the WAM process which they feel is inconsistent with the *New Relationship*. Forestry stakeholders suggested that existing forest practices legislation already provides sufficient environmental protections.

Regarding how environmental flows should be considered in decisions (Objective 1), the Discussion Paper presented two options—Environmental Flow Standards or Environmental Flow Guidelines. Of those who commented, a strong majority of respondents expressed a preference for standards, with many suggesting that guidelines are too flexible or otherwise not enforceable (Figure 8).

Objective 2 of the Discussion Paper addresses water allocation plans, whether their development should be optional or required and how plans are used by decision makers. Overall, a majority of submissions indicated that decision makers should be required to follow mandatory allocation plans, and noted that these plans are a core foundation for any future success in protecting BC's water resources. In addition, some respondents qualified their support for mandatory allocation plans, pointing to the importance of collaborative approaches with all stakeholders during plan development, administration and enforcement.

Figure 8: Response from all submissions to proposed options for how environmental flow should be considered in decisions

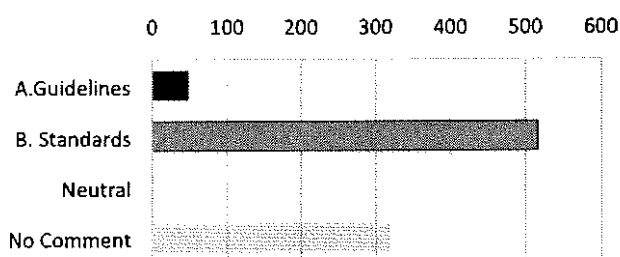
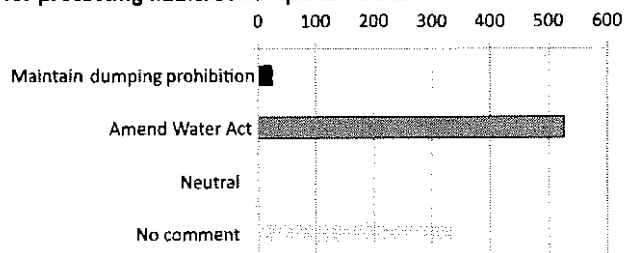


Figure 9: Response from all submissions to proposed options for protecting habitat and riparian areas



Regarding aquatic habitat and riparian area protection, a large number of submissions supported strengthening prohibitions against dumping debris and materials into streams (Figure 9). However, comments in written submissions suggested there was confusion between the two options as proposed in the Discussion Paper, with a number of respondents questioning the differences between the two.

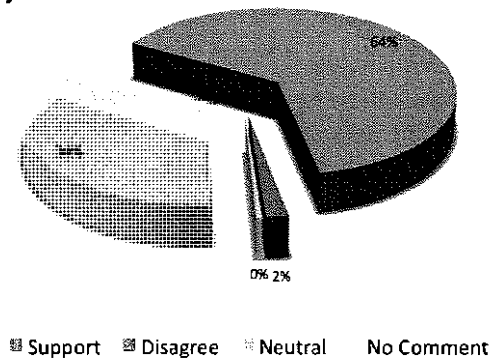
Other submissions advocated expanding environmental protection beyond general prohibitions on dumping to ensure that all water sources can be protected. Still other submissions, particularly those from resource development sectors, suggested that other legislation already establishes sufficient environmental protections and recommended that any additional provisions must be harmonized with existing legislation to ensure clear responsibilities and avoid jurisdictional overlap.

Improve water governance arrangements

Water governance includes the laws and regulations, all levels of government, the agencies and institutions that are responsible for decision-making, and the policies and procedures that are used to make decisions and manage water resources. Governance also includes the way that science, information, community and traditional knowledge inform these laws, policies and decisions.

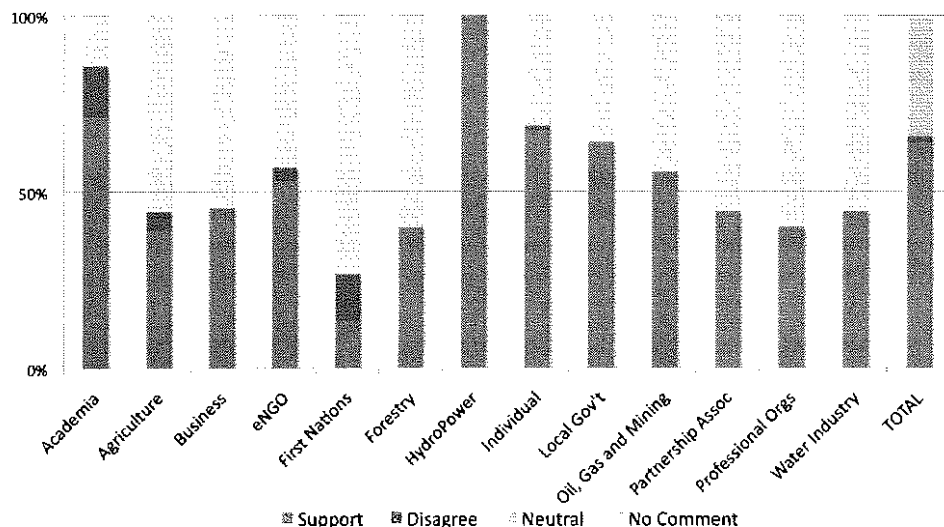
WAM respondents as a whole appeared to interpret water governance as the authority to control water use. The majority of WAM submissions that addressed Goal 2 support updating governance structures. At workshops as well as in many submissions, the current governance arrangements were described as overly complex and not responsive enough to changing climate or the evolving needs of British Columbians. Consistent with comments on Goal 1 regarding protection of stream health, the majority of submissions maintained that there is a need for clear and enforceable standards. Many suggested that new, streamlined governance arrangements play a necessary role in fulfilling this need.

Figure 10: Overall response to the proposed Goal 2 objectives



First Nations expressed the greatest concern about new governance structures. Few First Nations submissions commented directly on the governance models proposed in the Discussion Paper. Those who did comment asserted that Aboriginal right and title must be

Figure 11: Response to proposed Goal 2 objectives from WAM submissions by sector



resolved before First Nations can support any changes to governance structures.

Feedback from Academia and Education suggested that inclusive structures are vital to successful governance improvements. Agriculture and ENGO stakeholder groups raised similar concerns. Submissions from these groups identified specific challenges in ensuring that those affected by changes to the governance structure have a role in determining the new structure, and an on-going place in the new governance model.

The strongest support for Goal 2 came from the Hydropower and Oil & Gas stakeholder groups, as well as from Individual submissions. However, comments from these groups were consistent with concerns from groups who expressed lower levels of support. Regardless of sector affiliation, support seemed to depend on interpretation of options presented in the Discussion Paper. Where groups interpreted the proposed development of new governance structures as being collaborative and including local involvement, there was frequently strong support for the objectives. In spite of high-levels of support for the Goal 2 objectives, stakeholder views were highly varied about what provincial water governance should look like.

Proposed governance approaches

Overall preference for governance arrangements was divided among all three options, which included a Centralized, Shared or Delegated Approach. Although there was no clear preference expressed for a single governance model, most submissions expressed a need for consistent standards, resources and clear enforcement, which some maintained is best coordinated on a provincial level. Most respondents also indicated the desire for greater local-level involvement in planning, which may help reduce local-level conflicts with centralized decision-making.

Figure 12: Response to options for improving water governance, all submissions

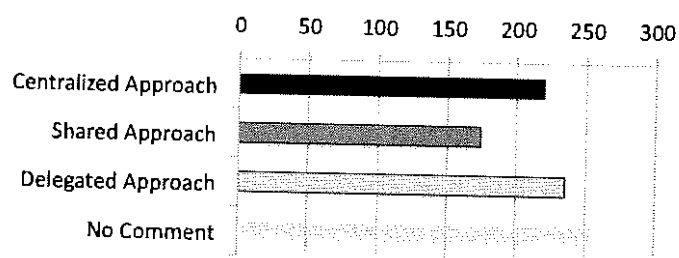
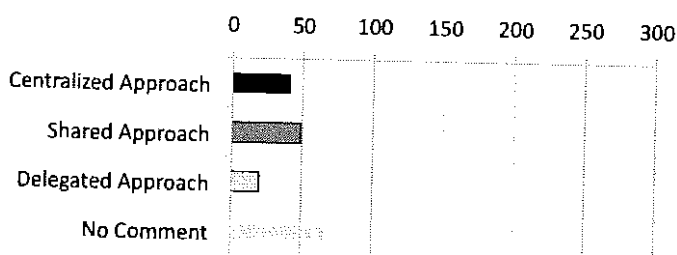


Figure 13: Response to options for improving governance arrangements, excluding Individual submissions



Submissions and feedback from workshops suggested that effective water governance should be efficient, inclusive, harmonized with other acts, and retain authority and responsibility. Comments from all groups revealed support for streamlining processes and clarifying jurisdiction. A majority of submissions supported strategic water planning on a watershed level, but suggested that establishing watershed boundaries may be an area where conflict will arise. The need for a clearer, consistent, and transparent communication plan with regards to decision-making was also expressed.

Individuals provided the bulk of feedback on governance models. Their high level of support for the Delegated Approach to decision-making was in contrast with the Centralized or Shared options preferred by most other groups. When Individual responses are removed, as in Figure 13, the Shared Approach is the most strongly supported.

Submissions that supported the Shared or Centralized Approach indicated that maintaining a central agency with more opportunities for including local knowledge and experience is preferred. Those who supported the Centralized Approach maintained that a Shared or Delegated approach could create jurisdictional overlaps, resulting in inefficiencies and introducing a higher level of risk to the infrastructure investment climate.

Supporters of the Delegated Approach envision that a delegate-run central agency would work in a provincial framework and be guided by collaboratively determined, mandatory, provincial standards. Submissions that are supportive of a Watershed Agency support a semi-independent governing body. This body would include representatives from all groups within the impacted area and would collectively determine how water is used, ensuring that water is managed responsibly.

Funding source suggestions

Regarding funding options for a new governance model, many respondents called for a self-sustaining funding structure. Feedback suggested appropriate resourcing for data collection, monitoring wells and infrastructure in order to meet conservation objectives.

Suggestions for specific approaches on how to fund these programs were varied and often partnered with concerns for the impact of funding models on specific user groups. An underlying sentiment among submissions was that funding solutions should be equitable.

Although some feedback from submissions and workshops supported licence fee increases, support was not consistent. Licence holders were concerned about additional costs. Most frequently, feedback from submissions and workshops suggested a more aggressive water pricing policy or a user-pay approach, such as the inverted block pricing structure which is used in the pricing of electricity. This suggestion was met with concerns from traditional large-scale water users, like those in the Agriculture stakeholder group, who stressed that increases in water pricing might reduce their competitiveness and viability. Some large-scale users, like those in the Hydropower stakeholder group, proposed alternative fee structures that price water based on consumptive use, not volume, so as to avoid penalizing non-consumptive use or use of non-potable water by industry.

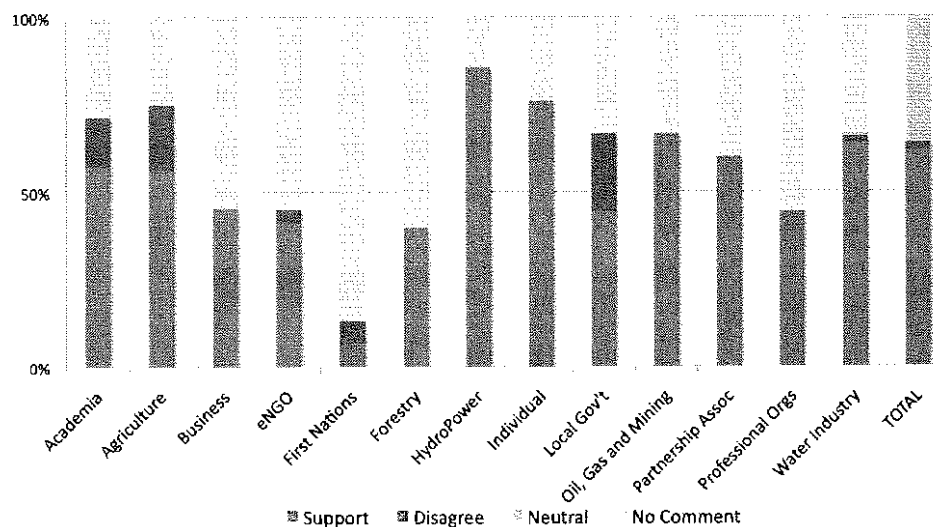
Others recommended that pricing changes not be based entirely on willingness to pay, but should instead consider a collaboratively determined priority-use structure that reduces costs for priority consumptive uses like drinking water and food security. It was clear from many submissions that any introduction of water pricing models should protect BC's water as a public resource.

Introduce more flexibility and efficiency in the water allocation system

BC's current water allocation system defines access to the right to divert and use surface water from streams in a predictable way that has facilitated settlement, agriculture and economic development. It was designed for a time when the population was small and water shortages were not common. Like many western provinces and states, the *Water Act* adopted the 'First-in-Time, First-in-Right' (FITFIR) method of water allocation which assigns 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. This means there are limited ways to review the terms and conditions of licences and adjust them in response to new information or conditions.

The Discussion Paper describes 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 so they can be adjusted in response to new 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 optimize the use of their water and encourage the uptake of efficient tools, practices and infrastructure. More detailed background on these opportunities and possible options for change is described in the Discussion Paper.

Figure 14: Response to proposed Goal 3 objectives from WAM submissions by sector



Overall, Goal 3 was well supported in submissions from Business, Forestry, Partnership Organizations, Local Government, Professional Associations, and Water Industry. However, Hydropower demonstrated the strongest support. Much of this support emerged from a recognition that BC's current water allocation system was not created to respond to the



realities of climate change or population growth. Respondents frequently pointed out that greater economic, ecological, and social benefits will emerge from a more efficient and flexible system. Large numbers of submissions recognized the delicate balance of different interests associated with water use. However, stakeholders emphasized the importance of working together to forge an allocation system that protects all interests.

Disagreement with Goal 3 as it was defined in the Discussion Paper followed several themes. Submissions from stakeholder groups which rely on reliable water as a business input— including some Mining, Oil & Gas and Agriculture stakeholders – suggested that changes to the current structure will negatively impact investment and profitability. Some Academia and Education stakeholders as well as respondents from the Mining and Agriculture sectors expressed concern about how the term “flexibility” is defined. They noted the importance of certainty and clearly-defined standards. Feedback from workshops frequently expressed a desire for an allocation system that prevents loopholes while meeting the needs of the entire water-use community.

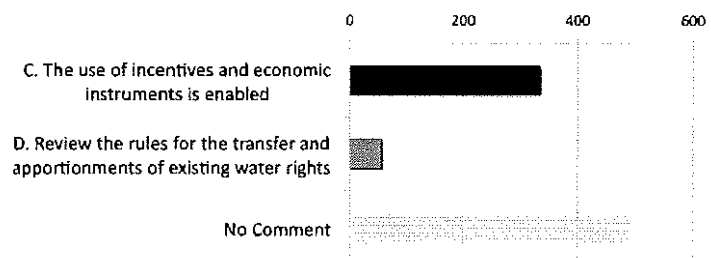
First Nations submissions provided limited comments on the specific Goal 3 objectives in the Discussion Paper, but expressed significant concerns with the WAM process itself. They also asserted unextinguished rights and title to lands and resources, and questioned how the Province will implement commitments in the *New Relationship* in a new *Water Act*. Agriculture stakeholder and many Individual submissions expressed concern about the impact that changes to the allocation system would have on their livelihoods and on food security for BC. Feedback on some of the options proposed to address each objective is provided below.

Water allocation system emphasizes and encourages efficiencies

Emphasizing and encouraging efficiencies in both water use and administration of the resource is a key Goal 3 objective proposed in the Discussion Paper. Overall, encouraging greater efficiency was well supported in the majority of WAM submissions and at workshops.

The Discussion Paper presented a range of options for encouraging water use efficiencies. The use of incentives and economic instruments, as well as reviewing the rules for transfer and apportionments of existing water rights were options proposed in the Discussion Paper.

Figure 15: Overall response to proposed options to encourage water use efficiency

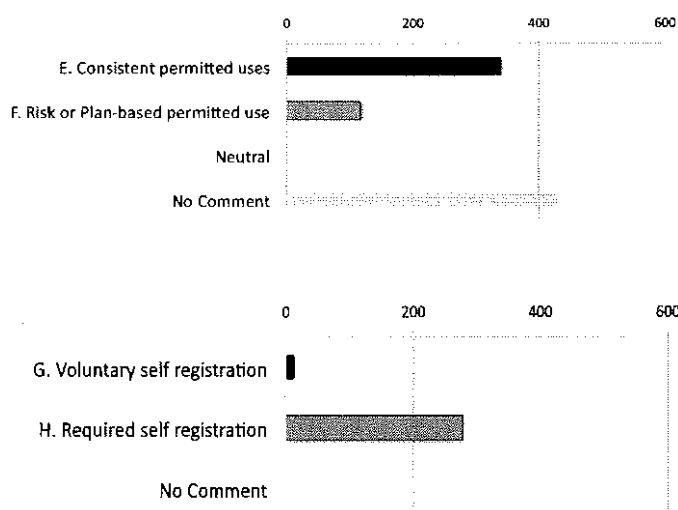


Although many submissions did not directly address the options, those that did expressed a strong preference for enabling incentives and economic instruments. A number of responses from ENGOs were noted exceptions, favouring instead a review of the rules for transfer and apportionment of existing water rights. In addition, many submissions provided comment that went beyond the options proposed in the Discussion Paper. For example, the Agriculture sector and many Individual stakeholders emphasized the need for more government investment in water

storage infrastructure through rebates and incentives.

