



# FARMLAND ADVANTAGE

## IMPACT REPORT **2023/24**

Farmland Advantage is an IAF program that partners with farmers and ranchers in BC to protect and conserve critical lands, streams, and habitats.



# THANK YOU

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Farmland Advantage is an IAF program. For the 2023/24 Fiscal year, IAF gratefully acknowledges the financial support to the Farmland Advantage program from the Government of Canada through Agriculture and Agri-Food Canada, Environment and Climate Change Canada, and Fisheries and Oceans Canada, and by the Province of British Columbia through the Ministry of Agriculture and Food, the Ministry of Water, Land and Resource Stewardship, and the Ministry of Forests.



Riparian restoration work on Vancouver Island

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## ACRONYMS

<b>AF</b>	BRITISH COLUMBIA MINISTRY OF AGRICULTURE AND FOOD
<b>ALR</b>	AGRICULTURAL LAND RESERVE
<b>BCSRIF</b>	BRITISH COLUMBIA SALMON RESTORATION AND INNOVATION FUND
<b>BCWS</b>	BRITISH COLUMBIA WILDFIRE SERVICE
<b>BMP</b>	BENEFICIAL MANAGEMENT PRACTICE
<b>DFO</b>	FISHERIES AND OCEANS CANADA
<b>ECCC</b>	ENVIRONMENT AND CLIMATE CHANGE CANADA
<b>FLA</b>	FARMLAND ADVANTAGE
<b>IAF</b>	INVESTMENT AGRICULTURE FOUNDATION OF BC
<b>OKIB</b>	OKANAGAN INDIAN BAND
<b>PES</b>	PAYMENT FOR ECOSYSTEM SERVICES
<b>SAR</b>	SPECIES AT RISK
<b>SME</b>	SUBJECT MATTER EXPERT
<b>WLRS</b>	BC MINISTRY OF WATER, LAND AND RESOURCE STEWARDSHIP

# INTRODUCTION

**The 2023/24 fiscal year was one of growth for IAF's Farmland Advantage (FLA) program. This report provides a program overview, presents the results achieved during the 2023/24 fiscal year (April 1st, 2023, to March 31st, 2024) and provides an outlook for future growth.**

FLA is a BC-based payment for ecosystem services (PES) program that identifies sensitive ecosystems and high stewardship opportunity areas on agricultural lands. Farmland Advantage targets agricultural lands within the Agricultural Land Reserve (ALR) with sensitive riparian and grassland ecosystems. More recently, IAF has also begun targeting sites which have the potential to mitigate wildfire risk under FLA's Wildfire Risk Reduction Pilot Project.

Through FLA, IAF works with farmers, ranchers and Indigenous communities to restore, maintain, and enhance ecosystem services on lands under their stewardship. Ecosystem services are the beneficial natural processes arising from healthy ecosystems, such as purification of water and air, pollination of plants, soil carbon sequestration, flood control, climate regulation, and many others. Farmers and ranchers are provided financial compensation through the program to restore riparian areas, enhance native grassland ecosystems, protect Species at Risk (SAR), and contribute to wildfire risk reduction.

The success of FLA is based upon new and established relationships with farmers and ranchers, Indigenous community partners, industry associations, non-profit organizations, academia, and local, regional, provincial, and federal governments.





## FARMLAND ADVANTAGE GOAL:

BC farmers are celebrated and compensated for actively undertaking sustainable agricultural practices and stewardship activities that measure, maintain, and enhance ecosystem health over the long term.

# APPROACH

IAF uses a specific GIS targeting methodology to identify important regions, watersheds, and sites where it conducts and revises ecosystem health assessments; implements measures for improvement; and evaluates results.

