Regional Outcomes On-Farm for Sustainability

(ROOFS)

Native Vegetation Regional Pilot Project: ROOFS Trial

And

Regional Outcomes for Sustainability Trial

Final Report

to the Natural Heritage Trust and NRM North

August 2007

Report prepared by: Christine Kershaw and Kay Bailey

Tamar NRM
PO Box 396
Launceston TAS 7250

Phone:(03) 6323 3310
tamarnrm@launceston.tas.gov.au
www.tamar-nrm.org.au

TABLE OF CONTENTS

Table of Contents cont.

EXECUTIVE SUMMARY

The idea that Property Management Systems (PMS) may be an effective tool for Natural Resource Management (NRM) in the Tamar Region and more broadly had been discussed within the Tamar NRM Group since 2003. Tamar NRM's interest in utilising property planning and Property Management Systems as a framework for delivering on-ground NRM using education, extension and decision support tools to augment the traditional financial incentives and as a more cost effective tool for the delivery of nrm and sustainable agriculture, led to the development of the Regional Outcomes for On-farm Sustainability (ROOFS) concept in 2004.

The ROOFS concept was developed into the ROOFS Delivery System through a National Landcare Programme funded scoping study during 2005-06. This report summarises the combined outcomes of two projects, the ROOFS Regional pilot project and the ROOFS Native Vegetation Pilot project which combined aimed to trial the delivery of Stages 1, 2 and 3 of the four stage ROOFS program for groups of farmers in the Tamar region. These projects have been funded through the Natural Heritage Trust program.

Baseline farm natural resource data was collected and included in farm map for the 39 farmers who expressed interest in undertaking the Introductory or Stage 1 of ROOFS. A visit to the farm by the ROOFS Coordinator or Project Officer delivered information support tools as well as the map in both hard copy and digital format. Condition assessments for native vegetation, riparian areas, water quality, soils and land capability were developed with that for the riparian areas tested. Best practice national standards have been used to link nrm issues from the farm gate to the region.

In mid 2007, ten workshops were successfully held for 23 farmers in the Tamar region to trial the delivery of Stage 2 (Risk Assessment) and Stage 3 (Farm Action Planning) of the ROOFS program. A number of templates, support materials and a ROOFS manual were developed as tools to assist workshop participants to make the process of documenting their Property Management System easier. These workshops resulted in 23 farmers assessing the environmental issues on their property and documenting a farm action plan to manage those issues. Feedback from participants will be used to review and improve the ROOFS delivery system.

It has become clear through the delivery of both projects that participants would now benefit from additional support and encouragement as they implement their farm action plans and begin the process of environmental monitoring on farm. ROOFS participants have decided to initiate Neighbourhood Groups in Pipers River, Blessington and West Tamar to provide a social network of ongoing support to each other and to investigate ways that Tamar NRM can continue to support them as they implement their farm action plans.

Overall the two projects have been successful in meeting project objectives within the set timeframes and below budget. An external evaluation survey of participants indicated that "ROOFS has delivered a product that was well accepted and valued by participants" although some of the outputs in relation to resource condition assessment were not delivered – this has been recognized in this report with future delivery discussed. The number of participants currently involved in ROOFS represents less than 1% of farmers in the Tamar region. This report concludes with a number of recommendations that provide guidance on the future delivery of the ROOFS system which would enable Tamar NRM to provide ongoing support to those already engaged in ROOFS and to also be able to offer this service to other landholders in the region. This includes the need for additional resources to trial Stage IV (Review) of the ROOFS delivery system to current participants.

1. INTRODUCTION

The Tamar Region Natural Resource Management Strategy Reference Group (Tamar NRM) is a not-for-profit, community-based organisation that coordinates environmental management within the Launceston, George town and West Tamar municipalities in northern Tasmania. Tamar NRM is built upon a strong history of landcare and grass-roots involvement and partnerships in environmental and agricultural issues in the Tamar region.

