

Review of Education opportunities for farmers within the Bass Coast region



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1 INTRODUCTION

1.1 Project Background

As a Community of Practice, the Bass Coast Landcare Network provides opportunities for landholders to learn with and from each other, on the pathway to land stewardship. In the past BCLN has provided training opportunities to landholders on a series of topics and in a range of different formats.

There are a large number of organisations and private providers within the BCLN region who also offer education and training on a wide range of topics of interest to rural landholders. BCLN is keen to avoid duplication and to ensure the best training outcomes are achieved with the limited funds available. As such, BCLN commissioned Cassie Wright (Nature Matters) to undertake a review of education opportunities available to landholders in the BCLN region.

1.2 Objectives

The project objectives were to:

- Survey landholders on topics they are interested in learning more about, and on the land management areas in which they are likely to undertake works in the future
- Develop fact sheets on training courses available to landholders in the BCLN area
- Undertake a gap analysis on training opportunities in the BCLN area
- Prepare a report for the BCLN board with recommendations on future focus areas for education & training, linked to the BCLN strategic plan

1.3 Links to BCLN Strategic Plan

This project is being undertaken as part of BCLN **Strategy 2**, 'Establish a comprehensive Land Stewardship education and training framework',

Objective 2.1 (Provide programs for skills development and education across the Network)

- A course framework is to be developed and training providers and programs established.

It also contributes towards achieving the following strategies and objectives:

Strategy 1 Strengthen engagement with rural communities

Objective 1.1 Support the activities of Landcare groups

- Ensuring that the Landcare groups are kept informed of network activities and are supported by the staff and the board of the BCLN.

Objective 1.2 Support and strengthen rural communities

- Continue the work of the BCLN in educating and capacity building on issues of climate change, agricultural practice and adapting to the economic environment.

Objective 1.3 Encourage broad community ownership and involvement

- Growing and encouraging the involvement of all community members in Landcare programs.

Strategy 3 Implement and continue to develop the Targeted Land Stewardship Program

Objective 3.2 Promote productive and sustainable use of land

- Utilise the Land Stewardship Program to promote sustainable land use including matters such as soil health and pasture cover; erosion and salinity control; and the benefits of revegetation in temperature, wind protection, water quality and insect pest control.

Objective 3.3 Promote weed eradication

- Promote weed eradication as a core element of the Land Stewardship Program

Objective 3.4 Promote biodiversity as an important part of sustainable land use

- Ensure the value of plant and animal biodiversity and protection of existing remnant vegetation is factored into the benefits and opportunities of the Land Stewardship Program.

Strategy 5 Promote new ways of thinking and doing about land management

Objective 5.1 Research, test and promote new land practices.

- Investigate and support initiatives such as climate change adaptation, healthy soils, whole farm water management and planning, and researching the economic value of biodiversity and sustainable land management practices.

