



Agriculture Water Infrastructure (AWP)

Stream 3: Assessments,
Engineering Studies or Plans

STREAM GUIDE 2024/25



TABLE OF CONTENTS

PROGRAM OVERVIEW	2
STREAM 3 OVERVIEW	3
STREAM 3 ACTIVITIES.....	6
Activity 1: Water supply assessments or feasibility studies.....	6
Activity 2: Engineering studies or plans for water purveyors.....	8
Activity 3: Dam engineering assessments.....	9
Activity 4: Dam Emergency Plan.....	9
Activity 5: Dam Safety Review	9
Activity 6: Other Professional Consultative Services as required under the DSR	10
Activity 7: Drainage Master Plans, Dike Engineering Studies or Design Plans	10
PROJECT INFORMATION	13
NOTIFICATIONS AND OBLIGATIONS.....	16

If there is a discrepancy between this program guide and the information found on www.iafbc.ca, the website will take precedence.



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PROGRAM OVERVIEW

The Agriculture Water Infrastructure Program (AWP) aims to increase adoption of efficient irrigation infrastructure and improve agricultural water supply and management in British Columbia. Through this program, the Government of BC seeks to see improvements to stream flows, fish populations and an increased and more sustainable food production.

Program Objective

The objectives of this program are to:

- Maximize available water for agricultural uses, particularly irrigation and livestock watering, in water-scarce and drought-prone areas that will be increasingly stressed by climate change and will benefit from more efficient infrastructure or storage.
- Increase agricultural production with additional water infrastructure in areas with sufficient water supply or with high potential for farmland expansion.
- Protect agricultural land from flooding with effective drainage and diking infrastructure resulting in improved food production in areas subjected to excess water.

Program Goal

Improve water security in agricultural areas and food security in BC.

Program Structure

Funding is available through four funding streams. This program guide outlines Stream 3.

Funding Stream	Funding Allocation to Stream	Max. Funding Amount per Project	Cost-Shared Ratio
Stream 1: Producer Projects	up to \$10M	up to \$1M per project	50%
Stream 2: Community Projects	up to \$23M	up to \$1M-\$2M* per project	50%
Stream 3: Assessments, Engineering Studies or Plans	up to \$5M	up to \$200K per project	50%
Stream 4: Strategic Projects	up to \$5.2M	TBD	TBD

* Maximum to be confirmed after Expression of Interest stage and before application stage.

Please see www.iafbc.ca/awp for eligibility details on the other Agriculture Water Infrastructure program streams.



STREAM 3 OVERVIEW

Successful applicants of Stream 3: Assessments, Engineering Studies or Plans will receive cost-shared funding for assessments, engineering studies or plans.

This stream will fund assessments, engineering studies, or plans that:

- Are required, often by law, before implementing on-ground infrastructure work.
- Will enhance the understanding of the operational and developmental limitations to the water supplies in the regions and/or watersheds, which enable applicants to determine the appropriate type and scale of infrastructure required to achieve their project goals.
- Will help ensure funding will be allocated to projects that will remain viable, valuable, and resilient into the future under predicted climate change scenarios.

Within Stream 3: Assessments, Engineering Studies or Plans, there are seven eligible activities:

1. **Water supply assessments or feasibility studies** in key agricultural areas to determine available water supply.
2. **Engineering studies or plans** for water purveyors to assess and determine opportunities for upgrades and expansion of existing purveyed water systems.
3. **Dam engineering assessments** including redetermination of Consequence Classification.
4. **Dam Emergency Plans.**
5. **Dam Safety Reviews.**
6. **Other Professional Consultative Services** as required under the Dam Safety Regulation (DSR).
7. **Drainage master plans, dike engineering studies or design plans,** or any professional consultative services on drainage or dikes to assess and determine opportunities for upgrades or expansion of existing diking and drainage infrastructure.