The Tamar Region covers an area of approximately 2,800 km^2 with a maximum altitude of 1,413m at Mt Barrow in the east. The Region includes most of the catchments of the North Esk, Pipers, Supply and Curries Rivers, the lower reaches of the South Esk and other, lesser parts of the Tamar Estuary catchment. The regional climate is classified as temperate maritime and has an average maximum temperature of 18 degrees celcius. The average annual rainfall recorded at the Launceston airport station is 690mm. The Tamar region has a population of just over 92,000 people and its economy is based mainly on agricultural production, manufacturing, tourism and commerce. The region also has significant timber resources.

The idea that Property Management Systems (PMS) may be an effective tool for Natural Resource Management (NRM) in the Tamar Region had been discussed within the Tamar NRM Group since 2004. After significant success with a range of targeted incentives programs, education and extension, there was awareness that a more resilient structure for coordinating, supporting, measuring and recognising property scale NRM efforts was required. This would need to go beyond the short term time frames of the majority of funding opportunities. There was also a need to recognize and resource the 'public good' activities provided by farmers.

The Tamar NRM Group's core philosophy is that community ownership of environmental problems in the region will produce appropriate solutions, given adequate resources and technical assistance. This philosophy underpins the Tamar NRM group's interest in utilising property planning and Property Management Systems (PMS) as a framework for delivering on ground NRM and the development of the Regional Outcomes for On-farm Sustainability (ROOFS) concept in 2005/06 through the National Landcare Programme supported ROOFS Scoping Study.

The aim of the ROOFS concept as developed in the Scoping Study was to provide a support system for sustainable agriculture which will deliver increased profit and environmental outcomes across the landscape as well as recognise and value add current efforts made on farm to protect community assets. ROOFS is focused on the property scale within the regional, state and national context and its design is based on demonstrated best practice from across Australia and from Northern Tasmania and the needs expressed through the stakeholder consultation.

The ROOFs Scoping Study drew on existing National knowledge to:

- Enhance sustainable and profitable agricultural practices on farms;
- Provide improved mechanisms to address NRM regional, regulatory and other community requirements on farmers;
- Recognise the multifunctional aspects of farming such as the contribution to clean air, water, enhanced biodiversity and social assets made by landholers;
- Provide tools to assist the measurement and communication of public good services on farms.

The stakeholder consultation conducted as part of the Scoping Study identified that the ROOFS system should be based upon:

- A grass roots approach in which land managers are central;
- Improved coordination and integration of NRM services (reducing duplication);
- Profitability - processes and tools to support social and economic sustainability;
- Recognition and resourcing of 'public good' activities on farms;
- Effective and efficient NRM Delivery that builds local capacity;
- Mechanisms for approval of property scale plans on a voluntary basis;
- Education for sustainability;
- Dynamic knowledge exchange including:
  - Communicators (people) and decision support tools to achieve better interpretation of information (including legislation), making it relevant for local application;
  - Better integration of information products across agencies;
  - Systems of recording and information transfer (e.g. property to regional scale to National scale) where landholders can choose the level of disclosure;
  - Access to appropriate, trusted and up-to date science;
- Monitoring tools that are user friendly, cooperatively developed and have obvious links to sustainability indicators ;
- Linkages to drivers and factors enhancing adoption of sustainable activities;
- Linkages to agreed standards for sustainability;

The ROOFS delivery process that was developed had three major components – Property Management Systems (PMS); Support Systems and negotiating Recognition Systems. Essential to development and delivery is coordination and facilitation support.

1. **ROOFS Property Management System:** involves a systems approach incorporating a number of property planning methods (e.g. PMP, EMS, Decision Support Tools). Historically these approaches have been delivered as single approaches by different agencies with limited interconnectedness. The implementation of this multiple approach combined with consistency to agreed standards would be a unique. The proposed ROOFS PMS brings together resource assessment and farm impact assessment which should address problems highlighted by both PMP programs (e.g. often not linked to market based information or impacts of farming) and EMS programs (e.g. often remote from condition and asset based information).
2. **ROOFS Support System:** involves a coordinated approach to provide support to land managers including information management, education and training, facilitation and technical support. This component supports the Property Management Systems component.
3. **Negotiating Recognition systems:** provides coordination and communication amongst key players to define and develop appropriate recognition systems. It will enable recognition of the Property Management Systems developed on farm (e.g. as proof of meeting regulatory, market and community objectives). Outcomes will clarify the needs of the Support System.