The Discussion Paper also presented options for encouraging administrative efficiencies. Many respondents did not comment on this option, instead defining efficiencies as successes that would emerge through collaboratively determined provincial standards. However, those who did comment indicated a preference for mandatory standards for self-registration of wells rather than voluntary guidelines, in order to create a clear, predictable allocation environment. Similarly WAM submissions indicated strong support for the required registration of permitted uses,

Figure 16: Overall response to proposed options to encourage administrative efficiencies



where and if permitted use registration is an option. Hydropower stakeholder submissions expressed support for voluntary registration.

To achieve Objective One, the Discussion Paper presented additional options as a series of potential actions to encourage administrative and water use efficiencies. Respondents were encouraged to select multiple options and combinations and provide additional suggestions where appropriate. Many submissions provided input on proposed strate-

gies to encourage efficiency and their input helped identify some general trends in stakeholder preferences. The top three options that respondents indicated were:

- Seeking consent from, or undertaking consultation with, affected parties for licence applications or changes;
- Self-registering wells, especially where groundwater is in direct hydraulic connection with surface water or in areas of known quantity or concern; and
- Documenting potential environmental impacts and effects on other users in licence applications or changes.

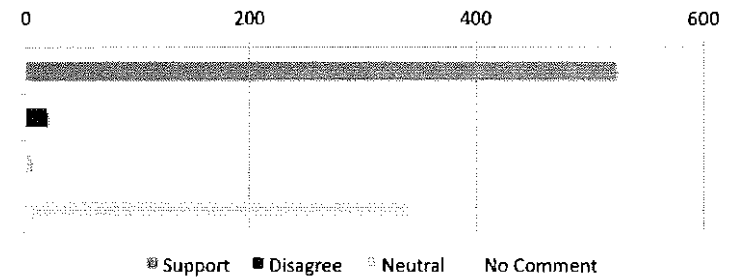
While respondents expressed no disagreement with the proposed options, comments from the workshops and submissions suggested that all options should be implemented if resources allow. Respondents also suggested that the options could be simplified to better serve water users' needs. Stakeholders also indicated government's role under a modernized *Water Act* should be registering all wells, measuring and reporting actual water use, and providing clear and timely information about all impacts on the environment and to water users.

Flexibility to adapt is provided to water users and decision makers

Objective Two highlighted options to provide decision makers and licence holders with the ability to seek amendments to the terms and conditions of water licences as a means of responding to changes in climate, ecosystem health, economic situation, efficiency improvements and water supply or demand. While overall support for this objective was particularly strong, a number of submissions also indicated that a clear, consistent approach to adapta-

tion and a collaborative standards-based environment is essential to success. In addition, members of the Mining sector expressed disagreement, citing the need for certainty to justify large capital investments. They maintained that introducing flexibility to water allocation has the potential to increase risk for industries that are dependent on reliable access to water.

Figure 17: Overall response to options to provide water users and decision makers flexibility to adapt



Water allocation integrates management of groundwater and surface water

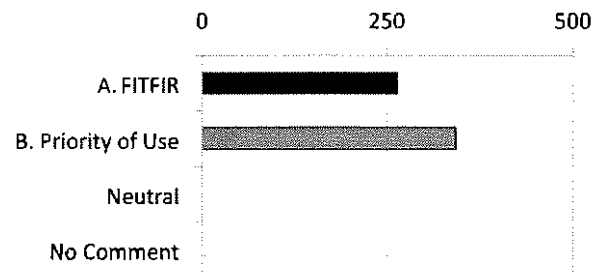
Objective Three focused on options to integrate the management of groundwater and surface water resources where required in problem areas. Feedback in written submissions and from engagement workshops indicated support for both the traditional FITFIR system and a Priority of Use approach to allocating water. Comments from submissions which support a move to a Priority of Use system also strongly supported applying this approach to groundwater regulation. Support for the Priority of Use system was expressed across most stakeholder groups, while support for retaining FITFIR typically came from specific sectors as well as some individual stakeholders.

For example, Agriculture and Mining stakeholders, and a large proportion of Individuals expressed strong support for maintaining FITFIR. Agricultural stakeholders stressed that food production requires reliable access to water and is most sensitive in times of shortage. Concern for food production and security was also prevalent among many Individual and ENGO submissions and was a frequent topic of discussion at engagement workshops.

Although the Agricultural sector indicated the strongest support for maintaining the FITFIR system, many of their submissions also indicated a willingness to support a Priority of Use system in which food production and food security are the key priority. Additional submissions and workshop comments from this sector also proposed the establishment of Agricultural Water Reserves to complement the Agricultural Land Reserve system by protecting water resources for food production.

Hydropower stakeholder submissions also support FITFIR under the current *Water Act*. In addition, these submissions also proposed that non-consumptive water use is addressed differently than consumptive uses enabling hydropower production to remain a priority. While support for FITFIR and Priority of Use options appears divided

Figure 18: Overall response to options for water allocation system

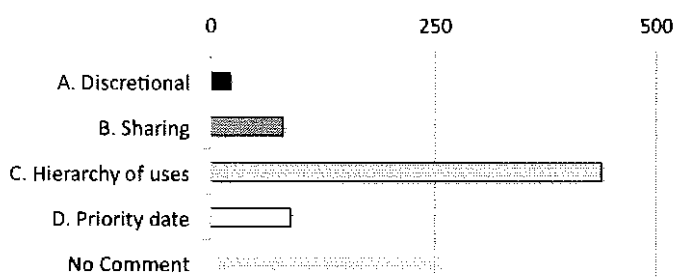


across WAM submissions. A majority of comments indicate that food production, drinking water security and ecosystem protection are shared key priorities and may represent common ground between these two positions.

Water users will be required to conserve water during scarcity

In Objective 4, the Discussion Paper proposed four options to address temporary water scarcity due to drought or when stream health is threatened. Options were discretionary, sharing, hierarchy of uses and priority date. Most WAM submissions support establishing a hierarchy of use approach that prioritizes non-consumptive, drinking water, food production and ecological protections. However, respondents also maintained that such a

Figure 19: Overall response to options to address short-term scarcity



hierarchy of use should not be limited only to times of scarcity, but should underlie ongoing conservation efforts to avoid water scarcity whenever possible.

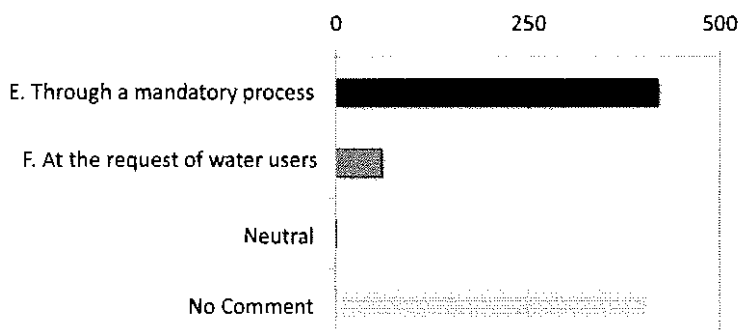
Support was strongest for mandatory standards-based allocations plans to address long-term water scarcity.

Overall, submissions indicated strong support for

a mandatory process, in which all partners are required to participate. Submissions from ENGO, Business and Individual stakeholders expressed the strongest support while Water Industry, Agriculture and Hydropower stakeholder submissions tended to favour a voluntary process.

Respondents also noted that many users already have plans in place to address long-term scarcity. Some respondents also suggested that establishing partnerships among stakeholder groups that build on local, tried and true solutions may hold the greatest promise for a mandatory planning process.

Figure 20: Overall response to options to address long-term scarcity



10 GOAL FOUR

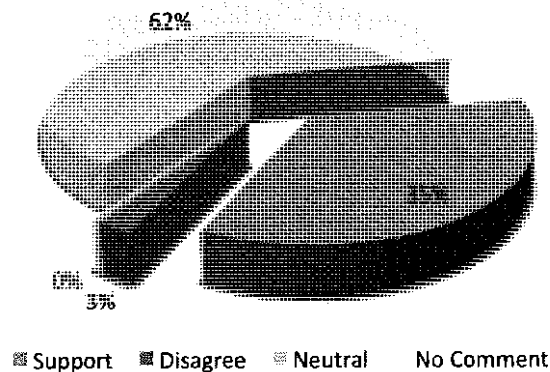
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Regulate groundwater extraction and use

Goal 4 considered how to improve the regulation of groundwater extraction and use through a modernized *Water Act*. As presented in the Discussion Paper, regulation may mean placing terms and conditions on groundwater extraction and use through a licensing or permitting process. A million people in BC depend on groundwater for drinking water; potential amendments to the *Water Act* would aim to provide clarity on the extraction and use of groundwater. Licensing may also improve the investment climate for businesses that rely on groundwater resources.

Overall, British Columbians expressed strong support for regulating groundwater both in submissions and at workshops. Respondents acknowledged the links between ground and surface water and the importance of sustaining the resource. Minimizing damage to aquifers and ecosystems as well as a desire to bring BC up-to-date with the rest of Canada

Figure 21: Overall response to proposed Goal 4 objectives

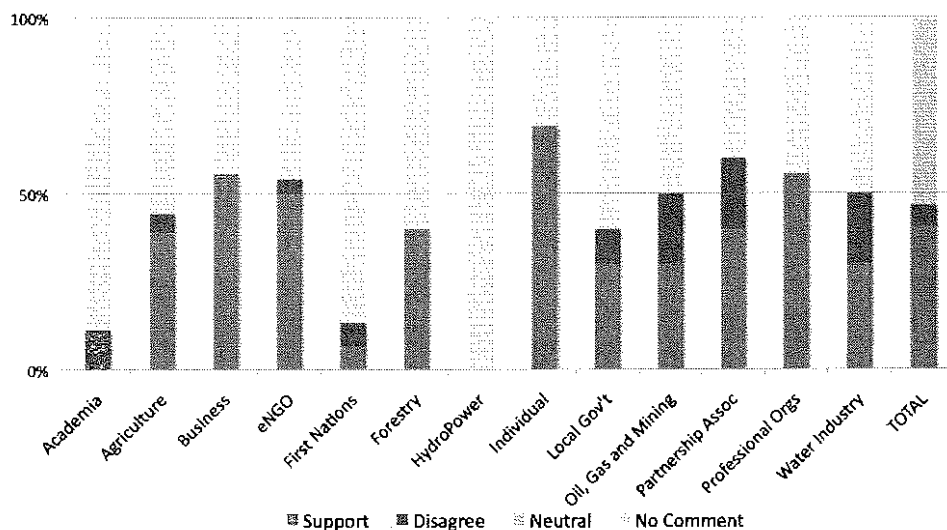


were also motives for regulating groundwater. Concern for critical areas and aquifers under stress, as well as concern for cross-jurisdictional integration were also highlighted in WAM submissions as key reasons for groundwater regulation.

With regard to the specific thresholds for groundwater regulation, many WAM submissions suggested that the objective to regulate groundwater as proposed

fails to resolve many vital groundwater extraction issues. Some respondents who did not support Goal 4, such as those from Academia and Education or Partnership Organizations, expressed a concern that groundwater regulation as worded in the Discussion Paper does not go far enough to protect the resource. Many respondents indicated strong support for regulation of all groundwater extraction, rather than the regulation strategy outlined in the Discussion Paper, which targeted only large groundwater withdrawals and priority areas. Many submissions also expressed concern that because groundwater and surface water are linked, without clear enforcement groundwater thresholds are arbitrary and will likely be abused. Some submissions noted that groundwater is affected by proximity to septic systems and surface water and stressed that planned uses must be defined in an enforceable context, as many factors are vital to ensuring community and watershed health.

Submissions from the Oil and Gas sector also expressed concerns over groundwater regulation as proposed in the Discussion Paper. Stakeholders from this group suggested that

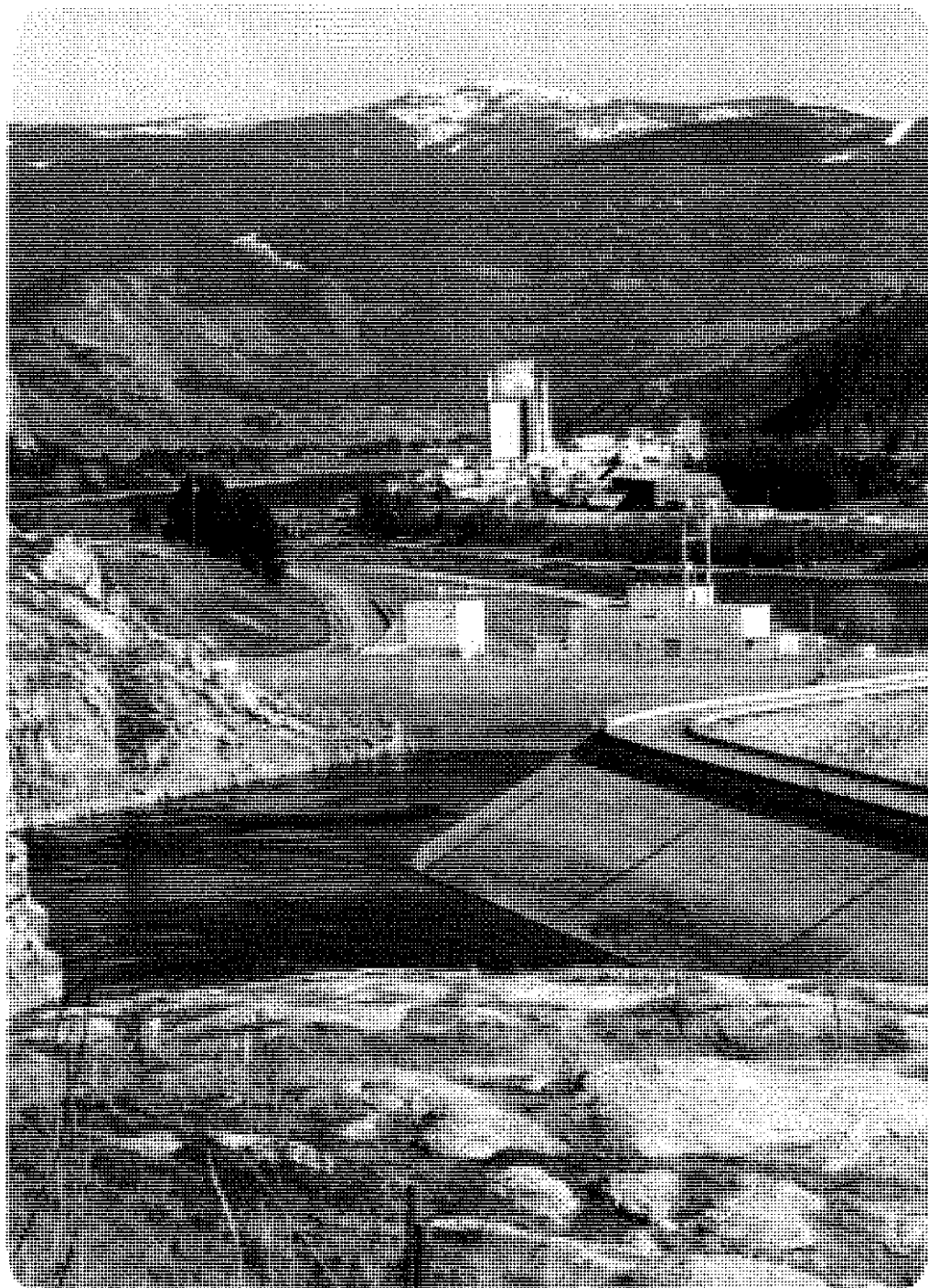
Figure 22: Response to proposed Goal 4 objectives from WAM submissions by sector

groundwater regulation should vary based on groundwater quality and only apply to non-saline water, which should be administered on a regional basis. They contend that non-potable water is also unsuitable for agricultural use, for example, and must be regulated at a different scale than water with multiple potential uses.

First Nations noted in submissions and at the workshops that many First Nations communities rely on groundwater and will be impacted by groundwater regulation. However, First Nations dispute the notion that the *Water Act* can be modernized by providing the Province with authority to regulate groundwater. First Nations maintain conservation and preservation measures are important policy shifts, but provincial authority does not imply or guarantee conservation or preservation, and continues to ignore Aboriginal title and rights.

While the majority of submissions supported efforts to regulate groundwater, much of this feedback also suggested that it is too early in the WAM process and there is not enough information to provide constructive direction about regulatory limits. For example, only 10 percent of submissions provided feedback on options for defining what constitutes a “large” groundwater withdrawal.

Keenleyside Dam Project,
Columbia River



PART THREE

What we heard - Sector-level reports

11 Stakeholder groups

11.1 Academia & Education

Seven representatives from Academia and Education made submissions on the *Water Act* Modernization Discussion Paper, including four university departments, two university-affiliated project initiatives and an independent college. Representatives from this sector were moderately represented at all nine regional multi-stakeholder workshops. The Academia and Education stakeholders provided the following key messages:

- Government must protect BC's water resources at an ecosystem level. This includes recognizing and protecting wetlands.
- A modernized *Water Act* must require all parties to work together to set clear environmental flow requirements and protect aquatic environments. Once standards are set, legislation to protect them must be enforced without exception.
- Legislation should establish new Watershed Agencies as legal entities to ensure standards are enforced.
- Groundwater legislation is required, but should occur within a framework that provides for appropriate thresholds with respect to the larger ecosystem. Academia and Education submissions call for clear, well-defined standards that are collaboratively designed to reduce impacts across the ecosystem and mirror the standards for surface water.

