BRANCHING OUT MARCH 2023



WORKING TOGETHER TO MANAGE OUR VITAL FOREST RESOURCES

Branching Out is the newsletter of the Forest Resource Improvement Association of Alberta (FRIAA). It is published quarterly to communicate the objectives and activities of the association to members and other interested parties. The purpose of FRIAA is to enhance the forest resources of Alberta for the benefit of all Albertans. It encourages improved forest management activities over and above those required by government regulation. It is, uniquely, an organization that collaborates with academia, government, municipalities, industry, and the Government of Alberta ministry responsible for forestry. It has supported practical and applied research, on-the-ground forest improvement strategies, and innovative approaches to forest inventory and planning that helps Alberta manage its forest resource sustainably. Editorial material in this newsletter may be reproduced and disseminated with the following credit: "Courtesy of Forest Resource Improvement Association of Alberta."

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Cover photo: White spruce (Picea glauca) on legacy seismic line near Fox Creek, Alberta

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(MPBP) - Spring 2023 Request

Snow crystals in Northern Alberta

for Proposals

President's Message



On behalf of the FRIAA board of directors, I hope everyone had a happy new year and is enjoying 2023 so far! As the days get longer and brighter, I am reminded of all the potential ahead of us and excited for what this year will bring.

In this edition of *Branching Out*, we are pleased to share a diversity of project stories, including the potential benefits of using drone technology for reforestation on inaccessible sites, the forward-looking approach of sustainable environmental management planning on the Tsuut'ina Nation, and the successful delivery of forest education outreach to K-12 students during the pandemic.

Several FRIAA programs have had project approvals over the past few months, including the Caribou Habitat Recovery Program, FRIAA FireSmart Program, and the Mountain Pine Beetle Program. Some of the projects are outlined here, with additional details available on our website.

Looking forward, the Mountain Pine Beetle Program has opened a request for proposals. Details can be found on the FRIAA website, with a link provided in the following pages. The FRIAA FireSmart Program recently closed the January 2023 request for expressions of interest, and we are looking forward to future projects awarded under this program.

We encourage members and related organizations to continue submitting proposals across our various programs. We will continue to support all proponents in project delivery and achievement of outcomes.

As always, please feel free to connect with us any time. Your input and feedback is highly valued.

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Richard Briand President, FRIAA



Environmental Management Plan to Shape Future for Tsuut'ina Nation

Jordan Hayes and Peter Crane reviewing landscape assessment map

Long-term horizon planning is essential to ongoing improvement and sustainability for Tsuut'ina Nation. CCI Inc. (CCI) was engaged to develop an environmental management plan (EMP) for Tsuut'ina Nation, with the intent of improving environmental resource management. This project was sponsored by Spray Lake Sawmills (1980) Ltd., Sundre Forest Products – West Fraser Mills Ltd., and Canadian Forest Projects Ltd. through the **Forest Resource Improvement Program (FRIP)**.

Bordering southwest Calgary, Tsuut'ina Nation Reserve No. 145 was formed after the signing of Treaty 7 in 1877 and encompasses approximately 3 ½ townships, or 30,000 hectares of land. The comprehensive EMP provides Tsuut'ina Nation with a road map for both short- and long-term development of natural resources, as well as mitigates the risks to forest resources ranging from wildfires to disease.

Throughout project development, community engagement and feedback were vital. Developing a plan that maintains a focus on cultural values is essential. Jordan Hayes, operations manager at CCI, says "one of the key things is around engagement with the community on how they want their land to look in 200 years and for us to support them in achieving those goals." One priority that the community shared during the project was "making sure that the land is not here just for the current community, but for future generations to come."

As part of the project, aerial imagery, Alberta Vegetation Inventory, and LiDAR data was collected, and it became evident that Tsuut'ina Nation is home to a very old forest-age class distribution, posing significant risks of fire, insects, and disease. "The plan demonstrates different strategies of how you could manage and reduce the risks to the community and the potential loss of those forests," says David Springer, forestry project manager at CCI.

Moving forward, CCI will continue to be engaged with Tsuut'ina Nation to implement the plan. Reflecting upon the project, Springer says, "This was an extremely rewarding project to be a part of, and CCI is looking forward to the next steps of implementing the plan with Tsuut'ina Nation."



Flagged transects on EnRLD reforestation project site

Reforestation Using Drone-Deployed Seedpods

In 2016, the Fort McMurray wildfire destroyed nearly 579,767 hectares (ha) of forests in northern Alberta and quickly became one of the most well-known natural disasters to ever happen in Canada. Through the **Enhanced Reforestation of Legacy Disturbances (EnRLD) Program**, Northland Forest Products Ltd. (Northland) was able to help reforest nearly 609 ha, including planting 875,520 white spruce seedlings, and innovatively reforest three of the outstanding treatment areas using drone technology.

In 2020, Northland was awarded the Fort McMurray reforestation project under the EnRLD program but encountered accessibility issues in several of the planned reforestation blocks. Rather than leaving those areas untreated, Northland sought out a unique solution and teamed up with Flash Forest, a Canadian reforestation company that is pioneering the use of drone and seedpod technology for aerial reforestation.

"Flash Forest was one of the first Canadian companies to utilize drone technology for aerial seedpod deployment, and we were immediately intrigued by their novel approach to reforestation. Northland wanted to support Flash Forest's creative exploration in discovering the full extent and application of this technology," said Ben Secker, Northland project manager.

In May and October of 2021, preliminary trials were carried out on three EnRLD reforestation openings across 8.14 ha. Mechanical site preparation using a low-impact mulcher worked through the burned area, leaving most fire-killed timber standing and intact. Understory vegetation, woody debris, and litter were removed to create microsites for the seedpods. In the trials, multiple types of pods, seed treatments, and planting methodologies were tested to understand which approach worked best for jack pine, white spruce, and black spruce in northeastern Alberta. The trial informed the approach taken in a larger Forest Resource Improvement Program (FRIP) project in 2022.