2 METHOD & RESULTS

2.1 Landholder responses on future works planned & topics of interest

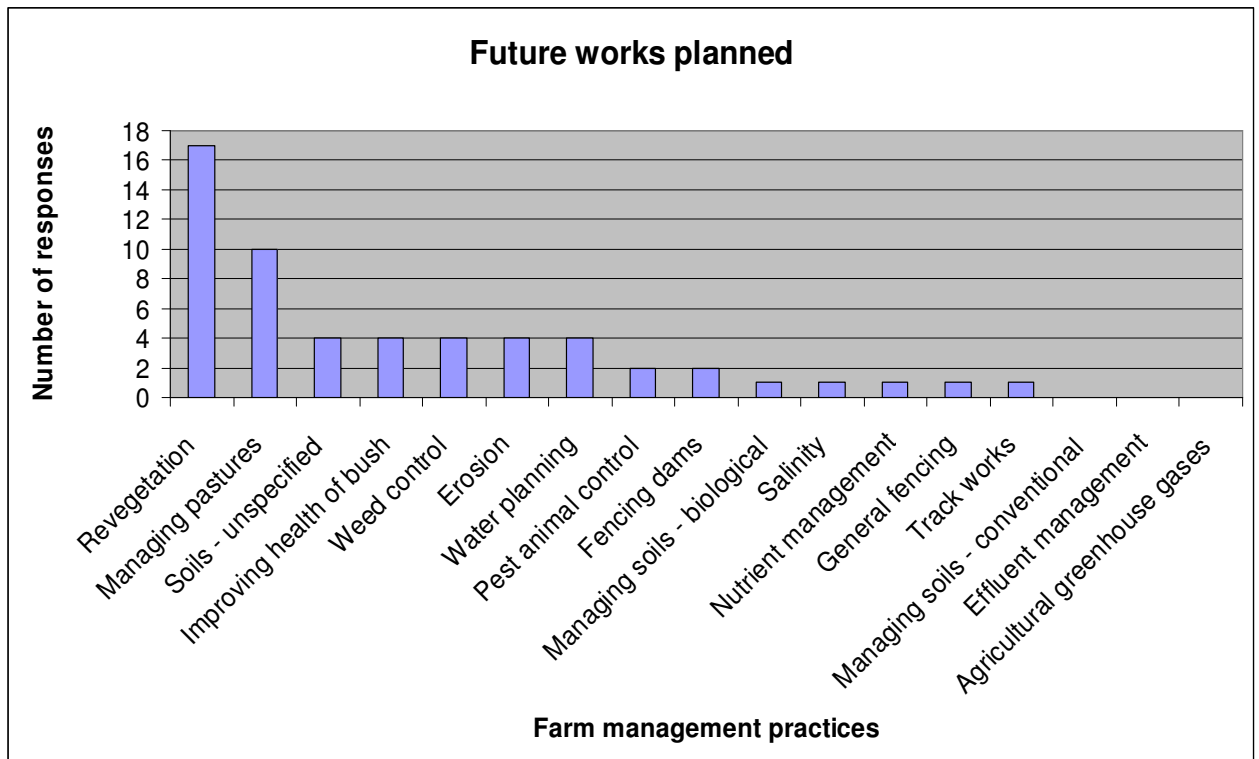
In October 2009 BCLN engaged Cassie Wright to run a series of workshops to enable farmers who had attended previous courses to update their whole farm plans. The opportunity was also taken to gather feedback and information on the works landholders had planned and then undertaken since the course, as well as actions they intend to take in the future. They were also asked how the course assisted them, and whether they had undertaken any monitoring on farm.

Four workshops were held across the BCLN region in October 2009, with twenty-eight landholders from twenty-three farms attending. Landholder responses to questions about future works planned and topics of future interest will be included in this report. For more detail about the overall outcome of these workshops, see 'Report on results of Solutions at the Source update workshops', Cassie Wright, November 2009.

2.1.1 Future works planned

Revegetation followed by managing pastures were the most frequent responses when looking at future works planned. Managing soils, improving the health of remnant bushland, weed control, erosion and water planning were the next most frequently chosen topics.