Eligible Participants

To be considered eligible for Stream 3, applicants must be BC-based and must be one of the following*:

- Diking District
- Indigenous Community
- Indigenous Cooperative
- Indigenous Corporation
- Indigenous Governing Body
- Indigenous Organization - For-Profit
- Indigenous Organization - Non-Profit
- Indigenous Producer - Limited Liability Company (LLC)
- Indigenous Producer - Partnership
- Indigenous Producer - Sole Proprietorship
- Irrigation District or Improvement District
- Local Government or Regional District
- Non-Profit Organization – Agriculture
- Non-Profit Organization – Conservation
- Producer - Cooperative
- Producer - Corporation
- Producer - Limited Liability Company (LLC)
- Producer - Partnership
- Producer - Sole proprietorship
- Water Users' Community

Individual producers and Indigenous producers who use water for a mix of agricultural and non-agricultural uses are eligible.

Community water supply groups, including Indigenous groups, that provide a combination of irrigation/drainage/diking services to a mix of agricultural and non-agricultural water users are eligible.

Public corporate bodies incorporated or formed under specific provincial legislations which allow them to legally acquire/hold/control property and licenses and conduct works are also eligible.

***Please Note:** Activities may have additional eligibility requirements or restrictions.

Ineligible Participants

These following applicants are not eligible to participate in this stream:

- Non-agricultural individuals or groups (including seafood/aquaculture)
- Provincial and federal governments
- Crown Corporations

Cost-Shared Ratio & Funding Amounts

Stream 3: Assessments, Engineering Studies or Plans

Min. Funding Amount	Max. Funding Amount	Cost-Shared Ratio
\$20,000	\$200,000	50%

Stacking of funds from other government programs is allowed up to 100% of project costs provided the programs are not delivered by IAF.

What does min/max. funding amount mean?

This is the minimum or maximum amount of funding you may receive. Considering the cost-shared ratio, your total project costs (not including GST, in-kind activities, or any other ineligible items) must be equal to or exceed \$40,000. If your total project costs are greater than \$400,000 you can still apply but will only be reimbursed a maximum of \$200,000.

IMPORTANT: If your project does not meet or exceed the minimum funding amount at the time of reporting/payment, the project is at risk of cancellation (i.e., if the final reimbursement amount is \$19,999 or less, the project may be cancelled). If your project is likely to come in under the minimum, IAF strongly encourages you to apply for the [Beneficial Management Practices Program: Planning, Technical Assessments or Engineered Designs](#) instead.

What's a cost-shared ratio?

The cost-shared ratio is the respective share of (eligible) Total Project Costs contributed by the applicant and the funder. In this case, 50% of the eligible costs would be paid by the applicant with the remaining 50% paid by the Ministry of Agriculture and Food (via IAF) retroactively.

Eligible Costs

Consulting services by Qualified Professionals

Ineligible Costs

- Construction services
- Activities or costs incurred prior to approval (no retroactive approval permitted)
- In-kind activities
- Activities to support non-agricultural water uses
- Activities not directly related to agricultural water uses
- Purchase of farm equipment and related accessories or attachments (including tractors, skid steers and trailers)
- Activities that are not compliant with federal, provincial or local/municipal regulations
- Financial compensation for lost income, production or land or other associated losses due to water shortages, government orders, or other reasons
- Activities to remove land from the Agricultural Land Reserve (ALR)
- Purchase of land or easement
- Regular or on-going operating or maintenance activities
- Training or educational courses
- Financing charges, loan interest payments, bank fees and related charges
- Activities currently receiving funding from other funding sources
- GST and other taxes/credits reimbursed to applicant
- Wells
- Water quality treatment
- Irrigation systems (new or existing) funded under Beneficial Management Practices (BMP) program, Practice Code 1804



STREAM 3 ACTIVITIES

Activity 1: Water supply assessments or feasibility studies

Water supply assessments or feasibility studies in key agricultural areas to determine available water supply.

In some areas of BC, some streams or aquifers may be fully subscribed for licensing. Identifying streams or aquifers that are not fully subscribed and assessing how much additional water is available may allow increase in water supplied for agriculture.

Some streams, aquifers, or off-stream water storages may be suitable for future storage capacities to support agricultural water use. Identifying potential water storage sources could help alleviate future climate change induced drought.

