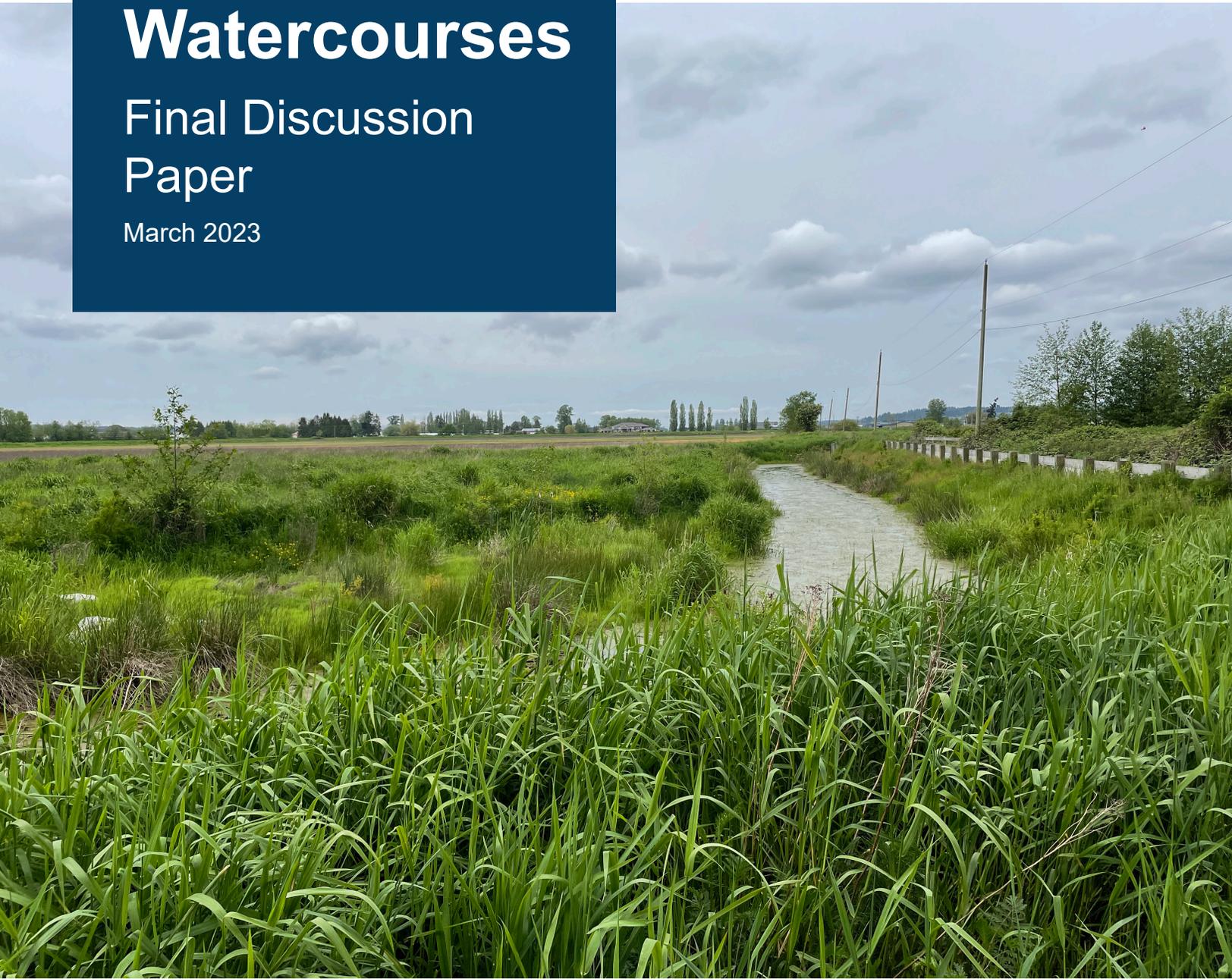


# Stewarding Agricultural Watercourses

## Final Discussion Paper

March 2023



An aerial photograph of a river winding through a rural landscape. The river is surrounded by dense green trees and lush green fields. In the upper left, there is a patch of brownish, dry-looking land. A road or path runs parallel to the river on the right side. The overall scene is bright and clear, suggesting a sunny day.

