

FARMLAND ADVANTAGE 5 YEAR PILOT

YEAR 1 REPORT





YEAR 1 SUCCESS HIGHLIGHTS

60 farmers signed on to project

60 demonstration sites

Over 740 acres of prime riparian habitat conserved and enhanced

Over 30 kilometres of shoreline conserved and enhanced

Farmland Advantage Working Groups:
1 Provincial 3 Regional & 7 Sub-regional





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As part of our ongoing commitment to strengthening our communications, the project's original term of reference "Ecosystem Services Initiative (ESI)" has been renamed as Farmland Advantage (FARMAD).

Going forwards, Farmland Advantage: Enhancing Natural Values, is how our project will be referred to and described.



Standing on guard this ex RCMP turned farmer is proud of the healthy riparian area he is protecting along the Similkameen River near Cawston BC.



When compared to current stewardship approaches, Farmland Advantage's approach is a game changer.

*Detmar Schwichtenberg
Board Chair of the Fraser Valley
Watershed Coalition*

I like the concept, it helped me to protect the stream bank on Sand Creek from erosion, which is good for my ranch and the fish in the creek."

Perry Rammelloo, Rancher



1: EXECUTIVE SUMMARY

Farmland Advantage has been researching and developing a Payment for Ecosystem Services (PES) model for the last number of years. It has conducted literature reviews, consulted with experts, and most importantly tested the concept on farms across BC and Alberta. This report summarizes the first year of the 5-year pilot now underway, which will take the concept from pilot project to long-term program.

The current model contracts farmers to take extraordinary action to conserve and enhance the ecosystem to produce measurable results like clean water, and healthy wildlife populations. At a recent forum a diverse group of key stakeholders endorsed a plan to successfully establish the desired long-term program. This plan includes three broad steps:

1. Set up the infrastructure and organization necessary to maintain the long term program model.
2. Establish and maintain demonstration sites and the monitoring of them.
3. Analyse the results and improve the process.

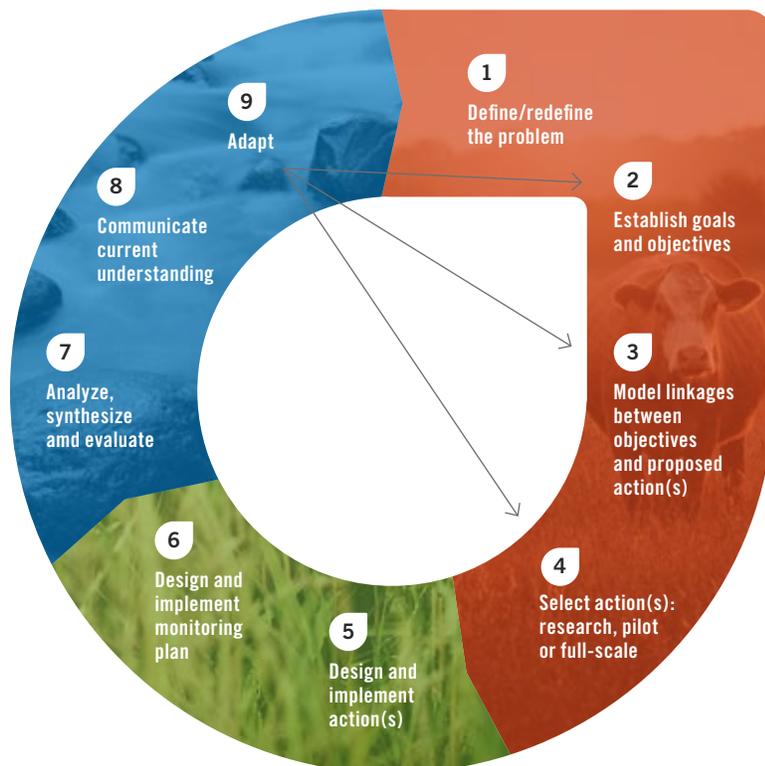
The first year of this pilot has now been completed and shows promising results. Provincial, regional, and sub-regional working groups have been established to target the program and its desired outcomes. 60 demonstration sites have been established in three regions, which have contracts that are protecting over 300 hectares of prime riparian habitat and over thirty kilometers of shoreline. While there were some challenges resulting from funding delays and other unanticipated issues overall the project is off to a good start. A review of the project was conducted by a coordinated group of experts and their recommendations for improvements will be adopted. 



2: BACKGROUND ON FARMLAND ADVANTAGE

Farmland Advantage is a producer-led initiative made up of a team of experts that are focused on demonstrating, analysing, and communicating the concept of Payments for Ecosystem Services (PES) in order to establish a long-term PES program in Canada. As described below, Phase 1 and 2 of the Farmland Advantage have been a tremendous success. Farmland Advantage is now in Phase 3, which consists of the 5 Year Pilot Project described in this report. This Phase is the next step in achieving Farmland Advantage's vision, mission, and goals laid out in its strategic plan. This project will move the concept from pilot project to long term program. The Farmland Advantage team is developing the project in three phases using an R&D cycle: (see illustration below).

CYCLE OF RESEARCH & DEVELOPMENT



This report is part of Step 8: Communicating Current Understanding. The next steps will be to take the learnings from Year 1 and refine the project. This will start the adaptive management approach again and continue to improve the process.



PHASE ONE: PROJECT INITIATION

This phase included the development and testing of the initial PES model. Phase One included an in-depth literature review, and interviews with global PES experts to explore the concept and develop the initial model. To test the model, Farmland Advantage established the first demonstration site. This version of the model was focused on contracting farmers to protect and enhance riparian areas on the individual farm site scale. Farmland Advantage contracted a single farmer to protect and enhance a riparian area by fencing cattle away from an impacted lake shore. The site was then monitored for three years to quantify the biological and water quality related results. Financial analysis was also completed to determine the costs and benefits to the producer maintaining the fence. The results were analysed to determine the effectiveness of this approach. The positive results from this analysis led to the initiation of Phase Two.

