FARMLAND ADVANTAGE

IMPACT REPORT
2021/2022

Farmland Advantage is a research and development program that works with farmers to protect and conserve critical, natural lands, streams and habitats in British Columbia.

Investment Agriculture Foundation

THANK YOU

Farmland Advantage is an Investment Agriculture Foundation of BC (IAF) Program. Funding for the program during the 2021/2022 fiscal year came from BC Ministry of Agriculture and Food; Environment and Climate Change Canada; the BC Healthy Watersheds Initiative, which in 2021/2022 was delivered by the Real Estate Foundation of BC with funding from the Province of British Columbia; Renewal Partners; and Kootenay Connect.

This report was prepared by Ione Smith, MSc, PAg, Director; and Kazlyn Bonnor, MRM, PAg, Research Analyst; of Uplands Agricultural Consulting Ltd. for The Investment Agriculture Foundation of BC. The report was designed by Brynn Hughes, Content Strategist and Communications Coordinator at IAF.

IAF would like to acknowledge the groups and organizations that helped get the initial program off the ground since the idea was conceptualized in 2009. Without their assistance and vision, Farmland Advantage wouldn't be a success today. They include:

ARDCorp
Balance Ecological
BC Agriculture Council
BC Real Estate Foundation
Columbia Basin Trust
Fraser Valley Watersheds Coalition
Langley Sustainable Agriculture Foundation
Government of British Columbia
Government of Canada
Regional District of East Kootenays – Local Conservation Fund
Township of Langley
Vancouver Foundation
Windermere District Farmers' Institute

CONTENT

ACRONYMS

ALR	AGRICULTURAL LAND RESERVE
BMP	BENEFICIAL MANAGEMENT PRACTICE
DRIPA	DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLES ACT
ECCC	ENVIRONMENT AND CLIMATE CHANGE CANADA
FLA	FARMLAND ADVANTAGE
Ha	HECTARES
HWI	HEALTHY WATERSHEDS INITIATIVE
IAF	INVESTMENT AGRICULTURE FOUNDATION OF BC
LEPS	LANGLEY ENVIRONMENTAL PARTNERS SOCIETY
AF	BC MINISTRY OF AGRICULTURE AND FOOD
PES	PAYMENT FOR ECOSYSTEM SERVICES
SAR	SPECIES AT RISK
SARPAL	SPECIES AT RISK PARTNERSHIPS ON AGRICULTURAL LANDS
SME	SUBJECT MATTER EXPERT
UNDRIP	UNITED NATIONS DECLARATION ON THE RIGHTS OF INDIGENOUS PEOPLES

INTRODUCTION

THE 2021/2022 YEAR WAS FOUNDATIONAL FOR THE FARMLAND ADVANTAGE (FLA) PROGRAM. THIS REPORT PROVIDES AN OVERVIEW OF THE FLA PROGRAM, THE RESULTS ACHIEVED DURING THE 2021/2022 FISCAL YEAR (APRIL 1ST, 2021, TO MARCH 31ST, 2022) AND PROVIDES AN OUTLOOK FOR FUTURE GROWTH OF THE FLA PROGRAM.

FLA is a BC-based Payment for Ecosystem Services (PES) program that provides financial compensation to farmers and ranchers through contracts with them to protect and enhance ecosystem services, restore riparian areas, enhance native grassland ecosystems, protect Species at Risk (SAR), and contribute to wildfire risk reduction on lands under their stewardship.

FLA identifies sensitive ecosystems and high stewardship opportunity areas in agricultural lands and works with producers and Indigenous communities to restore, maintain, and enhance ecosystem services. Ecosystem services are any beneficial natural process arising from healthy ecosystems, such as purification of water and air, pollination of plants, improvement to soil health, nutrient cycling, soil carbon sequestration, flood control and climate regulation, among many others.

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

FARMLAND ADVANTAGE VISION

BC farmers actively contribute to, and are compensated for, regenerative agricultural practices that support ecosystem services and wildfire risk reduction. This is accomplished by taking actions that promote cleaner water, air and soil, healthier wildlife populations, and the mitigation of climate change impacts.

HISTORY

FARMLAND ADVANTAGE BEGAN IN 2016. IT STARTED SMALL, AS A FIVE-YEAR RESEARCH AND DEVELOPMENT PILOT PROJECT OF THE WINDERMERE FARMERS INSTITUTE AND OTHER PARTNERS. HOWEVER, THE IDEA OF CONTRACTING PRODUCERS TO PARTNER IN THE RESTORATION AND PROTECTION OF ECOSYSTEM SERVICES THAT BENEFIT SOCIETY IS NOT A NOVEL IDEA. PES PROGRAMS HAVE BEEN ESTABLISHED FOR DECADES ACROSS CANADA AND THE WORLD.[1] THE BC PES STORY EMERGED OVER THE COURSE OF A DOZEN YEARS, BEGINNING IN 2009.

