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Catchment Management Authority
Committed to catchment health



Getting Grounded: A Soil Health Forum presented by the North Central Catchment Management Authority and the Victorian Catchment Management Council

Findings and feedback



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Introduction

Background to the Forum

Presented by the North Central Catchment Management Authority (NCCMA) and the Victorian Catchment Management Council (VCMC), *Getting Grounded* was part of the Catchment Knowledge Exchange. The Soil Health Forum was held at the Bendigo Exhibition Centre on 15 June 2006.

The purpose of the Forum was to:

- find out what's happening in soil health endeavours in Victoria and nationally
- discuss soil health priorities, share knowledge and knowledge needs; and
- launch the Catchment Knowledge Exchange – Soil Knowledge Broker Service

An open invitation was extended to all with an interest in the health of our soils, including farmers, land managers, natural resource managers, researchers, extension officers, and policy officers.

The Forum was jointly funded through North Central CMA, Land and Water Australia, Victorian Catchment Management Council, and the NAP-funded Catchment Knowledge Exchange, with support from the Department of Primary Industries.

The NCCMA have a keen interest in and responsibility for soil health issues in their region. The Forum was of particular importance with the upcoming renewal of the Regional Catchment Strategy.

The VCMC were involved in the Soil Health Forum through the Catchment Knowledge Exchange, a three year National Action Plan for Salinity and Water Quality (NAP) funded project. The VCMC is managing the project on behalf of NAP. EWR have been engaged to undertake the project.

The Catchment Knowledge Exchange Project

One part of this project is the Soil Knowledge Broker Service trial. The objectives of the Soil Knowledge Broker Service are to:

- generate measurable improvements in the generation, dissemination, and utilisation of knowledge in the soil health field;
- provide timely and relevant information and knowledge to support those making natural resource management decisions relating to soil health;
- test the application of the knowledge brokering concept to the soil health theme, so that the findings can be applied to other theme areas.

Overview of the Soil Knowledge Broker Service trial

The Soil Knowledge Broker Service trial will run for one year finishing in July 2007. The knowledge brokering trial is based on a team and network approach, providing a contact point and simple services or tools such as information on other soil health projects that are going on, who to talk to on a particular issue, or a forum to discuss a question.

Knowledge brokering is the human force behind knowledge exchange, transfer, synthesis, and the forming of collaborations, networks, and partnerships. This role provides a robust connection between policy, research, extension, and catchment management.

Soil health is a trial discipline being tested in this project, to evaluate and inform future approaches to knowledge brokering and management. A Soil Health Reference Group has been established to support this trial, providing specialist input and to access to their networks. The Soil Knowledge Broker Service has a focus on understanding the key knowledge needs in soil health, determining priorities and gaps, and responding to some of the key needs. The project also intends to share information through helping facilitate and strengthen the soil health knowledge network.

Getting Grounded: Soil Health Forum 2006

Overview

The Forum was opened by Dr Ian MacBean, Chair, North Central CMA and Ms Christine Forster, member of the Victorian Catchment Management Council. Ian and Christine emphasised the importance of soil health knowledge at the regional and state level, and the interests of their respective organisations.

Dr Tom Davison presented the Land and Water Australia *Healthy Soils for Sustainable Farms* program and the associated projects from across Australia. Generally the products of these research projects are focussed at primary producers and their agricultural advisors.

One of the projects of the *Healthy Soils for Sustainable Farms* program is called "Soil Health: Leaving a Lasting Legacy for South Eastern Australia", presented by Dr Michael Crawford from Primary Industries Research Victoria (PIRVic). This project aims to improve farmers' capacity to manage soils through identifying appropriate soil management strategies and the provision of information and training material. Michael also presented the current and historical interest in soil health in Victoria from the Soil Conservation Authority through to the needs in Regional Catchment Strategies and national initiatives for soil health.

Dr David Freudenberger from CSIRO Sustainable Ecosystems discussed the value of ecosystem services provided by healthy soils. David described soil as the basic infrastructure that provides the goods and services that society depends upon. There are many knowledge gaps that exist in understanding how to encourage the adoption of improved soil management practices.

The next speaker was Richard MacEwan who presented "Soil health – principles not rules". Richard discussed the decline in quality and quantity that has occurred over the years in pursuit of production. There are a number of functions that we as society require soil to carry out. Some soil management principles were presented focussing on the role of soils in the broader ecosystem, and that each soil and its context is unique.