# Acknowledgments

This report was developed by Upland Agricultural Consulting in conjunction with DiamondHead Consulting. The authors are grateful to Ministry of Agriculture and Food Staff, particularly Andrea Shaw, and to the Working Group for dedicating their time and expertise to ensuring that the final document accurately reflects feedback and input from a wide range of sources.

Funding for this project has been provided by the Governments of Canada and British Columbia through the Canadian Agricultural Partnership, a federal-provincial-territorial initiative.

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# Table of Contents

Acknowledgments .....	ii
Acronyms.....	iv
Purpose .....	1
Background .....	2
Approach to Engagement .....	3
Key Directions .....	4
1.0 Coordinate watercourse stewardship at a watershed level .....	5
2.0 Create opportunities for communication and outreach.....	7
3.0 Collaborate to improve permits, notifications, and authorization processes.....	11
4.0 Connect producers with funding for watercourse stewardship .....	15



# Acronyms

AF	Ministry of Agriculture and Food
BMP	Beneficial Management Practices
ENV	Ministry of Environment and Climate Change Strategy
EFP	Environmental Farm Plan
FOR	Ministry of Forests
IAF	Investment Agriculture Foundation
LG	Local Government
NGO	Non-Government Organization
QEP	Qualified Environmental Professional
RALP	Resilient Agricultural Landscapes Program
RD	Regional District
WLRS	Ministry of Water, Land and Resource Stewardship
WSA	Water Sustainability Act
WSP	Water Sustainability Plan
WSS	Watershed Security Strategy

An aerial photograph showing a dense forest of green trees on the left and a dark river flowing along the bottom edge. The forest is lush and vibrant, with varying shades of green. The river is narrow and appears to be surrounded by a thin strip of vegetation.

# Purpose

The Stewarding Agricultural Watercourses (SAW) project aims to identify key challenges and opportunities that will allow the BC Ministry of Agriculture and Food (AF) to build on the programs currently in place and take the next steps towards water resource stewardship on agricultural lands. A series of key directions which AF can take to help support agricultural producers in watercourse stewardship were developed and are outlined in this document.

An aerial photograph showing a large area of green forest on the left and a curved agricultural field on the right. The forest is dense and green, with some lighter green areas. The agricultural field is a vibrant yellow-green, possibly a field of flowers or young crops. A dirt road or path is visible on the right side of the field.

# Background

Over a period of decades, AF has worked with producers, non-governmental organizations (NGO), industry associations, and agencies to enhance stewardship of riparian areas threaded throughout agriculturally productive lands. For example, the Environmental Farm Plan (EFP) and Beneficial Management Practices (BMP) programs support producers in maintaining and enhancing riparian areas through improved stream crossings, alternative watering sources, exclusion fencing, and re-vegetation. Building on the work undertaken by AF and the farming community, there is a desire to identify challenges and barriers, to provide further opportunities to increase the rate and success of participation in riparian stewardship.





# Approach to Engagement

The SAW project involved working with key stakeholders from the agriculture and watercourse/riparian sustainability sectors across BC, with the objective of gathering input through targeted engagement methods. The engagement process included a working group, one-on-one interviews, and a survey. A summary of those methods is as follows:

- » **Working Group** – the working group is made up of members from the BC Ministries of AF, and Water, Land, and Resource Stewardship (WLRS), as well as Fisheries and Oceans Canada. The purpose of the working group is to bring together the sectors that are impacted by a watercourse strategy and guide the engagement process.
- » **Online Survey** – An online survey was launched to gather insights and experiences from producers. The survey was advertised through existing networks, including industry associations, and was open from May 24 to July 4, 2022 online through Survey Monkey. There were 235 responses received.
- » **Stakeholder Interviews** – 30 interviews were completed with the following stakeholders:
  - 8 government staff
  - 9 contractors
  - 7 NGO and researcher representatives
  - 6 producers or agricultural industry representatives
- » **Focus Groups** – Three focus groups were facilitated to circulate an early draft of the Discussion Paper for feedback. The three focus groups were organized by audience type: practitioners (8 participants); local government staff (21 participants); and provincial government staff (11 participants). The input received during these sessions was instrumental in fine-tuning the potential actions and determining the list of collaborators for each action.

# Key Directions

The following section identifies four strategies with early recommended directions for AF to undertake following the SAW project. These directions were developed following the initial project engagement phase and are rooted in core concepts and themes which arose, and are designed to be actionable and measurable. A brief context summary is provided with each proposed strategy. The four strategies are not listed in order of priority.