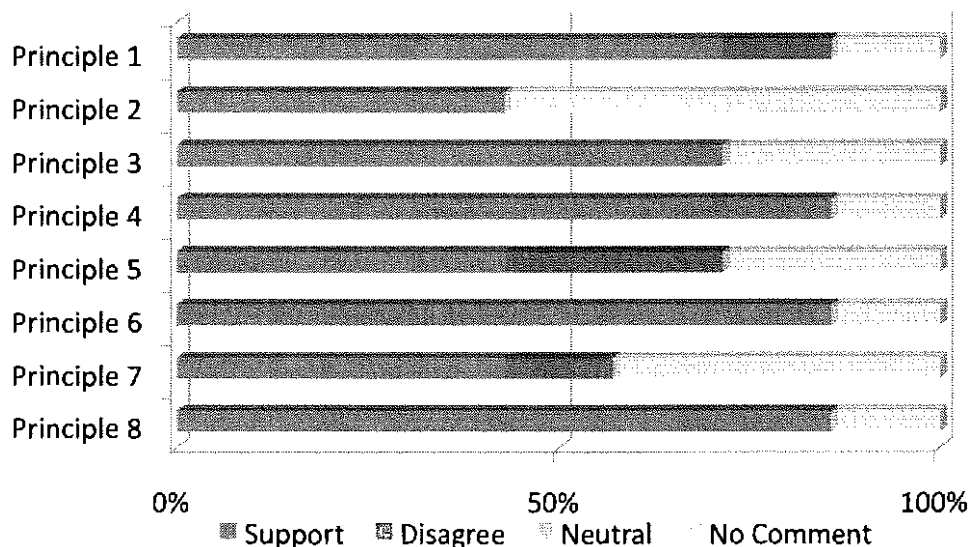
"Wetland health is integral to stream and watershed health. As such, wetland protection needs to be central to any discussion about water. Wetlands, and in particular small wetlands, are not addressed in any comprehensive way by other legislation – the modernized *Water Act* must recognize the important role of wetlands in water quality and quantity."

Laurie Kremsater
Faculty of Forestry
University of British Columbia

Feedback on principles

A majority of Academia and Education submissions support the eight WAM principles. This

Figure 23: Academia and Education stakeholder group response to the proposed *Water Act* Modernization principles



group of stakeholders indicated greater support for principles when compared to most other groups. Academia and Education submissions also tended to address each of the principles as identified in the *Water Act* Modernization Discussion Paper in greater detail than in most other submissions.

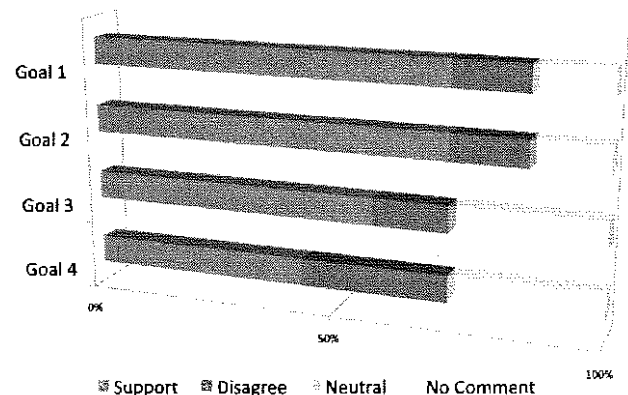
In general, Academia and Education stakeholders called for responsible, enforceable collaborative stream health and aquatic environment protection. This position was evident in the high level of support within the sector for Principles 4, 6 and 8, which focus on integrated governance, flexibility to adapt and that rights come with responsibilities. There was some disagreement with Principle 1, however, regarding the sustainable use of water resources. Some submissions expressed concerns about the definition of the term “sustainable limits” and suggested this term was not defined with enough clarity in the Discussion Paper.

Feedback on goals

Respondents from Academia and Education supported the WAM goals overall, but expressed concerns over specific details. These included concerns with aspects of threshold enforcement plans that are not yet clearly defined, as well as the definitions of “sustainable limits.” These sources of disagreement with WAM goals provided for insightful commentary and suggestions for possible improvement.

In response to Goal 1, Academia and Education submissions typically supported environmental flow standards and the requirement of water allocation plans that decision makers must follow. However, some disagreed with the options as proposed in the *Water Act* Modernization Discussion Paper. Many Academia and Education stakeholders perceived rigidity in the options as defined, which they rejected. Instead, they proposed standards and required plans which are developed collaboratively and are enforceable. Some submissions called for the creation of Watershed Agencies as legal entities that would oversee and enforce these collaborative standards.

Figure 24: Academia and Education stakeholder group response to the proposed *Water Act* Modernization goals



Another key theme in Academia and Education submissions was strong support for collaboration and innovation, which was evident in commentary on Goal 2 (governance arrangements). Respondents expressed that any approach to governance must be collaboratively defined and applied and based on clear ground rules. Although one submission supported a collaborative Delegated Approach, the significant majority of Academia and Education stakeholder submissions favoured a Shared Approach to water governance.

Similarly, Academia and Education submissions strongly favoured the collaborative options in responses to Goal 3. The result has been strong support for flexibility in a mod-

ernized *Water Act*, founded on agreed-to standards. This included strong support for evolving First-in-Time, First-in-Right (FITFIR) into a collaboratively defined Priority of Use system.

Respondents from the stakeholder group were somewhat divided on Goal 4 (groundwater regulation). All Academia and Education submissions agreed that groundwater regulation is key to a modernized *Water Act*; however the groundwater experts within this stakeholder group emphasized the importance of getting the details right. Because of this concern, several respondents did not support groundwater regulation as proposed in the Discussion Paper. They expressed that the regulation as proposed would create loopholes and fail to meet acceptable ecological and conservation standards.

For Academia and Education stakeholders, the linkages between WAM goals, standards and enforcement is essential to the success of *Water Act* Modernization. Regarding groundwater regulation, submissions emphasized that applying appropriate standards and enforcement to thresholds is most important, and that simply creating thresholds will be inadequate. The need for collaborative, innovative and integrated standards and systems to apply those standards was echoed throughout all Academia and Education submissions.

What we heard...

from Academia & Education stakeholders

"Groundwater should not be treated any differently to surface water because the two are in fact one. We do not support the stated objective of regulating groundwater extraction but not 'in-stream' water and forest land water rights. This is a full-way response to a problem that has appeared to frustrate the quality of our water. Across the province, we need that better choice of what water is priority uses and what the thresholds is for good water problems."

Dr. Grant Allen, PhD
Department of Earth Sciences
Simon Fraser University

"The right objectives are being written out. But it is in their implementation that more discussion and input is needed."

Chris Hunter
Transboundary Water Initiative
University of British Columbia

"A single step towards the correct is amending the current British Columbia *Water Act*. The importance and the right to the use and flow of all water in any form in a stream in British Columbia are the absolute right of the government. It is the responsibility of the government to ensure that water and the private rights could flow in the stream at a reasonable water level or a reasonable level to be managed in the interest of present and future generations."

Chris Hunter
Transboundary Water Initiative
University of British Columbia

11.2 Agriculture

Fifteen organizations submitted comments on the Discussion Paper, including nine product associations, two farm corporations, a landscape and nursery association, an irrigation district and the provincial industry council. In addition, BC Agriculture stakeholders were well represented at all nine multi-stakeholder workshops. The sector provided the following key messages:

"Food security is dependent upon equal protection for land and water. This needs to be recognized by the Province with more secure access to water for agriculture lands..."

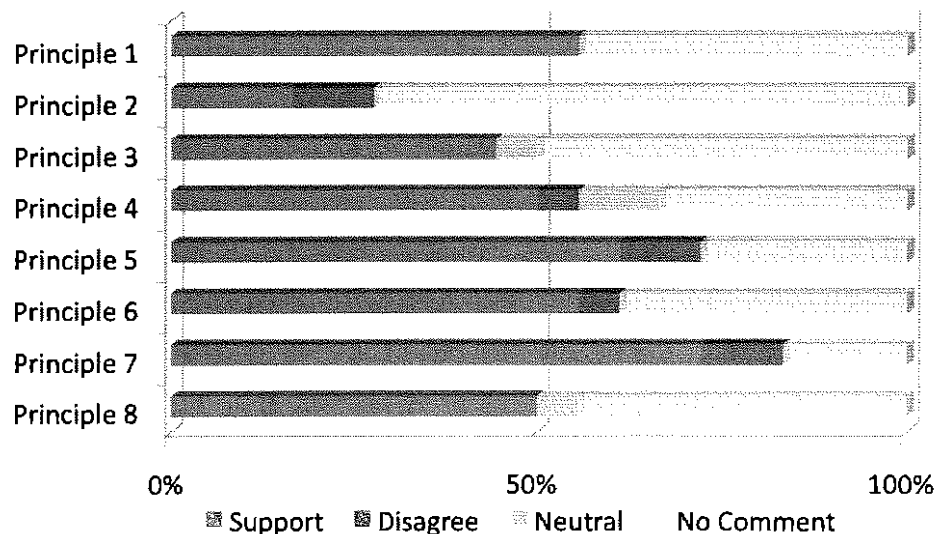
Alana Groeneveld
BC Cattlemen's Association

- The Agriculture sector is concerned about the security of water rights and strongly favours maintaining the FITFIR approach to managing water scarcity. Agricultural users are looking to WAM to prioritize water use for food security.
- The Agriculture sector is concerned that the treatment of water as a commodity (an item required for production), metering and water efficient irrigation will add costs to their business to the extent that they will no longer be able to compete.
- The Agriculture sector supports creating agricultural water reserves, similar to agricultural land reserves, where water use monitoring, clear provisions for water use and effective compliance should be practiced in close collaboration with industry.
- Farmers and ranchers request government support to develop storage, recognize the ecosystem and amenity values they help protect, and invest in irrigation efficiency.
- Farmers and ranchers are seeking more opportunities for input and flexibility to determine how water is managed during times of drought or low flow.

Feedback on principles

The majority of Agriculture submissions supported the eight WAM principles. In particular, Agriculture stakeholders supported WAM Principles 5 and 7, regarding clearly defined rules and standards and incentives for conservation, respectively. Support within Agriculture for Principles 5 and 7 is relatively higher than many other stakeholder groups. In spite of support for these investment-themed principles, many Agriculture submissions raised concerns about any step that would commodify water.

Figure 25: Agriculture stakeholder group response to the proposed *Water Act* Modernization principles



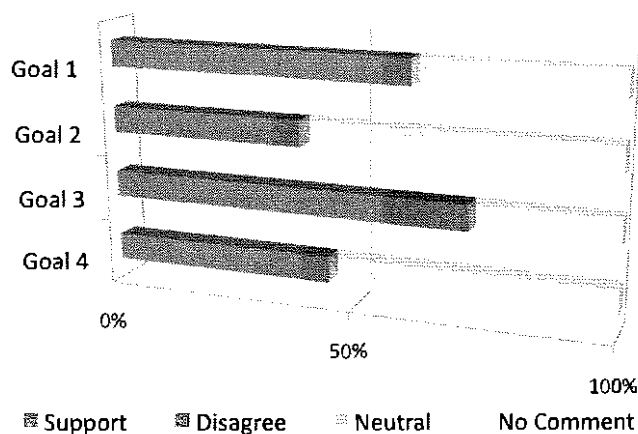
Agriculture users expressed interest in “smart” water-use employed proactively before times of shortage, instead of a reactive approach to drought management.

Feedback on goals

Agriculture stakeholders noted close links between drought management, *Water Act* Modernization, food security and their ability to thrive and survive. Although a majority of respondents did not comment on a revised governance structure (Goal 2), those who did suggested support for a Centralized or Shared Approach to water governance. All stakeholders in this group consistently expressed a desire for an improved approach to information-sharing.

With regard to introducing greater flexibility and efficiency to allocation, Goal 3, Agricul-

Figure 26: Agriculture stakeholder group response to the proposed *Water Act* Modernization goals



ture users strongly supported proactive planning and efficiency as the preferred solution to water management, before times of drought. In submissions and at workshops, Agriculture stakeholders strongly supported the existing FITFIR approach to water allocation. However, many also indicated support for Priority of Use as an alternative, where food production is considered among the highest priorities.

What we heard...

the movement of water from soil to plant roots is passive, not transpirational, and the transpiration rate of approach roots may be lower than that of roots at the end of the water uptake system. The movement of water from an approach root system is not transpirational, because water transport to the transpiration level of water by approach roots is passive and therefore the transfer of water to the transpiration level is

[illegible][illegible]

1998

There is also a large number of people who do not want the government to interfere in their lives. They want to be free to do as they please, and they want to be free to make their own choices. They want to be free to live their lives as they see fit, and they want to be free to make their own decisions. They want to be free to live their lives as they see fit, and they want to be free to make their own decisions.

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The Board supports the concept of an independent water system, goes beyond what the current legislation has provided as a guide, and will continue to be involved in the future operation. The board will monitor operation from the outside of future operation. It does not intend to change the board's role to be a board, but the board will continue to be involved in the operation and future operation.

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11.3 Business

Eleven organizations submitted comments on the Discussion Paper including two business associations and nine separate businesses. This group provided the following key messages:

- Business supports financial measures to increase efficiencies. Efficiency measures that protect current resources are preferred over new laws and statutes.
- Ecosystem-level protections are key to ensuring access to clean water for all purposes. Standards should be enforceable, but allow for collaborative and innovative improvements.
- A priority for WAM should be ensuring certainty for all water users without compromising stream health.
- Water for food production, drinking, and ecosystems protection must be the top priorities of any allocation system.

"I am pleased with the recommendations for the revised Water Act. I would encourage a strong implementation plan to be in place as soon as possible. Implementation is the most important consideration when developing policies."

Andrea Tower
HB Lanarc Consultants

Feedback on principles

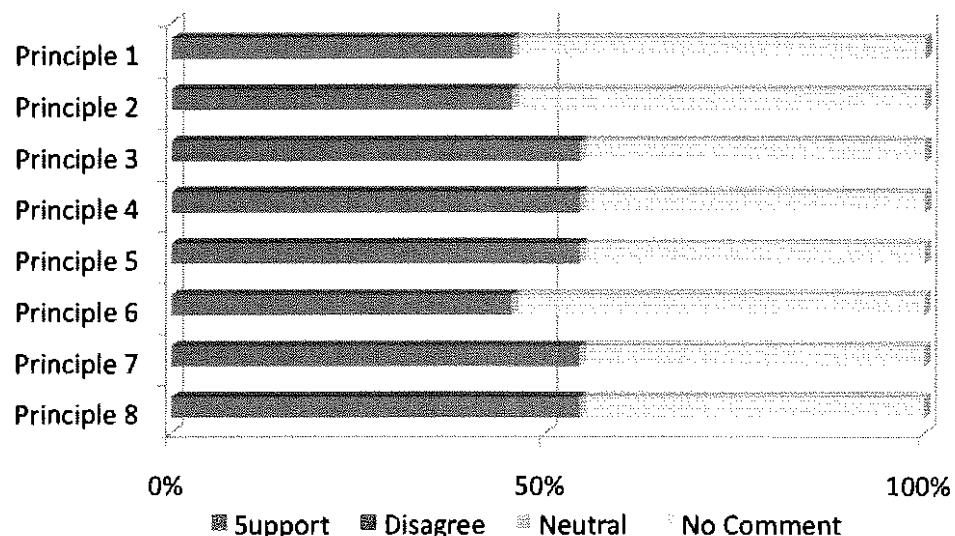
Business stakeholders supported the WAM principles, although they commented with lower frequency than some other groups. While many submissions in other groups voiced concerns with the use of the term "investment climate," Business stakeholders supported this emphasis.

In addition to supporting the WAM principles, Business stakeholders also proposed additional principles for consideration in modernizing the *Water Act*. Specifically, submissions suggested that a modernized *Water Act* should provide certainty to existing holders of water rights and protection of their interests, which should include appropriate transitional measures if fundamental changes are introduced. Some Business stakeholders also proposed that rules and processes be balanced and respect the needs of all water users, including the needs of industry.

Feedback on goals

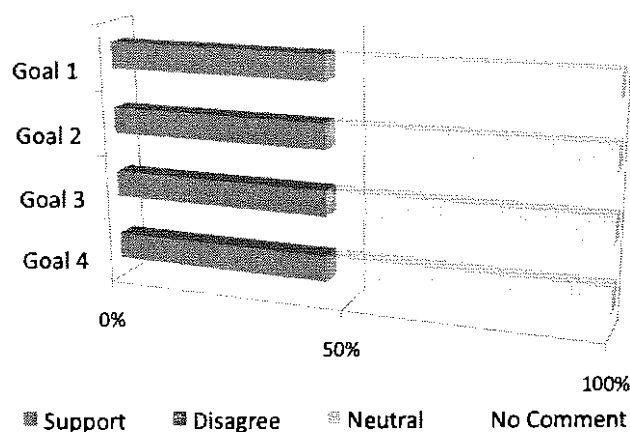
Business stakeholders provided feedback on the goals less frequently than some other

Figure 27: Business stakeholder group response to the proposed *Water Act* Modernization principles



groups. However, those who did comment on the goals indicated overall support for the objectives. Most Business submissions concentrated on the administration and implementation of a modernized *Water Act*. For example, many Business submissions offered practical guidelines to foster residential and business efficiencies.

Figure 28: Business stakeholder group response to the proposed *Water Act* Modernization goals



Business stakeholders expressed strong support for Goal 1 objectives. This included support for environmental flow standards, required water allocation plans, and making it mandatory that decision makers follow such plans.

Business stakeholders indicated support for improving water governance arrangements (Goal 2); however, they expressed no clear preference for the specific governance approach or water planning scale (e.g., watershed, regional district, etc). A number of submissions proposed funding solutions for conservation-based infrastructure improvements, including low interest loans similar to home mortgages to be repaid over 20-30 years; increased fees for commercial and industrial water uses; and increased rates for water use over and above provincially-established daily thresholds. Business stakeholders also emphasized the importance of accountability, transparency, and dispute resolution and noted that all decision-making should be open to the public and all documentation available online.