The FLA approach to PES has proved successful in BC as it has demonstrated improvements to ecosystem health on farms and ranches and there is continued interest in program expansion by producers, governments, and non-governmental organizations.

2009

The idea of starting a PES program for BC producers took hold in the East Kootenays when rancher Dave Zehnder, the Windermere Farmers Institute and local conservation organizations began discussions, research, and subsequent pilot projects to develop the concept for FLA.

2015

Farmland Advantage begins as a five-year research project (from 2015-2019) working with several farmers and ranchers in the Kootenays, South Okanagan/Similkameen and South Coast regions of BC. FLA, known then as the Ecological Services Initiative, established sites focused on the protection and enhancement of the health of several ecosystems, including habitat for SAR, in riparian and grassland areas.

2019

60 farm sites were established throughout the project, and the measures implemented will restore and conserve over 300 Ha of prime riparian habitat and over 30 kilometers of shoreline. Many of these sites continue to protect ecosystems and provide ecosystem services through their ongoing stewardship by farmers and landowners who are contracted through the FLA program to maintain restoration work that has been completed on their lands.

Bank reinforcement in progress in the Koksilah River Watershed.

2019

Beginning in the fall of 2019, administration of FLA was trialed with IAF, as one the many programs managed under the IAF umbrella.

2020

IAF received funding from Environment and Climate Change Canada (ECCC) under the Species at Risk Partnerships on Agricultural Lands (SARPAL) program to complete a FLA pilot project in grassland ecosystems of BC. During this pilot, the FLA program contracted farmers and ranchers to implement measures on their lands to improve grassland health. Approximately 160 Ha of native grasslands were managed to enhance habitat for SAR and ecosystem services.

2021

In 2021, IAF assumed full responsibility for the development and delivery of the FLA program so that it could expand from a pilot scale program into a larger, province-wide program.

PARTICIPATION

FLA USES A CONTINUOUS CYCLE OF RESEARCH AND DEVELOPMENT TO TARGET REGIONS, WATERSHEDS, AND SPECIFIC SITES, REVISE AND CONDUCT ECOSYSTEM HEALTH ASSESSMENTS, IMPLEMENT MEASURES FOR IMPROVEMENT AND EVALUATE RESULTS.

1

Farms/ranches are identified using rigorous mapping methodologies to target high-risk and high-opportunity farmland for enhancing ecosystem health.

2

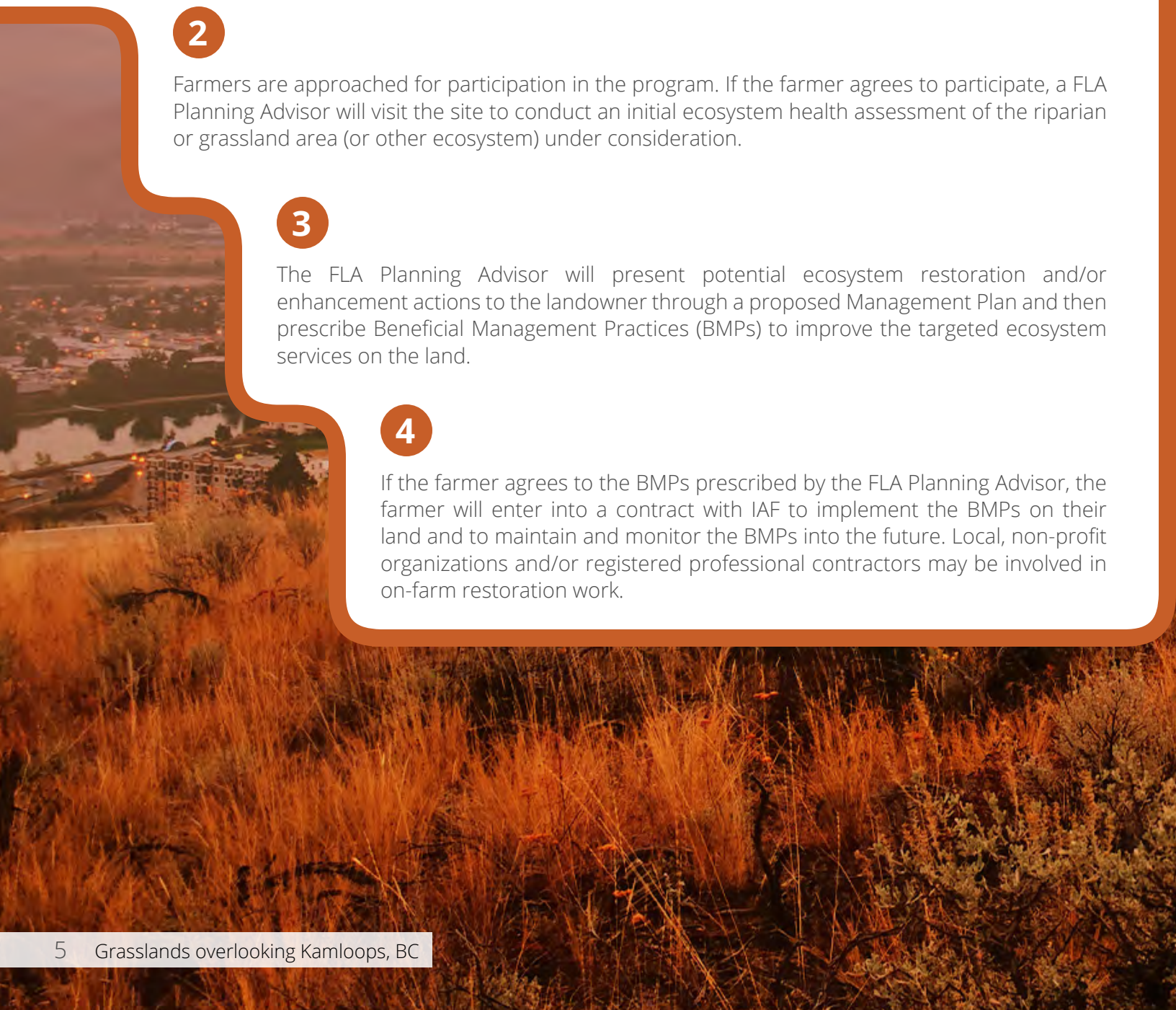
Farmers are approached for participation in the program. If the farmer agrees to participate, a FLA Planning Advisor will visit the site to conduct an initial ecosystem health assessment of the riparian or grassland area (or other ecosystem) under consideration.