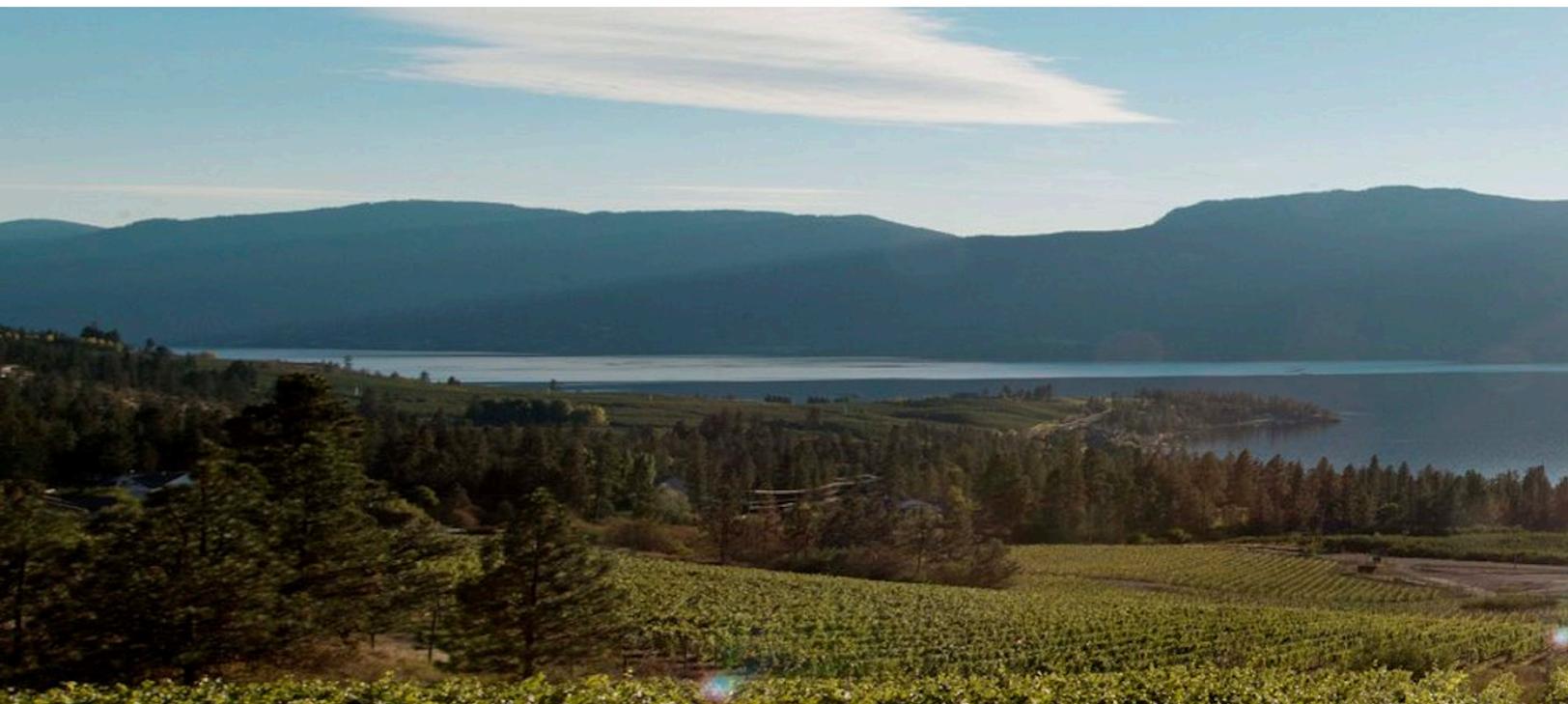


## 1.0 Coordinate watercourse stewardship at a watershed level

Watercourses are interconnected and complex, and thus are unsuited to siloed efforts of improvement or management. Approaching watercourse stewardship from a watershed level requires considering the multitude of factors that impact and influence the health and function of watercourses, including agriculture, residential or urban development and industry. Approaching watercourse stewardship from a watershed level also allows opportunities to prioritize actions within different areas of a watershed, ensuring efficiency, effectiveness, and optimal outcomes for the watershed. Inherently, this approach requires coordination and collaboration across ministries, levels of government and watercourse users. Several ongoing initiatives being led by the Province will inform the work that AF is undertaking, including:

- » the Watershed Security Strategy (WSS)
- » the Wild Salmon Strategy
- » the BC Flood Strategy

Feedback from the SAW engagement process indicated that many of the issues present in agricultural watercourse stewardship arise from actions that occur either upstream or downstream of farms, which create impacts for agricultural users. These actions or inactions may originate from one or a multitude of sources including actions of other watercourse users such as filling in culverts, grazing animals close to watercourses or mismanaging riparian areas; new or existing developments without adequate storm water management plans; and upstream forestry activities that reduce vegetative cover. When agricultural operators consider improving or stewarding watercourses on agricultural land, these external factors can impede or otherwise hinder their efforts to do so. In some cases, the work and financial investment an agricultural operator puts into stewarding the watercourses can be washed away by extreme or moderate flooding or erosion events originating from upstream activities.



**Table 1. Proposed SAW actions for improved watercourse stewardship at a watershed level.**

Objective	Potential AF Actions	Collaborators
1.1 Support the development and implementation of the Watershed Security Strategy (WSS).	<ul style="list-style-type: none"> <li>» Continue to engage with industry and WLRS on the development and future implementation of the WSS to ensure agriculture’s interests are conveyed.</li> <li>» Share feedback received through the SAW during engagement on the WSS.</li> </ul>	AF WLRS
1.2 Invest in watershed studies to identify areas that have vulnerable watercourses within agriculturally prevalent watersheds and to identify options for restoration and maintenance of ecologically sensitive areas on farms and ranches.	<ul style="list-style-type: none"> <li>» Through AF’s ongoing extension work, determine where watershed studies have been completed and where there are gaps which can be filled, on a regional basis.</li> <li>» Share the results of the watershed studies gap analysis with other natural resource Ministries, AF Regional Agrologists, and local governments.</li> <li>» Utilize watershed studies to identify areas of vulnerable watercourses for restoration and maintenance work on ecologically sensitive areas on farms and ranches across the province.</li> <li>» Utilize watershed studies to identify areas and types of actions that can be completed outside of the “notification” and “authorization/ application” process.</li> </ul>	AF WLRS FOR LG