Dr Pauline Mele discussed the soil biology aspect of soil health. There has been an increase in the level of interest in soil health and consequently an increase in the level of knowledge. Pauline stated that knowledge in soil biology will add value in monitoring soil health, for developing biofertilisers, and to better understand ecosystems and their function.

The afternoon session was conducted in a workshop format to encourage input from and interaction amongst participants and to improve the understanding of soil health knowledge needs and priorities. A case study from the Moolort Plains was used to help ground this discussion and to be practically relevant to the diverse stakeholders involved. However this was a relatively generic example and was not intended to be exclusive to other Forum participants from other parts of the state.

Who was there?

Approximately 100 people attended, travelling from many locations such as Camperdown and Birchip in the West to Wodonga and Noojee in the East, with the majority of participants from North Central Victoria.

With the exception of East Gippsland, representatives attended from each Catchment Management Authority region in Victoria. Participants included farmers, land managers, natural resource managers, extension officers, policy officers and researchers across community, corporate, government and non-government sectors.

Evaluation

Why are we evaluating the Forum?

There is a strong evaluation emphasis for the Catchment Knowledge Exchange to:

- determine the key areas of learning from the Forum for the overall project;
- measure improvements in the generation, dissemination, and utilisation of knowledge in the soil health field;
- evaluate the knowledge brokering concept in the soil health theme, with potential for application to other fields;
- evaluate the merits of using forums such as this for shaping and informing a knowledge brokering service.



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Summary of Results

	To what extent did the Soil Health Forum meet your expectations?	How useful was the Soil Health Forum for you?	How would you rate the quality of the Soil Health Forum?	How do you rate the venue and facilities for today's Forum?	Are you interested in being involved in the Service?
# responses	42	42	41	40	37
Average	6.30	6.48	7.07	7.24	7.36
High	9	10	10	10	10
Low	3	4	4	1	2
Sample of comments	<ul style="list-style-type: none"> Good meeting new people. Good speakers. Time managed well. Exposure to many different aspects. Too little time to address all issues. Wasn't fully sure what to expect. Missed opportunity to highlight and prioritise soil health problems. 	<ul style="list-style-type: none"> I have made some useful contacts. Updating my thoughts on soil health. I haven't learnt an awful lot. A good starting point, networking opportunities. Better for building new networks rather than gaining new knowledge. Some more practical application would have enhanced the Forum for me. 	<ul style="list-style-type: none"> There was a wide range of knowledge and experience. This was difficult to integrate and make broadly interesting. Would have enjoyed more lengthy detailed talks. Quality presenters; probably needed more farmer presentations. Very useful. I am looking forward to seeing the outcomes of these discussions. 	<ul style="list-style-type: none"> Easy to find, central. Poor sound, difficult to hear. Excellent. Very happy! Noisy air conditioning. Terrific facility. Very cold in room but set out great. 	<ul style="list-style-type: none"> Very willing to find out more about if and how to be involved should it meet my requirements. I am interested in obtaining as much information as possible. Would like to see what is involved and be kept up to date with what is happening. Believe it has a good future.



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Discussion of Participant Responses

To what extent did the Soil Health Forum meet participant expectations?

Forum participants were asked to score the extent to which the Forum met their expectations and provide an accompanying comment. The scale ranged from 0 = expectations not met at all; 5 = expectations mostly met; 10 = exceeded expectations.

Forty-two participants responded to this question. The average score of 6.30 indicates that that Forum met the expectations of the majority of participants. Only 5 participants responded that the Forum did not meet most of their expectations, compared with 30 participants who responded that the Forum met or exceeded most of their expectations.

Given the broad program and open invitation, it is reasonable that the Forum did not meet the expectations of all participants. The most common reason cited for the Forum not meeting all or exceeding expectations was that some participants were expecting to discuss and learn about soils to a greater extent and for there to be a more specific focus on soils. The quality, experience and range of speakers were valued.

Quotable Quotes

Thought it would be more about giving information on soils than gathering information needs, but concept of Forum very good - useful format for other areas.

The information on just what constitutes healthy soil doesn't appear to be there yet or measurable.

Presentations were great, put good context to the problem of "Soil Health" and many aspects/perspectives of the words.

Presentations by the "Strikers" (David, Richard and Pauline) were outstanding and exceeded my high expectations.

How useful was the Soil Health Forum for participants?

Forum participants were asked to score how useful the Forum was for them and provide an accompanying comment. The scale ranged from 0 = not useful; 5 = moderately useful; 10 = extremely useful.