Regarding Goal 3, there was strong support from the Business sector for using incentives and economic instruments to encourage efficiency. Businesses also strongly supported permitted uses being defined and allowed under the *Water Act* and they preferred required self registration of permitted use withdrawals. Businesses also favoured addressing long-term water scarcity through a mandatory water management planning process.

Regulating groundwater extraction and use (Goal 4) received strong support from Business stakeholders. A number of Business stakeholders expressed a preference for a threshold of 500 m³/day (cubic metres per day) for wells in sand and gravel aquifers. Submissions from this group also expressed strong support for each of the proposed priority areas for regulating groundwater.

What we heard...

蘇聯 國庫券 止付的支票

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the 1970s, the role of government in the economy has been a subject of heated debate. Critics argue that government should be more involved in a number of public activities, such as education, health care, and social welfare. Others argue that government should be more involved in the economy, such as regulating business and providing public services. The government's role in the economy is a topic of ongoing debate, and it is important to understand the different perspectives on this issue.

1. The first step is to identify the problem or question that needs to be answered. This involves understanding the context and the specific requirements of the task.

[illegible]

1. While the above issues are important, the Commission is particularly concerned by the limited number of the respondents who reported to have taken any remedial action for about 40% of the respondents in the current survey. The Commission is therefore

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"We do not want regulations to restrict our business," says the organization's president. "In order for waterfowl and ground water systems to remain a viable extraction activity, including offshore development from Florida."

THE UNIVERSITY OF CHICAGO

上海外灘國際會展中心

Thompson's mother, Jane, Jones (Steele) Jones, died from prostate and lung cancer in the four months. The cancer was found 11 months before Thompson's death, and Thompson's extensive cancer such as lung cancer, prostate cancer, and brain cancer.

1. The first step is to identify the problem. In this case, the problem is that the system is not working properly.

[illegible]

1. The first step is to identify the problem.
 2. The second step is to define the problem.
 3. The third step is to analyze the problem.
 4. The fourth step is to develop a solution.
 5. The fifth step is to implement the solution.
 6. The sixth step is to evaluate the solution.
 7. The seventh step is to monitor the solution.
 8. The eighth step is to maintain the solution.
 9. The ninth step is to improve the solution.
 10. The tenth step is to document the solution.

11.4 Environmental NGO (ENGO)

Forty-six Environmental Non-Government Organizations (ENGOS) provided substantial comment on the Discussion Paper. The ENGOS ranged from international, national and provincial bodies to regional and local stewardship and community groups. In addition, a number of organizations were signatory to a “Statement of Expectations on Reform of the BC *Water Act*” that was submitted in December 2009. ENGOS were also well-represented at the workshops. Overall, the sector provided the following key messages:

- ENGOS strongly support key 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.

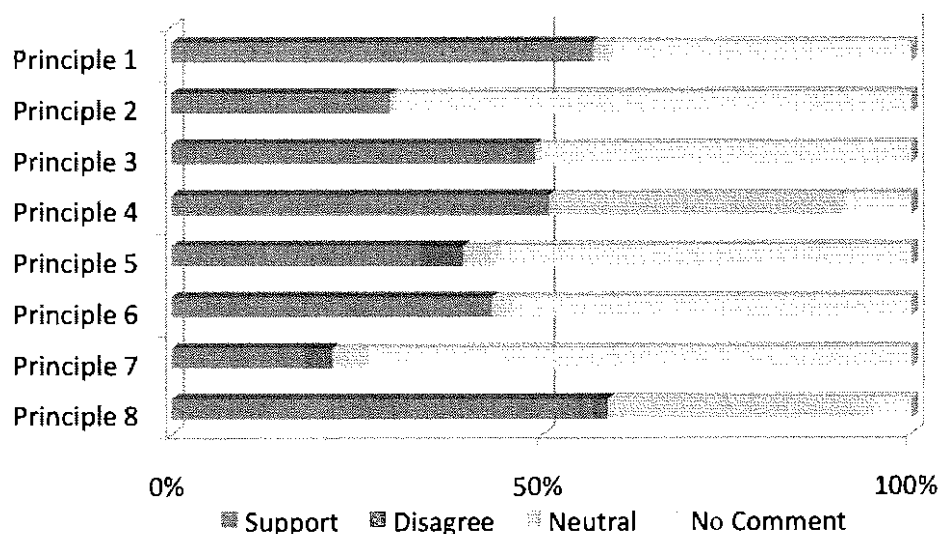
“We do not view minimum flows to dilute effluent as an environmental flow: This is a consumptive use of water. In general polluters should have the obligation to treat effluent to a level that does not require dilution.”

Andrew Gage
West Coast Environmental Law

Feedback on principles

Nearly half of ENGO respondents commented on the principles with the majority expressing support for them. A small number within this group indicated concern for Principles 5 and 7 citing concerns about the reference to “investment” and “investors.” Comments associated these terms with privatization, which submissions maintained is an unacceptable approach to provincial water resources. This sentiment was also voiced at multi-stakeholder workshops. A number of submissions indicated that these terms require clarification and the principles should include greater emphasis on the importance of ecosystem health.

Figure 29: ENGO stakeholder group response to the proposed *Water Act* Modernization principles

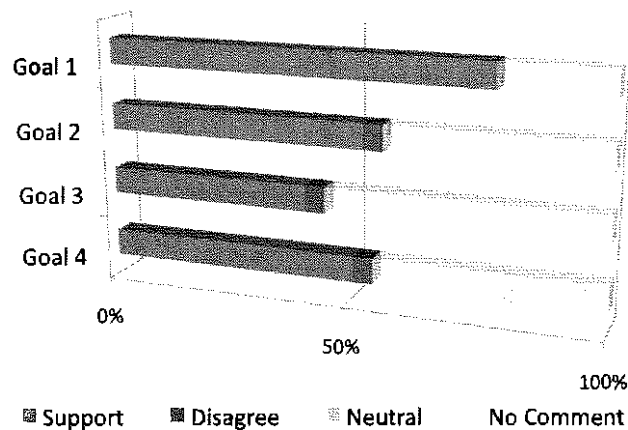


Feedback on goals

The majority of ENGO responses that commented on the WAM goals expressed strong support for the goals. Protecting stream health and aquatic environments (Goal 1) received unanimous support from those ENGOs who responded. ENGOs strongly supported the need for science-based instream flow standards to ensure the sustainability of the water resource. The majority of respondents indicated that the development of water allocation plans should be required, as opposed to optional and that the decision maker must follow the plan.

Regarding Goal 2, improving governance arrangements, the majority of ENGO respondents supported a shared or delegated approach to governance within a provincial framework.

Figure 30: ENGO stakeholder group response to the proposed Water Act Modernization goals



ENGOS indicated that, due to BC's diversity and regional differences, instream flow requirements are best governed at a community level where adaptive management, monitoring and enforcement can be responsive to local conditions. Further, this would facilitate more active involvement of water users within the community.

With regard to Goal 3, introducing flexibility and efficiency in allocation, ENGOS maintained that there was a

need to revamp the FITFIR water allocation system with a priority given to maintaining stream flow standards and water for domestic use. A majority of respondents indicated that the preferred option to encourage water use efficiency is through government determining actual needs in relation to a proposed undertaking on the basis of efficient practices and works. Some stakeholders suggested the provision that a licence could be cancelled for non-beneficial use, then reallocated.

A majority of ENGO respondents supported groundwater regulation in priority (critical) areas (Goal 4). Often repeated by respondents was the need to integrate groundwater with surface water flow standards. ENGOS also expressed concerns regarding large data gaps pertaining to aquifer inventory and status of groundwater supply. They also encouraged greater investment in data collection and monitoring.

What we heard...

from 240 to 260 kcal/mol.

The following are the steps that
 should be taken to ensure the
 successful completion of the
 project. The first step is to
 identify the project goals and
 objectives. This will help to
 determine the scope of the
 project and the resources that
 will be required. The second
 step is to develop a project
 plan. This plan should outline
 the tasks that need to be
 completed, the timeline for
 the project, and the roles and
 responsibilities of the team

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the extent the project is an extension of the existing line north-south, designed for the interests of "Black" water use for drinking purposes, is neither anticipated nor foreseen, by either the primary design of the existing surface project, leaving the same unchanged, based on such flow rates of discharge. The total upstream reduction in flow volume, surface water, and ground water, is expected to be decreasing, and a lower rate estimated for the same water use.

[illegible]

It was announced that the nation's first, ever, "Shoring West" job is being awarded to a Los Angeles firm by the U.S. Army Corps of Engineers. The contract is for a \$10-million job to shore up the walls of a tunnel through the hard granite of the Coast Range in the state of Washington. The tunnel is to be used for a new road to connect the coast to the interior of the state.

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References

11.5 Forestry

Five Forestry stakeholders submitted comments on the *Water Act* Modernization Discussion Paper. Although the responses are a small number of the total stakeholder group submissions, three of the five submissions are industry and landowner associations representing a large number of forest industry operators and land owners. Forest industry response to the *Water Act* Modernization Discussion Paper was limited, and submissions expressed the following key messages:

"Prior to making any decisions, we recommend that government undertake comprehensive reviews and cost benefit analyses across the full suite of affected legislation and other values on the landscape to determine the true impacts of any proposed decisions."

Archie MacDonald
Council of Forest Industries

- The Forestry sector supports modernizing the *Water Act* and protecting ecosystems. In many cases they consider the *Forest and Range Practices Act* (FRPA) to be sufficient, and ask that any *Water Act* changes are consistent with the FRPA and do not require extra effort or planning.
- Forestry stakeholders want a strong central governance structure; they are concerned about a lack of clarity and certainty in shared and delegated approaches.
- Forestry stakeholders note that the professional-reliance, results-based framework of the FRPA is a good model.

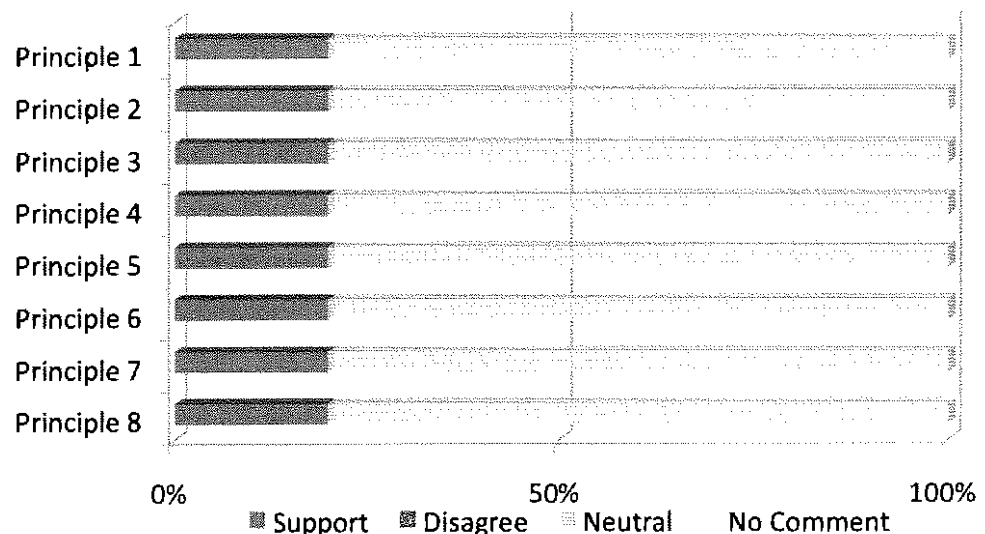
Feedback on principles

Most Forestry stakeholders expressed no comment on the eight WAM principles. Forestry submissions largely focused on the potential interaction between the *Water Act* and the FRPA, as well as other federal and provincial statutes and guidelines. Only one submission commented on the principles and it expressed support for all principles. No Forestry submissions expressed disagreement with any principles as written.

Feedback on goals

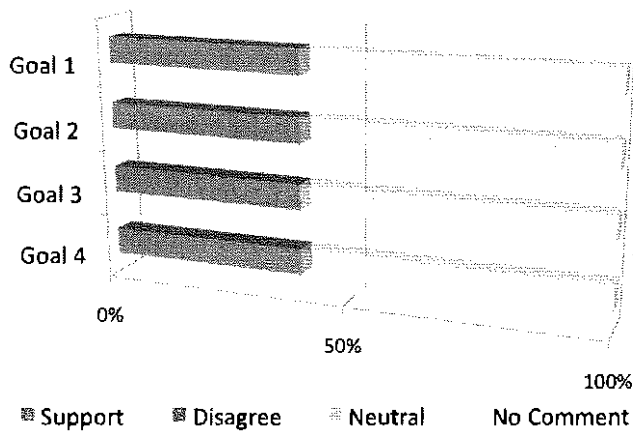
As with the principles, Forestry submissions either supported the WAM goals or offered no comment. This stakeholder group expressed no direct disagreement with the WAM goals, except for concern about jurisdictional overlap and the rapid pace of the WAM process.

Figure 31: Forestry stakeholder group response to the proposed *Water Act* Modernization principles



Although they did not comment extensively on Goal 2, governance arrangements, Forestry stakeholders indicated support for a strong central governance structure. They expressed

Figure 32: Forestry stakeholder group response to the proposed Water Act Modernization goals



concern that a lack of clarity and certainty may result from Shared and Delegated Approaches to water governance.

Forestry stakeholder submissions maintained that harmonization between the FRPA and a modernized Water Act is essential for successful stewardship of BC's water resources.

What we heard...

from Forestry stakeholders

"The definition of 'public interest' is often only determined by the general public. This definition inherently has the potential to lead to the call for increased constraints on activities related to resource extraction that result in no benefit to anyone. This is not an necessary condition for water governance."

— **James Macdonald**
Executive Director, BC Forest Industries Association

"It is a support for the goal of ensuring the strong and consistent, particularly where provincial changes provide natural certainty and consistency in regulation of managing the resources such as water. It is important regulatory and decision support are aligned with the understanding of an overall approach between local, provincial and environmental objectives."

— **Mike Gies**
General Forest Products Association

"Clarifying the role of the Water Act through more alignment of responsibility to professional forestry and other professionals is an efficient and effective way to protect protected and decommissioned of policy and regulatory to forestry and water protection legislation."

— **David Hocking**
Manager, Forest Stewardship, BC Forest Industries Association

"The Act could provide the ability for water users and decision makers to make water better management based on water user needs and protection and the ability to make water a higher value use. Therefore, the water user protection and control of water users is needed to make the water user a higher value user."

— **Michael Hocking**
General Forest Products Association

11.6 Hydropower

Seven organizations submitted comments on the Discussion Paper including two Crown corporations, an industry association and several hydroelectric power developers. The sector provided the following key messages:

- The *Water Act* Modernization process must continue to support the government's goal of achieving energy self-sufficiency.
- Hydropower developments all require significant amounts of water for their operations. Developers need security for their investments and a clear, transparent licensing process. While there are benefits of sharing and delegating roles for water stewardship there are also potential conflicts on issues or projects that face local opposition but are recognized as serving the greater public good.
- As a non-consumptive user hydropower generation should be distinguished from consumptive use activities.
- Water allocation plans are often expensive and time consuming. Rigidity in requiring such plans does not allow any flexibility for decisions based on site-specific conditions, changing circumstances or scientifically-justified rationale.

"Stream health is an important consideration in the water licensing process... but ...must be assessed in conjunction with social and economic factors. Overly conservative water license decisions, unclear assessment methods and inconsistent outcomes between applicants reduces confidence in the process and hinders developers and investors."

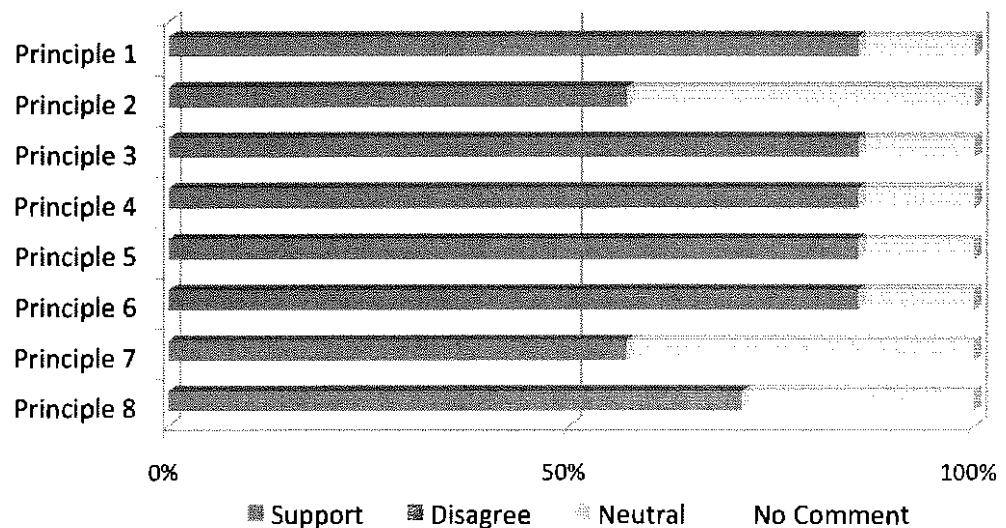
Matt Good
Brookfield Renewable Power

Feedback on principles

The majority of Hydropower submissions supported the eight WAM principles. Notably, the support expressed by Hydropower stakeholders exceeded that of all submissions combined for seven of the eight principles. No submissions from this sector expressed a position of non-support for any of the principles and Hydropower stakeholders did not identify any principles to be missing from the WAM process.