PHASE TWO: MODEL DEVELOPMENT

Phase Two started in 2011 and consisted of a scaled-up interprovincial ES Research and Demonstration Project. It built on what was learned in Phase One and established an additional 30 demonstration sites with a variety of commodity producers in different regions across the BC and Alberta. The targeted Ecosystem Services include water quality, and quantity, biodiversity species at risk, and carbon sequestration. Biological and economic results were monitored, analysed, and then communicated to stakeholders. Some of the highlights include the identification of unique funding sources that could be accessed to support a long term PES program, and the creation of effective monitoring methodologies necessary to provide quantitative results from the practices being maintained. This phase helped determine the viability of the concept in the larger inter provincial context, and laid the ground work for Phase Three.

PHASE THREE: PROGRAM ESTABLISHMENT

This is the current phase of Farmland Advantage and it was initiated in 2014. It is focused on taking the model created by earlier phases and developing it into a long term PES program. This will be accomplished by establishing the latest version of the model, monitoring and analyzing the results. It will also develop the long-term program infrastructure, and secure longterm funding partners. The pilot has been initiated in 3 targeted regions- the Lower Mainland, Okanagan, and Kootenays. 60 farmers will be contracted to conserve or enhance riparian 7 areas, the results are being monitored and analyzed. The program infrastructure is being established, and potential long term funders are being engaged.





FORUM 1-3

Leading up to Phase 3 there were a series of stakeholder forums¹ in BC focused on communication, cooperation, and the development of a progressive process to partner agriculture and the environment. At the conclusion of the last Forum in 2014; attendees unanimously endorsed an 11 step framework. This framework laid out the steps to move Farmland Advantage from pilot project to a long-term program, and these 11 steps are the foundation of the work plan of the 5 Year Pilot described in the next section of this report. 

PROJECT TIMELINE





3: OVERVIEW OF 5 YEAR PILOT

Once the work plan was set, the project was initiated. The pilot project is taking the current Farmland Advantage model and all the lessons learned from the work done-to-date to and moving from pilot project into a long-term program. Over the five-year life of the project it will implement three broad steps:

1. Set up the infrastructure and organization necessary to maintain the long-term program model
2. Establish and maintain demonstration sites and the monitoring of them
3. Analyse the results and improve the process

Farmland Advantage continues to employ an adaptive management approach that builds on what has been learned from its previous efforts. This approach ensures ongoing improvements are made to the program as it progresses. There is real value in including demonstration sites because they allow the real life testing of the model and the development of templates and processes for the program. 



4: 5 YEAR PILOT, YEAR 1 DETAILS

The following section provides details of work completed for the pilot this year.

4.1: SETTING UP THE INFRASTRUCTURE

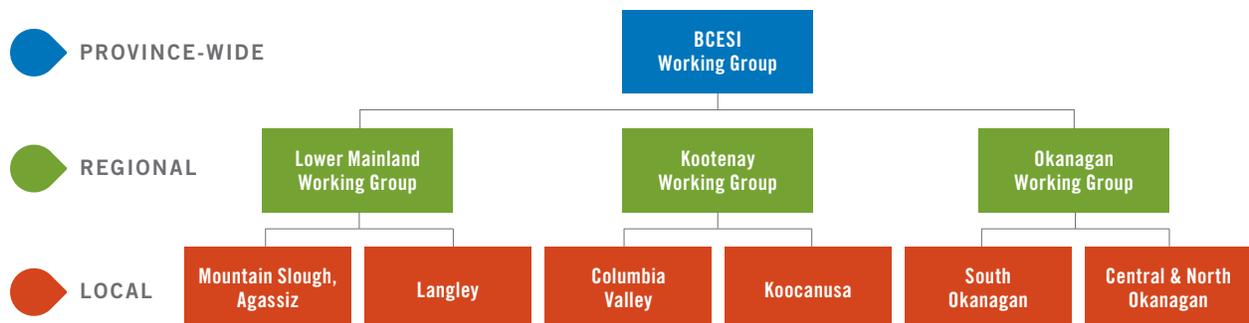
To get this project started Farmland Advantage secured the funds required for the first year's work, and established a project team. This team began to lay the ground work for the program. Some examples include the communications efforts, and the initial work done to secure the longterm funding required to sustain the program.

During the development of the current program model experts advised Farmland Advantage to integrate into the BC Agriculture Council and the Environmental Farm Plan (EFP) for a number of reasons. The two main reasons are that it would limit bureaucracy in the long-term program since the administration and organizational oversight for the EFP already exists, and farmers indicated that they value and trust the EFP advisers who come to their farms currently.

ARDcorp is the organization that administers the EFP program and has been targeted to fulfill the administration roll for the long term program. This roll would involve managing the program and the funding required to sustain it. The process of integration was started this year.

A provincially-coordinated regionally-focused program requires a rigorous process to select regions, target ESs and set goals. To do this the Farmland Advantage created a structure that included provincial, regional and sub-regional working groups and facilitated the necessary meetings.

Working groups were formed at the provincial, regional, and local level.



4.1.1: ESTABLISH THE FULL PROGRAM STRUCTURE



SECURE ADDITIONAL FUNDING

When this project was initiated there were two funding needs identified: the immediate need for funds to run the pilot, and the long-term need for a pool of funders to support the future program. Once enough grants were secured to start the project, work began in earnest. Synchronizing the start of the project was challenging because it is being funded by multiple funders, each with their own funding schedule. The grants were approved but for various internal reasons their initial payments necessary to start work on the project were delayed by several months. These delays created a compressed timeline to complete the first year of a large and complex project. Thankfully we had an understanding group of funders who allowed flexibility in the funds that were secured. We also had a great team of hard-working experts who went into overdrive to deliver the project.