Forty-two participants responded to this question. The average score of 6.48 suggests that the Forum was useful for the majority of participants. Only four participants responded that the Forum was less than moderately useful for them, compared with 30 participants who responded that the Forum was more than moderately useful.



Survey respondents indicated that the Soil Health Forum was “*a good starting point*” and “*wonderful initiative and promise*”, suggesting that the Forum was a useful entry or re-entry point for some participants, and an appropriate event to launch the Soil Knowledge Broker Service. However, some participants felt that “*I haven’t learnt an awful lot*” and “*Some comment was over my head*”, again demonstrating the divergent perspectives to be expected in such a broad forum.

The most useful aspects of the Forum were the networking and knowledge sharing opportunities and learning about current research and projects; information sources and broad range of participant backgrounds. The least useful aspects of the Forum was considered to be the case study. Some participants suggested that a field or site visit would have made the Forum more useful.

Quotable Quotes

I haven’t learnt an awful lot, but again useful to tell my needs for knowledge in soil health.

Speakers were interesting. Group discussion generated a lot of questions but not answers.

Very useful, I am looking forward to seeing the outcomes of these positive discussions.

Some more practical application would have enhanced the Forum for me.

How did participants rate the overall quality of the Soil Health Forum?

Forum participants were asked to rate the quality of the Soil Health Forum and provide an accompanying comment. The scale ranged from 0 = low quality; 5 = moderate quality; 10 = high quality.

Forty-one participants responded to this question. The average score of 7.07 suggests that the majority of participants thought the Forum was above moderate quality. Only two participants responded that the Forum quality was less than moderate, however the lowest score registered was 4. This is in comparison with 36 participants who responded that the Forum was above moderate quality, with 28 participants scoring the quality a 7 or greater.

Similar to the previous two sections, the diversity of participant knowledge, experience and background was thought to be both a strength and a weakness:

There was a wide range of knowledge and experience that was difficult to integrate and make broadly interesting.

I think the preparation, venue, quality of speakers, diversity of participants was very (high) quality

The organisation of the event, including the venue, program and format, and range and experience of speakers were the most common positive comments regarding the quality of the Forum. The main aspects that were felt to have reduced the quality of the Forum were the tight time constraints contributing to brief presentations and discussion, and the design and content of the workshop and case study session. With respect to logistics, a number of participants remarked that the sound system reduced the quality of the event, in particular the competition with the climate control system.

Quotable Quotes

Would have enjoyed more lengthy detailed talks.

High quality due to speakers’ knowledge and experience.

It would have been good to get more information about the research and information obtained so far.

Well run – questions in workshop could have been clearer/more specific; some different brainstorming techniques could have been useful.

Quality presenters; probably needed more farmer presentations.

Well chaired and kept people to time well.

Good speakers would like to see more on-ground stuff and landholder's point of view.

Could have been longer as much needed cross industry discussion during the breaks was very enlightening.

What did participants think were the best aspects of the Soil Health Forum?

Forum participants were asked to describe the best aspects of the Soil Health Forum. As described previously, the respondents stated that the best aspects were:

- Networking
- Experienced and diverse presenters covering an extensive range of soil issues
- Listening to the multiple interests of people for soil quality
- Group discussions
- Platform for asking questions/gaining insights/highlighting knowledge needs
- Wide range and large number of participants
- Sharing information
- The interaction

Quotable Quotes

Introduction to many different people.

Splitting up everyone to different tables was a good idea.

Presentations by Freudenberg, MacEwan and Mele. Gave excellent context.

The presentations by the "Strikers" were really high-quality. I particularly liked Christine Forster's opening remarks which put today's Forum with the broader context.

What do you think could have been improved?

Forum participants were asked to state what aspects of the Soil Health Forum could have been improved. Respondents stated that the main aspects for improvement were:

- Inclusion of practical and/or field based activity
- Consideration of farming perspectives and experiences broader than academic and institutional research
- Audio system
- More time to allow for questions and broader and deeper discussion
- Distribution of background material, including presentations and points for consideration prior to the Forum

- A more specific agenda/program, such as “*More direct concentration on specific soil health aspects, ranking of importance and means of amelioration*”
- Clarifying the purpose of the case study

Quotable Quotes

Would have liked some practical activity to help me better understand my soil.

Notes available from some presentations, would like to see more info on what other projects are happening around the state – very rushed and skimmed over.

