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Forest Innovation Program– Canadian Wood Fibre Centre

*Guide to the Application for a contribution to the Forest
Innovation Program–Canadian Wood Fibre Centre*

2017–2018

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1. Context and objectives

As part of the [Forest Innovation Program](#), the [Canadian Wood Fibre Centre \(CWFC\)](#) supports research, development and knowledge exchange activities in Canada's forest sector to pursue the forest sector's ongoing transformation.

NRCan is looking to support between 15 and 20 projects. The total funding available to all projects is \$700,000.

All project activities must take place in the 2017–2018 fiscal year (April 1, 2017 to March 31, 2018). The start date for eligible expenditures to be reimbursed by NRCan begins once the contribution agreement is signed by the both parties, the recipient and NRCan. The eligible expenditures end date will be no later than March 31, 2018.

Funding allocations will be determined based on the relative contribution of the proposed work to the achievement of CWFC program priorities and objectives, the dollar amount requested by the applicant and overall funds available. (For more information on funding details, see 4 Budget information.)

1.1. About the Canadian Wood Fibre Centre

The Canadian Wood Fibre Centre (CWFC) is a research branch of Natural Resources Canada–Canadian Forest Service (NRCan-CFS) with employees located across the country. The CWFC works in close collaboration with stakeholders, especially FPInnovations, bringing the federal government's priorities together with the Canadian forest sector's research needs.

This operating model enables us to:

- Enhance the relevance of CFS work by aligning federal research with the forest sector, including industry
- Facilitate the rapid uptake of government research
- Design sustainable fibre solutions for the generation of clean energy, bioproducts and biomaterials
- Develop tools to mitigate climate change

The CWFC delivers the CFS's Developing Sustainable Fibre Solutions program, which seeks to:

- Create the tools and techniques to identify and optimize the use of wood fibre attributes
- Support next-generation enhanced forest inventory
- Develop silvicultural strategies and tools for a sustainable fibre supply and bio-economy opportunities

In support of its research portfolio, the CWFC also operates the [Petawawa Research Forest](#).

1.2. CWFC objectives

The Developing Sustainable Fibre Solutions program elaborates tools and processes for forest managers and fibre end-users to support innovative processes and products. In doing so, the CWFC supports the forest sector's transition to a low-carbon economy and contributes to activities that mitigate climate change and increase the resilience of Canadian forests.

The focus of this program differs from most research at CFS as it maintains a strong focus on outreach activities to ensure rapid uptake of the processes and products that it develops.

There are three key fibre-related outputs to this program:

- Tools and techniques to identify and optimize use of wood fibre attributes
- Next-generation enhanced forest inventory
- Silvicultural strategies and tools for a sustainable fibre supply and bioeconomy opportunities

1.2.1. Tools and techniques to identify and optimize use of wood fibre attributes

This output advances the ability of foresters and other stakeholders to identify and measure important wood fibre characteristics. Improved tools and techniques will enable more reliable predictions of how wood fibre properties are affected by various treatment options.

1.2.2. Next-generation enhanced forest inventory

This output will provide foresters and other stakeholders with more current, accurate and precise forest inventories than are now possible to create. Such inventories – viewed here collectively as an overall “next-generation enhanced forest inventory” – will give a more complete and precise picture of the volume, location and characteristics of forest timber resources. Tools to support the next-generation enhanced forest inventory will contribute to better strategic and operational planning.

1.2.3. Silvicultural strategies and tools for a sustainable fibre supply and bio-economy opportunities

This output will contribute to protecting Canada's wood fibre supply to meet future needs and changing conditions. New silvicultural strategies, tools and techniques will help foresters establish forest stands that can tolerate the risks posed by a changing climate. This area of research will also support the production of fibre for value-added products in the future, and will look for solutions to mitigate timber supply shortages expected over the next 20–30 years.

For a full description of the CWFC's research areas, see Annex III Detailed description of the CWFC research areas.

2. Applicant information

2.1.4. Type of organization

Eligible recipients for contributions under this allocation include:

- Universities, colleges, and other academic institutions;

- Provinces;
- Enterprises that produce forest products and have existing forest product manufacturing facilities located in Canada;
- Enterprises that supply materials, products, or services to forest products enterprises defined above; and
- Not-for-profit research institutions (including FPInnovations).