## Site Selection

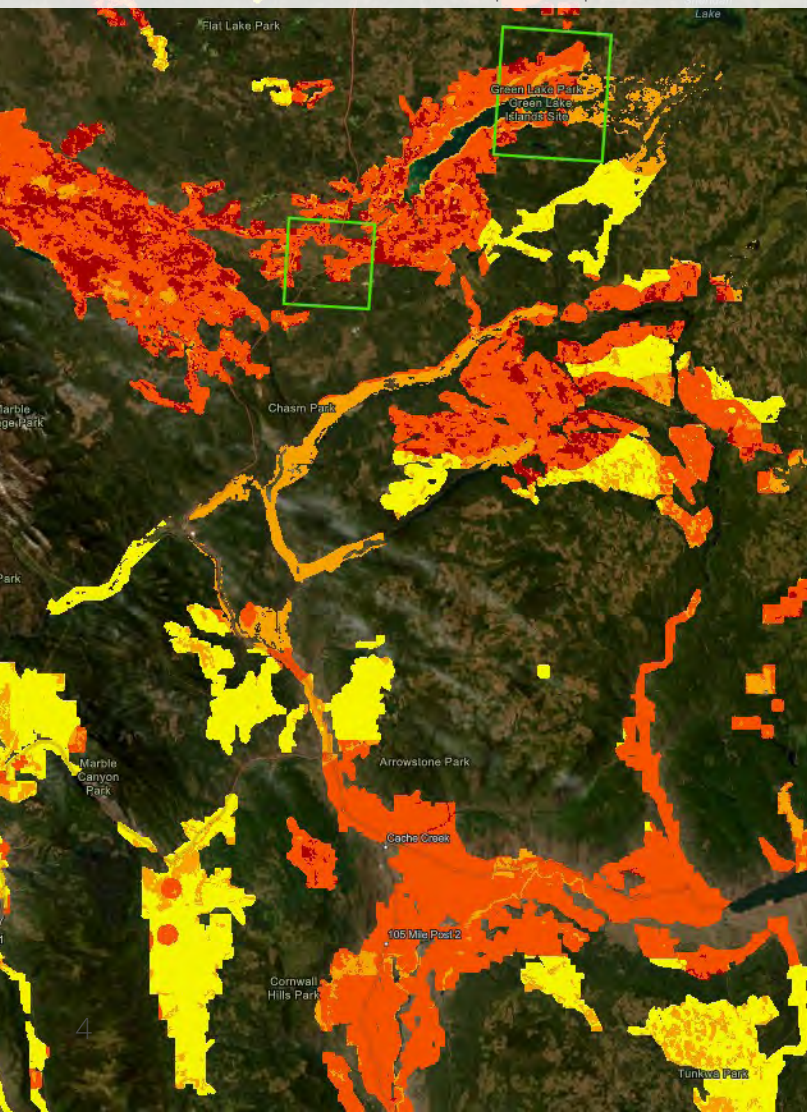
FLA sites are selected based on rigorous site selection methodology. Using GIS Hot-Spot Mapping, IAF identifies areas of convergence of the ALR, SAR habitat, critical grasslands and riparian habitats, and potential for wildfire risk reduction.

The maps below show potential areas of interest for restoration and conservation on grassland and riparian habitats. Several mapping layers are used to identify the hot-spots on each map. The map's dark red "Very

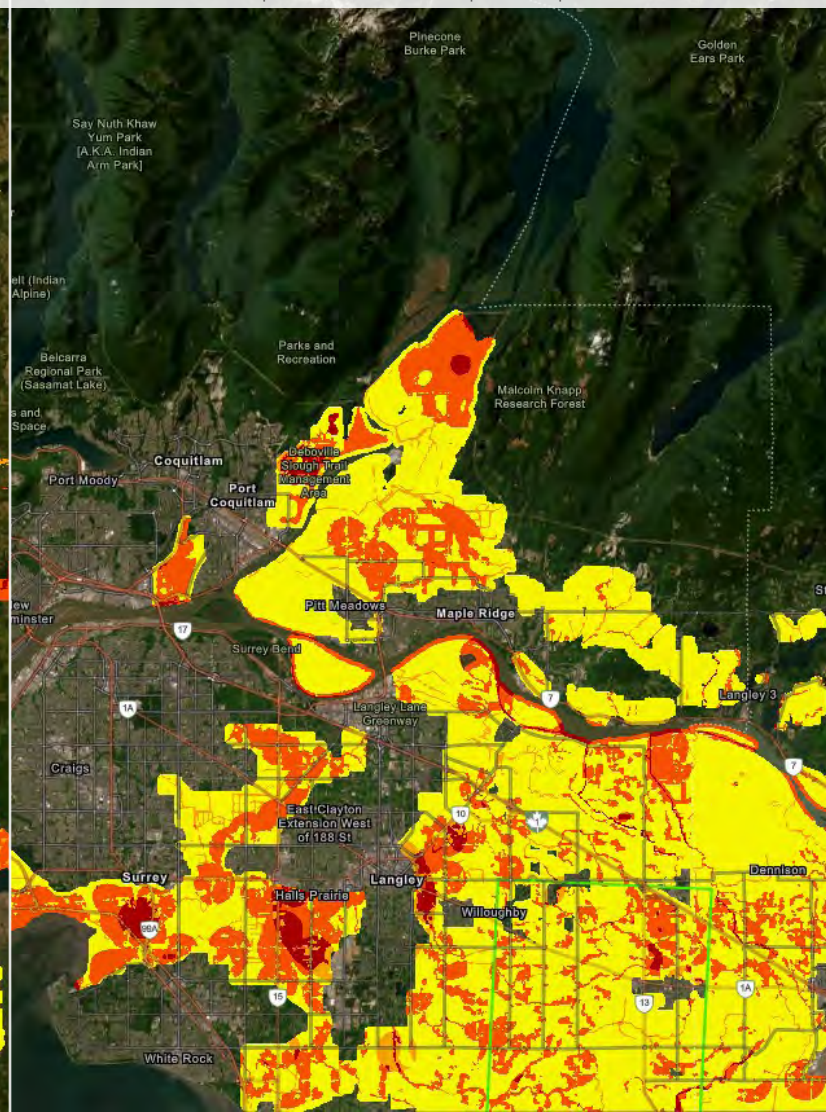
High" areas have all layers overlapping. The lighter red and orange colours have a combination of multiple layers, but not all. Lastly, the yellow areas on the map are habitats in the ALR but have no other mapping characteristics. The green boxes indicate areas where IAF currently has FLA sites.