Figure 1. Future works planned



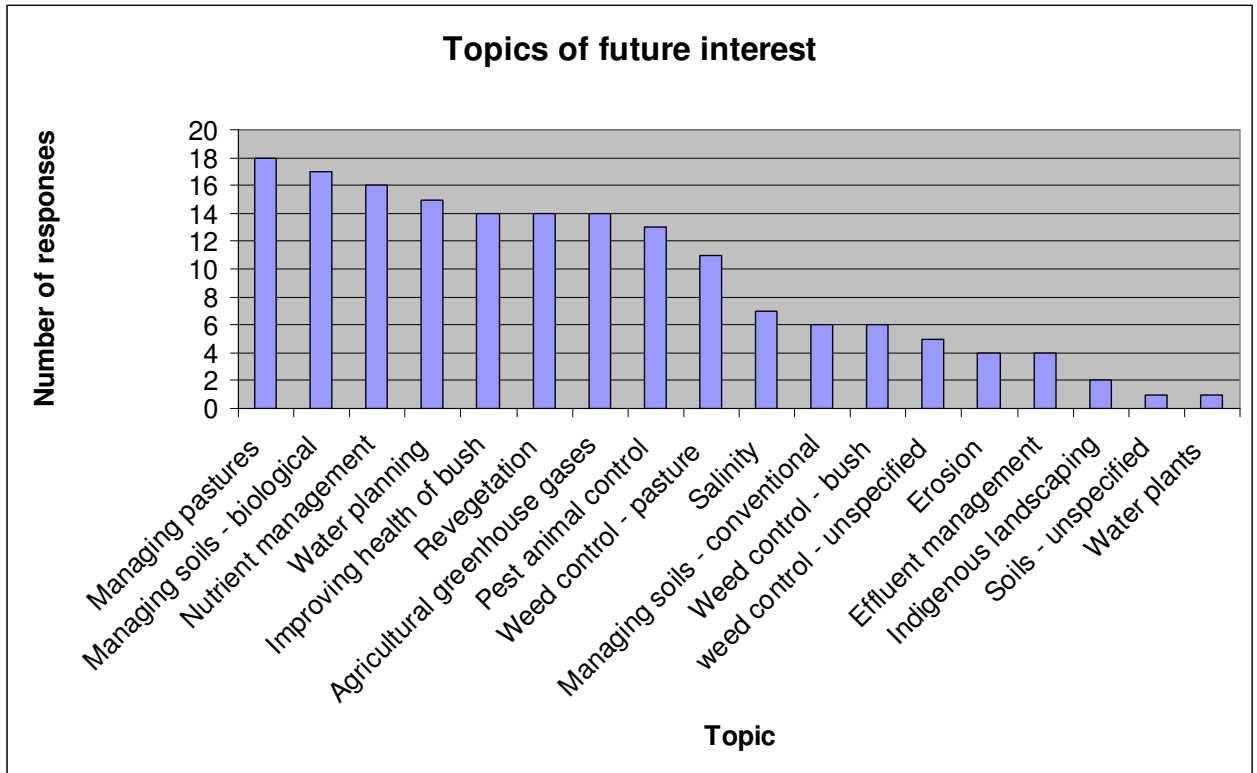
2.1.2 Topics of Interest

The topics of future interest that were selected by more than 10 participants included managing pastures, managing soils biologically, nutrient management, water planning, improving the health of remnant bush, agricultural greenhouse gases, pest animal control and weed control in pasture.

Salinity, managing soils conventionally, weed control (in bush and also unspecified) and erosion were of interest to a smaller number of participants.

The survey design enabled landholders to select either 'weed control in pasture' or 'weed control in bush' and then to select the learning methods they preferred. As some people selected the methods without specifying which option (pasture or bush) we have added a column in the graph below of 'weed control – unspecified'. When all three weed control columns are combined, weed control becomes the most frequently selected topic of interest.

Figure 2. Topics of future interest



2.1.3 Method of delivery

Participants were given the opportunity to select the topics they would be interested in knowing more about, along with the method of delivery.

There were a wide range of responses given, with every topic/method of delivery combination chosen by at least one participant. Field days were the most popular delivery method across the board.

The most popular topics and methods of delivery combinations (that received at least 8 responses) are listed below, in the order of most popular method to least:

Managing soils biologically – Field days, Farm discussion groups, hard copies of information and training courses

Managing pastures – Field days and Farm discussion groups, training courses, hard copies of information

Improving the health of bush – Field days and hard copies of information

Revegetation – Field days and hard copies of information

Water Planning – Field days, Farm discussion groups, hard copies of information

Nutrient Management – Farm discussion groups

Agricultural greenhouse gases - Field days, Farm discussion groups, training courses and hard copies of information

2.2 Training currently available

2.2.1 Fact sheets and training calendar

In November 2009 a review was made of all training courses on land-management topics available to farmers in the BCLN network area. Moragh Mackay and Cassie Wright developed a list of all potential service providers within the region or in neighbouring areas and contacted them requesting details of courses they had planned for the next year. See Table 1 for a list of courses by topic.

A training calendar was developed with the topics, contact details for the courses, and where possible dates and costs were also included. BCLN has since shared this calendar with others including the South Gippsland, Westernport, Latrobe and Yarram Yarram Landcare networks.

This calendar was updated in October 2010 and, along with a fact sheet on courses provided by BCLN, was sent out to all landholders within the BCLN network area (see appendix 1).