Progress was made to identify potential long-term funders, and to initiate the conversation with them around how they might play a role in supporting the proposed PES model. The plan is to establish a pool of different funding sources that provide the required capital to sustain the program. These sources could include categories such as mitigation, corporate, and government. Mitigation funds have been used in other jurisdictions to support PES programs. Two examples of this category of funders targeted in Year 1 include the Columbia Basin Trust (CBT), and the Fish and Wildlife Compensation Program (FWCP). They both were established to offset the negative impacts of hydro electric power generation. This year's work started with preliminary analysis of the two programs to determine the fit. Then initial meetings were held with these funders to introduce them to the concept. Farmland Advantage and EFP set up a follow-up meeting with them to show how the integrated model would work, and how it might fit with their priorities. The results of this process were positive: the managers from the CBT and FWCP encouraged Farmland Advantage and EFP to continue to build the case for them to be funders. More work is required to build a full prospectus to advance the idea with their respective boards.

Corporate funding is another option being used successfully to fund PES programs around the world. There has been some preliminary work done to identify corporations which may be a good fit for the program. One example of this is the Weston Foundation. They have been funding this type of program for some time in their partnership with the ALUS PES program. We have had discussions with the ALUS program managers to explore this opportunity, and have agreed to have follow up meetings with them to explore this option in more detail.

Government is another potential funding source that is often recommended and is the most obvious source to support a long-term program. Federal, provincial, and local governments would all benefit from the results of supporting PES programs.



Farmland Advantage fits well with a number of federal government responsibilities. For example; a recent Critical Habitat (CH) protection order under the Species at Risk Act (SARA) reinforced the applicability of SARA and CH protection requirements on private land, and highlighted the need for programs aimed at promoting CH stewardship/protection on private properties. PES programs offer an effective solution to protect and enhance habitat for SARA listed species on agricultural lands. Farmland Advantage has been supported by and is working closely with the federal ministry of environment on this solution.

Local government also has the potential to benefit from funding the program. Many examples from around the world have shown how contracting farmers to enhance the environment has resulted in major savings to local government. Building and maintaining water treatment plants has been shown to be an extremely expensive option when compared to contracting farmers to maintain healthy streams and wetlands.



Local government showing support this photo of the Mayor, Councillor, and EFP advisor was taken in the Township of Langley at the launch of the project.

Previously, an independent polling firm was hired to determine the potential to fund the Farmland Advantage with a local government levy like the Local Conservation Fund (<http://kootenayconservation.ca/conservation-fund/cvlcf/>). This analysis determined that there is good potential for funding a PES program using this tool. This option has many advantages including the stable ongoing funding it provides, and the educational value of having local people paying directly for the ecosystem benefits they receive from farmland like clean water, and healthy wildlife populations. Farmland Advantage is pursuing this option in all three of the target regions. In the Kootenays it hopes to work with partners to adapt the existing fund, or create a new one. It has engaged with the South Okanagan Similkameen Conservation Program in their efforts to establish a fund. And the Township of Langley has committed dollars to exploring this option as a part of the Farmland Advantage pilot. The

The concept is appealing. Even though there is no unprompted awareness of the concept of PES, once explained, the idea is readily understood and widely supported.

The Gauging Support Report ²

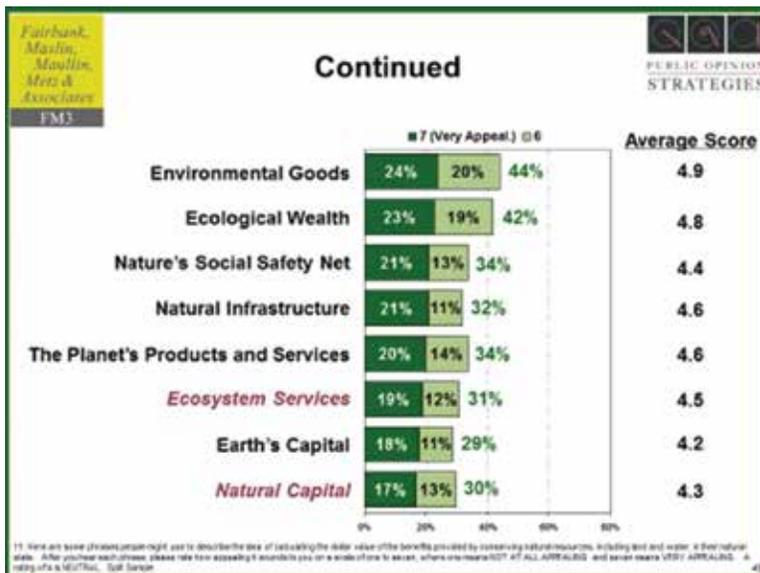


ultimate funding goal is to establish multiple viable long-term funding sources that could sustain the program by contributing to a common funding pot. This model is a resilient and effective way to produce the desired results since it is not dependant on any single funding source to exist, and by pooling the funds the program can offer the farmer the critical mass of funds required. For example; a farmer may not be able to afford the fencing to protect a wetland containing ducks and SARA listed species. If Farmland Advantage pooled funding from a duck specific fund and a SARA fund it could offer a single payment large enough to support the fencing, whereas the individual funders may not have been able to offer the necessary amount by themselves.

CREATE THE COMMUNICATION PLAN

Effective communication of this new and complex concept has been continually flagged as critical for Farmland Advantage's pilot project success. For example, coming up with a name that "works" has been something that many practitioners have struggled with.