Learn more about site selection and view the interactive maps at [www.farmlandadvantage.ca/approach](http://www.farmlandadvantage.ca/approach)

Grassland GIS Hot-Spot Map



Riparian GIS Hot-Spot Map



# Participating in Farmland Advantage

Once an area is identified by the program's site selection process and GIS hot-spot mapping, IAF works with Advisors and Restoration Partners in the region to conduct outreach and encourage farmers and ranchers to participate. When a farmer or rancher agrees to participate, their project moves through several steps:

## STEP 1

FLA Advisors visit farms to conduct an initial health assessment of the riparian, grassland, or other ecosystem under consideration.

## STEP 2

FLA Advisors present ecosystem restoration and/or enhancement actions to the farmer/rancher through a proposed Management Plan and prescribe Beneficial Management Practices (BMPs) to improve ecosystem services.

## STEP 3

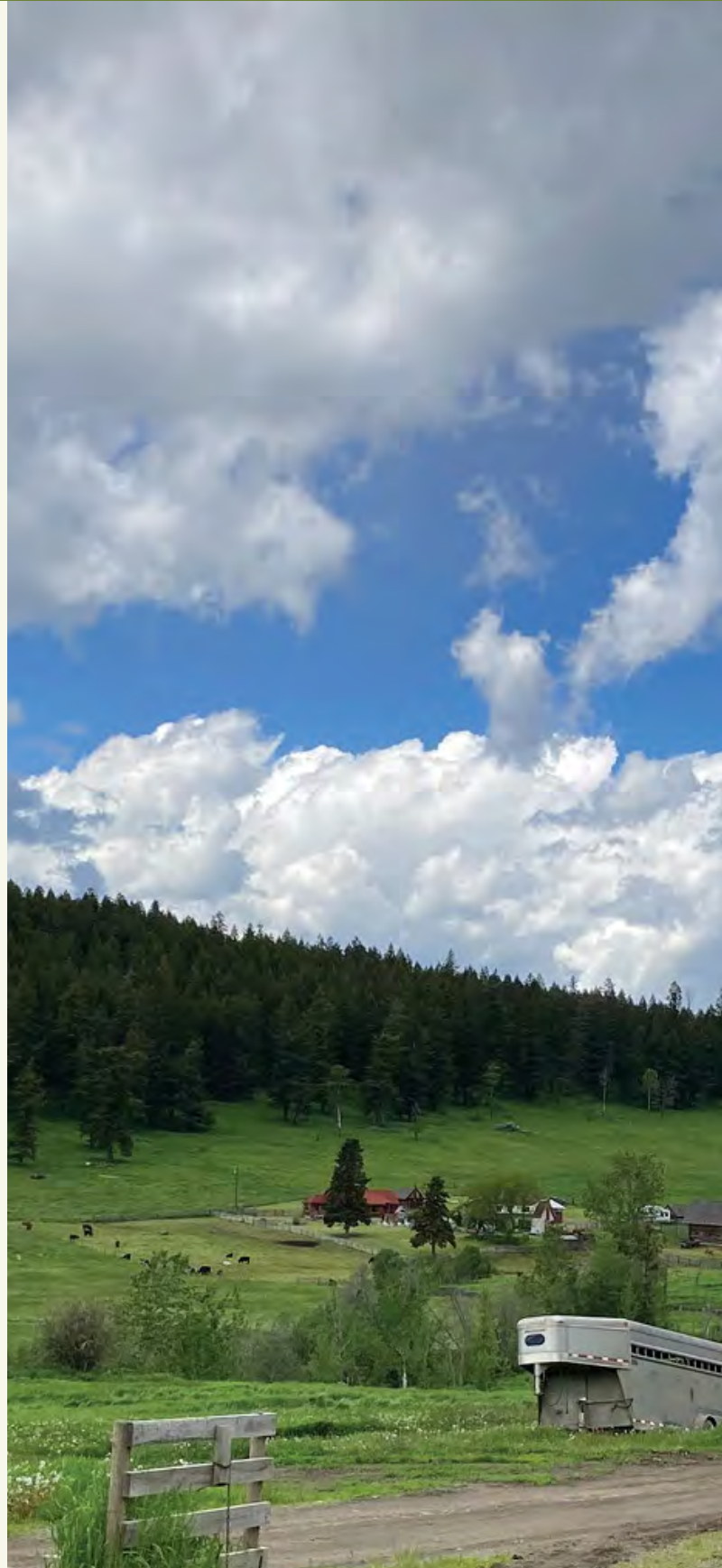
Farmers agree to the proposed plan and work with IAF to implement the BMPs on their land, and to maintain and monitor the BMPs into the future. Restoration Partners, including local, non-profit organizations and/or registered professional contractors, may be involved in on-farm restoration work.