Overall, many submissions expressed concern with the use of the terms "investment" and "investors" in the proposed principles of the *Water Act* Modernization. However, as investors, the Hydropower sector supported the terms and noted the essential electricity services the sector provides to British Columbians.

Figure 33: Hydropower stakeholder group response to the proposed *Water Act* Modernization principles



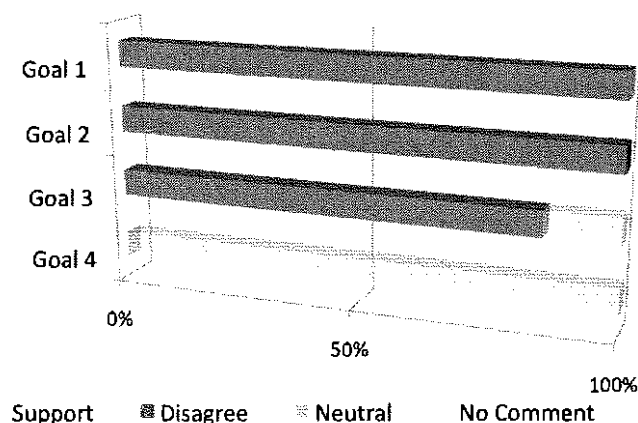
Feedback on goals

Hydropower submissions expressed strong support for Goals 1, 2 and 3. Not surprisingly, as groundwater extraction is of low concern to Hydropower stakeholders, their submissions did not express a specific position on groundwater regulation (Goal 4).

Regarding Goal 1, Hydropower submissions indicated strong support for environmental flow guidelines rather than standards, and generally support optional water allocation plans developed at the discretion of the Regional Water Manager and which the decision maker must consider in making decisions.

With regard to Goal 2, improving governance arrangements, Hydropower interests also expressed strong support for a Centralized Approach to provincial planning and decision making, with few delegated responsibilities. They also favoured mechanisms for providing input and partnerships for gathering information with regional and industry experts in order to develop greater efficiencies and protect existing and future investments.

Figure 34: Hydropower stakeholder group response to the proposed *Water Act* Modernization goals



In submissions, Hydropower respondents indicated general support for Goal 3, regarding the introduction of flexibility and efficiency in water allocation. Responses included support for the following:

- Government determining actual water needs on the basis of efficient practices and works.
- Use of incentives and economic instruments to encourage efficiency. These include penalties and bonuses, water rentals and pricing structures that include rebates for non-potable water use or water reclamation.
- Permitted water uses being defined and allowed under the *Water Act* and regulations applied in a consistent manner throughout the province.

Hydropower respondents also expressed strong support for retaining the practice of FITFIR allocation and general support for water allocation based on priority date in times of scarcity, which is consistent with the current requirements of the *Water Act*. There was also general support for developing plans – at the request of water users or communities, licensees and other interested parties – to address long term water scarcity on a watershed basis and provide recommendations for supply and demand side changes.

Although Hydropower interests provided no general comments on the objectives of Goal 4, groundwater regulation, some responses favoured the proposed 250 m³/day threshold for wells in sand and gravel aquifers and a 100 m³/day threshold for consolidated bedrock aquifers or as determined large by a water management plan. Hydropower respondents also

indicated that their preferred option in determining priority areas for regulating groundwater is identifying areas of known quantity concern.

What we heard...

From Hydro-power to the Tides

It is important to recognize the difference between *management* and *control*. Management can be better defined as an ongoing activity, the process of getting the work done. Control, on the other hand, is a more static concept. It focuses on determining how to manage the work. Control is a more static concept. It focuses on determining how to manage the work.

[illegible]

"I believe it is more likely if there
 have been more than 100,000 cases
 in the United States, and certainly more
 in Europe, to have a link between the
 observed phenomenon of some clustering
 of cases and the fact that certain people
 are more susceptible than others."

The figure consists of two parts. The top part is a side-view schematic showing a subject seated at a table, looking at a video screen. A camera is positioned above the screen. The bottom part is a top-down view of the screen, showing a grid of points. A subject's hand is shown reaching towards the screen. A coordinate system (x, y) is indicated on the screen.

The Ministry of Environment & Forestry has conflicts with a wide range of government agencies that include a minister of water, both government and commercial agencies, EC, and the United Nations, and the Integrated Land Management System. The relationship with industry, private industry, the industry and the financing community, and conflicts with agriculture, the forest, and water for agriculture. EPA, and the Water Act harmonizes the form of water. Under the terms of the EC, Hydro-Electricity Purchase Agreements by starting them on the same date, in order to avoid any of water for other purposes for 20 years."

[illegible]

11.7 Local Government

Twenty-four Local Government stakeholders submitted comments on the Discussion Paper, including regional districts, municipalities, improvement districts and the Islands Trust. Local government, including staff and elected officials, were represented at all nine WAM multi-stakeholder workshops. In addition, four local government associations participated in conference calls with Ministry of Environment staff. The sector provided the following key messages:

- Local Government stakeholders throughout BC want more involvement in planning and decision making. In some regions, local government requested greater responsibility for some water management and planning decisions. In others, local government prefers an advisory role only, and favours maintaining a centralized, provincial approach to decision-making.
- Northern communities in particular expressed concern about the impacts of industry and resource extraction, especially regarding the amount of water required.
- Southern and Island governments focused on domestic and agricultural conservation, impacts of climate change on ecosystems and responding to droughts.
- Local governments wanted their water licences to receive priority in times of scarcity. They also want to see stream health and aquatic ecosystems and groundwater protected because they add to a community's well-being and resilience.
- Local governments are concerned that all levels of government are insufficiently resourced to enforce the laws that are already in place and stress that sufficient support is crucial to implement a modernized *Water Act*.

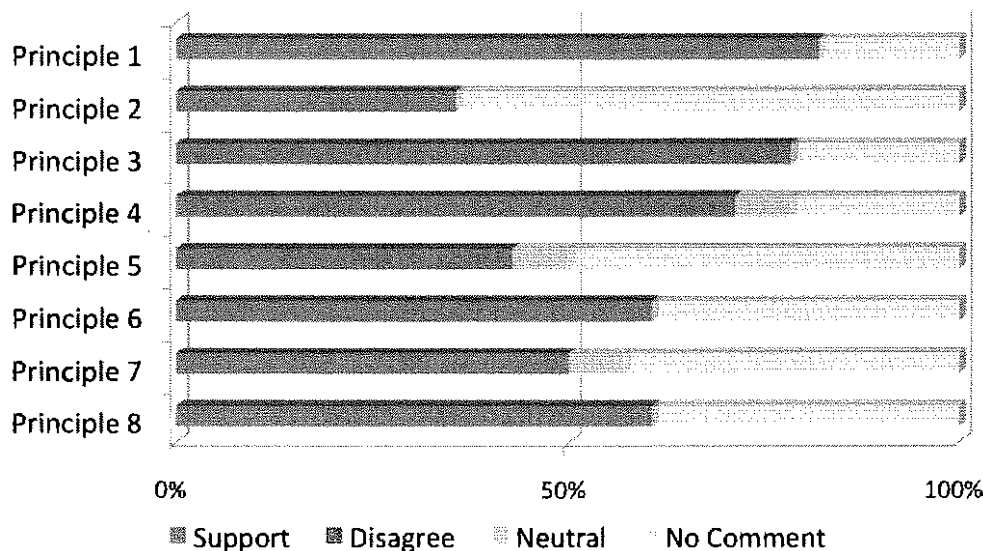
"The City is cautious of any delegated authority for any new model of governance and needs assurance that we have full powers under our authority for use of local taxpayer funds now or in the future. We also have concerns for any shared or delegated authority that comes without adequate provincial funding."

Staff report
City of Kelowna

Feedback on principles

The majority of Local Government stakeholder submissions supported the eight WAM principles at a higher proportion than most other stakeholder groups. Of particular interest to these stakeholders was the integration of legislation, policy and decision-making across all levels of government (Principle 4). Submissions indicated a strong interest in streamlining planning and decision-making processes. Feedback also stressed that collaborative,

Figure 35: Local Government stakeholder group response to the proposed *Water Act* Modernization principles



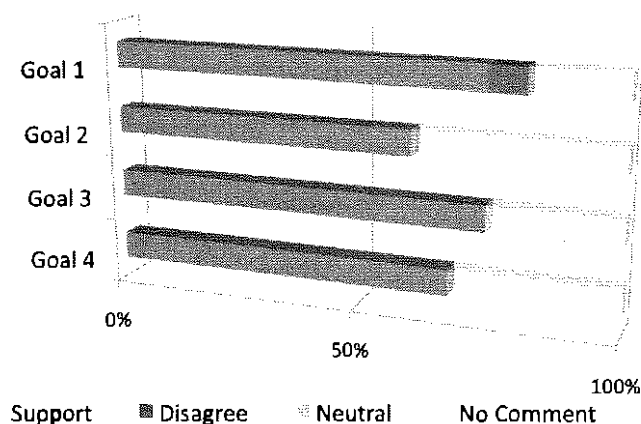
proactive decision-making, adequate resources and tools are needed to meet commitments across all levels of government and in all regions.

In addition, submissions asserted that, while local expertise is vital for watershed planning, so too is provincial oversight. Moreover, submissions called for a modernized *Water Act* to define the Province's role as that of an empowering administrator. Local Governments strong support for shared responsibility and decision making highlights a valuable opportunity for multi-lateral partnerships.

Feedback on goals

Local Government submissions indicated particularly strong support for the WAM goals. One submission expressed explicit disagreement to Goal 1, regarding the protection of stream health. This was due to questions about defining "stream health" and the process for setting standards to protect it.

Figure 36: Local Government stakeholder group response to the proposed *Water Act* Modernization goals



Local Government stakeholders expressed a strong interest in ensuring that a modernized *Water Act* is based on clearly defined processes which balance local and province-wide priorities. This would include ecosystem protection, social health and the economy. Firm supporters of collaborative partnerships, Local Government stakeholders also requested additional opportunities to participate in the WAM process.

What we heard...

from Local Government stakeholders

"Water rights legislation and ownership... should be of great concern to the City of... as these issues are not addressed in..."

Tracey Arthur
City of White Rock

"The... local... that... for... and... support for... through... and... should be considered as... in... of... protection."

Travis Bell
Hastings Main Committee

"We strongly encourage the Province to offer a... of the transparency that has been... of the process to date."

Laura Bennett
District of Maple Ridge

"Local governments need control over managing the watershed... in the provision of drinking water to their communities, local governments are responsible for the provision of safe drinking water yet they have no control over land use on crown land within their drinking watershed."

Kevin Shaper
Squamish First Nations District

"... the Regional District encourages the Province to consider a governance structure that is... and is appropriate for the unique circumstances that exist in the Regional District of... designed to address water-related issues as part of the... may not be appropriate for the north or... residents."

Robert Bennett
Regional District of Bulkley-Nechako

11.8 Oil, Gas & Mining

Nine organizations from the Oil, Gas and Mining sector submitted comments on the Discussion Paper. These included three submissions from industry associations as well as seven from individual companies. Oil, Gas and Mining stakeholders were also represented at some of the multi-stakeholder workshops. Water security and water use rights were recurring themes that participants from this stakeholder group raised at all sessions. The sector provided the following key messages:

- Ongoing access to clean and plentiful water is essential for future growth. Without sustainable water management, development may be limited in the future because geothermal, mining, oil and gas developments each require significant amounts of water for their operations.
- Oil, Gas and Mining stakeholders make substantial infrastructure investments and require a clear and transparent licensing process to ensure a positive investment climate. This process, in which government maintains a final say, should allow for stakeholder input and balance environmental and economic concerns.
- In many cases, oil and gas developments access water under a short-term approval obtained from the Oil and Gas Commission. A modernized *Water Act* must work cooperatively with other agencies and legislation.
- Saline groundwater use must be addressed differently than freshwater groundwater use under the modernized *Water Act*.
- Government is responsible for governance of provincial resources and allocating appropriate funds to manage water resources. The Canadian Association of Petroleum Producers (CAPP) cautions that funding solutions must be equitable for all resource users and not unduly penalize specific water users or specific uses, nor create a competitive disadvantage for investment in BC.

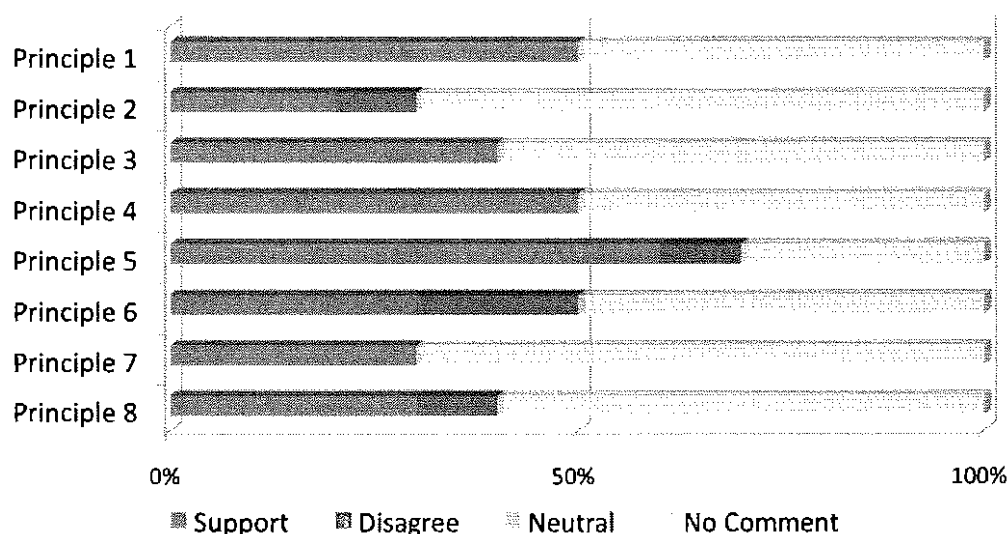
"Large areas of northeast BC are rich in both surface water and natural gas. Decisions to restrict water use must be based on good science conducted within the specific watershed in question. The provincial government must ensure BC remains competitive with other gas producing regions in North America."

Ted Johnson
Talisman Energy

Feedback on principles

Oil, Gas and Mining submissions provided less feedback on the eight WAM principles com-

Figure 37: Oil, Gas and Mining stakeholder group response to the proposed *Water Act* Modernization principles



pared to most other stakeholders submissions. Of those submissions that did comment on the principles, feedback was supportive. Although other submissions expressed concern with the use of the terms “investment” and “investors” in the Principles 5 and 7, the Oil, Gas and Mining sectors supported these principles and use of the terms. Submissions pointed out that the Oil, Gas and Mining sectors are significant investors and make large infrastructure and capital investments in order to provide essential resources, like fossil fuels, to British Columbians. Some of these investments involve long-term projects that require many years to produce a return.

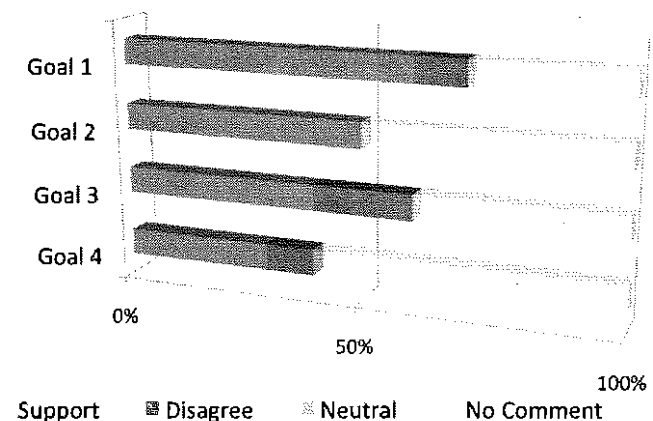
Oil, Gas and Mining stakeholders also suggested additional principles be considered in *Water Act* Modernization. Suggestions included the need for business certainty for existing holders of water rights and the importance of balancing and respecting the needs of all water users, including industry.

Feedback on goals

Similar to their response to the WAM principles, Oil, Gas and Mining stakeholder submissions provided less feedback than most other stakeholder groups. However, most of the submissions that did address the WAM goals expressed overall support.

A number of submissions questioned whether a modernized *Water Act* and regulations will include distinctions based on water quality and resource use. Many submissions from this group suggested that definitions in the WAM Discussion Paper do not adequately address consumptive and non-consumptive use of water resources. In addition, groundwater regulation as proposed in the Discussion Paper did not distinguish between deep saline and fresh water aquifers. This was most often the source of disagreement with objectives for protecting stream health (Goal 1), flexibility in allocation (Goal 3) and groundwater regulation (Goal 4). Oil, Gas and Mining stakeholders proposed that saline aquifers be recognized by (and possibly excluded from regulation) in a modernized *Water Act*.

Figure 38: Oil, Gas and Mining stakeholder group response to the proposed *Water Act* Modernization goals



Stakeholders expressed strong support for retaining a governance model with centralized decision-making (Goal 2), but recommended greater partnerships with regional and industry experts. In submissions, stakeholders maintained that this would improve data-collection and monitoring, and would develop greater efficiencies and better protect existing and future investments.

Oil, Gas and Mining stakeholder submissions also focused on balancing the protection of infrastructure investment with environmental values. Additional challenges identified by this group included the need to ensure that a modernized *Water Act* not only balances

environmental and economic concerns, but also the interactions between the agencies, commissions and legislation that govern water use in BC. As such, some Oil, Gas and Mining stakeholders did not support Goal 3, citing concerns that the changes proposed in the Discussion Paper are not substantial enough to empower governance structures and protect their investments.