Maybe run a little longer or more time for discussion. Maybe offering people the potential for leaving their contact details for further communication.

Suggested reading material prior to Forum. Some questions/issues to think about prior to Forum.

The Forum attracted diverse participation, so a pre-Forum survey of where participants came from may have helped with setting the Forum context.

Bit more in less technical terms; felt it was above the level of understanding of most land owners.

Found the case study a bit laboured – “spread” won out over “depth”.

How do you rate the venue and facilities for today’s Forum?

Forum participants were asked to rate the quality of venue and facilities for the Soil Health Forum and provide an accompanying comment. The scale ranged from 0 = low quality; 5 = moderate quality; 10 = high quality.

Forty participants responded to this question. The average score of 7.25 indicates that the majority of participants thought the Forum venue and facilities were above moderate quality. Only four participants responded that the Forum quality was less than moderate, compared with 36 participants who responded that the venue and facilities were above moderate quality, with 21 participants scoring the quality an 8 or greater.

Respondents stated that the strengths of the venue and associated facilities were the location, set-up and catering with a common response of “Excellent”. The audio system, venue acoustics, temperature and number (too few) of food/beverage access points were negative aspects of the venue.

Were participants interested in being involved in the Soil Knowledge Broker Service?

Forum participants were asked to express their interest in being involved in the Soil Knowledge Broker Service and provide an accompanying comment. The scale ranged from 0 = not interested; 5 = moderately interested; 10 = very interested.

Thirty-seven participants responded to this question. The average score of 7.36 suggests that the majority of participants have a greater than moderate interest in being involved in the Soil Knowledge Broker Service. Only three participants responded that they had a less than moderate interest in being involved, with only one respondent indicating that they would not like to be involved (at this stage). No reasons were given as to why they did not want to be involved. In comparison 32 participants responded that they were more than moderately interested in being involved in the Knowledge Broker Service, with 20 participants scoring their interest an 8 or greater.

The general response was that participants are interested in being kept informed of this Service and the opportunities that it presents for them.

Quotable Quotes

Very willing to find out more about if and how to be involved should it meet my requirements, as well as my farmer group requirements.

I'd like to know more.

I am interested in obtaining as much information as possible.

Any contact with others about soils is excellent.

Would like to see what is involved and be kept up to date with what is happening.

Conclusion

On the whole, the Forum was found to have met the expectations of a large majority of participants. The Forum was considered useful by participants and to be of high overall value and quality. This is attributed to a diverse range of participants, quality speakers and presentations, and a good central venue. Possibly the least successful aspect of the day was the workshop session that received mixed feedback.

For further information...

For further information about the Soil Knowledge Broker Service or the broader Catchment Knowledge Exchange project, please contact:

Shawn Butters
Soil Knowledge Broker

or visit www.vcmc.vic.gov.au or www.catchmentknowledgeexchange.net.au

or phone 0437 988 137.

Appendix 1: Soil Health Forum Program

8:30–9:00	Registration, tea and coffee on arrival
9:00–9:30	Welcome and introduction Launch of the <i>Catchment Knowledge Exchange</i> – Soil health Knowledge Brokering Service Dr Ian MacBean (Chair, North Central CMA) Ms Christine Forster (representing the VCMC)
Theme: Investment in knowledge, engagement and delivery	
9:30–9:45	Land & Water Australia Healthy Soils Program Dr Tom Davison, Land & Water Australia Health Soils Program Coordinator
9:45–10:00	Soil health, state's wealth – DPI perspective Dr Michael Crawford, PIRVic, Department of Primary Industries
10:00–10:30	Questions, discussion session
10:30–11:00	Morning tea
Theme: Soil health knowledge and Victorian landscapes	
11:00–11:15	Soil health and ecosystem services Dr David Freudenberger, CSIRO Sustainable Ecosystems & Geoff Park, North Central CMA
11:15–11:30	Understanding soil health – principles, not rules Richard MacEwan, PIRVic, Department of Primary Industries
11:30–11:45	The importance of soil biology for soil health Dr Pauline Mele, PIRVic, Department of Primary Industries
11:45–12:30	Questions, discussion session Introduction to afternoon session
12:30–1:30	Lunch, posters, demonstrations, including Victorian Resources Online
1:30–3:30	Group discussions Case studies – soil health knowledge needs and questions
3:30–4:00	Wrap up and close