## STEP 4

FLA Advisors conduct annual site visits to monitor and evaluate the restoration work and the BMPs' efficacy, and to ensure restored areas are being maintained.

## STEP 5

Annual payments are issued when a farmer/rancher has successfully met or maintained the actions outlined in their Management Plan.



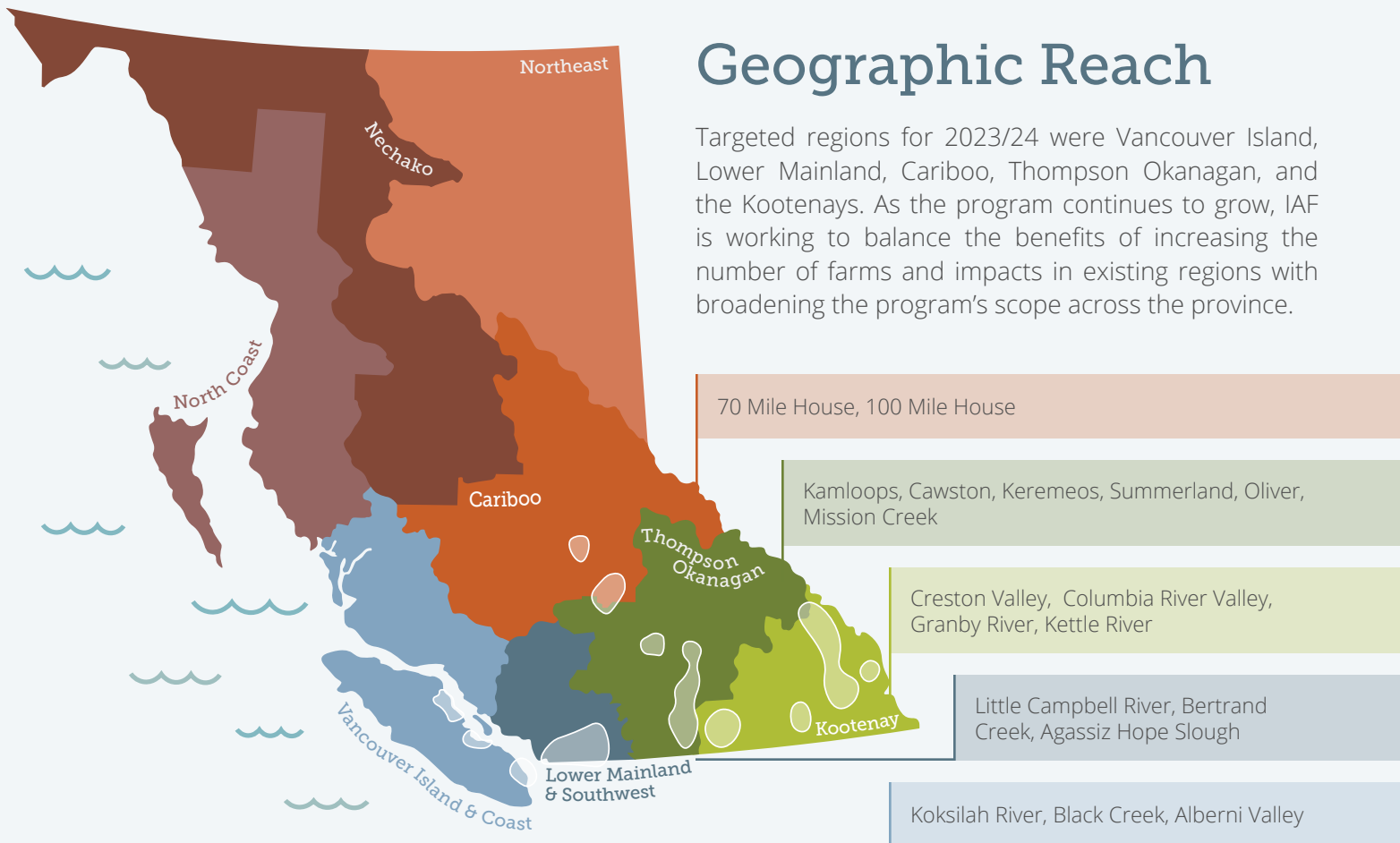
# PROGRAM OUTCOMES

The 2023/24 fiscal year marks one of substantial growth for the FLA program. IAF has expanded into new geographic areas and increased the number of participating farms to 97, who have a total of 111 FLA projects underway. Of those projects, 42 were new in 2023/24.

This year IAF also welcomed two new program funders: Fisheries and Oceans Canada through the British Columbia Salmon Restoration and Innovation Fund (BCSRIF), and Agriculture and Agri-Food Canada and the British Columbia Ministry of Agriculture and Food through the Resilient Agricultural Landscapes Program (RALP).

## Geographic Reach

Targeted regions for 2023/24 were Vancouver Island, Lower Mainland, Cariboo, Thompson Okanagan, and the Kootenays. As the program continues to grow, IAF is working to balance the benefits of increasing the number of farms and impacts in existing regions with broadening the program's scope across the province.



By the end of the 2023/24 fiscal year:

97\*

Farms  
under contract

77

Riparian  
Projects

26

Grassland  
Projects

8

Wildfire Risk  
Reduction Pilot Sites



# Riparian Ecosystems

The riparian zone is the area surrounding lakes, streams, rivers, or other bodies of water. They provide important ecosystem services such as vital wildlife habitat, water storage and flood control, and improved water quality for salmon