2.2.2 Training currently or recently offered - BCLN

Information on training courses either currently or recently offered by BCLN were provided by Moragh Mackay. These include:

Solutions at the Source – Whole Farm Planning

Bass Coast Landcare runs courses annually on land management planning focusing on issues relevant to local farms. The Solutions at the Source course is a series of six workshops that help farmers/landholders assess their current farm practices and prioritise areas that need action.

Two workshops focus on self assessment and action planning: two workshops are spent on farms discussing soils, pasture and grazing management and establishing and maintaining native vegetation, one workshop is dedicated to interpreting soil test results and assessing soil fertility needs and the final workshop is on developing a farm plan using aerial photography or the web based mapping tool eFarmer.

Farmers come out of this course with an entry level Environmental Management System (EMS) and an Environmental Farm Plan, enabling them to access Landcare project assistance. Grants that contribute to the cost of undertaking on-ground works are available from time to time.

Solutions at the Source Courses are held at the Corinella and Districts Community Centre, and on various participants farms. They run from 10am-3pm with morning tea and lunch provided. Course costs are \$75/farm, covering the six sessions and materials.

Efarmer

Efarmer is an online program that can be used for whole farm planning as well as for keeping records on farm. Bass Coast Landcare Network runs Efarmer training courses annually. The efarmer training program is designed to be delivered in six sessions of four hours each.

What efarmer can do for Farmers and Landholders:

- accurately calculate paddock sizes – area and perimeter, record paddock information/history
- estimate and reduce nutrient losses, plan and record fertiliser applications and testing results
- map and record infrastructure – e.g. power and water lines, easements
- identify threats and areas needing development, plan, budget and schedule actions to address threats and risks
- establish and records monitoring for a range of parameters, provide guided access to current online resources
- provide visual overview for a range of farm activities, updatable by landholders with no ongoing costs

Farm Discussion Groups on Managing Pastures and Soils

Two beef and one dairy farmer discussion groups started in early 2010 and ran for most of the year. These courses were funded in 2010 by Woolworths, and will continue into 2011, funded through the 'Healthy soils, sustainable farms' program. The beef discussion groups may be transformed into 'Better Beef' groups, and a 'Best Wool/Best Lamb' group may be run, in which a facilitator co-ordinates the program where farmers explore six topic areas per year.

Soils Focus Groups

Two soils focus groups are being run jointly between BCLN and VitalSoils, one started in 2009 and the other in early 2010. These courses are Farmready approved, therefore landholders who are registered as primary producers are able to be reimbursed for the cost of the course.

Training Days 2010

At least two farm open days were undertaken in 2010. One covered rabbit control methods, with a rabbit cook-off held on Phillip Island. A second day will be held in late October at Len Trease's farm, and will include direct seeding, remnant bush protection, water management and pasture management, with John Galliene presenting.

2.3 Review by topic - training currently available and proposed

Table 1. Topics, preferred methods and training courses by other providers as well as those offered or proposed by BCLN.

Training opportunities categorised using the same topics as the farmers were asked about at the Whole Farm Plan update workshops.

Topic	Preferred methods	Currently available – other providers	BCLN currently offering and proposed
Weed control	Field days, Farm discussion groups, training courses, hard copies, digital copies	FarmPlan21 (DPI)	Integrated Pest Plant & Animal control, 1 workshop on weed control run by Matt Stephenson in 2011
Managing pastures	Field days and Farm discussion groups, training courses, hard copies of information	Feeding Pastures for Profit (DPI) Beefcheque	Len Trease Field Day Beef & Dairy Farm Discussion Groups
Managing soils - biological	Field days, Farm discussion groups, hard copies of information and training courses	Vital Soils I & II AgriSolutions courses Soil Health for non-primary producers (Chris Alenson) Healthy Soils Sustainable Farms workshops (WGCM)	Beef & Dairy Farm Discussion Groups Soils Focus Group
Nutrient management	Farm discussion groups	Beefcheque	
Water planning	Field days, Farm discussion groups, hard copies of information	FarmPlan21(DPI)	Len Trease Field Day Master land stewardship Water Management course, 3 sessions
Improving health of bush	Field days and hard copies of information	FarmPlan21(DPI)	Len Trease Field Day Master land stewardship Vegetation & Habitat management course, 6 sessions
Revegetation	Field days and hard copies of information		Len Trease Field Day
Agricultural greenhouse gases	Field days, Farm discussion groups, training courses and hard copies of information	Beefcheque	Master land stewardship Greenhouse course, 3 sessions