Environmental flow needs assessments, hydrogeological assessments, or other assessments may be required for water licence applications (whether surface water or groundwater) under the Water Sustainability Act (WSA). These assessments will evaluate, e.g., if the proposed new water use will negatively impact the stream, including water use from a hydraulically connected aquifer. Although completing the assessment does not warrant the issuance of a water licence, use approval, or other permits/approvals, the outcome of the assessment will provide recommendation to the Ministry of Water, Land and Resource Stewardship (WLRS) for adjudication purposes.

Water supply assessments or feasibility studies:

- Address current water supply risk in a region with significant water supply problems that directly affect the viability of current agricultural operations and where it is very difficult to develop reliable water supply sources.
- Explore opportunities to provide additional water for agricultural expansion.
- Formulate long-term water supply solutions for existing and future agricultural operations within the service area of the water supply system.

Eligible Activities and Expenditures

The required components of the assessments vary depending on individual water licence and approval applications. Please contact [FrontCounter BC regional office](#) for specific requirements.

The components of the assessments or studies should include, but are not limited to, the following:

- Consideration of new or improved methodology or technology that:
 - Promotes water use efficiency.

- Is significant in the development/use of a sustainable water supply, providing long-term solutions/benefits to address the current and/or anticipated water supply risks.
- Collection, compilation and in-depth hydrological analysis of existing and new water resource information/data as well as identification of water allocation notations and existing licence demand that will help:
 - Assess the severity of the water issues that affect existing agricultural operations;
 - Assess current and viable future water supply sources and their points of diversion;
 - Determine current and future agricultural water demands;
 - Plan future water infrastructure required to support those water demands that are not being met with the current water supply sources; and
 - Determine any land easements as required.
- A schematic/drawing that identifies:
 - Location of water supply options;
 - Benefited agricultural areas; and
 - Mechanism and infrastructure required to deliver water from water sources to farms.
- Demonstration of alternate available options and identification of the best possible or most cost-effective long-term solution, using a cost-benefit analysis, that will not only be beneficial today but also remain viable and valuable in the future under climate change scenarios. The options could include, but are not limited to, the realization of new sources or upgrades of conveyance or water infrastructure.
- Consultation to inform and discuss with key stakeholders the scope of the assessment or feasibility study and potential options for water sources.
- A detailed plan that includes the technical, regulatory, environmental, financial, construction and project management requirements that would be necessary to execute the development, i.e., future construction.

Activity 2: Engineering studies or plans for water purveyors

Engineering studies or plans for water purveyors to assess and determine opportunities for upgrades and expansion of existing purveyed water systems.

Many purveyed water systems require engineering studies or plans before any efficiency upgrades or expansion can occur.

Many storage systems do not have accurate estimates of how much water is being stored, how much is being used, and when it is being used by different users.

The engineering studies or plans:

- Enhance the current water supply system to significantly reduce the water supply constraint/risk for current agricultural producers.
- Formulate long-term water supply solutions that will result in the development, expansion and/or diversification of agricultural operations within the existing purveyed water system.

Eligible Activities and Expenditures

The components of the engineering studies or plans should include, but are not limited to, the following:

- Collection, compilation and in-depth analysis of existing and future water supply sources, agricultural water demands, and water infrastructure needs.
- A schematic/drawing showing the location and extent of the proposed upgrade/expansion, current and future benefitted area, and any technical and construction aspects, e.g., survey of ditch length to be replaced by pipe, diameter of pipeline, location of pumphouse, locations of current and potential service connections, flow measuring devices, river/stream crossings, oil/gas/fibre optics pipeline crossings.
- Demonstration of alternate available options and identification of the best possible or most cost-effective long-term solution, using a cost-benefit analysis, that will not only be beneficial today but also remain viable and valuable in the future under climate change scenarios.
- Consultation to inform and discuss with key stakeholders the scope of the study or plan for potential upgrade or expansion.
- A detailed plan that includes the technical, regulatory, environmental, financial, construction and project management requirements that would be necessary to execute the plan (i.e., future construction).

Activity 3: Dam engineering assessments

Dam engineering assessments including redetermination of Consequence Classification

Classification must follow the province's [Estimating Dam Break Downstream Inundation](#) and [Downstream Consequence of Failure Classification Interpretation Guideline](#).