and other species of fish. Collectively, rivers, streams, lakes, and wetlands provide habitat for at least 25% of BC's vertebrate, invertebrate, and vascular plant species<sup>1</sup>. Much of BC's agricultural lands are adjacent to, and intersecting with, riparian areas. Agricultural threats to riparian habitats include cropland expansion and development, livestock grazing, and invasive plants.

A total of 77 FLA projects were active across 75 farms to restore, improve, and/or maintain riparian ecosystems in 2023/24. Of these projects, 30 are new and 47 are ongoing projects that commenced in prior years.

For each new project on a farm, a riparian health assessment is completed and a site prescription for restoration activities is created. Restoration activities are coordinated by qualified restoration partner organizations, and included removing invasive species, replanting native species, fencing out livestock, and stabilizing stream banks.

For each existing project, contracts with farms were extended from 2022/23 to ensure the riparian restoration work from previous years is maintained. Maintenance actions include controlling invasive species removal, watering new planting, and maintaining and fixing fences. Some of these past sites required further restoration work to improve ecosystem health, which was completed in 2023/24.

**52 ha** | Riparian area restored

**15.7 km** | Shoreline protected by fencing

**10,357** | New plantings

## Site Highlight: Shorewolf Farm

Last year, IAF expanded FLA into the Black Creek watershed, located within the Comox Valley on Vancouver Island. Shorewolf Farm participated in that first year and continued maintenance of the restoration work in 2023/24.