What we heard...

from Oil, Gas & Mining

"The discussion paper does not provide for a differentiation of groundwater based on groundwater quality. Our position is that the quality of the water should be taken into account together with quantity when addressing allocations by the different purposes. The recommendation is that we not allow for a distinction between sustainable groundwater and other groundwater and therefore allocate accordingly. It is also recommended that any system for permitting in water sector use by O&G and this remains currently a best practice in the O&G and Gas Activities Act."

Richard Lunn
Executive

"The province currently has a large share of water directly from water (hydro) and not from the agriculture. For the reason the funding should come directly from the provincial government. Overloading capacity of services for the community will harm the competitiveness."

Ted Johnson
General Manager

"A simple strategy such as provided in the Discussion Paper may be a cost-effective, but will ultimately need access to water water during periods of scarcity for the community. It is important to ensure that the water is available to the community and to ensure that the water is available to the community. It may be a cost-effective, but will ultimately need access to water water during periods of scarcity for the community. It is important to ensure that the water is available to the community and to ensure that the water is available to the community."

Richard Lunn
Executive

11.9 Partnership Organizations

Eleven Partnership Organizations submitted comments on the Discussion Paper. This group included several water councils, committees and watershed and stewardship boards from across BC. This stakeholder group provided the following key messages:

- Collaborative, precautionary approaches to ecosystem level management are required. Efficiency measures that protect current resources are strongly preferred.
- Wetlands are a vital component of BC's water resources and require urgent protections.
- Water for food production, drinking, and ecosystems protection must be the top priority of any allocation system.
- Current issues need to be considered within a modernized *Water Act* including scarcity, new trends in governance, climate change, cumulative impacts, and watershed management.
- Effective communication is needed from all who manage water. Alignment of water policies is also critical.
- There is a need for further opportunities to participate in the *Water Act* Modernization process, before proposals are finalized.

"Use the precautionary approach to decision-making and set conservative levels."

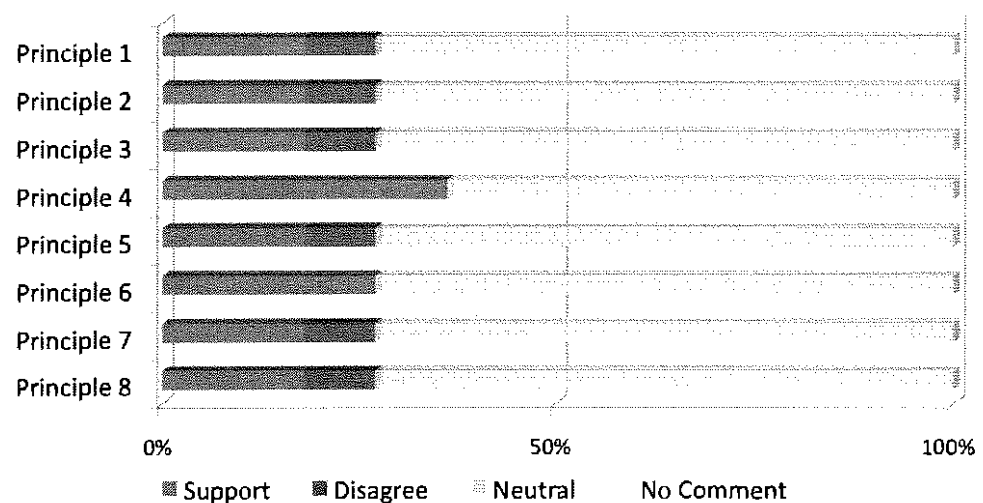
Peter Lamb
Salt Spring Island Water Council

Feedback on principles

Partnership Organizations provided comment on the principles at a lower rate than did other respondents. Submissions by this stakeholder group did, however, provide detailed comments on particular areas of support and disagreement, as well as suggestions for additional principles.

As Figure 40 demonstrates below, levels of support from this group were the same for all principles, except for Principles 4 and 6 for which higher levels of support were reported. Principles 4 and 6 focus on integrated governance and the flexibility to adapt, respectively. Many Partnership Organizations involve the participation of multiple sectors such as agriculture,

Figure 39: Partnership Organization stakeholder group response to the proposed *Water Act* Modernization principles

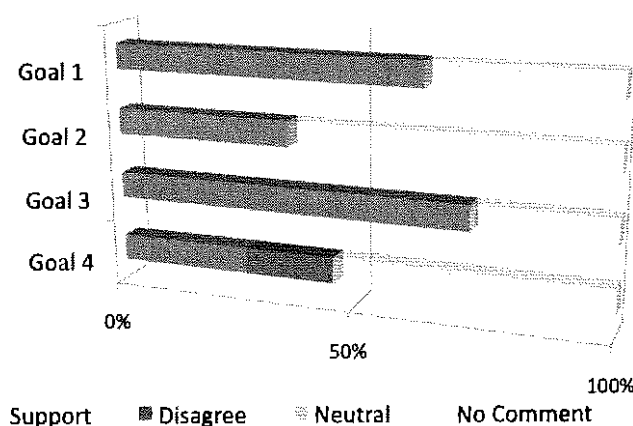


local government and resource development. Perhaps not surprisingly, Partnership Organizations suggested that the principles should reflect the collaborative nature and regional focus of these organizations.

Feedback on goals

Partnership Organizations responded to the WAM goals more frequently than they responded to the principles. Most responses indicated strong support for ecosystem protection and stream health (Goal 1). However, there was divergent opinion on whether environmental flow *guidelines* or environmental flow *standards* should be employed in BC. Stakeholder responses also identified the urgent need for the inclusion of wetlands and their protection in a modernized *Water Act*.

Figure 40: Partnership Organization stakeholder group response to the proposed *Water Act* Modernization goals



Response to Goal 2, regarding governance arrangements, was lower than most other stakeholder groups. Responses favoured shared and delegated approaches to governance. Partnership Organizations suggested that water planning should occur at a local watershed scale. Submissions also emphasized the past successes in engaging British Columbians on water issues and the value of collaborative partnerships.

Partnership Organizations indicated strong support for Goal 3, and, in particular, expressed strong support for flexibility for individual water users and decisions-makers to adapt to changing conditions. Similar to many other stakeholder groups, Partnership Organizations supported a shift away from FITFIR allocation to a Priority of Use model based on a hierarchy of uses.

Partnership Organizations strongly supported groundwater regulation objectives in Goal 4 and provided significant comment. Partnership Organizations concerned about Goal 4 point out that regulating groundwater only in priority areas may not take into account the linkages between surface and groundwater and may present a risk for other areas that are currently above priority thresholds. Other considerations for groundwater regulation should include cumulative impacts, phased implementation, and regulating extractions of some residential groundwater use.

What we heard...

from Partnership Organization stakeholders

"There is a need for increased integration of the management of surface and groundwater resources and better integration in the management of water quantity and quality issues... In order to make informed decisions regarding water resources, it is critically important to ensure that a strong base of knowledge is available, including water quantity and quality monitoring data, threat analysis, and how best to maintain water supply through a blend of a well-maintained and improved hydrologic network in watersheds, and through a combination of increasing of groundwater resources."

David Marshall
Greater Vancouver

"The Water Act was developed in 1966. The government wants that there is currently no national policy in British Columbia. We would encourage that it be made policy, be it changed in the current version of the Water Act. The government has set four goals for the Water Act modernization... To achieve those, we proposed several management approach, needs to have needed resources, and to be a collaborative principle."

John Felt
Greater Vancouver Regional Authority

"An ethic of conservation should permeate the entire discussion of allocation. The precautionary principle should be employed in the Water Act, not just 'best use allocation' where there are issues of scarcity. Modernization should evolve from the historical RFRB system, and should consider an allocation for ground and surface water conservation a priority."

Andrea Barrett
Greater Vancouver Partnership

"Regarding the withdrawal of groundwater is essential to protecting the health of a stream, the aquifer underneath the riparian area, and the ability to meet the legislation of water flow requirements for riparian and aquatic."

John Anderson
Greater Vancouver Water Management Plan

11.10 Professional Associations

Six stakeholders identified as Professional Associations submitted comments on the Discussion Paper. These included three associations and several resource professionals. One of these associations conducted a comprehensive survey of its membership, the results of which were collated and presented as a submission. This stakeholder group provided the following key messages:

- Government investment in management, monitoring, regulation, data and information, compliance and enforcement will help reduce adverse impacts to water in the future. Users should also pay for water as it is a public resource.
- A new and independent Ministry, the Ministry of Water Resources, should be established to administer all fresh water in BC.
- The modernized *Water Act* should take precedence over other legislation that addresses water.
- Surface water and groundwater should be managed as one resource; all groundwater withdrawals must be licensed, especially commercial and industrial uses of groundwater.

"Water needs to be balanced in an environmental, social and economic context. The value of water may change in the future."

Stephen Joyce and Brian Fast
CWRA BC Branch

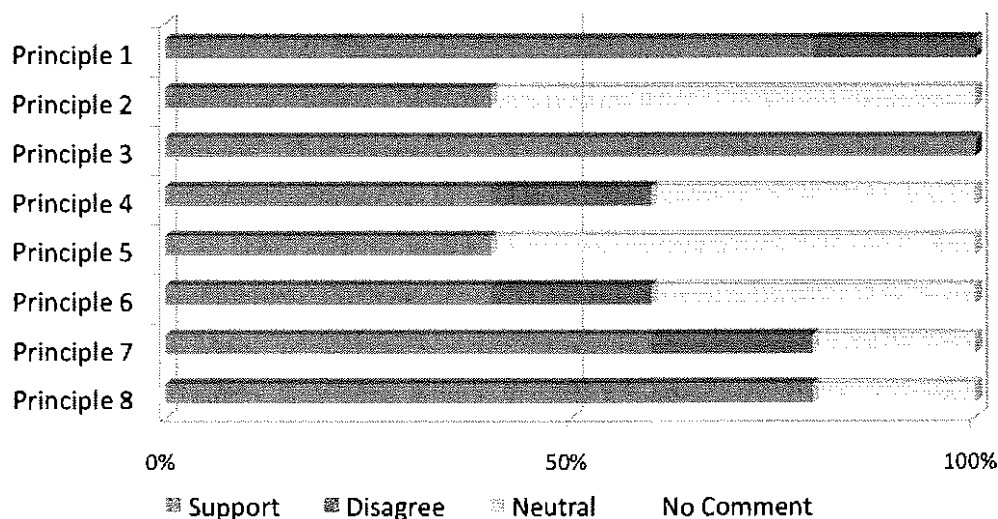
Feedback on principles

Support for the WAM principles among Professional Association stakeholders was mixed, perhaps reflecting the diversity of interests they represented.

Stakeholders in this group all supported Principle 3 and view the use of science as essential to decision-making. They also strongly supported Principles 1 and 8, which focused respectively on the sustainable use of water resources, and that rights come with responsibilities. Response rates among Professional Associations were lower for Principles 2 and 5, which focused on First Nations and creating clearly defined rules and standards, respectively.

Many submissions suggested additional principles. Most commonly, suggestions for addition-

Figure 41: Professional Association stakeholder group response to the proposed *Water Act* Modernization principles



al principles stressed the need for enhancing ecosystem protection.

Feedback on goals

Professional Associations strongly supported Goal 1, regarding the protection of stream health and aquatic ecosystems. However, fewer Professional Associations provided feedback on Goal 2 and many wanted more details about the proposed governance arrangement before commenting. Those who did comment on Goal 2 typically supported a Shared Approach as the preferred governance option. Submissions recommended that the provincial government should retain accountability but be informed by and utilize collaborative processes where practical. Some respondents stressed the need for establishing watershed reserves in all consumptive-use watersheds.

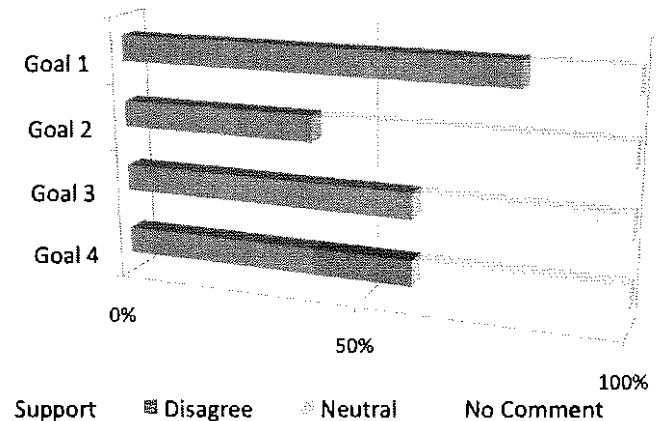
Professional Associations also provided a number of suggestions for funding new governance arrangements.

Some suggested that water governance should be self-funded by a system of taxes or fees and fines for violations to generate revenues which are directed back into funding the water program. Others recommended that a graduated fee structure should be developed for all new applications for water licences.

Professional Association stakeholders strongly supported Goal 3, regarding the introduction of flexibility and efficiency in allocation. In particular, they strongly supported using incentives and economic instruments to encourage efficiency.

Goal 4, groundwater extraction, was generally supported by Professional Associations. However, some respondents expressed concern with groundwater protection as proposed in the Discussion Paper. A number of submissions suggested broadening the scope of Goal 4 to include all extractions as well as all commercial and industrial uses of groundwater.

Figure 42: Professional Association stakeholder group response to the proposed *Water Act* Modernization goals



What we heard...

from Professional Association of Management

Where possible, strict separation in separate border terminals should be made to those with military borders as is now being considered. For instance, the Sydney Customs, although from 1981 District Customs, is one of the selected local border stations.

THE UNIVERSITY OF CHICAGO

~~SECRET~~ ~~CONFIDENTIAL~~

[illegible]

There are several reasons why the author would choose a metaphor. A metaphor is a figure of speech that compares two things that are not alike in a literal sense. The author might use a metaphor to make a point or to create a specific mood. For example, the author might use a metaphor to describe a person's character or to describe a situation. The author might also use a metaphor to make a point about a social issue or to create a specific mood. The author might use a metaphor to describe a person's character or to describe a situation. The author might also use a metaphor to make a point about a social issue or to create a specific mood.

Figure 1. The effect of the concentration of the *Agrobacterium* suspension on the transformation efficiency of *Agrobacterium* strains. The concentration of the *Agrobacterium* suspension was 10⁶ cells/ml (A), 10⁷ cells/ml (B), 10⁸ cells/ml (C), and 10⁹ cells/ml (D). The concentration of the *Agrobacterium* suspension was 10⁶ cells/ml (A), 10⁷ cells/ml (B), 10⁸ cells/ml (C), and 10⁹ cells/ml (D). The concentration of the *Agrobacterium* suspension was 10⁶ cells/ml (A), 10⁷ cells/ml (B), 10⁸ cells/ml (C), and 10⁹ cells/ml (D).

These findings suggest that the use of a single, non-specific, questionnaire to assess the prevalence of mental health problems may be inappropriate. The results of this study suggest that the use of a single, non-specific, questionnaire to assess the prevalence of mental health problems may be inappropriate.

1. The first step in the process is to identify the problem or issue that needs to be addressed. This involves gathering information and understanding the context of the problem.

2. Once the problem is identified, the next step is to define the objectives and goals of the project. This helps to clarify what needs to be achieved and provides a clear direction for the team.

3. The third step is to develop a plan or strategy to address the problem. This involves breaking down the problem into smaller, manageable tasks and determining the resources needed to complete each task.

4. The fourth step is to implement the plan. This involves putting the strategy into action and monitoring progress regularly to ensure that the project is on track.

5. The final step is to evaluate the results of the project. This involves comparing the actual outcomes against the objectives and goals to determine the effectiveness of the project.

11.11 Water Industry

Although the Water Industry made only nine submissions, their memberships and customers are many. For example, the BC Water and Waste Association represents several thousand members and the Water Supply Association of BC has just under 50 members which serve over 230,000 individuals. Other submissions were from individual companies that serve many customers. The sector provided the following key messages:

"The BCGWA strongly believes that detailed well construction and groundwater protection regulations are needed now. We represent an industry with little to no regulation. We are seeking to work toward a 'level playing field,' which will allow a reasonable living for our members and provide a sustainable, quality groundwater resource for all."

BC Ground Water Association

Water Industry stakeholders support the use of environmental flow guidelines, which

- are more flexible than standards.

Sector-specific codes should be developed to encourage efficient infrastructure

- and practices. The use of incentives and economic instruments should be used to encourage water efficiency.

Water quality is a concern and the Water Industry supports stronger prohibitions

- against the dumping of contaminants into streams.

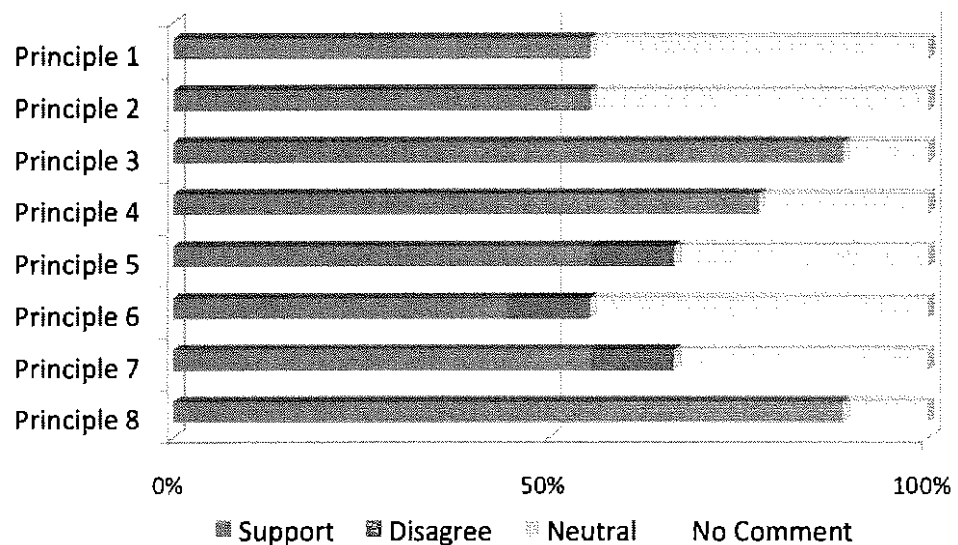
Feedback on principles

A majority of the Water Industry submissions supported the eight principles. However, a minority disagreed with Principles 5, 6 and 7 (clearly defined standards; flexibility; and incentives, respectively), which is consistent with many other stakeholders groups. Some respondents disagreed with Principles 5 and 7 because of the terms "investment climate" and "investors" and stressed that water should not be viewed as a commodity. Responses to Principle 6 suggested including a reference to changing water supply that considers longer growing seasons and an expanded water supply requirement.