3

The FLA Planning Advisor will present potential ecosystem restoration and/or enhancement actions to the landowner through a proposed Management Plan and then prescribe Beneficial Management Practices (BMPs) to improve the targeted ecosystem services on the land.

4

If the farmer agrees to the BMPs prescribed by the FLA Planning Advisor, the farmer will enter into a contract with IAF to implement the BMPs on their land and to maintain and monitor the BMPs into the future. Local, non-profit organizations and/or registered professional contractors may be involved in on-farm restoration work.



Grasslands overlooking Kamloops, BC

5

After the restoration work is complete, the FLA Planning Advisor conducts a site visit to monitor and evaluate the BMPs, ensure the activities have been completed, and that the work is being maintained by the farmer. The FLA Planning Advisor conducts this assessment once a year over the lifetime of the contract, which is typically active from one to five years.

6

The FLA Planning Advisor reports back to IAF on the project outcomes. If the farmer successfully met the actions outlined in the contract, an annual payment is issued.

7

IAF publishes the aggregate program outcomes and reports the findings to the funding agencies and public.

TARGETED ECOSYSTEMS

Currently, FLA targets agricultural lands within the Agricultural Land Reserve with sensitive riparian and grassland ecosystems. Regions within BC that were targeted for 2021/2022 were Southern Vancouver Island, South Coast, Okanagan, South Cariboo and East Kootenays. As the program expands, further research into additional high opportunity sites throughout BC will be conducted.

Field Day in Creston, BC.

Grassland Ecosystems

Native grassland ecosystems are targeted for the FLA program. Grasslands are a declining habitat, and are the most endangered ecosystem in Canada.[3] More than 30% of BC's SAR depend on grasslands for their survival and these habitats occupy only 1% of BC's total area.[4] Agricultural threats to native grasslands include encroachment by trees, cropland expansion/ development, overgrazing, fire suppression, and invasive plants.

Agricultural properties are key to supporting grassland ecosystems. Healthy grassland ecosystems provide ecosystem services such as: increased biodiversity and habitats for SAR and other wildlife, forage for livestock and wildlife populations, soil retention and nutrient cycling, and water capture and storage. Grassland soils also can store high levels of carbon.

Additionally, agricultural lands are often at the interface between human development and natural areas, therefore may have the potential to provide a fire 'buffer' zone to reduce the risk of catastrophic wildfires impacting human population centres. Well-managed healthy grasslands have less forest in-growth and lower fine fuel levels which can help in reducing the risk of a catastrophic, high-intensity fire.[6]

Riparian Ecosystems

Much of BC's agricultural lands are located in valley bottoms adjacent to, and intersecting with, riparian areas of rivers, lakes, streams and wetlands. Agricultural threats to riparian habitats include cropland expansion/development, livestock grazing, nutrient loading, and invasive plants. The FLA program targets riparian ecosystems on farmland as these ecosystems are of particular importance in providing numerous ecosystem services to people and the environment. Healthy riparian areas provide ecosystem services such as: habitat for SAR, pollinators, and wildlife; water storage and flood control; reduced erosion; and improved water quality for salmon and fish.

Ecosystem Services

Ecosystem services are the many ways that humans benefit from and depend on healthy functioning ecosystems.[2] Below are examples of ecosystem services provided by grassland &riparian areas on agricultural lands.

SUPPORTING

THE SERVICES NECESSARY FOR ECOSYSTEM HEALTH AND ARE THE FOUNDATION FOR OTHER SERVICES.