In 2022, an FLA Advisor worked with the farm to form a restoration plan, which included several methods to enhance the health of the riparian area. Throughout the summer, fall, and winter of 2022/23 the planned restoration work was undertaken. Invasive species were removed, and native species were planted along the bank. Beaver guards were installed around plantings to protect them from the hungry wildlife that live and travel through the area. When these trees and shrubs establish and grow tall, their deep roots will assist in preventing further streambank erosion.

This year the farm worked to maintain the restoration, including watering and maintaining the new plantings. Read more about this project at [www.farmlandadvantage.com/shorewolf-farm/](http://www.farmlandadvantage.com/shorewolf-farm/).



Plantings protected by guards at Shorewolf Farm. 7

# PROGRAM OUTCOMES

## Grassland Ecosystems

Healthy grasslands provide ecosystem services such as increased biodiversity, forage for livestock and wildlife, soil retention and nutrient cycling, and water and carbon storage. Native grassland ecosystems are a declining habitat and the most endangered ecosystem in Canada.<sup>2</sup> More than 30% of BC's SAR depend on grasslands for their survival, even though these habitats occupy just 1% of BC's total area.<sup>3</sup>

In the 2023/24 fiscal year, IAF restored, improved or maintained grassland ecosystems through 26 FLA projects across 25 farms. Nine projects began in 2023/24 and 17 are continuing from previous program years. Retaining farmers and ranchers over multiple program years allows for continued enhancement and conservation of habitat for SAR, and additional wildfire risk reduction.

For each new site, a grassland health assessment and a site prescription for restoration activities is completed. On most sites, restoration and maintenance work is producer-led and included fence installation and maintenance for targeted grazing, mitigation of wildfire risk, and habitat restoration and protection for SAR. FLA's grassland sites overlap with critical habitat for many SAR, including American Badger, Bobolink, Lewis's Woodpecker, Spotted Bat, Big Sagebrush, Needle & Thread Grass, Alkali Saltgrass, and more.

**537 ha** | Managing invasive plants with targeted grazing

**22.8 km** | Permanent fencing installed or repaired

**4.7 km** | Temporary fencing installed or repaired

## Site Highlight: Watch Lake Lands

Watch Lake Land is a ranch where Ron Eden raises cattle near 100 Mile House. Ron has been involved in FLA since 2021, when he agreed to participate in a grasslands project. The project supported fence installation and maintenance on the property to enhance pasture management. In 2022, Ron was approached to participate as one of the five initial pilot sites under the Wildfire Risk Reduction Pilot Project.

That fall, a new site management plan aimed at mitigating wildfire risks was created. This plan combined wildfire risk reduction treatment from the forestry perspective with a targeted grazing prescription. Throughout the summer and into the fall, the tree stand was thinned,

limbed, and pruned to remove growth with a diameter of less than seven centimeters. The extracted materials will be carefully piled and burned to prevent their future use as wildfire fuel.

Ron will maintain the area through targeted grazing practices, which involves using permanent and mobile fencing, combined with a solar water development, to have livestock graze concentrated areas, at specific times, to reduce the amount of fuel and reduce wildfire risk.

Read more about this project at [www.farmlandadvantage.com/watch-lake-land/](http://www.farmlandadvantage.com/watch-lake-land/).



## Wildfire Risk Reduction Pilot

Many ecosystems in BC rely on natural fires to regenerate and thrive, but fire can be devastating for communities when out of control. Agricultural lands are often at the interface between human development and natural areas, therefore reducing fire risk on these lands by treating and managing sections of private forests and grasslands may reduce the risk or intensity of wildfires impacting nearby communities. Well-managed healthy grasslands have less forest in-growth and lower fine fuel levels which can help reduce the risk of a catastrophic, high-intensity fire.

The Wildfire Risk Reduction Pilot Project, funded by the Government of British Columbia through the Ministry of Forests and implemented by the BC Wildfire Service, has been extended until mid-2025. During 2023/24, activities continued on the five pilot sites selected in

the fall of 2022. Of those five sites, three were able to complete the implementation of their projects. Due to weather restrictions, two projects have shifted completion to fall 2024. In addition, three new projects have been identified for 2024/25 and have completed site assessments and prescriptions.