The principles of the ROOFS Property Management System approach developed were:

- It builds on and coordinates components of existing tested property scale planning systems;
- Landholders may undertake one or all of the components as relevant to their objectives, market opportunities and regulatory demands;
- It is to be implemented through the ROOFS Support System;
- It is compatible with existing requirements of landholders to meet essential food safety and other requirements;
- Local adaptation of existing tools and processes rather than reinventing a new system; and

- It is implemented through a staged approach with modules within each stage.

Eight modules were developed for use in the four stage ROOFS Property Management System as shown below. These modules are consistent with existing agreed standards, best practice and requirements for property scale issues. Landholders could undertake any of these modules and, whilst there is logical progress, they could be taken independently without following the sequence proposed.

The Scoping Study proposed that these modules could be delivered by using or adapting existing material (e.g. existing workbooks and data sheets) or in some cases, new materials could be developed depending on resources available.

Table 1: Outline of ROOFS Property Management System staged approach
Suggested stages and modules of the ROOFS Property Management System approach are:

STAGE 1: Introduction – Brief environmental assessment, information and referral

STAGE 2: Resource assessment - Property Management Planning
Module 1: Baseline assessment
Module 2: Land Capability Assessment
Module 3: Condition Assessment

STAGE 3: Farm Action Planning – Environmental assurance, economic sustainability, links to regional targets, market requirements and legislation
Module 4: Environmental risk assessment & management
Includes regional to farm links template and links to other management plans (e.g. game management plans)

Links with other Management Systems as required
Module 5: Food Safety
Module 6: Farm Safety
Module 7: Animal risk assessment & management

STAGE 4: **Third party review of Property Management System or relevant components of this** Approval of PMS ⇨
Module 8: Sustainability evaluation (this module also has application across the other stages)

It was proposed that only the first 3 stages of the Property Management System would be further developed and tested as part of a ROOFS Pilot. Stage 4 would be dependant on the outcomes of the Negotiating Recognition Systems component.

Two project proposals were developed in early 2006 to Pilot the implementation of Stage 1 and Stages 2/3 respectively of the ROOFS delivery system in the Tamar region. The first to pilot Stage 1 was funded by the Northern Tasmanian Natural Resource Management Association (NRM North). This project commenced on 6 July 2006. The second proposal to pilot Stages 2 and 3 was funded by the Department of Agriculture, Forestry and Fisheries (DAFF) under the Native Vegetation Regional Pilots program through the Natural Heritage Trust and commenced on 17 May 2006.

This report outlines how the two pilot projects were implemented, provides a summary of the outcomes achieved and presents recommendations for the future delivery of ROOFS.

2.1 BRIEF DESCRIPTION OF PROJECTS

2.1.1 The ROOFS Regional Outcomes for Sustainability Trial Pilot Project (ROOFS Regional Pilot)

The aim of the twelve month ROOFS Regional Outcomes pilot project was to test the delivery of Stage I of the ROOFS delivery system to 20 farms including elements of the ROOFS Property Management System, Support System and negotiating Recognition Systems.

This Stage aimed to provide an introduction to the ROOFS Delivery System to be delivered on a two-hour farm visit by trained personnel and would include:

- Information on sustainable agriculture services available to landholders
- Provision of information on tools and services available to support management decisions and profitability (ROOFS Tools Database)
- Basic farm planning support provided through GIS mapping including farm and regional priorities where available (e.g. high conservation vegetation, salinity risk, water quality protection areas)
- Support to complete an initial review of farm sustainability issues through existing self-assessment tools (SATs)

It was anticipated that this process would introduce the ROOFS tools and demonstrate how to progress towards the development of a property management system.

The expected outcomes for landholders from this Stage were:

1. ROOFS tools database on CD.
2. Information and support referral service fact sheet.
3. Basic farm map (aerial photo) and basic regional map (showing relevant context).
4. Farm mapping support (i.e. an aerial photograph base map (A3) and digital aerial photograph to farmers wishing to undertake computer mapping).
5. Access to relevant Self Assessment Tool as appropriate for that farm with options including:
   - ROOFS Enterprise Management Planning Tool
   - Industry based self assessment tools
   - Tools like TFGA self assessment tool
   - Other environmental review processes suitable for the scale of operation
6. An understanding of how to proceed in the ROOFS Delivery System.