Reforestation was completed in August 2022.





Long-term efficacy of seedling establishment through drone-deployed seedpods has yet to be determined. This project highlights the potential of technology to help supplement traditional tree-planting and reforestation techniques in isolated or low-accessibility areas.

"There's a lot to be learned through this partnership," said Secker. "These trials have led to advancements in both the seedpod and drone technology. Our objective is to explore how technological innovation could augment proven and trusted silvicultural tools and practices to go above and beyond what is required of the forest industry."



Jack pine (*Pinus banksiana*) seedlings; Bryce Jones of Flash Forest demonstrating drone capabilities

Inside FOREST Education connects with students and teachers across the province

Inside FOREST Education implemented a twoyear program delivering forest education to Alberta students and teachers with the support of the **Forest Resource Improvement Program (FRIP)**. Over the two years, Inside FOREST Education delivered field trips for Alberta K-12 students at five provincial demonstration forests and developed the Youth Forestry Leadership Summit. Inside Education connected with teachers through workshops and professional development conferences, covering topics such as forest ecology, sustainable forest management techniques, wildlife mitigation, and the interaction between forests and riparian areas. With the onset of the COVID-19 pandemic, most in-person programming switched to online versions. Inside Education connected with over 6,500 students and 300 teachers for various workshops and online lessons. "The most important thing we did at the onset of the pandemic was to ask teachers how we could support them," says Inside Education Executive Director Steve McIsaac. "[We supported them] by developing virtual presentations, online teacher workshops, and virtual lesson plans." The fall of 2021 saw the return of forestry field trips. The project concluded with four trips that connected 2,000 students with forestry fieldsites and hands-on education.



Inside Education hosted the fourth ForestEDWest Conference in Canmore, Alberta, in March 2022 with the support of FRIP. For three days, 120 school teachers, forest education specialists, government workers, industry association representatives, academics, and university students joined together to dive deep into sustainable forest management, forest issues, and setting the direction for forest education across western Canada. "Throughout the conference our guests from other provinces, and even those Albertans who might not have been familiar with FRIAA, remarked with appreciation—and a bit of envy, it's fair to say—that Alberta has such a supportive forest sector and that FRIP funds enable so many incredible forest education programs throughout our province. So much so that Alberta is unequivocally the leader in forestry education across Canada."



ForestEDWest conference field trip – Mountain pine beetle site near Banff





Student field trips permitted again as of September 2021: Spray Lake Sawmills FMA – Jumpingpound Demonstration Forest



FRIAA FireSmart vegetation management project at Janvier, Alberta

FRIAA FireSmart Program

The June 2022 FRIAA FireSmart request for expressions of interest received 30 applications, asking for a total of \$2,738,066. In December 2022, the review committee approved 21 proposals for \$2,079,763. Approved projects include:

- 2 for FireSmart planning,
- 1 for legislation and planning,
- 2 for public education,
- 2 for interagency cooperation, and
- 14 for vegetation/fuel management.

See the full list of approved projects here.

Below are just a few examples of approved projects:

MD Ranchland Wildfire

Mitigation Assessment

(MD of Ranchland No. 66)

Discipline: FireSmart planning

Term: December 2022 to November 2023

Objective: To develop a wildfire hazard and risk assessment plan and complete 55 home assessments throughout the municipal district.

Blood Tribe Community Education Program

(Blood Tribe Department of Health)

Discipline: Public education

Term: December 2022 to July 2023

Objective: To conduct 60 FireSmart home assessments and enhance community awareness of FireSmart through an education and awareness campaign.

Zama City Re-Mulch FireGuard

(Mackenzie County)

Discipline: Vegetation/fuel management

Term: December 2022 to May 2023

Objective: To perform maintenance on the existing FireGuard of Zama City. Throughout this project, approximately 23.29 hectares will be treated by mechanical mulching to reduce the fuel loads.

FRIAA FireSmart's most recent request for expressions of interest closed on February 17, 2023.



Advanced regeneration on legacy seismic line near Grande Cache, Alberta

Caribou Habitat Recovery Program (CHRP)

In July 2022, FRIAA published a request for expressions of interest for the **Implementation** of **Caribou Habitat Restoration** in the Little Smoky caribou range compartment LSM11. Five expressions of interest were received. The project was awarded to **Westcore Contracting Inc.**

Mountain Pine Beetle Program (MPBP)

In October 2022, FRIAA published a request for proposals (RFP) under the Mountain Pine Beetle Program (MPBP) for level 1 control projects for the upcoming winter season. Two proposals were received. One project was approved for **Blue Ridge Lumber Inc.** with the objective to identify and control mountain pine beetle-attacked trees on the Alexander First Nation Reserve.

New Funding Announcement

Mountain Pine Beetle Program (MPBP): Spring 2023 Request for Proposals

The MPBP program was established to help control the mountain pine beetle infestation spreading throughout Alberta. This request for proposals (RFP) is for eligible MPB control projects as outlined in the MPBP program outline.

Examples of eligible activities include:

- Aerial and ground surveys,
- Single-tree control,
- · Log-yard management plans,
- Protection of seed orchards and progeny test sites,
- Long-distance dispersal monitoring, and
- Regional planning initiatives.

The RFP is aimed at FRIAA members in order to coordinate with industry's activities on the landscape.

The deadline for proposal submissions is March 27, 2023.

For more information, please click here.



Satellite log yard with mountain pine beetle traps near Blue Ridge, Alberta





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