**421 ha** | Treated across the initial five sites

**308 ha** | Prescribed for treatment on new sites

**25 km** | Fences installed or repaired

**14** | Fence gates installed or repaired

## Indigenous Outreach and Partnerships

Throughout 2023/24, FLA continued to foster partnerships and dialogues with First Nation communities in different parts of BC. Several members of the Cowichan Tribes continued to work with IAF as restoration partners in the Koksilah River watershed. Most projects took place along the Koksilah River, Xwulqw'selu Sta'lo', located within the traditional territories of Cowichan Tribes and Malahat Nation. IAF is honoured to partner with Cowichan Tribes members to undertake restoration work, which has been ongoing since 2021/22.

Additionally, a new partnership was formed with the Okanagan Indian Band (OKIB). OKIB had commissioned an independent environmental assessment report which examined nine riparian sites within their reserve lands. Following the report, OKIB reached out to the program to discuss collaborating to tackle some of the challenges raised in the assessment. Through an FLA project, OKIB completed a riparian health assessment, and a riparian management plan. The FLA project also supported the restoration of one of the sites in the OKIB report through direct funding, which was leveraged and matched by other sources.



Fence around Toadlet Pond on OKIB lands. 9

# OPPORTUNITIES

Several opportunities were identified throughout 2023/24 and actions were taken to capitalise on them. As the program continues to expand into new areas and the number of farms increases, these important lessons will inform continued development.

Key opportunities and lessons in 2023/24 include:

## ● ALIGN PROGRAM FUNDING WITH SEASONALITY OF RESTORATION WORK

Restoration work has seasonal limitations and must be coordinated around farming activities. Longer-term funding agreements allow for the better alignment of activities and support multi-year restoration projects. For instance, for some projects, site selection and assessment are completed in the first year and restoration work begins in the second year. In 2023/24, IAF secured two new funding agreements for FLA, RALP & BCSRIF.

## ● ENHANCE DATA COLLECTION AND MANAGEMENT

As the number of sites and the amount of restoration work increases, there is a need to strategize the best way to manage and report out on the data that is collected. In 2023/24, IAF conducted a data methodology review. Several recommendations were made, including streamlining data collection and migrating the data into a management system to allow for better tracking of project data, refining and repeating data collection, and expanding the number of data points the program collects. In the coming fiscal year IAF will consider how best to implement these recommendations for the benefit of the program.

## ● FURTHER PARTNERSHIPS WITH FIRST NATIONS COMMUNITIES

As the program continues to expand into new areas, there is a significant opportunity for further collaboration with First Nations communities. In 2023/24, IAF newly engaged with OKIB to carry out riparian restoration work on reserve lands.

## ● ALLOW FARMERS AND RANCHERS THROUGHOUT BC TO SHOW INTEREST IN PARTICIPATING IN FLA

Currently, FLA reaches out to farmers in targeted areas. In 2024/25, IAF is exploring an expression of interest, allowing IAF to determine demand for the program throughout the province and the required resources.

## ● EXPAND THE ACTIONS THAT FLA FUNDS

Several opportunities to expand FLA activities have been highlighted, including additional invasive treatments, virtual fencing, and other technological solutions. IAF will explore these enhancements for future inclusion, should funding allow.



# LOOKING AHEAD

Overall, IAF had a very successful 2023/24 FLA program year. Dozens of farm sites were added, and additional Advisors, Restoration Partners, and field labourers were brought on to support the expanding program and help existing sites to maintain ecosystem gains already realized.

Key objectives for growth in 2023/24 include:

## ● COLLABORATION WITH PARTNERS

Continue to network in the sector with the purpose of curating new partnerships and seeking continued funding within existing thematic areas and support existing partners with enhanced information systems to reduce administrative bottlenecks.

## ● ENHANCED METHODOLOGY

Continue to update, adapt, and maintain the site selection and evaluation methodology, including updates to the hot-spot map, site assessment templates, and other supporting documents.