NRM outcomes were expected to be:

1. Increase in uptake of land managers in priority areas implementing best practice natural resource management.
2. Increased awareness and understanding of the importance of natural resource management to sustainable land management.
3. Increased understanding and awareness of management options to address natural resource management at a property and sub-catchment level.

2.1.2 The Native Vegetation Regional Pilot: Regional Outcomes for On Farm Sustainability Trial (ROOFS Native Vegetation Pilot)

The aim of the second pilot, the 15 month ROOFS Native Vegetation Pilot was to trial the components relating to native vegetation management of the Regional Outcomes for On-Farm Sustainability (ROOFS) property management system (Stages 2 and 3 of the ROOFS delivery system) and recognition systems with a minimum of 20 farmers in the Tamar region.

Specific objectives were to:

- develop and trial Stage 2 and 3 of the ROOFS property management system and associated support systems with a minimum of 20 farmers to ensure they are user friendly and cost effective tools for landholders to use to improve their sustainable land management;
- provide a mechanism for participant farmers to demonstrate sustainable management of native vegetation to the community; and
- work in collaboration with the state government, industry, regional organisations and landholders.

The pilot project aimed to meet these objectives by:

a) establishing the ROOFS Reference Group to oversee the Pilot;
b) developing and testing the 'Resource Assessment and Farm Action Planning modules' of the existing 'Property Management System' component of the ROOFS delivery system to improve native vegetation components;
c) developing 'Support System' components of the ROOFS delivery system for native vegetation management requirements (including updating the existing Enterprise Management Planning Tool Kit update, resource materials and training);
d) trial the ROOFS delivery system with a group of 20 farmers; and
e) develop and negotiate systems for ROOFS participants to receive recognition for their stewardship from the community, government and markets.

At the commencement of the pilot the expected outputs were:

3. Contractual reports (Implementation Plan, Risk Management Plan, Monitoring and Evaluation Plan, Communications Strategy, Quarterly and Final Reports).

- Risk Assessment Workshops for project participants.
- Farm Action Planning Workshops for project participants.
- Participant's manuals, PowerPoint presentations, templates and additional resource materials for the training workshops;
- Successful completion of ROOFS workshops and development of farm action plans by at least 20 properties.

2.2 THE ROOFS JOURNEY

The Tamar NRM ROOFS Regional Pilot project and ROOFS Native Vegetation Pilot project commenced in July 2006 and May 2006 respectively. The ROOFS Coordinator employed to deliver the ROOFS Native Vegetation Pilot managed the project and supervised the ROOFS Project Officer employed to deliver Stage 1 in the ROOFS Regional Pilot. The two pilot projects operated as part of the one program.

A combined project team ran the ROOFS pilots. The project team consisted of Kay Bailey (Project Supervisor), Darren Banner (ROOFS Coordinator), and Phillip Mills (part / time ROOFS Project Officer July 2006 to April 2007). The ROOFS Coordinator role was undertaken by Christine Kershaw from March to July 2007 after the resignation of Darren Banner. Contributing to the project team were Jay Larkman (part time GIS project officer – April to July 2007) and Fiona Roark (part time project officer (April to July 2007)). In addition a consulting firm, Livingston Natural Resource Services, undertook an external evaluation of the ROOFS pilots during June / July 2007.

A combined ROOFS Reference Group for both pilots was established and operated from July 2006 to May 2007. The role of the Reference Group was:

- To review Property Management System format and Support System process
- To oversee the review of tools and publications in the ROOFS tools database and Enterprise Management Planning Toolkit
- Contribute to discussions and forums relating to Negotiating Recognition Systems and assist in establishing linkages in formation of recognition systems
- To test and review components of ROOFS as required (e.g. farm action plan template)
- To provide on going review and analysis of Pilots to ensure delivery and targets met.

A list of participants on the ROOFS reference group is given in Appendix 1. A total of 8 meetings of the Reference Group were held. Members were also invited to workshops held for participants and were provided out-of-session with additional updates of progress in developing templates and training documentation.