Topic	Preferred methods	Currently available – other providers	BCLN currently offering and proposed
Pest animal control	Field days, Farm discussion groups, training courses, hard copies, digital copies		Integrated Pest Plant & Animal control, 1 workshop on pest animal control run by Matt Stephenson in 2011.
Salinity		FarmPlan21(DPI)	Targeted Field day on latest techniques & groundwater flows. EMI mapping and Salinity Management Plans
Managing soils - conventional		FarmPlan21(DPI)	Beef & Dairy Farm Discussion Groups
Erosion		FarmPlan21(DPI)	
Effluent management		EPA standard information Plans available through private consultants Dairying for Tomorrow courses	
Other topics		Chemical Use, First Aid, Chainsaw Use, Fencing, Relief Milking, Welding	
Combination		Small Farms/New Farmers Course Certificate and Diploma Courses in Agriculture/Horticulture/Conservation and Land Management (ECG or NCDEA)	
Planning		Melbourne Water program Murray Golburn FarmC@re program Burra Foods (DairySAT) Whole Farm Planning & EMS (Joan Wallis)	FarmPlan 21 Solutions at the Source iFarm & Efarmer Farm plan review sessions, 2 sessions

2.4 BCLN addressing the gaps – proposed training framework for 2011

The Land Stewardship Program has been operating in the Bass Coast Landcare Network since 2007 and expanded into neighbouring Landcare Networks, Westernport and South Gippsland, in 2009. A significant component of the Land Stewardship Program is focussed on the training needs of landholders and the support required to aid in their progression along the best practice pathway illustrated in Figure 3 below.

The Land Management Practices Scorecard is used to identify landholder needs in relation to training, planning and on-ground works. Landcare Project Officers work through the LMPS with landholders during the site visit as a preliminary to planning any projects. Depending on Landholder needs, Project Officers are best able to guide them to the most appropriate training or planning opportunities after completing the LMPS.