## ● DEEPEN REGIONAL IMPACT

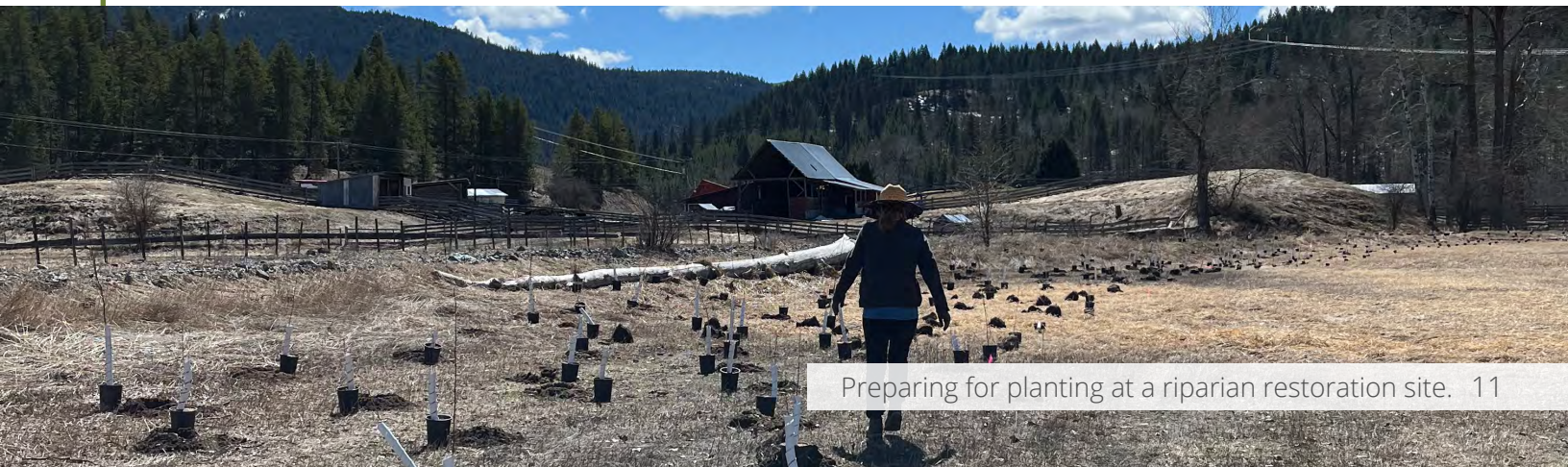
Continue to operate in existing regions, seeking to expand the impact area by working with farms and ranches adjacent to existing sites.

## ● EXPAND GEOGRAPHIC SCOPE

Continue to explore new areas where IAF could provide significant impact, and work with local partners to identify and contract new sites in new regions.

## ● DEMONSTRATING IMPACT

Continue to foster relationships with stakeholders to ensure sound monitoring and evaluation methodologies are implemented, and program impacts are well documented and reported.



# REFERENCES

1. Government of BC. Riparian areas. <https://www2.gov.bc.ca/gov/content/industry/agriculture-seafood/agricultural-land-and-environment/water/riparian-areas#:~:text=Collectively%2C%20rivers%2C%20streams%2C%20lakes%2C%20and%20wetlands%20provide%20habitat,vegetation%20that%20surround%20wetlands%2C%20lakes%2C%20streams%2C%20and%20rivers>
2. Iverson K. 2004. Grasslands of the Southern Interior. Ministry of Sustainable Resource Management, Ministry of Water, Land and Air Protection. Retrieved on March 22, 2021.
3. Grasslands Conservation Council of British Columbia. <https://bcgrasslands.org/>
4. Government of BC. Wildfire Averages. <https://www2.gov.bc.ca/gov/content/safety/wildfire-status/about-bcws/wildfire-statistics/wildfire-averages>



# FINANCIAL SUMMARY

<b>PROGRAM CONTRIBUTORS</b>	<b>2023/24</b>
Agriculture and Agri-Food Canada and BC Ministry of Agriculture and Food	\$ 1,172,875.00
BC Ministry of Water, Land and Resource Stewardship	\$ 728,899.81
BC Ministry of Forests through BC Wildfire Service	\$ 497,871.61
Environment and Climate Change Canada	\$ 200,000.00
Fisheries and Oceans Canada	\$ 135,275.00
<b>TOTAL REVENUES</b>	<b>\$ 2,734,921.42</b>

<b>EXPENSES</b>	<b>2023/24</b>
Program Delivery Costs	\$ 219,035.30
Activity Related Costs	\$ 493,196.90
Direct Project Costs	\$ 1,987,740.16
<b>TOTAL EXPENSES</b>	<b>\$ 2,699,972.36</b>

<b>PROGRAM SLIPPAGE</b>	<b>2023/24</b>
<b>TOTAL SLIPPAGE</b>	<b>\$ 34,949.06</b>



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