Once the Project Coordinator was appointed, June 2006 was spent recruiting the ROOFS project Officer, completing the contractual reports (Implementation Plan, Risk Management Plan, Monitoring and Evaluation Plan, Communications Strategy), establishing the Reference Group, sourcing up to date aerial photographs for the GIS farm mapping and establishing links with other property management system delivery agents and projects.

An Expression of Interest form was developed (see Appendix 2) and consultation with the Tamar Valley Branch of the Tasmanian Farmers and Graziers Association resulted in a list of 28 potential participants providing a representative coverage of:

4. Farm size with the Tamar Region;
5. Type of farming enterprise;
6. Age of farmer;
7. Experience of farmer with NRM and landcare activities;
8. Geographic distribution; and
9. Native vegetation community priorities,

Contact was made with those identified by two of the Reference Group members respected within the community for their involvement in landcare and nrm and their approach to sustainable agriculture. This was followed up by the ROOFS Co-ordinator. Thirteen of those listed completed the Expression of Interest form and signed up for the ROOFS pilots.

Advertising within the Tamar NRM newsletter, local media and word of mouth led to a total of 39 farmers participating. In order to ensure the program could be delivered to all, the EOIs were then closed.

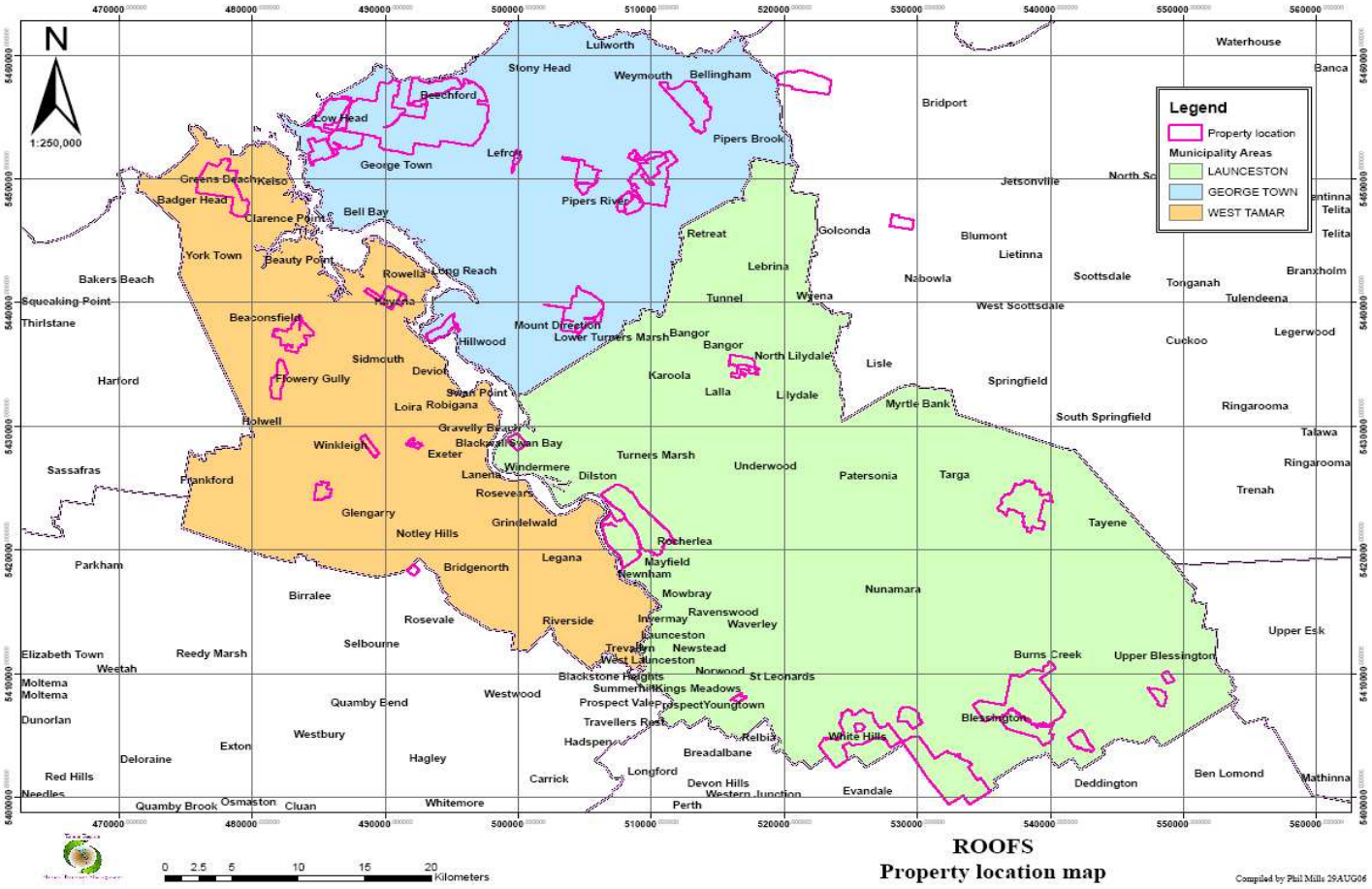

Figure 1: Map showing the location of farmers who completed the Expression of Interest to be part of the ROOFS pilots.

Figure 2: ROOFS Coordinator and prototype ROOFS farmer field testing the farm map during the Introduction Farm Visit.

Figure 3: Prototype ROOFS Farm Base Map

Over the next months a Manual was produced for each ROOFS farmer. The ROOFS Manual is a folder used for landholders to organise their ROOFS documentation in a way which assists them to keep their documentation organised. It is made up of five separate sections and includes a number of templates to assist with ROOFS documentation.

Table 2: Summary of ROOFS Manual Sections

Section	Content
Section 1: **Organisation**	A quick overview of the business and farm map. Includes a copy of the Expression of Interest and property information summary. This can be shown to customers to demonstrate a commitment to delivering a product that is environmentally friendly.
Section 2: **ROOFS Tools**	This is where the ROOFS Farm Action Planning Assistant and ROOFS Tools Database instructions for use are kept.