- SOIL DEVELOPMENT
- NUTRIENT CYCLING
- PHOTOSYNTHESIS
- HABITAT
- BIODIVERSITY

REGULATING

THE SERVICES THAT ECOSYSTEMS PROVIDE BY ACTING AS REGULATORS OF ECOSYSTEM PROCESSES.

- SHADING
- WATER QUANTITY
- WATER QUALITY
- CARBON STORAGE
- CLEAN AIR
- POLLINATION

PROVISIONING

THE PRODUCTS AND MATERIALS PROVIDED BY ECOSYSTEMS.

- FOOD
- FISH
- FRESH WATER
- WOOD

CULTURAL

THE NON-MATERIAL BENEFITS OF ECOSYSTEM AND RELATE MORE DIRECTLY TO LIVABILITY FOR THE REGIONS' RESIDENTS AND VISITORS.

- HUMAN HEALTH
- RECREATION
- TOURISM
- BEAUTY

PROGRAM DEVELOPMENT

IN EARLY 2021, IAF BECAME THE ADMINISTRATING ORGANIZATION OF THE FLA PROGRAM. WORK WITHIN SEVERAL REALMS OF PROGRAM DEVELOPMENT TOOK PLACE OVER THE YEAR, UNDER THE FOLLOWING CATEGORIES: STRUCTURE AND PROCESS, PLANNING ADVISOR DEVELOPMENT, PARTNERSHIPS, AND FUNDING.

STRUCTURE AND PROCESS

Developing program governance structure and internal program processes

Transferring the knowledge from the previous FLA pilot projects, establishing internal program processes and revising foundational documents were a key focus for the year. Ensuring smooth internal operations and administration is important for any successful program. Appendix A outlines the program goals, and Appendix B details the 2021/2022 FLA budget.

PLANNING ADVISOR DEVELOPMENT

Building relationships and training for FLA planning advisors

A core component of FLA is understanding the changes in ecosystem health before and after the restoration work and BMPs are implemented. The FLA Planning Advisors are qualified experts in conducting ecosystem health assessments and providing sound on-site prescriptions for BMPs. Environmental Farm Plan Advisors were hired by FLA as FLA Planning Advisors as they have foundational training in riparian and grassland health assessments through their existing work with the Province of BC. Additional training sessions were held in 2021 with the FLA Planning Advisors to familiarize them with the process of the FLA program and their role at specific times throughout the 2021/2022 year. The FLA Planning Advisors are the main point of contact with the participating farmers and ranchers, as such, their role in the program is crucial to its success. The FLA Planning Advisors, the Program Manager and Program Advisor and any local organizations conducting on-site restoration work, were in close communication throughout the year to confirm restoration prescriptions and organize on-site field work.

PARTNERSHIPS

Developing steering committees with stakeholders and subject matter experts

Continuous engagement and outreach with key stakeholder and subject matter experts (SMEs) are required for FLA to succeed. These relationships help inform the FLA program of the most recent research, funding and programs occurring across the province to which the FLA program can align with and support. This is of particular importance for targeting the highest opportunity areas across the province and for ensuring the FLA health assessment process continues to align with current methodologies and BMPs for restoration to achieve the objectives of the program.

In 2021, a Provincial Steering Committee was established to act as an advisory body to develop FLA into a comprehensive, provincial-scale program. The committee consists of producers, academics, technical advisors and government agencies who provide expertise to ensure scientifically sound BMPs are implemented, and the goals and objectives of the program are feasibly met.

Members of the Provincial Steering Committee include representatives from:

- BC Ministry of Environment and Climate Change Strategy
- Environment and Climate Change Canada
- BC Ministry of Agriculture and Food
- BC Cattlemen's Association
- BC Dairy Association
- Gathering Voices Society
- Ducks Unlimited
- University of British Columbia

Along with the Provincial Steering Committee, several Regional Steering Committees were formed. In addition to the formal meetings, countless discussions and smaller group meetings were held with SMEs and the Program Manager and Advisor throughout 2021.

FUNDING

Securing long-term and diversified funding.

Throughout 2021/2022, the Program Administrators, Advisor and Manager were involved in discussions and relationship building with potential funders to secure long-term funding for the FLA program. Several Provincial and Federal funding programs were applied to for the upcoming fiscal year (April 2022 to March 2023) and several of these funding applications were successful, including from federal and provincial government partners. This funding will allow FLA to expand into different regions of BC and expand the number of sites under contract with FLA as well as the length of the contract terms.

The following were key funders of the FLA program for 2021/2022:

- BC Healthy Watersheds Initiative
- Environment and Climate Change Canada
- Renewal Partners
- Kootenay Connect – Kootenay Conservation Program
- Shuswap Indian Band

Lac Du Bois Grasslands, near Kamloops, BC

PROGRAM OUTCOMES

In 2021/2022, the FLA program focused on four agricultural regions: Vancouver Island, South Coast, Thompson/ Okanagan/ Nicola, and the Kootenays. The majority of FLA's sites were located in these regions, but at least one site was located in the Cariboo Chilcotin Coast region as well. Each black marker indicates a restoration site.