## 2.0 Create opportunities for communication and outreach

Producers across BC hold a wealth of knowledge and expertise in land and water stewardship on their farms; however, broader community and provincial goals, objectives, policies, or legislation in watercourse stewardship are areas in which producers are less informed. Through the interview process, it was noted that in areas where producers were engaged by government or contractors (e.g. Environmental Farm Plan (EFP) Planning Advisors) the tolerance of (and compliance with) legislation was improved. There are opportunities to communicate to the producers how the Water Sustainability Act (WSA) can involve the agricultural sector. The WSA is administered by WLRS and Ministry of Forests (FOR); WLRS develops policy and direction for WSA development and implementation, whereas FOR handles the adjudication of water authorization applications. Water authorizations include water licences, short-term use approvals, and change approvals for in-stream work. Although the WSA was developed with the needs of agricultural producers in mind, this perspective is contrary to the perception of producers, who believe that the WSA limits or impedes their stewardship actions and their ability to farm. This disconnect leads to distrust and frustration of both parties and is a barrier to moving forward. Helping agricultural producers better understand how to interpret policies and regulations will facilitate their ability to make watercourse management decisions on their farms and ranches, which in turn will lead to better protection of riparian habitat and the protection of some fish and wildlife species.

The engagement process revealed that there is a need to communicate with and provide information to Qualified Environmental Professionals (QEPs) and government staff who interface with producers in matters of watercourse stewardship. While QEPs provide invaluable knowledge and insight in their areas of expertise, they may not have a clear understanding of the requirements from FrontCounter BC when applying for a change approval leading to confusion and inefficiencies in the application process. Both QEPs and government staff expressed an interest in developing an accreditation course for QEPs regarding SAW, to help inform QEPs on government expectations and improve professional reliance throughout the approvals process. Furthermore, it was found that government staff, including WSA Section 11 application reviewers and FrontCounter BC staff, possess inconsistent levels of agricultural knowledge to help guide producers and QEPs through the application process. Enhancing staff's knowledge of agricultural practices may help increase the intake and review of water authorization applications and create consistency between regions.



**Table 2. Proposed SAW actions related to watercourse stewardship communication and outreach.**

Objective	Potential AF Actions	Collaborators
2.1 Improve understanding of WSA within the agriculture sector.	<ul style="list-style-type: none"> <li>» Create a more detailed section regarding the WSA within the EFP reference guide and workbook.</li> <li>» Continue to use EFP Planning Advisors as ambassadors of information regarding the benefits (and requirements) of the WSA.</li> </ul>	AF WLRS IAF
2.2 Improve understanding within the agricultural sector of how agriculture fits in the current regulatory structure, including the WSA.	<ul style="list-style-type: none"> <li>» Create informational materials on how the agricultural sector fits in with the existing regulatory structure such as recorded webinars, town halls, and printed brochures. Develop these materials in collaboration with industry associations to ensure they are clear, concise, as well as appropriate/accessible for the audience based on language (translation may be necessary), time restraints, and access to WIFI etc.</li> <li>» Develop a factsheet on the Farm Practices Protection (Right to Farm) Act and how it interacts with watercourse stewardship and provide clarity as to when other acts and regulations supersede it. Include information to dispel misunderstandings about the objective of the WSA legislation. This factsheet will be directed to producers, local governments, and provincial Ministry staff.</li> <li>» Develop factsheets in collaboration with both FOR and WLRS staff to guide producers in determining whether a change approval permit is necessary. The factsheet will also provide guidance on notifications and activities where a water authorization is not required.</li> </ul>	AF Agricultural industry associations NGOs FOR WLRS