Section 3: **Assessments and Farm Action Plan**	Describes the operations, processes and controls that are in place to manage environmental issues on the property. Completed risk assessments and Farm Action Plan
Section 4: **Monitoring Records**	This is where condition assessments and monitoring recording templates and other records are to be kept. These records are an integral component of the ROOFS system and necessary proof for future use and assessment.
Section 5: **References**	Background information on which the PMS has been built. Other reference documents may also be included.

Elements included in the Manual were:

1. Farm Map: Recent aerial photography to form the base for the farm maps was sourced with considerable delay from the Tasmanian Department of Primary Industries and Water. Ortho-rectification was undertaken in house by the ROOFS Project Officer taking considerable resources. The following data was provided on the base ROOFS farm maps where available through The LIST; the Natural Values Database or from the Council data libraries:

- Cadastre;
- Landforms and contours;
- Vegetation communities (source: TasVeg);
- Soil Types (where available);
- Land capability (where available);
- Water courses;
- Infrastructure such as roads, buildings, fences and utilities (where known).

2. Action Planning Assistant: A knowledge audit and gap analysis of supportive tools for decision making was undertaken and the Enterprise Management Planning Toolkit (EMPT) developed by consultant Ian Kinnonmonth of Environmental Knowledge Systems Australia (EKSA) was expanded. Version 2 contained an additional land use module focusing on the management of remnant native vegetation. The existing land use module for grazing native vegetation was also expanded in keeping with the focus of the Native Vegetation Management Pilot program. A manual and CD were produced (see Appendix 3, Section 2). On the recommendation of the ROOFS Reference Group the name of the toolkit was changed to Action Planning Assistant (APA) to more accurately reflect its purpose.

3. ROOFS Tools Database: A copy of the manual and CD for the ROOFS Tools Database was provided (see Appendix 3, Section 2). This Database had been developed with approximately 418 tools during the ROOFS Scoping Study in 2005/06 and could be searched for tools relevant to agro-ecological zones; management categories (such as biodiversity and landscape; chemical management; soil and land condition; weeds and pests; etc); land uses and tool categories.

4. Referral Sheet: A list of contacts was developed for support during the ROOFS process; for information on resource issues, legislation and further information; and for relevant service providers (see Appendix 3, Section 1).