Farmland Advantage's main objective is to establish a long term PES program, but the reason why this objective was established is that there is a need to shift culture to embrace the idea of valuing and protecting nature. For example, when a farmer is paid for conserving and enhancing habitat for species at risk his attitude may shift. The farmer moves from seeing species at risk as a liability to his operation that might restrict his ability to make a living; to seeing them as an asset. On the public side, the act of society needing to pay something for these types of benefit has the educational impact of placing "real" value on something which was previously free. If Farmland Advantage is to be truly successful farmers need to embrace the idea as something that "good" farmers do, not just fringe green farmers. In addition, society



What is in a name? This graph is from a US study that shows how the terms now being used, are not working well. Out of the 16 name options presented to the public surveyed used to describe the concept Ecosystem Services and Natural Capital ranked at the bottom of the list.

needs to embrace this as an important way to conserve and enhance the benefits they receive from nature. Community Based Social Marketing is a strategy that has been widely recognised as a powerful method to shift cultural attitudes and actions in a desired direction. Farmland Advantage is utilizing this approach as a component of its communication strategy in order to achieve its wider objective of shifting culture.

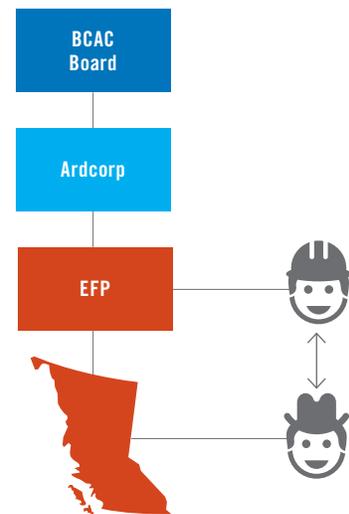
This first year of the project included a large focus on improving the communication of the initiative. The initial work included:

1. Developing an interim communications plan to bridge the time period before the new full communications plan was being developed
2. Working with communications experts to prepare for the hiring of the communication consultant firm. This included consulting with a number of communication experts. Two experts in particular were extremely helpful in this process.
 - a. The Canadian Wildlife Service's Danielle Prevost is a Social Marketing expert. She helped to create an template to guide the social marketing elements of the communication work.
 - b. David Suzuki Foundation's Theresa Beers is a communications expert who assisted in the communications plan.
3. Hiring the communications firm and working with them to initiate the implementation.
 - a. Farmland Advantage has put most of the communications effort and budget into working with a communications firm to develop and initiate a plan.

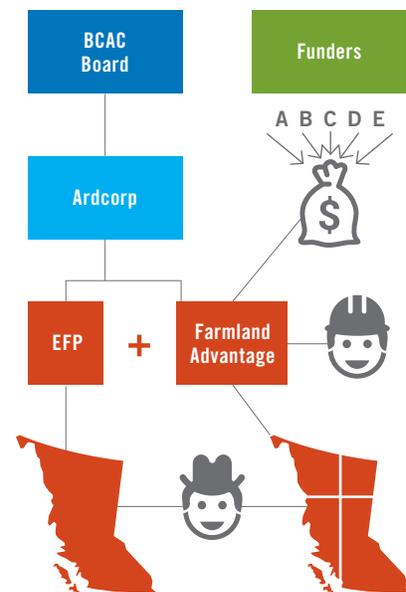
4.1.2: ESTABLISH ADMIN & ONE STOP SHOP APPROACH

During the development of the current model experts advised Farmland Advantage to integrate the long-term program with the Environmental Farm Plan (EFP). Many reasons were given for this recommendation such as the reduction in bureaucracy achieved by having one program administration body instead of two or more. Another reason given by the farmers was that they trust the EFP advisers who have already been coming to their farms to deliver the EFP. Trust is critical to the success of both programs. A one stop interface for the farmers makes it easy for them to get and stay involved with the program.

Current EFP Model:



Proposed Model:



Program is overseen by the British Columbia Agricultural Council (BCAC) board. Ardcorp, is a BCAC subsidiary and the organization's delivery arm, charged with administering the program.

Multiple partners and stakeholders contribute funds to Ardcorp earmarked for FARMAD projects. Environmental Farm Plan (EFP) & Farmland Advantage (FARMAD) are both delivered and administered by the same people at the farm level. EFP is delivered on a province wide basis, and FARMAD is delivered on a region by region basis.



IMPLEMENT COMMUNICATIONS PLAN

The communications planning that was completed prepared the way for the implementation work that occurred this year.

1. **Preliminary work-communications update letter:**

With so many individuals and entities involved in Farmland Advantage, keeping the team engaged and informed is a challenge. Tools such as the newsletter and website have been created and will be improved over the course of the project. www.FarmlandAdvantage.com

2. **Meetings and presentations:**

One of the ways that Farmland Advantage communicates with stakeholders is through presentations. This method has proven to be successful in getting the message out. For example, Farmland Advantage was invited to present at a BC Cattlemen's technology transfer event in Fort St John BC. Presentations were made to this audience comprised mostly of ranchers from the Peace region and around the province. Similar results were experienced at other meetings and conferences amongst other groups of stake holders.

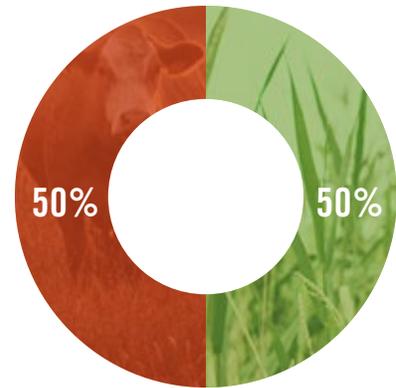


The ESI presented to a receptive crowd in Fort Saint John.

Farmland Advantage:
February 2, 2016 Fort St. John's
Conference Survey Results:

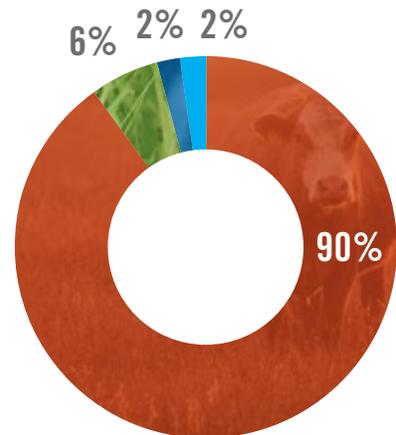


Have you heard of the concept before?