3. Project information

3.1. Overview

For a proposed research project to be eligible, it must clearly demonstrate how it supports the objectives of the CWFC and its three research themes as outlined above in 1.2 CWFC objectives. A further description detailing the CWFC projects within each research theme can be found in Annex III Detailed description of the CWFC research areas.

Project proposals will describe what forest sector need it is addressing and for whom, along with the objectives and how the project addresses or advances one or more of the CWFC program priorities.

3.2. Work plan

Project proposals will describe the activities and/or tasks to be undertaken to achieve the objectives of the project, including the anticipated completion date of each activity/task and whether it is considered a milestone.

3.2.1. Detailed work plan

Eligible activities can consist of field work, technical and laboratory work, computer modelling and economic analysis.

Proposed knowledge transfer/technology transfer projects and activities

Knowledge transfer/technology transfer plays an important role in ensuring that research results are delivered to the forest sector in a timely and comprehensive fashion. Knowledge exchange activities emphasize collaborative problem-solving through the sharing of scientific, technological and organizational knowledge to support mutual learning and knowledge uptake by the forest sector.

Applicants are encouraged to include a knowledge transfer/technology transfer component to their project.

Other projects and activities

For all eligible projects, other relevant activities that meet program objectives may be deemed eligible for funding, and would be considered on a case-by-case basis.

3.3. Project outcomes

Project proposals will describe the expected benefits and outcomes, including where the benefits occur, to the applicant organization, to its stakeholders, to end-users and to Canada.

4. Budget information

NRCan is looking to support between 15 and 20 projects. The total funding available to all projects is \$700,000.

All project activities must take place in the 2017–2018 fiscal year (April 1, 2017 to March 31, 2018). The start date for eligible costs to be reimbursed by NRCan begins once the contribution agreement is signed by NRCan. The eligible cost end date will be no later than March 31, 2018.

Funding allocations will be determined based on the relative contribution of the proposed work to the achievement of the CWFC program priorities and objectives, the dollar amount requested by the applicant and overall funds available.

Expenditures incurred prior to execution of a contribution agreement will not be eligible for reimbursement.

Funding allocation

Contributions will be made primarily to not-for-profit organizations, and will be non-repayable.

Funding allocations will be determined based on the relative contribution of the proposed work to:

- The achievement of the CWFC objectives and
- The dollar amount requested by the applicant and overall funds available.

Priority will be provided for proposals that:

- Clearly demonstrate that the project can be completed within the fiscal year,
- Leverage additional funds from other sources and
- Clearly demonstrate that they will achieve greater benefits for external stakeholders and value for money for NRCan.

Other factors that may be taken into consideration include:

- Regional distribution of funding,
- Strong demonstration of working collaboration with NRCan and
- Representative funding across Canada.

NRCan also reserves the right to negotiate amounts requested by applicants based on the criteria above. Other project proposals received throughout the year will be assessed using the criteria above dependent on availability of funds.

Stacking provisions

Assistance will be provided for projects only at the minimum level to further the attainment of stated program objectives and expected outcomes.

Approved projects will be eligible for total government assistance not to exceed 100 percent of total eligible expenditures. The total federal government portion of this assistance can also not exceed 100 percent.

Applicants will be required to identify all sources of funding, including contributions from other federal, provincial/territorial, municipal and industry sources at the beginning and end of the project.

Subcontracts

A recipient must accept the following under any contribution agreement signed with NRCan:

- It shall not subcontract all or any part of the project except as provided in the proposal.
- It shall notify and obtain written consent of the Minister for any other new contract not originally included in the proposal that it enters into with a third party to undertake work on the project where the estimate of the cost of the work to be performed exceeds **twenty percent (20%)** of the contribution, and the notice shall include a description of the extent and nature of the contracted work, the identity of the contractor, and the estimated cost of the contracted work.

Basis of payment and reporting

Payments will be made based on a reimbursement of eligible expenditures incurred and measurable, pre-defined project milestones documented in signed progress reports.