5. Condition Assessments: The following State or nationally recognised and tested condition assessments were sourced and included (see Appendix 3, Section 4):

- TASVEG assessment – to be undertaken by the ROOFS support team with farmer present;
- Tasmanian Vegetation Condition Assessment - to be undertaken by the trained ROOFS support team with farmer present;
- Rapid Appraisal of Riparian Condition (RARC, Tasmanian Version) – ROOFS support team (trained by State Land, Water and Wool Coordinator) to demonstrate use and train farmers to self-assess;
- Water Quality Assessment (part of the AUSRIVAS – Australian River Assessment System corresponding with rapid biological assessment and rapid geomorphic, physical and chemical assessment protocols) - trained ROOFS support team to demonstrate use and train farmers to self-assess;
- Soils – Easy to use assessment developed in conjunction with Soil Officers with Department of

Primary Industries and Water - ROOFS support team to demonstrate use and train farmers to self-assess; and

- Land Capability – an easy to use assessment developed from the Tasmanian Land Capability Handbook for those areas for which this information was not available at a farm scale - ROOFS support team to demonstrate use and train farmers to self-assess.

A member of the ROOFS Reference Group volunteered to use a section of his farm at Pipers Brook as a Prototype Farm to test the ROOFS pilots prior to implementation with the ROOFS farmers. The delivery of the Stage 1 Introduction was undertaken on this Prototype Farm with lessons incorporated prior to then delivering with the 39 farmers.

A convenient time was then established with each farmer for the ROOFS Coordinator and / or ROOFS Project Officer to undertake the Introduction Farm Visit. This took approximately 2 hours for the majority of farms and involved:

- A discussion around the kitchen table of the purpose of the ROOFS Property Management System and seeking input on what the farmer wanted to get from it; presentation of the ROOFS Manual to the farmer; demonstration of the ROOFS Tools Database; presentation of the information included on the hard copy of the draft farm map and initial inclusion of additional information identified by the farmer such as irrigation infrastructure, fences, paddock names, weed infestations, shelter belts; and
- A drive around the farm checking the farm map and in particular the TASVEG communities mapping and discussing issues identified by the farmer – photos were taken of the property as a record and to include on the cover of the farm map CD.

An A0 sized copy of the farm map was left with the farmer to hand add any information and return to the ROOFS team for digitising and returning on the follow up visit. Due to demand both a hard copy and a disc of the farm map with the ARC Reader program were provided on this visit.

As well as delivering the final map, during the follow up visit the ROOFS Coordinator and / or ROOFS Project Officer;

- introduced and provided a copy of the TFGA Self Assessment Tool (FarmSAT) to the farmer;
- demonstrated and provided a copy of the Action Planning Assistant as a decision support tool;
- sought an indication from the farmer of interest in progressing to Stages 2 and 3 of the ROOFS delivery system; and
- requested each ROOFS farmer complete the Stage 1 Questionnaire – see Appendix 6.

Figure 4: Participants at the ROOFS soils field day held in October 2006 in conjunction with the East Tamar Landcare Group

Resignation of the ROOFS Coordinator in March 2007 resulted in the non-

implementation of the Condition Assessments at this Stage. The RARC (Riparian) assessment was commenced with ROOFS farmers in July at the completion of the project and will form the basis of future monitoring of impacts of current and future land management actions addressed in their Farm Action Plans. The delivery of these RARC and other assessments will continue beyond the ROOFS pilots. A soils Field Day was held in October 2006 for ROOFS framers in conjunction with the East Tamar Landcare Group (many members of which are also ROOFS farmers).

Completion of the Environmental Risk Assessment (part of Stage 3 – see Appendix 4) and Farm Action Planning (Stage 3 – see Appendix 5) templates and other training material in April 2007 marked a significant milestone in the development of the ROOFS Property Management System. The Environmental Risk Assessment process was to be followed for the Food Safety; Farm Safety and Animal Management Modules of Stage 3 for those farmers as required to develop a Property Management System rather than an Environmental Management System. However, staff changeover resulted in this not being delivered.

The development of the templates was followed by the completion of four environmental risk assessment workshops in May 2007 and four Farm Action Planning workshops in June 2007. These were held at Pipers River, Hillwood, Blessington and Exeter. A total of 31 people attended the training sessions representing 23 farming businesses developing farm action plans for their individual properties.