Half of the respondents had heard of the concepts before the presentation.

Now that you have heard a little more about it, do you support this concept?





3. **Communications Development**

Our communications have been strengthened in order to better resonate and connect with target audiences. Farmland Advantage has worked with a communications firm in order to improve their communication effectiveness.

As a result, we have identified four distinct groups that we connect with: Farmers, Funders, Families (the public) and Government. We continue to develop a suite of tools and materials used to inform and educate our audiences. These tools include brochures, posters, digital presentations, a website, organizational materials, as well as communication guidelines.

Farmland Advantage also queried partners and stakeholders to better understand external perceptions and considerations associated with project. The project and its objectives are viewed very favourably, and it is considered a valuable initiative. As noted previously, it was consistently expressed that the previously used, working name 'Ecosystem Services Initiative' proved a barrier to connecting with target audiences. As a result, the name was changed to Farmland Advantage, with the addition of the tagline 'Enhancing Natural Values.'



With the new materials developed, the project will now continue to work to educate and disseminate its objectives and values, focusing on three primary types of communications: Awareness, Alignment and Action.



STEWARDS.

A NICE WAY OF SAYING
HARD-WORKING
COUNTRY-LOVING,
DAMN-SMART,
BIG-HEARTED FOLK
WHO LOOK AFTER THE LAND
& CARE FOR THE EARTH.



Farmland Advantage works with farmers to protect and conserve critical natural values. We support the great farmers who work hard on their land, so the land can continue to work hard for us. For more information visit: www.FarmlandAdvantage.com





**THEY WORK
THE LAND,
SO THE LAND
WORKS FOR US.**

Farmland Advantage works with farmers to protect and conserve critical natural values. We support the great farmers who work hard on their land, so the land can continue to work hard for us. For more information visit: www.FarmlandAdvantage.com



THOSE BEST PREPARED TO
CARE FOR THE LAND
SHOULD BE THOSE WHO
CONNECT WITH IT FIRST.

WE'RE HERE
FOR FARMERS.

Farmland Advantage works with farmers to protect and conserve critical natural values. We support the great farmers who work hard on their land, so the land can continue to work hard for us. For more information visit: www.FarmlandAdvantage.com



FARMERS ARE THE FIRST TO CONNECT WITH THE EARTH.

THEY'RE HERE FOR US. **WE'RE HERE FOR THEM.**



Farmland Advantage works with farmers to protect and conserve critical natural values. We support the great farmers who work hard on their land, so the land can continue to work hard for us. For more information visit: www.FarmlandAdvantage.com



FARMERS PROTECTING NATURE, NATURALLY.

WE'RE HERE FOR THEM.

Farmland Advantage works with farmers to protect and conserve critical natural values. We support the great farmers who work hard on their land, so the land can continue to work hard for us. For more information visit: www.FarmlandAdvantage.com



CHANGING THE CULTURE OF CARE FOR THE COUNTRY.

Farmland Advantage works with farmers to protect and conserve critical natural values. We support the great farmers who work hard on their land, so the land can continue to work hard for us. For more information visit: www.FarmlandAdvantage.com





INITIATE THE FARMLAND ADVANTAGE-ARDCORP PROGRAM INTEGRATION

As mentioned previously Farmland Advantage is exploring the opportunity to integrate the PES program into the BC Agriculture Council as an extension to the Environmental Farm Plan program. The rationale for this is described below. This process is expected to take two years and is well underway. Some of the pieces that were completed this year included:

1. Developing the integration plan.
2. Targeting funders together with the BCAC.
3. Training EFP advisors.
4. Integrating Farmland Advantage and EFP program elements.

The BC Agriculture Council (BCAC) represents over 14,000 BC farmers and ranchers and close to 30 farm sector associations from all regions of the province. Their mission is to continually improve the social, economic and environmental sustainability of BC Agriculture.

RATIONALE FOR INTEGRATION

BCAC is well positioned to take on the administrative role for a PES program in BC for the following reasons:

A PES program is:

1. **Good for farmers**
Paid Ecosystem Services (PES) is a concept that will benefit BCAC membership both financially and operationally by improving their bottom line and increasing their social licence.

Cost benefit analysis completed by respected environmental and agricultural economists have demonstrated that the model can be a net financial benefit to producers. Social scientists have surveyed the BC public and the results indicate potential for strong public support of the concept. When farmers do the “right thing” for the environment it enhances their social licence, which is an increasingly important prerequisite for farmers to be able to conduct normal farming practice.
2. **Needed to fill a gap in the EFP program**
There are currently two critical gaps in the EFP program. Producers can complete an EFP and BMP but there is no follow up to ensure the BMP will be maintained. With this program an incentive is provided to the producer



only when the maintenance of the BMP has been verified. Given the new focus on working towards more group EFPs, this regionally focused approach which targets specific sub-regions (such as producers along a specific stream) will be complimentary.

3. **What many farmers want**

Producers want the BCAC to take on this role. Producers and producer groups have repeatedly indicated their desire for the concept to be producer led. In order to reduce administrative burdens on the farmer the model incorporates existing elements of the EFP program and builds on them. The result is a one-stop-shop approach with the producer only needing to deal with one trusted individual the EFP advisor.

4. **Complimentary to the EFP**

The PES concept is a complimentary concept to the EFP. Farmland Advantage has developed a PES model in anticipation of integration with the EFP program. From its inception, Farmland Advantage has avoided reinventing the wheel by integrating with pre-existing programs.