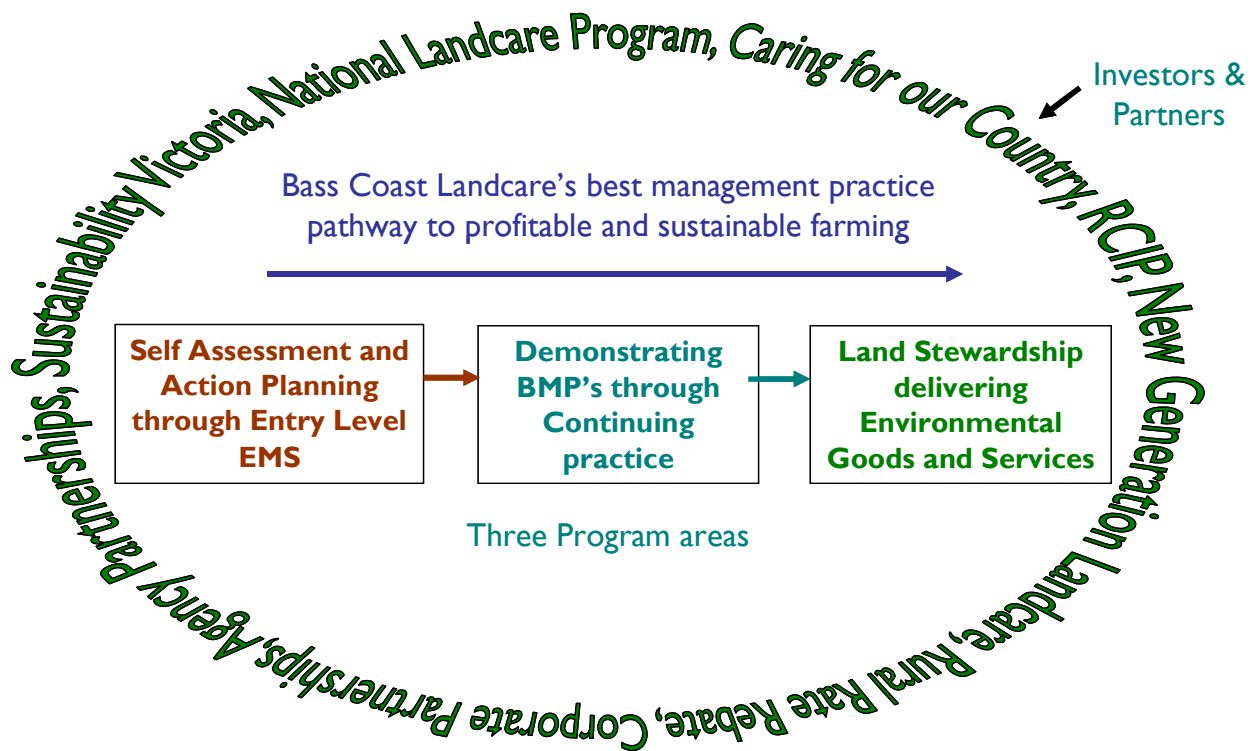


Figure 3 Best Management Practice pathway to profitable and sustainable farming

Training opportunities on offer in the Bass Coast region have been categorised to fit within the three program areas identified in Figure 3, these are Entry-level, Continuing Practice and Master Land Stewardship. The training courses offered by BCLN and other providers have identified and matched to these three program areas. They are listed in Table2 below into the Land Stewardship Training Framework.

Table 2 Proposed training framework

Stage	Other providers	Bass Coast Landcare Network
Entry level	Short courses including Chemical users course, First Aid, Chainsaw, etc.	Farm plan 21
	Effluent planning; EPA, private consultants, dairying for tomorrow courses	Integrated Pest Plant and Animal control: 1 weed control and 1 pest animal control workshop
	Feeding pastures for profit	Salinity field day including latest techniques and groundwater flows
	DPI new farmers workshops	Introduction to soil health – Field days at Daryl & Marg Hook's and Lee & Stephen Storti's
	Industry programs; Melbourne Water, GippsDairy, Murray Goulburn, Burra Foods	Farm plan review sessions
Continuing practice	Beef-cheque years 1 & 2	Solutions at the source (covering soils, effluent management, vegetation management)
	Chemical users course refresher	Water management course, 3 sessions (Yet to be designed)
	Soil health courses including AgriSolutions & Elaine Ingham Compost tea workshops	Chris Alenson's courses Vital Soils I
	Whole farm planning (DPI/ECG)	Nutrient budgeting workshops (2-3)
	Certificate and diploma courses	Ifarm & Efarmer
		Farm plan review sessions
Master land stewards	Beef-cheque year 3	Farmer discussion groups: <ul style="list-style-type: none"> - Vegetation & habitat management course, 6 sessions (Yet to be designed) - Greenhouse course, 3 sessions (Yet to be designed) - Vital soils II
	Certificate and diploma courses	
	EMS course (DPI/ECG)	
		Farm plan review sessions

3 DISCUSSION

3.1 Gaps between training needs and courses on offer

From the landholder surveys it was clear that new topics of interest are managing soils biologically, nutrient management, water planning, and greenhouse gases. Very few landholders mentioned having done works on these topics in the past, or having any planned currently, however there is clearly much interest in them for the future.

The interest in managing soils biologically is clearly being picked up by a range of training providers (including BCLN) and a number of different training opportunities are arising for landholders. These range from introductory 1-day courses and courses for small landholders through to more in-depth courses that run over several sessions.

However there are very few training opportunities on the other 'new' topics of interest: nutrient management, water planning and greenhouse gases.

In addition, there are very few training opportunities available at present on some of the more traditional 'Landcare' topics that landholders wanted to know more about, including improving health of bush, revegetation and pest animal control.

3.2 Opportunities for BCLN to fill gaps

The BCLN proposed training framework was developed by reviewing what is currently offered by other providers and what needs are not currently being met (where are the gaps?). We looked at what BCLN is offering currently, and where there are opportunities to develop new courses, workshops or discussion groups to complement these and meet the needs identified by landholders during the review sessions (see Table 1).