The program had a participation success rate of 94% with 50 candidates being approached to participate in the program.

By the end of the 2021/2022 fiscal year:

47	27	18	2
Farms Under Contract	Riparian BMPs	Grassland BMPs	Riparian and Grassland BMPs

Grassland Ecosystems

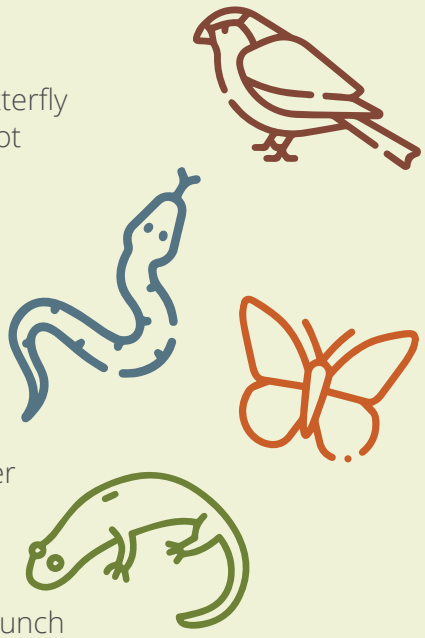
A total of 19 ranchers participated in grassland habitat enhancement and wildlife risk reduction projects in the Kootenays, South Okanagan and South Cariboo. Some of these ranchers also participated in the 2019-2020 FLA pilot project for grassland ecosystems and their on-going participation in the FLA program allows for continued enhancement and conservation of habitat for SAR and wildfire risk reduction on these properties.

A Regional Steering Committee helped to connect to partners on the ground, provide advice about potential areas and sites to target and spread the word about the FLA program and its benefits. Members of the Regional Working Group included representatives from:

- AF
- BC Cattlemen's Association
- Grasslands Conservation Council
- ECCC - Canadian Wildlife Service
- Kootenay Connect
- University of British Columbia - Okanagan

FLA Planning Advisors conducted grassland health assessments on the properties and in discussion with the landowners, determined the appropriate restoration works and BMPs to carry out. The health of approximately 400 Ha of grasslands were assessed by the FLA Planning Advisors. The SAR records and critical habitats overlapping with the properties include:

- American Badger
- Bobolink
- Lewis's Woodpecker
- Behr's Hairstreak butterfly
- Great Basin Spadefoot
- Tiger Salamander
- Pallid Bat
- Gopher Snake
- Western Rattlesnake
- Desert Night Snake
- Mormon Metalmark
- Whited's Fissurewort
- Lark Sparrow
- North American Racer
- Spotted Bat
- Rubber boa
- Yellow-bellied racer
- Big Sagebrush/Bluebunch Wheatgrass plant community
- Antelope-brush/Needle & Thread Grass plant community
- Alkali Saltgrass



Approximately **1500 Ha** of land are under management to improve grassland health. Restoration actions include:

A total of **$38,000** was provided to producers, with each participating producer receiving **$2,000** in compensation for their time and labour to maintain the restoration work into the future. Over time, restoring these grassland areas will provide improved habitat for wildlife and SAR, increase biodiversity, increase carbon storage and reduce the risk of catastrophic wildfires.

- Installing, repairing and maintaining fencing to manage grazing
- Thinning young trees to reduce forest encroachment into grasslands
- Removing tree limbs close to the ground to manage ladder fuels
- Controlling invasive species and noxious weeds.

Riparian Ecosystems

A total of 28 farmers participated in riparian ecosystem restoration and enhancement projects in the South Coast, East Kootenays and South Vancouver Island.

The health of approximately 14 Ha (140,000 m^2) of riparian areas across the province were assessed by the FLA Planning Advisors. This includes 5,000 m (5 km) of waterway reaches. These riparian health assessments provided the sound scientific basis for informing restoration works.

Stewardship of riparian habitat occurred on approximately 300 Ha. The restoration actions that occurred included removing invasive species from the riparian zone, putting beaver guards around young trees, planting the riparian area with native species and fencing out livestock from watercourses. Over $40,000 of direct payments were provided to producers, with each participating producer receiving $1,500 in annual compensation for their time and labour to maintain the restoration work on an annual basis.

Over time, restoring these riparian areas will provide habitat for wildlife and SAR, increase biodiversity, minimize erosion, control nutrient runoff, increase water quality, and increase water quantity and storage to help manage flooding.