5. **Good for the environment**

It benefits the environment by incentivizing BMPs that will conserve and enhance ecosystem services. The research conducted by Farmland Advantage indicates positive measurable results to the ecosystem by using this tool.

The BC Agriculture Council delivers programs such as the Environmental Farm Plan through it's subsidiary organization known as ARDcorp. Farmland Advantage worked with the Environmental Farm Plan managers to develop an integration plan. It also worked with contractor George Powell on the development of his report in which *"a strategic review was conducted of the current activity and needs for additional support addressing the stewardship of ecological goods and services (EGS) on agricultural lands in British Columbia."* Part of the integration requires securing long term funding sources that will sustain the program. Farmland Advantage and ARDcorp management together targeted two funders to explore this opportunity the Columbia Basin Trust and the Fish and Wildlife Compensation Program. This was a good first step and more work will be done over the next few years to build on this success.

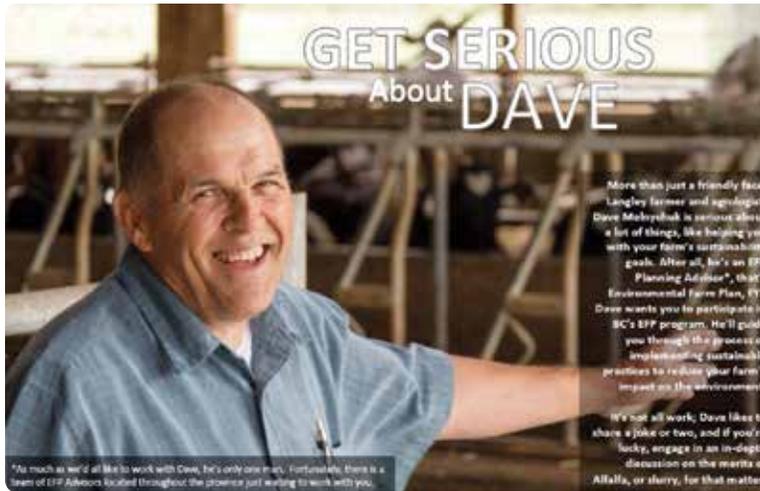
The EFP is delivered throughout the province through a network of advisors who go to farms and work directly with farmers and ranchers to develop environmental plans for their farms. They also assist the farmers to access funds to implement projects to improve and protect the environment. These advisors are well liked and trusted by the farmers.

Farmland Advantage was given permission to train some of these advisors to fulfill an additional role in the anticipated integrated program. The EFP advisors were trained to interface the Farmland Advantage project with the farmers. This role

The EFP is delivered throughout the province through a network of advisors who go to farms and work directly with farmers and ranchers to develop environmental plans for their farms.



includes establishing contracts with farmers for the Farmland Advantage program, conducting monitoring of the contract site, and collecting economic data for the cost benefit analysis. The training process went well. It consisted of training sessions, and ongoing support for the advisors as they went through the process in the field with the farmers and the pilot sites.



4.1.3: SELECT THE TARGET REGIONS

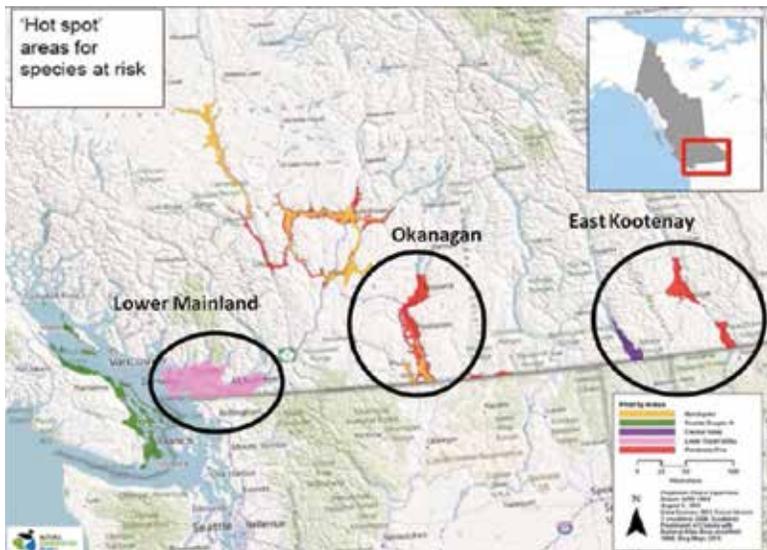
HOLD A MEETING OF THE BC-ESI WORKING GROUP TO SELECT REGIONS

Farmland Advantage had previously formed a working group to guide and support the initiative: the BC-ESI Working Group. This group was used to help choose the regions to target in this pilot. The group developed a set of selection criteria including considerations for the targeted ecosystem services, project goals, and aspects such as the potential to fund a long term program. This process was augmented with GIS analysis to identify 'hot spot' areas where the elements such as biodiversity, species at risk, human populations.



SCALE	ASSESSMENT LAYERS	
Provincial	<ul style="list-style-type: none"> • ALR • Biodiversity • Aquatic • Human Population <p>Future Suggestions:</p> <ul style="list-style-type: none"> • <u>Ecoregional Assessments, Marxan</u> (Hillary Page) 	
Regional	<ul style="list-style-type: none"> • Human Population • ALR • Biodiversity • Water Bodies 	
Sub Regional	<ul style="list-style-type: none"> • ALR • Elevation • Ungulate Winter Range • SAR <p>Future Suggestions:</p> <ul style="list-style-type: none"> • Biophysical • Biogeoclimatic 	
Site	<p>This step will consist of the use of the Ecosystem Service Potential tool which will score the site using the following criteria:</p> <ul style="list-style-type: none"> • Drainage network • Community watershed • Ungulate Winter Range • Elevation < 1200 m • Slope • Bull Trout • Species at Risk 	

Example of multi-scale GIS procedure used to select provincial areas, regions, subregions, and sites for an ecosystem services pilot. The example shown here is from the East Kootenay region, and the upper Columbia sub-region. In this pilot, a key focus at each scale was identifying areas where agriculture, important ecological areas and human activities overlap.