Dams are assessed for their risk consequence rating and may require upgrades to continue use. The cost of the engineering assessment and a design plan are often a financial barrier to producers.

Eligible Activities and Expenditures

Assessments following the requirements described in:

- [Plan Submission Requirements for the Construction and Rehabilitation of Small Dams](#)
- [Canadian Dam Association \(CDA\) Guidelines and Technical Bulletins](#)
- Other industry recognized guidance.

Activity 4: Dam Emergency Plan

Instructions, guides, and templates for preparing a Dam Emergency Plan (DEP) in BC are available in [pdf](#) or [Microsoft Word](#). Follow the [Dam Emergency Plan Information Sheet](#), and [Emergency Dam Assessment and Immediate Response Action](#).

Eligible Activities and Expenditures

Dam emergency plan completion.

Activity 5: Dam Safety Review

Agricultural dam owners could use the [Request for Proposals \(RFP\) for Dam Safety Reviews](#) as a sample to select and reach an agreement with a Qualified Professional (QP) to conduct the required Dam Safety Review (DSR) for their dams.

Eligible Activities and Expenditures

To be eligible for reimbursement, the Qualified Professional must:

- Follow the Engineer and Geoscientist of British Columbia (EGBC) [Professional Practice Guidelines for Legislated Dam Safety Reviews](#);
- Use the [Dam Safety Review Check Sheet](#) and [Field Review Checklist for Dam Safety Reviews](#) to conduct the DSR; and
- Conduct Hazards and Failure Modes Analysis ([Introduction](#), [Analysis Procedure](#), [Chart of Global Failure Modes](#); and [Safety Analysis Framework](#)) as part of the DSR.

Activity 6: Other Professional Consultative Services as required under the Dam Safety Regulation (DSR)

Other Professional Consultative Services as required under the Dam Safety Regulation (DSR)

Please visit the [Dam Safety Technical Resources](#) website or contact the [Dam Safety Program staff](#) for details.

Eligible Activities and Expenditures

May include but are not limited to:

- Hydraulic, hydrological, seismic, geological or geotechnical analyses.
- Invasive investigations.
- Development of an Operations, Maintenance and Surveillance (OMS) manual.

Activity 7: Drainage Master Plans, Dike Engineering Studies or Design Plans

Activity 7 provides funding for community systems to complete drainage master plans, dike engineering studies or design plans, or any professional consultative services on drainage or dikes to assess and determine opportunities for upgrades or expansion of existing diking and drainage infrastructure.

Please visit the [Dike Design and Construction Guidelines](#) website and follow the guidelines which include, but are not limited to, the following:

- [Dike Design and Construction Guide – Best Management Practices for British Columbia](#)
- [Sea Dike Guidelines](#) provides guidelines for the design of sea dikes to protect low-lying lands that are exposed to coastal flood hazards arising from their exposure to the sea and to expected sea level rise due to climate change. The guide is for information only and does not represent official BC Government policy.
- [Seismic Design Guidelines for Dikes](#) provides guidance and information for qualified professionals to consider when conducting seismic designs of high-consequence dikes located in the southwestern part of BC.
- [Riprap Design and Construction Guide](#) discusses the design and construction of protective works to prevent erosion of riverbanks and dike slopes from stream flow.
- [Vegetation Management on Flood Protection Works](#) provides guidelines that present minimum standards for managing vegetation on flood control structures in a manner that protects public and environmental safety.
- [Seismic Design Information Bulletin](#) for diking authorities and engineers undertaking or planning for the seismic design of dikes, or other industry recognized guidance.
- Hydraulic modelling is used to generate [flood profiles and flood scenarios](#). The B.C. Government uses these profiles and scenarios in dike engineering and land use planning.

The provincial dike inspectors may require other professional consultative services or other guidelines to be followed as required under the [Dike Maintenance Act](#) or the [Drainage, Ditch and Dike Act](#). Please visit the provincial [Dike Management](#) website, and contact the [Dike Safety Program staff](#) for details and specific requirements.

The drainage infrastructure should also follow the [Agricultural Drainage Criteria](#) to improve regional drainage and hence allow for proper drainage for lowland crops to survive and thrive.