Objective	Potential AF Actions	Collaborators
2.3 Improve understanding within the agriculture sector of the benefits of watercourse stewardship on farmland.	<ul style="list-style-type: none"> <li>» Conduct outreach such as on-farm extension meetings, producer-to-producer field days, webinars, etc. to convey the benefits of watercourse stewardship. Revise existing materials if necessary.</li> <li>» Revamp the AF Riparian webpages in collaboration with both FOR and WLRS staff on the AF website to improve access to information on watercourse stewardship and navigating related provincial government resources.</li> </ul>	AF Agricultural industry associations NGOs FOR WLRS
2.4 Provide clarity, direction, and information for QEPs working in watercourse stewardship on agricultural land.	<ul style="list-style-type: none"> <li>» Develop and communicate clear criteria and expectations for QEPs on the process and requirements of submitting applications under WSA Section 11.</li> <li>» Provide greater clarity and specificity regarding the need to consult with Indigenous peoples, what level of consultation is required before submitting applications for water authorizations, and who is responsible for consulting with Indigenous peoples.</li> <li>» Develop a QEP accreditation course for professionals working in watercourse stewardship to improve understanding of regulatory structures around watercourses and ensure a consistent skill set is being used in SAW.</li> <li>» Provide information on the Farm Practices Protection (Right to Farm) Act and how it interacts with watercourse stewardship</li> </ul>	AF FOR WLRS QEPs Academic Institutes Professional associations FNs
2.5 Improve understanding within government departments of the intersection of agriculture and watercourse stewardship.	<ul style="list-style-type: none"> <li>» Develop webinars or informational packages for FrontCounter BC staff on agricultural matters, such as livestock fencing in riparian areas, stream crossings, and off-stream watering, to improve staff's capacity to provide guidance to agricultural producers.</li> <li>» Initiate conversations with FOR on how the adjudication of WSA approvals can be made more consistent across reviewers and regions.</li> </ul>	AF WLRS FOR

Objective	Potential AF Actions	Collaborators
	<ul style="list-style-type: none"> <li>» Provide information to local government staff and FrontCounter BC staff on the Farm Practices Protection (Right to Farm) Act and how it interacts with watercourse stewardship.</li> </ul>	
<p>2.6 Ensure perspectives from the agricultural sector are heard in watershed planning initiatives.</p>	<ul style="list-style-type: none"> <li>» Share the results of the SAW ‘What We Heard report’ with other natural resource Ministries to highlight the challenges with interpreting relevant legislation (see 2.7).</li> <li>» Enhance outreach materials by providing clear, concise interpretation of how relevant legislation applies to watershed planning scenarios and stewarding watercourses.</li> </ul>	<p>AF WLRS FOR</p>
<p>2.7 Improve understanding of the differences between relevant legislation.</p>	<ul style="list-style-type: none"> <li>» Work with other Ministries to create educational materials that describe the differences between pieces of legislation, such as how some definitions of streams and ditches are different than others. Include information on when certain definitions and pieces of legislation may apply to their projects. For example, definitions vary across the WSA, Environmental Management Act, Agricultural Environmental Management Code of Practice for Agricultural Environmental Management, and local government Official Community Plans and Zoning Bylaws.</li> <li>» Share these educational materials along with the SAW project deliverables with WLRS, FOR, and ENV to increase understanding of the complexities and the rationale for needing a more consistent approach to definitions of watercourses on farmland.</li> </ul>	<p>AF WLRS FOR</p>

## 3.0 Collaborate to improve permits, notifications, and authorization processes

Producers and contractors pointed to water authorization applications, notifications, and licensing and approval processes as being a detrimental bottleneck in progressing with watercourse stewardship projects, even when no structural developments are proposed, and the objective is to provide a benefit to ecosystems. We heard that there were significant challenges producers experienced when engaging with the water authorization process including its cost-heavy and time-consuming nature, and a lack of support from regulators and government staff through various stages of the process. Adopting a collaborative approach by establishing a community of practice (such as through round table discussions and seeking interdisciplinary perspectives) across Fisheries & Oceans Canada, provincial Ministries (e.g. WLRS, ENV, FOR), local governments, QEPs, and relevant stakeholders is one way AF can help promote collaboration.