South Coast – Bertrand Creek and Little Campbell River

There were many people and partners involved in the success of the work within the South Coast. The stakeholders in the Regional Steering Committee helped to connect partners on the ground, provide advice about potential areas and sites to target and spread the word about the FLA program and its benefits. Members of the Regional Working Group for the South Coast included representatives from:

- AF
- A Rocha
- Birds Canada
- City of Surrey
- Delta Farmland and Wildlife Trust
- Ducks Unlimited
- ECCC – Canadian Wildlife Service
- Langley Environmental Partners Society (LEPS)
- Metro Vancouver
- Resilient Waters
- Township of Langley
- University of British Columbia

The FLA Planning Advisors helped to reach out to producers to discuss the FLA program and answer questions. The FLA Planning Advisors conducted riparian health assessments and worked with producers to determine the riparian restoration work to be completed over a one to three year timeframe. Then local non-profit organizations, LEPS and ARocha, helped to coordinate and conduct the restoration work on the farms within the Township of Langley and City of Surrey, respectively. After the restoration work was completed, each farmer received $1,500 as a payment to maintain the plantings and fencing to ensure survival of the native plants and control of the invasive species.

Bertrand Creek

Seven (7) farms in the Bertrand Creek watershed within the Township of Langley participated in the FLA program in 2021/2022. On these farms, in coordination with the producers, the restoration partner LEPS removed invasive species such as blackberries and reed canary grass, and planted native species along Bertrand Creek mainstem and its tributaries. On some sites, additional restoration work that took place which included establishing livestock exclusion fencing to keep livestock out of waterways. Several of these producers had participated in restoration projects under the previous iteration of the FLA program (the Ecological Services Initiative). These producers continued to maintain and build upon the riparian restoration work on their properties to ensure the long-term benefits of healthy ecosystems.

Fencing installed to prevent livestock access, native species planted and protected along bank.

Little Campbell River

Five (5) farms in the Little Campbell River watershed within the City of Surrey participated in the FLA program to restore and enhance the riparian areas on their properties. On these farms, in coordination with the producers, the restoration partner ARocha removed invasive species such as blackberries and reed canary grass, and planted native species along Little Campbell River and its tributaries. Beaver guards were also installed to help secure the survival of young trees in the riparian zone. The following images provide an example of a farm property before and after restoration along the Little Campbell River.

Riparian area dominated by invasive plants.

Same area after removal of invasives and planting of native trees and shrubs.

Riparian Ecosystems

East Kootenays – Upper Columbia

In 2021 - 2022 the program continued to work with farmers and ranchers in the Upper Columbia River Watershed and expanded work into the Shuswap River Watershed to protect and restore riparian areas along rivers and streams. Farmland Advantage worked with Jon Bisset (Bisset & Associates), the Shuswap Indian Band and local organizations such as Kootenay Connect to undertake restoration actions such as installing fences around sensitive riparian habitat, removing invasive species and re-planting native species. There were many people and partners involved in the success of the work in the Upper Columbia. The stakeholders in the Regional Steering Committee helped to connect partners on the ground, provide advice about potential areas and sites to target and spread the word about the FLA program and its benefits. Members of the Regional Working Group for the Kootenays include representatives from:

- Columbia Wetland Stewardship Partners
- Kootenay Connect - Kootenay Conservation Program
- Regional District of East Kootenay
- Regional District of Kootenay Boundary
- Central Kootenay Food Council
- Wildsight BC
- Shuswap Indian Band
- Windermere Farmers Institute

The FLA Planning Advisors helped reach out to producers to discuss the FLA program and what involvement of the program would entail. The FLA Planning Advisors conducted the riparian health assessments and worked with the producers to determine the riparian restoration work that will be completed over a one to three year timeframe.

Eleven (11) producers participated in the program in the Upper Columbia. Activities supported by the program included installation of fencing along riparian areas for protection from cattle, planting native plants and removing invasive plants. After the restoration work was completed, each farmer received $1,500 as an annual payment to maintain the plantings and fencing to ensure survival of the native plants and control of the invasive species.

Fence and gate damaged by frost and falling debris.

Repair to fence and gate to manage livestock near the riparian area.

South Vancouver Island - Koksilah River Watershed

There were many people and partners involved in the success of the work within the Koksilah River watershed. The stakeholders in the Regional Steering Committee helped to connect partners on the ground, provide advice about potential areas and sites to target and spread the word about the FLA program and its benefits. Members of the Regional Working Group for South Vancouver Island include representatives from:

- Cowichan Tribes
- Vancouver Island Milk Producers
- Cowichan Valley Regional District
- Koksilah Watershed Sustainability Plan initiative
- Cowichan Watershed Board

Two payment for ecosystem services approaches were taken in the Koksilah River watershed; irrigation scheduling and riparian restoration. The FLA Planning Advisor helped reach out to producers to discuss the FLA program and what involvement of the program would entail.

Eleven (11) farmers participated in the irrigation scheduling. These farmers were compensated for participating in an irrigation schedule that was established by the provincial government to manage the timing and volume of water withdrawals from surface water and/or wells within the Koksilah River watershed. This approach was used to help manage the water flow levels in the Koksilah River during the summer when river flows were very low. Each farmer received $1,000 for participating in the irrigation scheduling. The irrigation scheduling occurred during the mid-summer months of 2021. Due to extremely low river flows in August, the province suspended the irrigation schedule, and all farmers were fully restricted from using water for irrigation purposes. The inability to irrigate crops and hay fields has substantial negative impacts on farmers and their ability to feed their livestock.