Eligible Participants

Individual producers are ineligible under Activity 7. Eligible applicants under Activity 7 include:

- Irrigation District or Improvement District
- Local Government or Regional District
- Non-Profit Organization – Agriculture
- Non-Profit Organization – Conservation
- Water Users' Community
- Indigenous Community
- Indigenous Governing Body
- Indigenous Organization – For-Profit
- Indigenous Organization – Non-Profit

Please note: Diking districts and improvement districts are eligible to apply for diking infrastructure engineering studies or design plans under Stream 3 Activity 7 if the scope supports the understanding of flood hazards and the transfer of diking authority to a local government. Diking districts or improvement districts must demonstrate that the local government has been engaged as part of the project. Please refer to the Diking Authorities for New Dikes Policy for details. This note applies only to diking infrastructure projects proposed by diking districts or improvement districts under Stream 3 Activity 7.

Eligible Activities and Expenditures

The components of the dike and drainage design plans or engineering studies may include, but are not limited to, the following:

- Pre-design study, and summary of past studies and reports
- Field reconnaissance, geotechnical investigation, topographic survey
- Analysis of existing infrastructure and improvement options, or new construction
 - Hydraulic modelling of system capacity
 - Design criteria and methodology
 - Environmental issues
 - Structural issues
 - Design report
 - Civil design issues
 - Design aspects of operations and maintenance
 - Construction plans



- Construction inspection
- Consultation and approvals
- Project checklist and implementation plan
- Cost estimate



PROJECT INFORMATION

Applicants to the Agriculture Water Infrastructure Program – Stream 3 can start their application through the IAF Client Portal on May 30, 2024. Submissions of applications will begin on June 20, 2024, at 9:00 am. Applications will be accepted first-come, first-served on a continual basis until funding is fully committed.

Important Dates

May 30, 2024	Applications open (you can begin drafting your application)
June 20, 2024	Application submissions open starting at 9AM. Applications will remain open until funding is committed.
Project Start Date	Upon approval.
Project End Date	Maximum of 24-months following the project start date.
January 15, 2032	All projects must be complete.



Application Process

Applicants can apply through the IAF Client Portal. The application process will generally consist of:

Create an Account & Organization Registration

If you’ve (and your organization) applied for IAF-delivered funding in the past year (since January 2023) you already have an account and you’re all set! Please ensure your contact details and organization information is up to date.

If you don’t yet have an account, do not wait to start this process – it can take up to two business days to validate your organization!

Creating an account and registering your organization is simple:

1. Create a personal profile (name and email)



2. Provide organization information, including:

- Name
- Contact details
- Type of organization
- BC ID / CRA numbers (or a file number provided and recognized by the provincial government for organizations where BC ID or CRA numbers are not applicable)
- Primary contact (if this isn't you)
- And more

Apply for Stream 3: Assessments, Engineering Studies, or Plans

Starting on May 30, select *Agriculture Water Infrastructure | Stream 3* from the **Funding Opportunities** section of the IAF Client Portal and provide:

- | | |
|---|---|
| • Applicant Type (examples: Producer, Local Government, Indigenous Community, etc.) | • Water problems/issues to be solved and how the project will address |
| • Project Name | • Project location (latitude and longitude) |
| • Project Summary | • Performance measurement information |
| • Proposed Start and End Dates | • Total Project Cost (budget) |
| • Select the activities you intend to complete. | • And more |

Applicants will be required to provide copies of relevant documents (e.g., quotes, estimates, permits, licensing, assessment report, study, plan, design drawing, map, photo, letter of support, cost-breakdown, Cost-Benefit Analysis, project schedule, project related correspondence) and/or status and copy of applications for any permits pending supplementary materials in support of their application (e.g., budget, water licence, change approval). These documents are uploaded through the IAF Client Portal as attachments to the application.

IAF staff are available to answer questions regarding eligible activities, costs and/or the application process. IAF may also contact applicants for additional information or clarification to assess their application. Applicants can contact awp@iafbc.ca with any questions about the program or to receive support in developing their application or book an appointment.

Applicants are encouraged to include only activities they are confident will be completed on time and within budget limits.