We also considered the training needs with the BCLN learning pathway in mind. Training opportunities were classified by the stage landholders are at in their learning pathway; Entry level, Continuing practice or Master Land Steward (see Table 2).

The three stage process and the content of all training workshops are also developed based on research which examines the adoption of new practices by rural landholders (Pannell et al. 2006). This covers a range of issues including the sequence people go through when adopting new practices and the social, cultural and personal factors that influence people's decision making. It also examines how the relative advantage and 'trialability' of a practice affects its adoption and how this relates to extension work.

3.2.1 Entry level training to be offered in 2011

Training offered to farmers at the 'Entry Level' stage in 2011 will include:

- Continuing to work with DPI to present the 'FarmPlan21' whole farm planning course. Completing this entry level course is a pre-requisite for participation in the Land Stewardship program.
- Two Integrated Pest Plant & Animal control workshops, One on weed control and one on pest animal control
- A field day looking at the latest information and techniques in salinity management and groundwater flows
- Continuing to work with Sonia Lee from VitalFarms and Chris Alenson to provide the 'Introduction to Soil Health' workshops

3.2.2 Continuing Practice training to be offered in 2011

Training offered to farmers at the 'Continuing Practice' stage in 2011 will include:

- Continuing to run the 'Solutions at the Source' course. One change from previous years will be that participants will be required to have a whole farm plan developed prior to commencing the course (either through participating in FarmPlan21 or another method). Removing the whole farm planning component will enable more time to be spent examining farming or vegetation issues (including soils, pasture and grazing management and native vegetation management) in greater depth.

- Developing a new 'Water Management' course. This is envisaged to run over three sessions, including developing a water budget, a farm visit and planning to adapt participant's systems where required
- Providing two or three workshops looking at Nutrient Management issues. This will include nutrient budgeting.
- Continuing to work with Sonia Lee from VitalFarms to provide the 'Vital Soils I' course,
- Continuing to provide Efarmer and iFarm training courses.
- Two review sessions will be offered where landholders are able to review and update their whole farm plan, in a small group setting.