Three regions selected for the pilot Farmland Advantage program. The circled areas represent the selected regions overlain on areas of high numbers of species at risk (coloured areas). This map was produced for the project by the Canadian Wildlife Service.



4.1.4: HOLD THE PRELIMINARY KEY STAKEHOLDER MEETINGS

- Establish 3 regional working groups consisting of key regional stakeholders.
- Hold 3 inaugural regional working groups meetings.
- Establish 6 sub-regional working groups of key sub regional stakeholders.

The three regions chosen by the process were the Kootenays, Okanagan, and Lower Mainland. Working Groups consisting of regional experts were formed and initial meetings were held within these regions. Each of these regional working groups went through a process to target at least two sub-regions.

4.2: ESTABLISH DEMONSTRATION SITES & THE MONITORING OF THEM

The establishment of demonstration sites serve several purposes including; testing the viability of the model across multiple regions, increasing the profile of the concept to expedite its adoption, and providing proof of concept to long term funders. These are the steps we followed to establish the demonstration sites and their monitoring:

1. Determine ES priorities
2. Set relevant goals
3. Rank potential sites
4. Establish sites
5. Establish monitoring

In order to ensure that the program is relevant to the region, and that it produces meaningful measurable results the regional experts in the working groups were consulted. They recommended targeting specific ESs. Once those regionally specific ESs were targeted, and relevant goals were set. With these pieces in place the program can rank potential sites within the region with the highest potential to achieve the goals.



4.2.1: DETERMINE REGIONAL ECOSYSTEM SERVICE PRIORITIES WITHIN THE TARGETED REGIONS

Hold follow up meetings with Regional and Sub-Regional Working Groups to identify ES priorities

There were a series of meetings held with the newly formed Working Groups to determine what Ecosystem Services should be targeted within each region. This project has been focused on riparian areas on agricultural lands and the ecosystem service that these areas generate. During the process to identify regional ESs priorities there was a wider discussion about all ESs affected by agriculture within the regions. They looked at aspects relating to the potential target ESs such as the relevance to potential funders, iconic nature of specific species such as salmon. There were regional differences in the lists generated by these discussions. For instance, air quality was emphasised in the Lower Mainland but not in the East Kootenay. There were also many similarities, water quality, and biodiversity were common through all the regions and were set as the priority ESs for the project.

4.2.2: ESTABLISH ECOSYSTEM SERVICE GOALS

Consult Regional and Sub-Regional Experts as well as farmers to set realistic measurable Ecosystem Service goals

Farmland Advantage coordinator facilitated the goal setting within the regions, and the process to refine and add to the goals over time. Meetings were held with the Regional and Sub- Regional Working Groups. It was determined that the best approach was to start with an initial set of goals and to then refine and add to them once the sites have been established. The initial goals that all regions could agree on included:

1. To conserve or enhance riparian health of the demonstration sites as measured by the Riparian Health Assessment score.
2. To establish 60 demonstration sites in the Kootenay, Okanagan, and Lower Mainland.
3. To conserve and enhance species at risk habitat on the demonstration sites.

Once the sites are selected more specific goals can be developed that are specific to those locations. For instance, on the section of Bertrand Creek that was targeted in Langley, the regional scientists advised to expect to positively effect water temperature for the benefit of fish species. The plan now is to set a realistic temperature target in collaboration with these researchers and place water temperature data recording in the reach to monitor the results in year two.





4.2.3: DEVELOP THE PROCESS TO RANK POTENTIAL SITES

Farmland Advantage developed a tool to select sites for the program. This tool was designed to identify sites with good potential to produce ecosystem services. During this year Farmland Advantage improved the previous version of the tool by creating and testing a site ranking system. The potential for each site to produce ecosystem services is dependant on a number of factors that are regionally specific. Those factors were incorporated into the site ranking tool. The tool scores the site based on the potential for it to produce Ecosystem Services. The potential sites are ranked based on their score. Contracts are offered to the farm sites with the highest score in a first right of refusal. This process allows the tool to be customized to each region and sub region. These are the steps of the process:

- Step 1. **Collecting administrative information:** administrative data is required to identify the site of interest and note important characteristics;
- Step 2. **Assessing the ecosystem service site potential:** this is a desktop exercise using available web-based mapping tools that evaluates the landscape context for each site considered for Farmland Advantage in order to identify the potential of the site to function as a service providing area. This landscape evaluation provides information on the relative importance of each site as a service providing area and can be used to inform the site selection process in the Farmland Advantage project.
- Step 3. **Farmland Advantage site selection:** based on results of the ecosystem service site potential, selection criteria are applied to identify sites with the highest potential to support the delivery of ecosystem services based on Farmland Advantage goals and priorities for participation in the project.

4.2.4: ESTABLISH SITES

Establish EFP components such as Environmental Farm Plans and Biodiversity plans on the farms

One way to integrate the Farmland Advantage into the EFP program is to test the concept with a number of program elements.

Establish Farmland Advantage components such as site agreements and baseline assessments for each site

The EFP program has been helping farmers assess their farms for environmental risk and implement practices to minimize those risks. BMPs like the one illustrated by the pictures in following examplei show how riparian areas can respond to the planting and maintenance of a riparian BMP.

THE PROGRESSION OF A FORESTED STREAM BUFFER (From Field to Forest)



Buffer planted in 2001. *Site example images from CREP Program*
www.whatcomcd.org/crep



Same site in winter 2003.



Same site in summer 2005.



A stream buffer, down stream from above pictures, with mature native hardwood trees shading the stream.