Feedback on goals

The Water Industry did not provide extensive feedback on the goals; however, those who did comment supported all four. With regard to Goal 1, which focused on protecting stream health, submissions expressed a preference for environmental flow guidelines rather than standards. Water Industry submissions also supported the development of

Figure 43: Water Industry stakeholder group response to the proposed *Water Act* Modernization principles

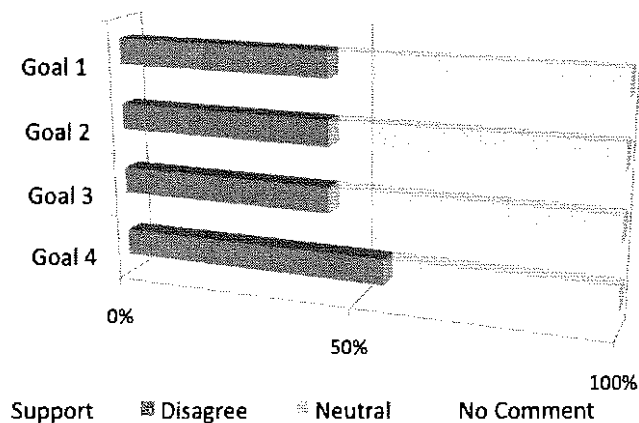


water allocation plans at the discretion of the regional manager, rather than mandatory planning.

With respect to improving water governance arrangements (Goal 2), nearly half of respondents supported a Centralized Approach to governance. However, Water Industry stakeholders requested additional clarification and opportunities to comment further on this aspect of *Water Act* Modernization, which they suggested is not fully described in the Discussion Paper.

The majority of Water Industry stakeholders supported the Goal 3 objectives that call for the development of legal mandatory codes for efficient infrastructure and practices for individual sectors as well as the use of incentives and economic instruments to encourage water efficiency. With respect to water allocation systems, the majority supported moving from the FIT-FIR allocation system towards a Priority of Use approach.

Figure 44: Water Industry stakeholder group response to the proposed *Water Act* Modernization goals



Water Industry submissions also expressed strong support for the regulation of groundwater extraction and use with the majority supporting regulation in areas of known quantity concern. However, expanding groundwater regulation to include all extraction was also preferred. Water quality was also a repeated concern, along with the need to manage groundwater and surface water as one resource.

What we heard...

from water industry stakeholders

have believed that with a few strategic
 moves to attract Soviet and Chinese funds
 and technology, Russia would be restored to
 economic and political greatness. Now the
 evidence is clear: the policy has proved wrong. It
 is time to reassess the situation and to make
 a new decision. The United States must
 continue to support the economic reforms
 and the political reforms of the Soviet Union
 and to encourage the people of the Soviet
 Union to continue to work for the better
 future of their country. The United States
 must continue to support the people of the
 Soviet Union who are working for a better
 future for their country. The United States
 must continue to support the people of the
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12 Individuals

In total, 710 individuals submitted comments on the Discussion Paper. A significant portion of Individual submissions were guided by one of four different letter-writing campaigns. These 387 letters were typically submitted via email and are referred to as “shared-form submissions.” Although shared-form submissions were based on pre-formatted letters, most included individualized content. Additionally, 323 unique submissions unaffiliated with shared-forms were received from Individuals. Although responses from individuals were highly diverse, submissions from this group as a whole provided the following key messages:

- Government must protect BC’s water resources at an ecosystem level and should employ the precautionary principle where science has yet to determine areas of impact.
- Ecosystem-level protections are key to ensuring access to clean water for all purposes. Standards must be enforceable, but allow for collaborative and innovative improvements.
- Water for food production, drinking, and ecosystems protection must be the top priority of any allocation system.
- The overall validity of the *Water Act* Modernizations engagement process is questionable given the short timelines and perceived lack of awareness of the WAM process. Further opportunities to participate should be provided before proposals are finalized.

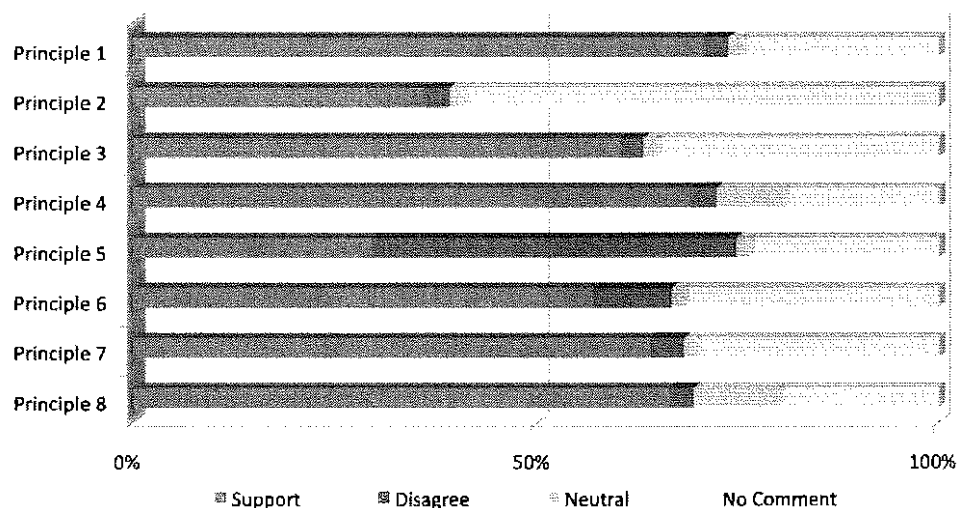
“The precautionary principle must be applied to the *Water Act* to protect ecosystem and watershed health.”

Individual Submission

Feedback on principles

Similar to other submissions, most individual responses did not specifically address every WAM principle in detail, but instead commented generally on all the principles, and then focused on specific areas of concern. Collectively, the majority of Individual submissions strongly supported seven of the eight principles. This support is in keeping with the key themes of submissions by Individual stakeholders, which called for an ecosystem first approach including responsible and enforceable protection of stream health and aquatic ecosystems. Many submissions challenged the definitions of terms such as “sustainable

Figure 45: Response to the proposed *Water Act* Modernization principles, all Individual submissions

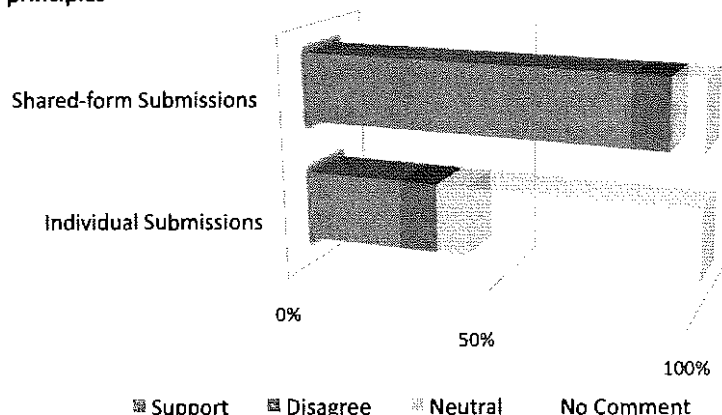


"Water is a right of all living beings. Human beings need to take priority not private interests."

Individual Submission

limits" and advocated the use of the precautionary principle in allocation, impact and planning decisions. However, when shared-form submissions and unaffiliated Individual submissions were reviewed separately, different levels of support emerged. Shared-form responses addressed on the principles at a much higher rate and expressed much stronger support for most principles than the balance of individual submissions.

Figure 46: Shared-form and unaffiliated responses to the proposed principles



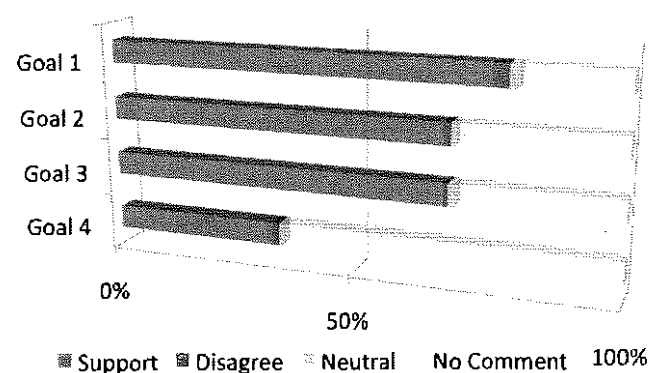
In contrast to strong support for most of the principles, a majority of individuals disagreed with Principle 5 citing concern over the definition of the term "investment."

Feedback on goals

As a whole, Individuals indicated a high level of support for the WAM goals. Shared-form submissions commented more frequently and expressed strong support for all goals. Unaffiliated Individual submissions commented less frequently, but those who did respond expressed support for all goals.

Individual submissions strongly supported Goal 1 and expressed a preference for environmental flow standards in Objective 1. Submissions also strongly supported standards-based required water allocation plans, which decision makers must follow. Submissions identified complementary relationship between enforceable standards and the ability to effectively protect water resources. Some of these submissions also called for the creation of Watershed Agencies as legal entities that would oversee and enforce these standards-based plans. Individual submissions also supported increased dumping prohibitions.

Figure 47: Response to the proposed Water Act Modernization goals, all Individual submissions



Disagreement with Goal 1 focused on how these options are defined in the *Water Act Modernization Discussion Paper*. Submissions and workshop feedback from Individuals maintained that environmental flow standards must be collaboratively developed with all water users, if they are to be followed and enforced.

In submissions and work-

shops, Individuals maintained strong support for improving water governance arrangements (Goal 2). However, feedback did not indicate a clear preference for what arrangement governance should take.

Shared-form submissions sometimes indicated that governance concerns were a key motivation for the organization of these submissions. However, the shared-form submissions did not agree on a favoured form of governance. Unaffiliated Individual submissions preferred the Delegated or Shared Approaches.

Figure 48: Shared-form response to the Goal 2 governance options

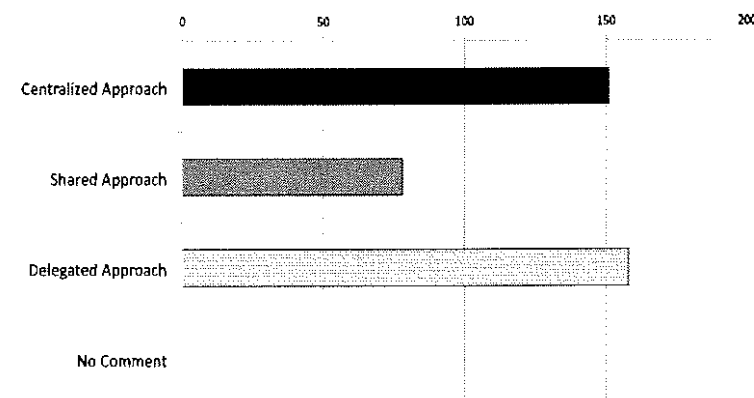
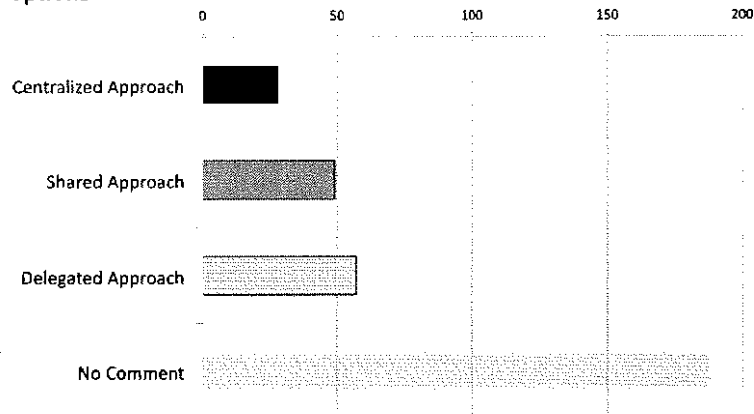


Figure 49: Unaffiliated Individuals response to the Goal 2 governance options



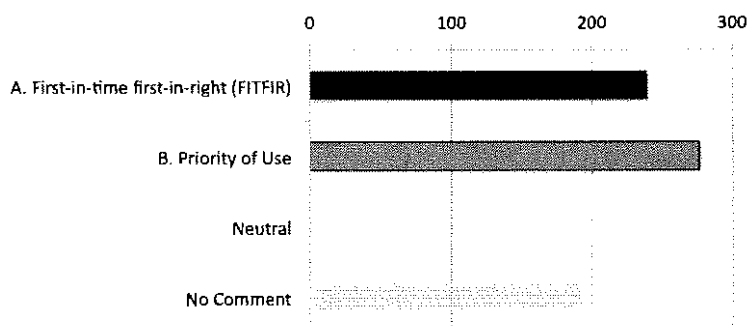
“The delegated approach is preferable because it encourages local community participation in water governance. It is also more flexible and can account for regional differences in water availability, uses, and social demographics. If watershed agencies are to function effectively, however, it is important that they have very clearly defined roles, responsibilities, and methods to be held accountable to the public.”

Individual Submission

Submissions indicated that individuals had differing interpretations of each governance option. Although preferences varied, it was clear from comments that individuals generally seek a standards-based, collaborative authority with shared-benefit solutions, in which all water users are represented.

Some unaffiliated Individual submissions supported a strong centralized provincial planning and authority approach. Like some other stakeholder groups, comments from those who supported the Centralized Approach suggested that a Delegated Approach could dif-

Figure 50: All Individuals preference for water allocation options in Goal 3



fuse authority and responsibility to the extent that environmental protections would be impeded.

Individual submissions indicated a high level of support for a flexible water allocation system (Goal 3). However,

some comments maintained that flexibility can only be effective within a framework of clearly defined standards. With regard to water allocation approaches, FITFIR and Priority of Use are both strongly supported by respondents. Comments in engagement workshops and submissions indicated that support for FITFIR is related to food security and drinking water protection as well as security for individual licensees. Like the Agriculture stakeholder group, many of these individual submissions indicate openness to a Priority of Use system in which food production and water for human consumption is highly valued.

Only about a third of Individual submissions commented on groundwater regulation (Goal 4). Those submissions that did address groundwater strongly supported regulation. As in other stakeholder groups, some Individual submissions maintained that groundwater regulation should be applied more broadly, not just for large withdrawals and in priority areas. Individual submissions also suggested that applying conservation approaches only to areas of concern or in times of shortage is reactive and inefficient. Respondents maintained that BC's water resources should be better protected by applying precautionary conservation to all areas of the province before times of water shortage.

What we heard...

from individual stakeholders

"FITFIR is to be clearly recognized as a formal allocation system and not a discretionary system with decisions which will be based by government on change and movement in the market."

Individual Submission

"The concept of 'preference' water is acceptable. We need to change the way we allocate water, giving the most priority to drinking water and agriculture. For a hydrolician or you will face the loss of the water for a short period of getting the water back to normal levels."

Individual Submission

"We must have a licensing system for water that is based on the water use and not on the water use for agriculture and industry."

Individual Submission

"In addition, government should come forward with a revised version of FITFIR that acknowledges the need for setting priorities and sharing the resources where water scarcity arises."

Individual Submission

"I disagree with having water use a priority system. I do however support legislation which protects our watersheds and water systems from industry. I believe in continued water rights for all citizens. I also feel that not enough time was given for public input for such a potentially sweeping change that the new water act could create."

Individual Submission

"Water is to be used from surface or well it should be used - no restriction."

Individual Submission

13 First Nations engagement report

A total of 16 submissions on the Discussions Paper were received from First Nations. Feedback was provided by a variety of individual bands, tribal associations and provincial organizations, as well as interest-based advocacy groups. Approximately 60 First Nations attendees participated at the First Nations-specific workshops or at the multi-stakeholder workshops in March/April 2010. First Nations participants in the WAM engagement process communicated the following key messages:

- First Nations have concerns around constitutionally protected rights and title and question provincial ownership of water.
- First Nations maintain that the WAM engagement process is not consultation and state a risk of legal action if the province does not fulfill its legal obligations.
- First Nations consider the WAM process to be far too compressed, not allowing enough time to understand the proposals, prepare and participate.
- Water has the utmost importance and is of high spiritual and economic value to First Nations.
- First Nations have a desire to co-manage water resources, including strategic engagement in planning and decision making in the context of the *New Relationship*.

First Nations in BC are diverse and dialogue at workshops highlighted that diversity and the regional variability of water-related interests. Water is fundamental to First Nations culture and plays a substantial role in communities and sustaining economic development. Aboriginal rights and title and the *New Relationship* were also topics raised in submissions and at the workshops.

Many First Nations indicated that the principles of the *New Relationship* should apply to the WAM process. The *New Relationship* is a process in which the provincial government and BC First Nations organizations are working together towards shared goals founded on respect, recognition and reconciliation of Aboriginal rights and title. Aboriginal title and rights include the ability of First Nations to make decisions about their lands and resources, and to benefit from the resources that are used or extracted. First Nations maintain that Aboriginal rights to water flow from the historic and on-going connection of First Nations to their traditional lands and resources.