3.2.3 Master Land Steward training to be offered in 2011

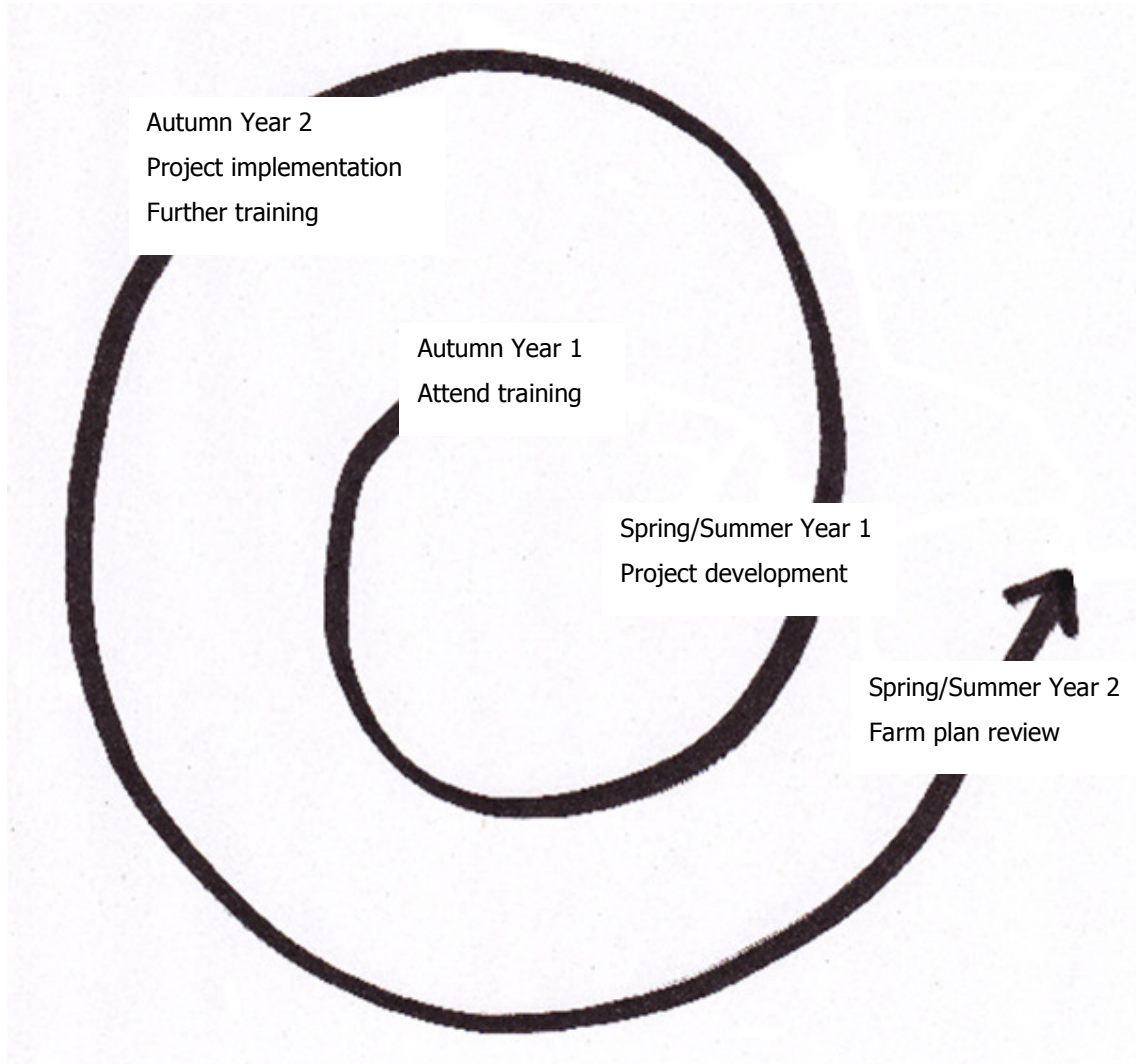
Training offered to farmers at the 'Master Land Steward' stage in 2011 will include:

- Developing a new six-session Vegetation and Habitat Management course. Topics to be tailored to suit participants interests, and may include remnant vegetation, improving health of revegetation sites, connectivity of vegetation, wildlife habitat, pest plant and animal control in bushland areas, and living with native wildlife.
- Developing a new three-session Agricultural Greenhouse gas course, including an emissions audit, information on options to improve efficiency and reduce emissions, and an action planning session.
- Continuing to work with Sonia Lee from VitalFarms to provide the 'Vital Soils II' course, which uses a small group format and supports participants to implement and develop practices taught in the foundation course. It focuses on helping participants work on a soil-based issue on their property and find solutions.
- Two review sessions will be offered where landholders are able to review and update their whole farm plan, in a small group setting.

3.3 Links with Land Stewardship Program

All participants in the Land Stewardship Program are required to have a whole farm plan in place before they are able to take part in the program. If participants do not already have a whole farm plan they are able to undertake a FarmPlan21 course. The following cycle shows the process of training and project development undertaken as part of the Land Stewardship program.

Figure 3. Training and project development cycle



4 CONCLUSION AND RECOMMENDATIONS

The proposed training framework for 2011 has been developed through a thorough process. This included:

- surveying landholders who attended whole farm plan review workshops about future works they have planned, the topics they want to learn more about and the training methods they prefer
- undertaking a comprehensive review of training courses available to farmers in the BCLN and wider South Gippsland and Western Port region
- identifying any gaps between training needs and courses provided
- reviewing the content of courses currently offered by BCLN to ensure they meet the needs of landholders
- suggesting the development of future courses and discussion groups where necessary

Fact sheets summarising courses available in the region have been provided to landholders in 2010 and 2011. These are a useful tool for landholders considering their training needs. They also provide a valuable resource for training providers, as they help people identify who is running what program, hence reducing duplication across the region. Updating these fact sheets on an annual basis, reviewing the success of courses run through the year and planning the following year's training accordingly will enable BCLN to stay up-to-date and continue to provide relevant and innovative training to meet the needs of landholders.

5 REFERENCES

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