The potential site owners were contacted and offered a contract to take extraordinary actions to conserve or enhance riparian areas. These are 5-year fee-for-service contracts that include an annual payment to the farmers if the conditions of the contract are met.

4.2.5: MONITOR RESULTS

Complete site assessments: monitor the results against regional ES goals

Monitoring the results of the BMPs is important to determine the impact of the BMPs. The monitoring process consisted of two main assessments, the ecological and the financial assessment. Completing this monitoring in the first year established the baseline so that comparisons can be made in the future to quantify the results. The ecological component consists of a field assessment of ecological condition for all sites selected for participation in the Farmland Advantage project. The Riparian Health Assessment³ protocol is used to evaluate the ecological condition of each site, and therefore assess beneficial outcomes of implementing best management practices. This method was recommended to the Farmland Advantage by the Alberta Biodiversity Monitoring Institute, and has been tested in earlier phases of the project with good results. The EFP Advisors were trained to conduct the assessments and submit the results to the management team. They were also required to provide feedback on the data collection and reporting process. Their feedback was used to tweak the process to improve it for the next round of assessments.



EFP Advisor Dave Melnychuk works with farmer to assess the health of the riparian area.





FARMLAND ADVANTAGE REVIEWERS

Dr Susanne Bayley

Professor, Department of Biological Sciences, University of Alberta

Expertise: Biochemistry researcher on ecology and management of wetlands and lakes

Paul Galbraith

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Expertise: Ecologist & Rancher

Michelle Molnar

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Expertise: Environmental Ecologist and Policy Analyst

Mollie Chapman

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Expertise: PhD candidate focusing on Payment for Ecosystem Services programs on agricultural lands.

Paige Olmsted Liu

Scholar, Institute for Resources, Environment & Sustainability

Expertise: PhD candidate researching social and ecological dynamics related to financial incentives

Gerry Wilkie

Regional District of East Kootenay

Expertise: Rural Director, Local Government

Detmar Schwichtenberg

Fraser Valley Watersheds Coalition

Expertise: Chair of Coalition and co-owner of a dairy farm

4.3: ANALYSE THE RESULTS AND IMPROVE THE PROCESS

4.3.1: EVALUATE PROJECT

Annual Project Review

To further the goal of a long-term, financially sustainable PES program and in keeping with the research and development approach of the program, seven individuals were engaged in February and March 2016. An external contractor, the Director of Engagement & Policy with the BC Food Systems Network, Abra Brynne, was hired to oversee the process and provide support to the individuals involved. The reviewers were each asked to provide recommendations from the perspective of their respective technical expertise. The adjacent sidebar lists each reviewer, organizational affiliation and area expertise.

Each reviewer was provided with the same set of nineteen documents (document list appended below) that provided a wealth of information about the project, its methodology, criteria development, site selection, economic modelling and benefits elaboration. Reviewers were provided with an introductory letter and brought together on an initial teleconference to confirm expectations of them and to respond to any questions about the process. Reviewers then met again to discuss their findings. The focus of their work was to make specific strategic recommendations for the improvement of the program.

All reviewers were enthusiastic about the program. An indication of their enthusiasm is the fact that despite a significant demand on their time and expertise, several have indicated that they would like to remain connected to the project and continue to make their expertise available. Because their task was to help strengthen the program, the recommendations⁴ focus on suggestions for improvement rather than on the positives that they all perceived in Farmland Advantage.

4.3.2: MAKE IMPROVEMENTS

Implement the recommended improvements to the project from the previous year's report

The improvements that were made this year were mentioned in section 4.2.3 above. The work included modifying and testing the process to select sites by ranking for their potential to produce the targeted ecosystem services. 



5: ANNUAL CONFERENCE OVERVIEW

The Farmland Advantage Conference⁵ was held in Langley on March 10, 2016 with over 70 key stakeholders in attendance. The theme of the meeting was “Making it Work – Going from Pilot to Long-Term Program”. The conference involved farmers, funders, government agencies, universities, local government, and environmental and stewardship agencies. In some ways, it built on the success of the three previous forums on agriculture and the environment that were held between 2012 and 2014. The five-year pilot’s first year was marked with this conference as a part of the process to identify procedures and infrastructure that could be adopted for a successful long-term, sustainable Farmland Advantage program. The Conference had three specific goals to achieve.

1. To learn what ecosystem services are and why they are globally important; and to learn more about the Farmland Advantage and payments for ecosystem services (PES) programs
2. To provide an update on the Farmland Advantage and progress on the action steps that were laid out in the framework agreed upon at the last Forum.
3. To obtain direction on possible program improvements and to strengthen the involvement of participants.

The conference resulted in positive feedback on speakers, breakout group analysis, and on the Farmland Advantage update. Participants supported the set of action steps provided in the framework, but more importantly, participants saw a role for themselves in moving the Farmland Advantage forward. At the end of the conference participants all agreed upon the following outcomes:

1. We are trying to affect cultural shift in agriculture and society as a whole to understand and value ecosystems.
2. Communications, including branding, will be crucial for success. It needs to resonate with farmers, funders, general public, and government.
3. Rigor in monitoring is essential, but it must be done in a way not to put an extra burden on farmers.
4. Provide a fee for service for farmers taking extra-ordinary action; not routine farm management practices.
5. The need for long-term diverse funding to be secured had universal support.
6. The BC Agriculture Council is seen to be the best fit as the long-term administrator for this initiative. 





YEAR 1 KEY SUCCESSFUL OUTCOMES

The creation of a scalable and replicable model to choose regions, and sites

Farmers willingly signed on to the program

EFP advisors were trained and they successfully secured sites

Communications have been enhanced

Regional partners were established and were keen

Working Groups were established

Independent expert review completed

6: BIBLIOGRAPHY

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7: FARMLAND ADVANTAGE PARTNERS & STAKEHOLDERS



Local Conservation Fund



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