Survey and interview feedback indicated that the process of applying for a short-term use approval and/or change approval under Section 11 of the WSA, is not only complicated, but that it can be difficult for applicants to know where to start. Navigating the regulatory system and completing an application correctly significantly lengthens the time it takes to execute necessary and often time-sensitive work on watercourses. Additionally, in instances where producers are submitting their own applications, the application process demands substantial un-paid labour from producers who may already be stretched for resources. Producers indicated that it can take months to complete the application process, and that there are often hang-ups or corrections which further slowed the process, in some cases taking years to complete. It was suggested by Ministry staff that applications developed with a QEP and/or EFP Planning Advisor were more likely to be approved without the need for arduous revisions, though the cost associated with hiring QEPs for consultation work was often out of reach for producers. It was noted that existing guides to navigate these processes are highly technical and could be adapted to better suit a broader audience. Furthermore, both producers and QEPs indicated that extension services for agriculture are lacking, and this is an area of focus they would benefit from. While it is uncommon for producers to submit their own applications, the current application process creates complications for QEPs as well and would benefit from simplification.

Concerns were also raised regarding the tight timeframe within which the approval, when and if received, remains valid. Farmers are not always able to hire professional service providers (e.g. restoration contractors) in time, or within the season, for the work to be completed within the timeline allowed by the permit. While Ministry staff suggested that time extensions were common, practitioners noted that in their experience these requests were often refused.



The topic of professional reliance was raised repeatedly. QEPs underscored their capacity to shoulder responsibility and liability on the front end of applications as experts in their field of practice. On the other hand, the provincial government bears the ultimate responsibility for the work being completed as the permit issuing body and needs to ensure that statutory decision-makers have all of the pertinent information required to make decisions on permits. This can create a lengthy application process where additional studies are required by the Province at the expense of the producer, many of which are unaffordable for the producers to undertake. This tension around professional reliance and liability likely permeates other Ministries and is worthwhile investigating further along with the involvement of Professional Associations.

Local government stakeholders acknowledged that they possessed limited tools to enforce watercourse stewardship or restoration on private land, and that the development of local bylaws and regulations to require watercourse setbacks on farmland are unlikely to receive political support at the local level. There is no clear riparian setback distances written into legislation for agricultural lands, however, all private land in BC is subject to habitat protection provisions of the federal Fisheries Act and the provincial Water Sustainability Act. When land or riparian activities (e.g., land clearing) results in possible harmful alteration, disruption or destruction (HADD) of fish habitat or impacts to the aquatic ecosystem, the absence of applying setbacks could result in costly violations under those statutes. There are opportunities for Provincial government agencies to work together to develop clear guidelines for agricultural setbacks, where appropriate, for activities such as land clearing. These guidelines could be incorporated in the Minister's Guide for Bylaw Development in Farming Areas, which would provide local governments with guidance for developing zoning bylaws and farm bylaws that affect farming areas. Other farming activities are already regulated near watercourses such as manure and pest management through the Code of Practice for Agricultural Environmental Management and the Integrated Pest Management Act.



**Table 3. Proposed SAW actions related to the water authorization processes under the WSA.**

Objective	Potential AF Actions	Collaborators
3.1 Improve guidance on WSA requirements for watercourses.	<ul style="list-style-type: none"> <li>» Work with FOR and WLRS to develop an agriculture specific guide for Change Approvals that is as relevant, accessible, and inclusive as possible.</li> <li>» Create infographics, flowcharts, and other visuals, to help applicants navigate the required change approvals application process.</li> <li>» Include a resource that outlines work that can be done under a notification rather than an approval application.</li> </ul>	<p>AF ENV FOR WLRS LG QEPs</p>
3.2 Find solutions to improve the application process for the agriculture sector.	<ul style="list-style-type: none"> <li>» Work with FOR and EFP Planning Advisors to develop a mechanism to prioritize applications that are Ministry priorities (e.g. projects funded under the BMP program).</li> <li>» Utilize watershed studies to identify areas and types of actions that can be completed outside of the “notification” and “authorization/application” process. This would help reduce the timeline for implementing low risk stewardship activities (see also 1.3).</li> <li>» Establish a community of practice across Fisheries &amp; Oceans Canada, provincial Ministries (e.g. WLRS, ENV, FOR), local governments, QEPs, and relevant stakeholders through round-table discussions and cross-ministry updates on watercourse stewardship activities and updated legislative tools.</li> </ul>	<p>AF EFP Planning Advisors FOR</p>
3.3 Provide enhanced communications and support to producers for application processes.	<ul style="list-style-type: none"> <li>» Strengthen relationships between FOR authorization officers, FrontCounter BC and AF staff to ensure everyone is aware of who to ask when questions related to agricultural interests arise.</li> <li>» Provide guidance and support on how to navigate the water authorizations process for agricultural producers. This could include factsheets, workshops, and webinars.</li> </ul>	<p>AF – Regional Agrologists EFP Planning Advisors FOR WLRS</p>