In accordance with the Treasury Board Directive on Transfer payments, advance payments may be permitted where requested by the recipient and based on an assessment of their need, risk levels and cash flow requirements.

NRCan may withhold a percentage from each payment until all reporting and financial conditions are met.

A recipient will be required to provide the following standard reports (templates provided by NRCan) for the duration of the project:

- Progress reports at mid-year and year-end including updated budgets;
- Financial reports outlining eligible expenditures incurred with every claim for payment;
- Reports against performance measures established in the contribution agreement at mid-year and year-end; and
- A final narrative report of results 30 days after the project is complete that describes how the project has contributed to the achievement of the objectives, the benefits and the key performance indicators established in the agreement.

Regular communication between NRCan and recipients will be implemented to monitor progress. Recipients would be encouraged to present results as part of a webinar following the conclusion of the contribution agreement. While this is not a formal expectation on the part of the funding program, dissemination of research results would be beneficial for proponents and stakeholders.

Performance measurement

The Forest Innovation Program has several key performance indicators in order to measure the success of the program, one of which is the number of new products and/or processes (such as new tools or techniques) developed or in the process of being developed by March 31, 2018. In order for the program to report against this key performance indicator, research project proposals will describe the new product(s) or processes that it will develop and at what stage of development or completion by the end of the process, for which will be included in the agreements successful proposals and could include:

- Number of new forest product innovations adopted by industry;
- Economic impact of forest products, processes and technology innovations adopted by Canada's forest sector;
- Number of regulatory changes introduced and/or modified;
- Number of science-based research products or technical materials/tools (i.e. workshops, seminars) produced and/or distributed; and
- Number of science-based research/technical reports produced.

Recipient audit

NRCan may be requested to undertake a financial audit of eligible expenditures incurred by a recipient. As a result, recipients will be required to maintain all financial records regarding any funded project for a minimum of three years after the project completion date.

4.1. Funding requested

Eligible expenditures will be directly related to CWFC objectives and will include the following:

- Salaries and benefits, including full time, term and contract employees of the recipient engaged in the execution of projects (for contribution agreements with FPIInnovations only direct salary is eligible);
- Professional and technical services such as, but not limited to research, consulting, engineering, trades, and laboratory services;
- University research services (for example, non-salary related costs associated with laboratory analysis, storage, etc.);
- Material and supplies up to \$10,000 per item;
- Travel, including meals and accommodation;
- Publication, printing, and other media services and
- PST, HST and GST net of any rebate to which the recipient is entitled; and
- Overhead: eligible overhead costs will be a percentage of eligible costs reimbursed per project not to exceed 15%. Recipients will be required to substantiate overhead costs. (Overhead expenditures are: administrative support provided directly to the project by the proponent's

employees, valued on the same basis as professional staff time, heat, hydro, telecommunications expenditures, and other operating expenditures, provided they are directly related to the project.)

4.2. Leverage from other organizations

Project proposals will list other contributors along with type of organization and the activities it will conduct as well as the amount of its contribution both in cash and in-kind.

Annex I. Application and review process

a. Application schedule

The following is the schedule for the application process:

- Request for project proposals Issued: March 28, 2017
- Final date for submission of project proposals: April 18, 2017
- Initial eligibility assessment: April 24, 2017

Applicants being given further consideration will be contacted for negotiation of funding. Note: contribution agreements cannot begin before April 1, 2017 nor continue beyond March 31, 2018.

The above schedule is subject to change. Any changes will be communicated via the CCFB website.

b. Submitting a contribution proposal

To apply for a contribution, submit a completed application to CWFC's project mailbox.

The deadline for submitting applications is **no later than 11:59 p.m. PDT, April 18, 2017.**

c. Application

The application will include, but is not limited to:

- A detailed description of the project, including objectives, deliverables, expected outcomes and time frames and costs;
- Identification of how the project supports the objectives of the CWFC;
- A description of how the project will meet the program's performance measurement;
- A description of the financial plan including the identification of all sources of funding and
- Identification of lead participant and other collaborators, government, organizations or agencies and contractors participating in the project;
- Total funding requested and leveraged from other identified sources, both cash and in-kind with evidence of support, assessed against project deliverables and timeline; and
- Team capacity to deliver the proposed work.