Appendix 2: Registrants for the Soil Health Forum

First name	Last Name	Affiliation (if provided)
Dr Sharon	Aarons	DPI
Dr Fouad	Abo	GHD
Ian	Allan	Geocode Mapping & Analysis
Mark	Allaway	DPI
John	Anthony	Mount Alexander Shire
Tom	Baker	University of Melbourne
Grace	Batson	
Bob	Belford	
Luke	Bennett	
Dr Lauren	Bennett	The University of Melbourne
Dean	Bridgfoot	Mount Alexander and Macedon Ranges Shire Councils
Shawn	Butters	EWR
Melissa	Cann	
Helen	Chambers	
Troy	Clarkson	DPI Geelong
Elizabeth	Clay	West Gippsland CMA
Ken	Coates	North Central CMA Implementation Committee
Michael	Crawford	PIRVIC
Judy	Crocker	North Central CMA Implementation Committee
David	Cummings	
Dr Kithsiri	Dassanayake	University of Melbourne
Adele	Davies	
Tom	Davison	LWA
Andrea	Delaney	DPI
Leigh	Dennis	Corangamite CMA
Kimberley	Dripps	DPI
Peter	Eisen	Newham and District Landcare Group Committee
Sarah	Ewing	VCMC
Tony	Fay	DPI
Peter	Forbes	DSE
Christine	Forster	VCMC
Kelli	Fox	
Dr David	Frendenberger	CSIRO
Malcolm	Fyffe	North Central CMA
Patricia	Geraghty	VCMC
Kylie	Grahame	
Vanessa	Grieger	Victorian No-Till Farmers Association
Peter	Habel	
Gavin	Hanlon	North Central CMA
Barry	Hart	Director, Water Science Pty Ltd, Monash Uni
Matt	Hawkin	DPI
Nathan	Heath	DPI
Geoff	Hocking	West Gippsland CMA
Elvyne	Hogan	Trust for Nature
Geoff	Holloway	DPI
Adam	Hood	DSE
Graeme	Jacka	
Tom	James	
Nic	James	

First name	Last Name	Affiliation (if provided)
Ian	Jardine	University of Ballarat
Tim	Johnston	DPI
Elaine	Jones	
Gwyn	Jones	
Peter	Kennedy	
John	Knight	North Central CMA Implementation Committee
Geoff	Kroker	DPI
Babis	Lagos	Education Centre Gippsland
Simone	Lang	van de Graaff & Associates
Amity	Latham	
Moira	Lavery	DPI
Jock	Leishman	North Central CMA Implementation Committee
Geoff	Love	Glenelg Hopkins CMA
Roy	Lovel	Baringhup Landcare group
Caroline	Lovel	Baringhup Landcare group
Dr Ian	MacBean	North Central CMA
Ruth	Macdonald	EWR
Richard	MacEwan	PIRVIC
Pamela	Manning	Landcare Coordinator
Adrian	Martins	North Central CMA
Amanda	McClaren	
Jill	McFarlane	North Central CMA
Kevin	McGlenn	GHD
John	McKinstry	North Central CMA Implementation Committee
Dr Pauline	Mele	DPI
Leigh	Mitchell	North Central CMA
Gemma	Nichol	DPI
Laurie	Norman	FARM Advisory Service
Jodie	Odgers	Birchip Cropping Group
Geoff	Park	North Central CMA
Greg	Pell	
Dr Renick	Peries	DPI
Rene	Perkins	
Geoff	Pettifer	GHD
Catherine	Phelps	Dairy Australia
Chris	Pollock	Mount Alexander Shire
Evan	Quill	
Kieran	Ransom	DPI
Tim	Read	
David	Rees	DPI
Keith	Reynard	DPI
Lawrence	Righetti	
Nathan	Robinson	DPI PIRVic
John	Russell	
Rob	Ruwoldt	
Fred	Shea	DPI
Jeff	Smith	Education Centre Gippsland
Jenny	Spence	DPI
Doug	Streeter	North Central CMA Implementation Committee
Annette	Taylor	DPI
Norm	Toxer	

First name	Last Name	Affiliation (if provided)
Norman	Tozer	
Dr Vivienne	Turner	Arthur Rylah Institute for Environmental Research
Debra	Turner	
Shari	Wallis	DPI Geelong
Stacey	Warmuth	DPI
Peter	Watts	North Central CMA Implementation Committee
Jane	Wells	
Tony	Wells	
Malory	Weston	North Central CMA
Larry	White	
Terri	Williams	DSE
Kristy	Youman	DPI