Objective	Potential AF Actions	Collaborators
	<ul style="list-style-type: none"> <li>» Ensure producers know to contact FrontCounter BC staff for one-on-one support on change approval applications.</li> </ul>	
<p>3.4 Increase professional reliance on QEPs in watercourse stewardship across ministries.</p>	<ul style="list-style-type: none"> <li>» Engage in discussions between Professional Associations, QEPs, and Ministry staff to better understand the concerns around liability and legal responsibilities. This could involve seeking a legal opinion.</li> <li>» Along with accreditation opportunities as outlined in 2.4, engage in discussions with FOR to explore the involvement of accredited QEPs as a condition for streamlining or prioritizing change approval applications.</li> </ul>	<p>AF FOR WLRS ENV QEPs</p>
<p>3.5 Provide local governments with resources and tools necessary to enforce watercourse protection. Encourage producers to undertake appropriate regulatory processes according to the WSA.</p>	<ul style="list-style-type: none"> <li>» Work with local governments to identify existing regulatory and non-regulatory tools that could be used to encourage watercourse setbacks and riparian best practices on farmland.</li> <li>» Create new provincial guidelines for watercourse setback distances for certain agricultural activities (such as land clearing) on farmland.</li> <li>» Promote the incorporation of AF's bylaws standards.</li> </ul>	<p>AF LG</p>

## 4.0 Connect producers with funding for watercourse stewardship

When done correctly, watercourse stewardship and riparian management benefit watersheds and the communities that utilize them, including producers. Producers operate on thin margins and watercourse stewardship can be resource-intensive, requiring time, money and energy which is not in surplus. The cost of materials and contractors, the time required to do the labour including application processes and the physical work, as well as the loss of farmable land to riparian areas and buffers all fall into the responsibility of the agricultural operator.

Throughout the engagement for this project, many producers noted how the work of stewarding watercourses benefited society or the environment more broadly, but that the cost was wholly laid on the producers themselves. Contractors and NGOs who work with producers noted that watercourse stewardship frequently fell to lower priority levels at the farm-level due to competing demands on limited resources available to the producer.

**Table 4. Proposed SAW actions related to watercourse stewardship funding opportunities.**

Objective	Potential AF Actions	Collaborators
4.1 Increase knowledge of existing funding opportunities relevant to watercourse and riparian work in agricultural areas.	<ul style="list-style-type: none"> <li>» Investigate and amalgamate all relevant funding opportunities into a document for farmers:                             <ul style="list-style-type: none"> <li>• Riparian management</li> <li>• Payment for ecosystem services</li> <li>• Watercourse stewardship</li> <li>• Watercourse and riparian rehabilitation</li> </ul> </li> </ul>	AF Consultant
4.2 Provide resources for agricultural users who wish to participate in watercourse stewardship.	<ul style="list-style-type: none"> <li>» Identify new and/or existing EFP BMPs to fund actions that are directly related to watercourse stewardship on agricultural land and consider increasing the cost-share requirements. This could be undertaken by incorporating the new Resilient Agricultural Landscapes Program (RALP) best practices.</li> <li>» Support the development of payment for ecosystem services programs that contract agricultural users for their work in restoring and maintaining riparian areas.</li> </ul>	AF