The application form can be found here: [Application for a contribution to the Forest Innovation Program-Canadian Wood Fibre Centre.](#)

d. Proposal review and selection process

All project proposals will be evaluated by a committee that will review each proposal for completeness, relevance and adherence to the criteria below.

Project applications will be reviewed and assessed by NRCan with consideration of the following:

Completeness

All sections of the Application (Annex I.c. Application) must be completed, including the signature block. Failure to provide all the necessary information in the form may lead to the rejection of the proposal;

Eligibility

Eligibility of recipients (2.1.4 Type of organization), activities (3.1 Overview) and costs (4.1 Funding requested);

Relevance

Proposed projects must be relevant to the objectives of the CWFC (1.2 CWFC objectives). For example:

- Will the project advance or enhance the knowledge in the areas of, but not limited to, enhanced forest inventory, bio residues, genomic/genetic research, characterization of wood fibre?
- Does the project offer any tools, techniques or applications to enhance forest management decision making?
- What level of knowledge transfer/technology transfer opportunities does the project support to reach end users? Are the appropriate knowledge transfer/technology transfer products and techniques utilized?

Applicants are encouraged to submit letters of support from end users detailing their need for the proposed research or application.

e. Project Management Capacity

Project proposals will be assessed on the evidence that the activity team has the necessary capabilities, experience and qualifications to deliver the project, including the examples of demonstrated experience with similar work.

f. Contact us

Please direct all applications and questions to the [CWFC project mailbox](#).

Questions received regarding the application process will be posted on our Questions and Answers (Q&A) site for the benefit of all potential applicants and to ensure transparency and fairness in the application process. We will not include any identifying information in these questions and the pages will be updated as questions are received and answered.

Annex II. Important links

a. Background information

For more information on the FIP or any of the organizations referenced in this request for proposal, please visit the following web sites:

Natural Resources Canada (NRCan): <http://www.nrcan.gc.ca/home>

Canadian Forest Service (CFS): <http://www.nrcan.gc.ca/forests>

Forest Innovation Program (FIP): <http://www.nrcan.gc.ca/forests/federal-programs/13137>

Canadian Wood Fibre Centre: <http://www.nrcan.gc.ca/forests/research-centres/cwfc/13457>

FPIinnovations: <https://fpinnovations.ca/>

b. Application form

The application form can be found here: [Application for a contribution to the Forest Innovation Program-Canadian Wood Fibre Centre](#).

To apply for a contribution to the Forest Innovation Program-Canadian Wood Fibre Centre, [submit a completed proposal to CWFC's project mailbox](#).

For brevity, we refer in this document to the CWFC's project mailbox. If necessary, the full address of the mailbox is:

nrcan.cwfc-ccfb.nrcan@canada.ca

Annex III. Detailed description of the CWFC research areas

The Developing Sustainable Fibre Solutions program elaborates tools and processes for forest managers and fibre end-users to support innovative processes and products. In doing so, the CWFC supports the forest sector's transition to a low-carbon economy and contributes to activities that mitigate climate change and increase resilience of Canadian forests.

The focus of this program differs from most research at CFS as it maintains a strong focus on outreach activities to ensure rapid uptake of the processes and products that it develops.

There are three key fibre-related outputs to this program:

- Tools and techniques to identify and optimize use of wood fibre attributes
- Next-generation enhanced forest inventory
- Silvicultural strategies and tools for a sustainable fibre supply and bio-economy opportunities

a. Tools and techniques to identify and optimize use of wood fibre attributes

This output advances the ability of foresters and other stakeholders to identify and measure important wood fibre characteristics.

Improved tools and techniques will enable more reliable predictions of how wood fibre properties are affected by various treatment options.

Wood fibre attributes are the biological, physical and chemical characteristics of a tree that affect its value for commercial purposes. These characteristics are influenced by forest practices and changes in climate. How these characteristics are valued depends on market conditions.