According to many First Nations WAM submissions, it was too early to envision an appropriate process to comment on the specific goals and principles laid out in the Discussion Paper. First Nations also asserted that Aboriginal rights and title must be addressed before meaningful participation in the WAM process can occur.

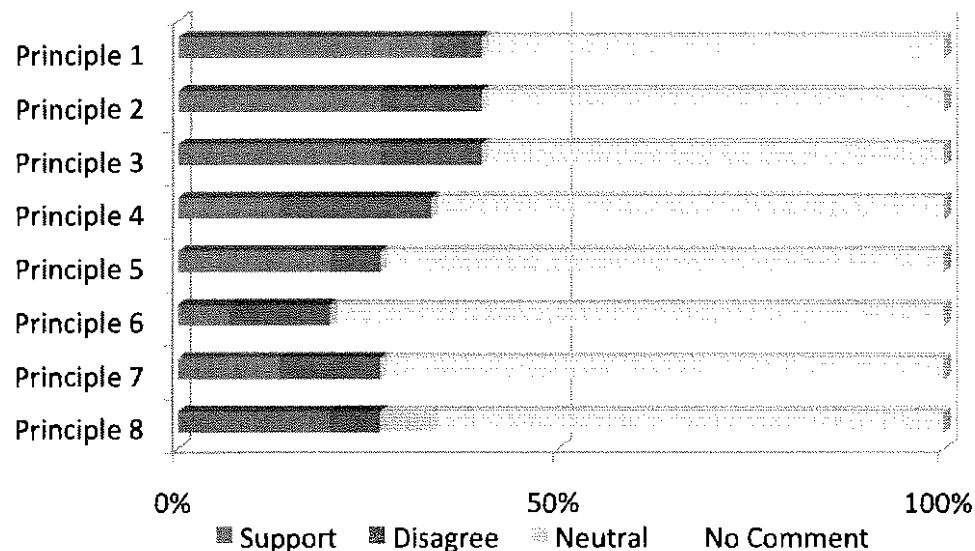
Feedback on principles

Although specific feedback on principles was limited in written submissions, First Nations provided detailed comment on the WAM principles at workshops. Dialogue at the Nanaimo workshop, in particular, focused heavily on principles and participants worked to document underlying assumptions for moving forward. Participants indicated that establishing clear, meaningful principles is essential to setting a strong foundation for a modernized *Water Act*.

"I believe that a perfect opportunity exists here that would allow for the province and First Nations to work cooperatively on the modernization of the *Water Act*."

Ken Cossey
Tsawout First Nation

For more information on the *New Relationship*, please click the blue text.

Figure 51: First Nations response to the proposed *Water Act* Modernization principles

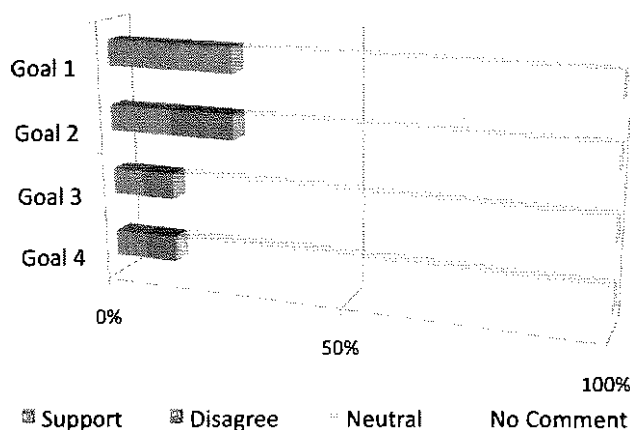
In general, First Nations participants expressed concern that the principles as proposed place too much emphasis on business and investment certainty, but not enough emphasis on maintaining ecosystems. This sentiment was demonstrated by the support for Principle 1, regarding protection of stream health, and dissatisfaction with Principles 5 and 7, which emphasize the needs of investors.

First Nations also proposed that Principle 2, regarding respect for First Nations social and cultural practices, be revised to include respect and accommodation of their economic interests. At engagement workshops, First Nations maintained that traditional ecological knowledge, supplemented with the best western science, should be used to guide water management and decision making.

WAM submissions indicated a high level of disagreement with Principle 4, regarding integrated governance, because First Nations were not clearly included in this principle.

Feedback on goals

In submissions, First Nations did not directly respond to many of the WAM goals or objectives. The areas with higher levels of comment were Goal 1 (protection of stream health) and Goal 2 (improve water governance arrangements). Although response rates were low, it is notable that Goal 1 and its objectives to protect ecosystem values was an area where First Nations submissions

Figure 52: First Nations response to the proposed *Water Act* Modernization goals

expressed no disagreement.

With regard to Goal 2, First Nations submissions and workshop commentary indicated strong concerns about constitutional rights and title. First Nations questioned the jurisdiction of the provincial government to claim ownership of water and the authority to manage water resources. A number of First Nations submissions expressed a desire to co-manage water resources with the Province, including strategic engagement in planning and decision making.

First Nations submissions and feedback at engagement workshops also expressed a strong desire for further opportunities to participate in the WAM process once their concerns about that Aboriginal rights and title are addressed.

What we heard...

reformed management the following action is the recommendation that the Province has already taken. One of the water in the city are sitting on several business trading and in order for me to start taking care. First Nations must have "Quality of Government". The assumption that First Nations do not have management of the water. During Margaret Atwood's The Handmaid's Tale, it is the first time that we see a woman with an interest in water governance. Therefore, Quality of Government is required.

2000年12月29日
 2000年12月29日

"The only thing I could think of was to get the whole team out from the back of the stadium and walk with the women. But the organizers didn't understand it. They said, 'You can't do that. You have to stay in the back of the stadium.'"

Figure 1

Figure 1 shows two maps of the study area. The top map displays the location of the study area within the context of the surrounding regions. The bottom map provides a detailed view of the study area, highlighting the specific locations of the sampling sites.

under a number of different laws, and to coordinate through them, and efforts to coordinate with other parts of the Special Operations, and among the various law enforcement and other "agencies" by means of the present, with appropriate arrangements, providing that control be given to the existing. This has been stated

We encourage the citizens to accept the responsibility of all Americans. This and many other actions are the best long-term investments we have forward to ensuring the nation's long future without being restricted by time.

[illegible]

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The above factors being considered, it is the view of the Commission that the 1997-98 assessment year should be the first year to make the proposed and other changes to the Federal Income Tax Act. There would be no need for a first year election relating to such considerations as the depreciation of assets, or such other items as the carryover of losses. If the assessment year is the first year of the Federal Income Tax Act, the

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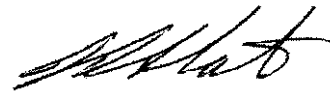
14 What's Next

I'd like to thank you for your valuable input on *Water Act* Modernization. In submissions and at workshops there was a high degree of public interest and many requests for more participation. Government is responding and will be announcing additional opportunities to comment on specific proposals later this year. In the meantime, BC's Living Water Smart blog will continue to be an active forum for dialogue on water. To read or contribute, please visit <http://blog.gov.bc.ca/livingwatersmart/>.

Thank you,



Barry Penner
MINISTER OF ENVIRONMENT



John Slater
PARLIAMENTARY SECRETARY
FOR WATER SUPPLY AND ALLOCATION

Ksan Village,
Confluence of Bulkley
and Skeena Rivers



PART FOUR

15 Appendix One: List of submissions received

Submissions are organized into three broad categories: First Nations, Stakeholders and Individuals. Complete copies of all submissions are available online at www.livingwatersmart.ca/water-act/submissions/. To protect personal privacy, the names associated with individual submissions are not listed in this report.

First Nations Submissions

BC Assembly of First Nations
Coldwater Indian Band
Cowichan Tribes
First Nations Fisheries Council
First Nations Summit
First Nations Women Advocating Responsible Mining
Kekinusugs, Dr. Judith Sayers
Kitimaat Village Council
Office of the Wet'suwet'en
Okanagan Nation Alliance
Sinixt First Nation
Stó:lō Tribal Council
Treaty 8 First Nations
Tsawout First Nation
Union of BC Indian Chiefs

Stakeholder Group Submissions

Academic & education

Gaia College
SFU - PhD Student
SFU - Earth Sciences
UBC - Conservation Biology/Forestry
UBC - Trans Boundary Water Initiative
UVIC - POLIS Project
UVIC - Sociology

Agriculture

BC Agriculture Council
BC Cattlemen's Association
BC Cranberry Growers Association
BC Fruit Growers' Association
BC Grain Producers Association
BC Landscape and Nursery Association
BC Milk Producers Association
Clinton and District Cattlemen's Association
Kamloops Stockmen's Association
Kettle River Stockmen's Association
Latta Farm
Lillooet Livestock Association
Nicola Stockbreeders Association
Shannon Dairy
St. Mary's Prairie Irrigation District

Business

British Columbia Real Estate Association
Business Council of BC
HB Lanarc
JEMS Propane Ltd
Mulvehill Creek Wilderness Inn and Wedding Chapel
Nomads Hemp Wear



Passmore Laboratory Ltd
Upland Consulting

Environmental NGO

Alberni Valley Enhancement Association
Arrowsmith Parks and Land-Use Council
BC Nature
BC Tapwater Alliance
BC Wildlife Federation-Vancouver Island
BC Wildlife Federation
Burke Mountain Naturalists
Cariboo Chilcotin Conservation Society
Central Okanagan Naturalists Club
Cougar Creek Streamkeepers
Council of Canadians
David Suzuki Foundation
Driftwood Foundation, ForestEthics, et al.
Ducks Unlimited Canada
Ecojustice
Freedom in Canadian Health Care
Future of Food in the Kootenays
Harrop-Procter Watershed Protection Society
Hornby Water Stewardship
Island Waters Fly Fishers Club
Jewell Lake Environmental Protection Society
Langley Environmental Partners Society
McConnell Creek Ratepayers
NGO Statement of Expectations-Jan2010
North Columbia Environmental Society
Pacific Salmon Foundation
Pembina Institute and ForestEthics
Perry Ridge Water Users
Queens Bay Residents Association
Salmon River Enhancement Society
Sierra Club of Quadra Island
Slocan Valley Watershed Alliance
Soil and Water Conservation Society
Stoney Creek Environment Committee
T. Buck Suzuki Environmental Foundation
Thornhill Aquifer Protection Study
Trout Unlimited
UniverCity Neighbours for Environmental Sustainability
UVIC Environmental Law Centre and Land Trust Alliance
Water Across Time our Environmental Responsibility
Watershed Watch Salmon Society
Watersociety.org
West Coast Environmental Law

West Kootenay EcoSociety
Wildsight
World Wildlife Fund Canada

Forestry

Catalyst Paper Crofton Division
Coast Forest Products Association
Council of Forest Industries
Private Forest Landowners Association
Tolko Industries Ltd

Hydropower

Atla Energy
BC Hydro
Brookfield Renewable Power
Cloudworks Energy Inc
Columbia Power Corporation
Independent Power Producers Assoc of BC
Purcell Green Power

Local government

Bulkley-Nechako Regional District
Capital Regional District
Cariboo Regional District
Castlegar
Chilliwack
Hazelton
Highlands
Hornby Island Local Trust Committee
Hudson's Hope
Islands Trust
Kelowna
Maple Ridge
Mount Belcher Improvement District
Mt. Waddington Regional District
Nanaimo
Nanaimo Regional District
Northern Rockies Regional Municipality
Okanagan Similkameen Regional District
Peace River Regional District
Penticton
Ships Point Improvement District
Sunshine Coast Regional District
Wasa Lake Land Improvement District
Whiterock

Mining

Mining Association of BC
Sahara Minerals
Teck Metals Ltd

Oil & gas

Canadian Association of Petroleum Producers
Devon Canada
Encana Corporation
Imperial Oil Resources
Shell Canada Limited
Talisman Energy

Partnership organizations

Columbia Wetland Stewardship Partners
Convening for Action on Vancouver Island
Cowichan Watershed Board
Fraser Basin Council
Mayne Island IWSS
Nicola Watershed Roundtable
Okanagan Basin Water Board
Okanagan Supply and Demand Working
Group
Saltspring Island Water Council
Somass Estuary Management Committee
Wetland Stewardship Partnership

Professional

Canadian Water Resources Association
(CWRA) BC Branch
CWRA - Vancouver Student and
Young Professionals
GW Solutions Inc
Marshall Forestry
Professional Engineers and Geoscientists of BC
Silva Ecosystem Consultants Ltd

Water Industry

BC Ground Water Association
BC Water and Waste Association
Corix Utilities
EDS Pumps and Water Treatment
Hillside Pumps and Water Treatment
Urban Systems Ltd
Water Supply Association of BC

Individual Submissions

British Columbians who did not indicate affiliation with any sector or organization provided 710 submissions to the WAM process.



16 Appendix Two: List of regional workshops

As part of the *Water Act* Modernization engagement process, a series of full-day workshops were conducted across the province during March and April 2010 at the locations listed below. More detailed information and workshop summaries are available online at <http://www.livingwatersmart.ca/water-act/workshops>.

Multi-stakeholder workshops

Nanaimo – March 5
Best Western Dorchester
70 Church Street, Nanaimo

Prince George – March 8
Prince George Civic Centre
808 Civic Plaza, Prince George

Kamloops – March 11
Coast Canadian Inn
339 St. Paul Street, Kamloops

Kelowna – March 12
Coast Capri Hotel
1171 Harvey Avenue, Kelowna

Langley – March 29
Coast Hotel & Convention Centre
20393 Fraser Highway, Langley

Smithers – April 13
The Hudson Bay Lodge
3251 E Highway 16, Smithers

Nelson – April 16
Prestige Lakeside Resort & Convention Centre
701 Lakeside Drive, Nelson

Fort St. John – April 20
Quality Inn Northern Grand
9830 – 100 Avenue, Fort St. John

Vancouver – April 21
Simon Fraser University, Harbour Centre
515 West Hastings Street, Vancouver



First Nations workshops

Kamloops – March 31
 Ramada Kamloops
 555 West Columbia Street, Kamloops

Terrace – April 14
 The Sandman Inn
 4828 Hwy 16 West, Terrace

Nanaimo – April 1
 Coast Bastion Inn
 11 Bastion Street, Nanaimo

Sample of the *Water Act* Modernization workshop agenda.

Water Act Modernization Workshop

Purpose:

- To understand the opportunities and challenges that modernizing the *Water Act* represents.
- To consider the principles and values that determine the way water is managed in B.C.
- To explore and discuss solution-oriented options for water management.

AGENDA

8:30 am – 9:00 am	Registration
9:00 am – 9:10 am	Welcome and Session Overview
9:10 am – 10:00 am	Introduction to Water Act Modernization
10:00 am – 10:30 am	Conversation on Water Values
10:30 am – 10:45 am	Coffee Break
10:45 am – 11:05 am	Proposed objectives and possible solutions
11:05 am – 12:15 pm	Break Out Session # 1 - Proposed objectives and possible solutions

Goal 1	Goal 2	Goal 3	Goal 4
Protect Stream Health and Aquatic Environments	Improve Water Governance Arrangements	Introduce more flexibility and efficiency in the water allocation system	Regulate groundwater extraction and use in priority areas and for large withdrawals

12:15 pm – 1:00 pm	Lunch Break
1:00 pm – 2:15 pm	Break Out Session # 2 - Proposed objectives and possible solutions

Goal 1	Goal 2	Goal 3	Goal 4
Protect Stream Health and Aquatic Environments	Improve Water Governance Arrangements	Introduce more flexibility and efficiency in the water allocation system	Regulate groundwater extraction and use in priority areas and for large withdrawals

2:15 pm – 2:30 pm	Coffee Break
2:30 pm – 3:15 pm	Reporting on Break Out Session Outcomes
3:15 pm – 3:45 pm	Open Discussion
3:45 pm – 4:00 pm	Next Steps and Closing

17 Appendix Three: Full text of proposed principles & goals

Proposed *Water Act* Modernization principles:

1. BC's water resources are used within sustainable limits.
2. First Nations social and cultural practices associated with water are respected and accommodated.
3. Science informs water resource management and decision making.
4. Water resource legislation, policy and decision making processes as well as management tools are integrated across all 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 help protect stream health.

Proposed *Water Act* Modernization goals and objectives:

GOAL ONE Protect stream health and aquatic environments

- Objective One: Environmental flow needs are considered in all water allocation decisions to protect stream health
- Objective Two: Watershed or aquifer-based water allocation plans include environmental flows and water available for consumptive use
- Objective Three: Habitat and riparian area protection provisions are enhanced

GOAL TWO Improve water governance arrangements

- Objective One: Governance roles and accountabilities are clarified
- Objective Two: Governance arrangements are flexible and responsive to future needs and values
- Objective Three: Management is coordinated with neighbouring jurisdictions across all levels of government and those with a major interest in the watershed

GOAL THREE Introduce more flexibility and efficiency in the water allocation system

- Objective One: The water allocation system emphasizes and encourages efficiencies in water use and in the administration of water as a natural resource
- Objective Two: Water users and decision makers have flexibility to quickly adapt to changing environmental, economic and social conditions
- Objective Three: The water allocation system integrates the management of groundwater and surface water resources where required in problem areas
- Objective Four: Water users will be required to conserve water during drought or when stream health is threatened

GOAL FOUR Regulate groundwater extraction and use

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

Water is everyone's concern

and we can all play a role in determining BC's water future. To follow the on-going progress of the *Water Act* Modernization, visit the [Living Water Smart Blog](#).



British Columbia's

Water Act

Modernization

Report on Engagement

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