Five (5) farms participated in riparian restoration activities. The FLA Advisor conducted the riparian health assessments and worked with the producers to determine the riparian restoration work that will be completed over a one to three year timeframe. Elodie Roger (Origins Environmental) coordinated all the restoration work, which included hiring members of Cowichan Tribes to complete the field work. After the restoration work was completed, each farmer received $1,500 as an annual payment to maintain the plantings and fencing to ensure survival of the native plants and control of the invasive species into the future.

New riparian plantings.

Indigenous Outreach and Partnerships

Since its early development FLA has embraced Indigenous collaboration and partnership. As agriculture is inherently a colonial enterprise, agricultural initiatives, such as FLA, have a responsibility to ensure that United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and Declaration on the Rights of Indigenous Peoples Act (DRIPA) principles are integrated into the core of the work being undertaken. Reconciliation goes beyond policy documents and government relations must start and end with positive personal relationships, which FLA has cultivated and continues to cultivate throughout its pilot phase and into the provincial-scale program.

In 2021/2022, FLA continued to foster partnerships and dialogues with First Nation communities where the riparian and grassland projects take place. Several members of the Cowichan Tribes worked with restoration partners in the Koksilah River watershed on restoration projects. In October 2021, Farmland Advantage organized and hosted an event for farmers, ranchers, and members of the Shuswap Indian Band to share food, celebrate restoration efforts, and bring awareness to future projects. The event opened with a welcoming circle and prayer, lead by Shuswap Indian Band Chief Barb Cote. Attendees shared stories and highlighted the project's importance within the role of regional reconciliation efforts. The event also included hoop dancing, games, a walk to the creek to see restoration efforts up close, and a feast of donated meat and produce from local ranchers and farmers, and salmon donated by the Shuswap Indian Band. Moving forward FLA will continue to host relationship building events and partner with First Nation communities.

 Shuswap Indian Band Chief Barb Cote opens a Farmland Advantage community celebration in Radium in October 2021

KEY CHALLENGES

SEVERAL CHALLENGES OCCURRED AND KEY LESSONS WERE LEARNED THROUGHOUT 2021/2022 THAT WILL INFORM THE CONTINUED DEVELOPMENT OF THE FLA PROGRAM.

1

BUDGETING FOR RESTORATION COSTS WAS A CHALLENGE AS COSTS VARY WIDELY DEPENDING ON THE SITE AND TYPE OF WORK COMPLETED.

Detailed documentation of restoration costs for each site will continue to be tracked and each year the program operates, costs per site will become easier to determine.

2

A LONG-TERM SOURCE OF FUNDING IS REQUIRED FOR LONGER CONTRACTS WITH PRODUCERS, WHICH WILL RETAIN SITES TO ENSURE LONG-TERM BENEFITS TO ECOSYSTEM HEALTH ARE REALIZED.

IAF will continue to engage with funders to secure funding and discuss long-term funding strategies.

3

A VARIETY OF DIVERSE FUNDERS, EACH WITH DIFFERENT FUNDING PRIORITIES, ARE INTERESTED IN PARTICIPATING IN FLA.

IAF will develop an onboarding process that will clearly manage funder expectations, explore funding opportunities, and communicate the requirements of the FLA program.

4

FUNDING DEADLINES NOT ALIGNING WITH SEASONALITY OF ECOSYSTEM HEALTH ASSESSMENTS AND RESTORATION WORK.

Now that foundational program documents have been created and FLA Planning Advisors have been hired and trained, it is anticipated to be easier for health assessments and restoration works to occur at the appropriate time of year.

5

DUE TO PRECAUTIONS AROUND COVID-19, IT WAS DIFFICULT TO ORGANIZE AND HOST AS MANY RELATIONSHIP BUILDING EVENTS AS WAS DESIRED WITH INDIGENOUS COMMUNITIES.

FLA learned from the success of the event with the Shuswap Indian Band and will continue to look for opportunities and organizing events for relationship-building.

LOOKING AHEAD

Overall, 2021/2022 was a huge success for the FLA program as demonstrated by the high-participation rate of producers and extensive ecosystem restoration and conservation work completed. Looking to 2022-2023 and beyond, funding has been secured to continue the program and expand the number of sites under contract.

Key Objectives for 2022-2023:

- Expand partnerships and sites related to wildfire risk reduction on farms and ranches,
- Continue restoration work on existing sites where needed,
- Further refine site targeting methodology,
- Add new sites and regions of high opportunity for ecosystem restoration,
- Incorporate lessons learned during the past year into program administration and operations.
- Continue fostering relationships with stakeholders and subject matter experts across the province to ensure sound methodology and BMPs are implemented.
- Determine sources and mechanisms for long-term, stable funding.