Applications for funding should be complete at the time of submission (including any required documentation). If any required documentation is not submitted with the application, it will be returned to the applicant requesting missing information and will be given an updated position in the queue based on the new timestamp (time of re-submission).



Have a question?

If you have any questions about your application, program eligibility, required documents, etc., IAF encourages you to reach out to awp@iafbc.ca. You can also book a 10-minute appointment (completed by phone) with an IAF staff member starting on June 3. Prior to booking an appointment, you must start your draft application and provide the ID number (similar to AWP-202425-0####). This gives to give you and the IAF staff member a specific application to reference and provide support for within the 10-minute timeframe. Applicants are limited to one booked appointment at this time.

Review and Adjudication

All complete applications to Stream 3 will be reviewed on a first-come, first-served model. Project applications are screened and reviewed by the IAF Team. This review entails:

- Organization / applicant eligibility check.
- Ensuring application completeness.
- A detailed project / budget eligibility check.
- Confirmation of alignment with program eligibility.

IAF will complete adjudication within eight to twelve weeks of receipt of **complete** application submission.

IAF will return incomplete applications to applicants via the IAF Client Portal for resubmission with missing information/clarifications requested. Note: the resubmission date/time is the complete application submission date.

Applicants will be notified by email of funding decisions via the IAF Client Portal.

Applications will be considered until all available funding is committed. All decisions regarding application status are final. All applicants will receive a funding decision email from IAF and can see their status in the IAF Client Portal.

Application can view the status of their application on the IAF Client Portal at any time.

Project Length

Projects receiving funding through Stream 3 of the Agriculture Water Infrastructure Program can begin upon approval and should be completed within 24 months of approval. Projects may carry over between fiscal years.



NOTIFICATIONS AND OBLIGATIONS

Funding Notifications and Contracts

If the project is approved, IAF will inform the applicant of the details of the decision and any associated terms and conditions via email and through the IAF Client Portal. Successful applicants can view their funding decision letter in the IAF Client Portal (as a document attached to the active project).

Funding is application and project-specific and must be used for the approved project and related expenses. Funds are non-transferable.

Project activities requiring financial resources cannot commence until project is approved.

Projects receiving funding through Stream 3: Assessments, Engineering Studies or Plans of the Agriculture Water Infrastructure Program can begin upon approval and must be completed within twenty-four months. All projects must be completed by January 15, 2032. Projects may carry over between fiscal years.

Applicants applying to Stream 3 will be eligible to apply to Streams 1 or 2 for funding upon completion of their project if funding and time remains in the program. Funding limits are set per stream per project. Applicants can apply to multiple streams; however, they will need to apply for each stream separately and can only have a single Agriculture Water Infrastructure Program (2024-2032) project per stream underway at once. There is no lifetime maximum funding limit per applicant.

If the project is not approved, the applicant will be notified via email and the IAF Client Portal.

Funding Details

Payments are made based on actual expenses reported and payments will be made in arrears. Payments will not be initiated by IAF until reporting requirements are satisfactorily met by the client. These requirements may include one or more progress reports or a single final report at the end of a project, based on the amount of funding approved, length of project, and project complexity/risk.

Funding Acknowledgements

This program is funded by the Government of BC, as such acknowledgement of funding is required when publicly communicating about a project and/or funding. To ensure appropriate acknowledgement, all communications and marketing materials, including public announcements or social media posts, must be pre-approved by the IAF Communications Team. Materials can be submitted via the IAF Client Portal.



Reporting Requirements

Successful applicants must complete a final report and audit (if applicable) prior to receiving final payment from the program and may be required to submit interim activity and financial reporting. All required reports must be filled out and submitted via the IAF Client Portal to be considered for funding reimbursement. It is important reports are submitted on time and with all required information. Please retain all invoices and receipts, you may be asked to submit some or all receipt/invoices following a review of your report(s) by the IAF Team. Expenses will be reimbursed based on audited receipts, financial report, and the approved project budget. All reporting will be completed via the IAF Client Portal.

Changes to Contracted Projects

If you are not able to complete your project according to the approved workplan, please inform the IAF Team as soon as possible using the IAF Client Portal.