Expected Outcomes

- Greater economic return through optimized wood fibre use
- Future forests able to withstand stresses of a changing climate to supply valuable wood fibre
- Increased resilience of forest-based communities

Example of current research initiatives include:

- [Matching woody residues with application](#)

b. Next-generation enhanced forest inventory

This output will provide foresters and other stakeholders with more current, accurate and precise forest inventories than are now possible to create.

Such inventories – viewed here collectively as an overall “next-generation enhanced forest inventory” – will give a more complete and precise picture of the volume, location and characteristics of forest timber resources.

Tools to support the next-generation enhanced forest inventory will contribute to better strategic and operational planning. These tools, and the products they generate, will:

- Facilitate precision planning and management of Canada’s wood fibre supply by enabling forest managers to make better-informed decisions using models that spatially predict forest stand productivity.
- Help reduce operational costs through improved planning.
- Help avoid the risk of costly errors by providing reliable information for a variety of important management and planning variables.

The enhanced inventories can also incorporate forest ecosystem service values, such as wetlands, wildlife habitat and species richness. Such information will better enable forest managers to take into account how all those values contribute to healthy, resilient and productive forests.

Expected outcomes

- Enhanced information about Canada’s forest resources
- Detailed baseline information for tracking effects of changing climate and valuing forest carbon
- Integration of social and environmental values into forest management planning
- Operational uptake of next-generation enhanced forest inventory tools

Examples of current research initiatives include:

- [Enhanced forest inventory techniques](#)
- [Aerial LiDAR and forest inventory monitoring](#)

c. Silvicultural strategies and tools for a sustainable fibre supply and bio-economy opportunities

This output will contribute to protecting Canada’s wood fibre supply to meet future needs and changing conditions.

New silvicultural strategies, tools and techniques will help foresters establish forest stands that can tolerate the risks posed by a changing climate. This area of research will also support the production of fibre for value-added products in the future, and will look for solutions to mitigate timber supply shortages expected over the next 20–30 years.

Work includes research into enhancing tree breeding through the use of genomics, and into assisting the migration of trees as their ranges move with changing climate. Innovative silvicultural strategies are being designed and adapted to the characteristics of the current forests and value chains.

Expected outcomes

- Increased resilience and productivity of Canada’s forest resources
- Improved forest sector health
- Support for the development of a low-carbon economy

- Increased resilience of forest-based communities
- Enhanced social licence for the continued management of Canada's forests

Collaborative research projects

Work has been divided into three projects, each delivering on one facet of the output:

- Stand establishment practices for resilient forests: This project will help establish or transform forest stands so they can withstand the risks posed by changing climate while at the same time producing fibre for value-added products in the future.
- Silvicultural solutions to mitigate risks of decreased short-term timber supply: This project will address potential timber supply shortages expected within the next 25 years in many jurisdictions of Canada.
- Sustainable supply of wood fibre for bioeconomy opportunities: This project will help develop operationally and economically feasible sustainable residue supply chains for industry.

Examples of current research initiatives include:

- [Using waste in the production of fast growing woody crops](#)
- [Increasing forest stand production with high-quality silvicultural data](#)

Annex IV. Questions and Answers

What are the intellectual property considerations?

All intellectual property that arises in the course of the project shall vest in, or be licensed to the recipient. The recipient will grant Canada a non-exclusive, irrevocable, world-wide royalty-free license in perpetuity to use the data and information contained in reports and modify such reports and documents for non-commercial government purposes.

Are there environmental assessment considerations?

Projects under the FIP will be assessed as per the Canadian Environmental Assessment Act and other applicable legislation prior to funding being released to a proponent.

Are there Indigenous consultations?

NRCan will undertake Indigenous consultations for projects under the FIP as needed on a case-by-case basis. In determining the need to undertake Indigenous consultations for a project, NRCan will consider both the duty to consult as well as good governance practices and will do so based on available Departmental and Federal guidance, and in consultation with departmental advisors and legal services. Any Indigenous consultations required for a particular project will be completed prior to funding being released to a proponent.

What if I have other questions?

Questions received regarding the application process will be posted on our Q&A site for the benefit of all potential applicants and to ensure transparency and fairness in the application process. We will not include any identifying information in these questions and the pages will be updated as questions are received and answered.