Planting preparation in the Koksilah Watershed

REFERENCES

1. Salzman, J., Bennett, G., Carroll, N. et al. The global status and trends of Payments for Ecosystem Services. Nat Sustain 1, 136–144 (2018). https://doi.org/10.1038/s41893-018-0033-0
2. Sources Include:
    - BC Government. (nd). Riparian Areas.;
    - Perry, L. G., Reynolds, L. V., Beechie, T. J., Collins, M. J., & Shafroth, P. B. (2015). Incorporating climate change projections into riparian restoration planning and design. Ecohydrology, 8(5), 863-879.;
    - Mike Pearson, David Zehnder, & DG Blair. (2018). The Stewardship Centre for British Columbia. Lands Near Water, Riparian Restoration & Enhancement.;
    - Riis, T., Kelly-Quinn, M., Aguiar, F. C., Manolaki, P., Bruno, D., Bejarano, M. D., ... & Dufour, S. (2020). Global overview of ecosystem services provided by riparian vegetation. BioScience, 70(6), 501-514.
3. 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.
4. Grasslands Conservation Council of British Columbia webpage. Accessed: March 2022.
5. Grasslands Conservation Council of British Columbia. 2017. Grassland Issues in British Columbia. Grasslands Conservation Council of British Columbia.
6. BC Wildfire Service. 2010. B.C. Wildland Fire Management Strategy.

APPENDICES

Appendix A: Program Goals

GOAL 1:

Develop partnerships with Indigenous communities, governments of all levels, agricultural industry groups, NGOs, farmers, and ranchers to ensure the long-term support and success of a provincial program.

Performance Metrics:

- List of partnerships established that demonstrates diversity and broad program support
- List of Government Partners
- Indigenous Partners
- NGP/NFP Partners
- Industry Partners
- List of long-term funding relationships
- Description of committees/members in place that also demonstrates diversity and broad support

GOAL 2:

Expand and enhance the reach of the FLA program through targeted participation of farmers & ranchers in sensitive ecosystems identified across BC.

Performance Metrics:

- # interest/invitations as a percentage of target number (per year) (overall)
- # of inquires(per year and overall)
- # of sites/region (total)
- # of new region(s)
- # of new sites (in targeted regions)
- # of Ha restored and stewarded
- # of metres of riparian watercourses restored and stewarded

GOAL 3:

Establish Farmland Advantage as a long-term, diversly funded resource that fosters ecological good & services in BC.

Performance Metrics:

- List of Program funders and funding amount
- Length of funding commitments
- Number and diversity of funders
- Workplan and budget

GOAL 4:

Identify parcels of farmland that represent sensitive ecosystems and habitat for Species at Risk, and both monitor and measure the impacts of the restoration efforts in partnership with farm operators and planning advisors.

Performance Metrics:

- Define at-risk or high opportunity sites and record the number of sites identified or restored
- Measure and/or record the Species at Risk in the targeted ecosystems
- Measure and report out on number and type of restoration events/activities
- Tie into website dashboard

GOAL 5:

Communicate program success to agricultural community, funders, and participants through effective and timely communication and promotional activities.

Performance Metrics:

- # of Ha restored or length of watercourses protected
- # of farm participants
- # of trees/shrubs/herbs
- # of species at risk/habitats/ecosystems
- Carbon sequestration
- Create dashboard on website with statistics
- Create a FLA-specific Twitter, Instagram, and Facebook page
- Measure the engagement rate of FLA social media posts
- Measure website activity
- Length of funding commitments
- Number and diversity of funders
- Create an FLA specific financial statement
- Workplan and budget

Appendix B: 2021/2022 Budget

REVENUES		Budget
Real Estate Foundation of BC/Watersheds BC	$	600,000
Investment Agriculture Foundation of BC	$	200,000
ECCC - SARPAL	$	134,600
Columbia Wetlands Stewardship Contribution	$	3,200
Renewal Partners	$	25,000
TOTAL	$	962,800

COSTS		Total Actual Spend	Budget	Variance
IAF ADMIN & OVERHEAD (APPROX 7% OF BUDGET)	$	74,000	74,000	0
LABOUR (GRASSLANDS & RIPARIAN)	$	217,710	198,000	19,710
RIPARIAN				
Labour & Project Management	$	72,875	79,500	(6,625)
Site/Project Costs	$	360,956	386,800	(25,844)
Farm Contracts - Payment to Farmers	$	58,250	67,250	(9,000)
Engagement	$	7,271	48,500	(41,229)
Communications	$	7,924	33,100	(25,176)
TOTAL RIPARIAN	$	507,276	615,150	(107,874)
GRASSLANDS				
Labour & Project Management		$50,800	$60,000	$(9,200)
Site/Project Costs		$27,695	$33,000	$(5,305)
Farm Contracts - Payments to Farmers	$	38,000	46,000	(8,000)
Engagement	$	-	2,000	(2,000)
Communications	$	2,644	4,600	(1,956)
TOTAL GRASSLANDS	$	119,139	145,600	(26,461)
PROGRAM TOTAL	$	918,125	$ 1,032,750	$ (114,625)