Feedback from the ROOFS workshops resulted in some changes to the training process. This included the removal of some environmental issues that had been duplicated in the risk assessment templates and other simplifications to the templates, as well as changes in the actual delivery of the training material.

As the ROOFS pilot for Stages 2 and 3 was to focus on native vegetation management, a grant was applied for and funded through the Exchange Incentive Fund to demonstrate tools that were available for the management of native vegetation. Tamar NRM considered that ROOFS and other farmers should base their management of native vegetation on informed decisions and current best practice. The Demonstration Day was held on the property of one of the ROOFS farmers who was interested in further management of the native vegetation as part of his farm action plan. All ROOFS farmers were invited with 6 attending on the day. The flyer for this event is at Attachment 7.

In order to assist the ROOFS farmers implement their Farm Action Plans and to work together on individual and sub-catchment priorities Tamar NRM held additional workshops towards the end of the ROOFS pilots to set up Neighbourhood Groups. These are small, localised groups of farmers focused on achieving local landscape and productivity outcomes. Three such Groups were set up including all 23 farmers that completed Stage 3 and have since been operating in the Pipers River, West Tamar and Blessington areas.

In 2006, the Tasmanian state government, three regional NRM groups and the Tasmanian Farmers and Graziers Association proposed a Property Management Systems Framework concept for Tasmania. The Framework establishes core principles to underpin the development of PMS in Tasmania and proposes roles and responsibilities of all players in taking PMS forward. The ROOFS Team contributed to the development of these principles and they have been incorporated into the ROOFS Native Vegetation Pilot Project.

At the completion of the ROOFS pilots a select tender process led to the selection of a consultant to undertake an external evaluation of the ROOFS pilots. Scott Livingston of Livingston Natural Resource Services was selected to investigate, evaluate and report on the ROOFS pilot process and outcomes. A telephone survey of 13 of the ROOFS farmers (randomly selected from the 39 Expression of Interests) and interviews with 5 ROOFS Reference Group members plus project management formed the basis of the report (see Appendix 8).

2.3 NATIVE VEGETATION PILOT (STAGE 2 AND 3) DESIGN AND IMPLEMENTATION

The ROOFS program has been designed to act as a bridge between PMS theory and its practical on-farm application. The program has been designed to be as user friendly as possible with practical demonstrations, support information and tools and examples that keep the content interesting and relevant to a wide range of farmers

.

The ROOFS Coordinator developed a draft environmental risk assessment process based on the standards being put together in the PMS Framework for Tasmania. This was tested at a workshop with some of the Pipers River ROOFS farmers with feedback provided to amend both the PMS Framework standards and the ROOFS environmental risk assessment template and delivery process.

A consultant, Christine Kershaw, was employed from March 2007 upon the resignation of the ROOFS Coordinator to complete and deliver the ROOFS risk assessment and farm action material and was chosen for this role because of her knowledge and experience with Management Systems and the hazard analysis critical control point (HACCP) risk management tool used as a basis of the ROOFS risk assessment template. Her experience in working with farmers in a sub-regional framework on the Blackwood Basin 'BestFarms' program in Western Australia was also a significant contribution to the conclusion of the pilots.

The incorporation of aspects of the management systems approach and HACCP into the ROOFS PMS has provided many similarities between already established QA systems which are currently being implemented by farmers. Relevant records kept by growers who are implementing a QA system can be referred to in the ROOFS PMS therefore eliminating duplication of some records. The documentation that supports the ROOFS system is kept in a 'ROOFS Manual'.

ROOFS TRAINING WORKSHOPS

Once the templates had been developed and tested ten ROOFS training workshops were conducted during the Native Vegetation Pilot. These provided an opportunity to collate and utilise feedback from landholders on the training material content, relevance and workshop delivery and to amend these at subsequent workshops.

The ROOFS training workshops initially started with a staged approach, with two workshops for each participant to attend. The first workshop was a Risk Assessment workshop which could be achieved by successfully completing the ROOFS environmental risk assessment template with assistance from the facilitator. The second workshop was a Farm Action Planning workshop where participants were expected to again use a template to develop a farm action plan for their property focussing on environmental issues they had identified earlier in the Risk Assessment workshop. Only the Environmental Risk Assessment template was developed and utilised. It was anticipated that templates for Food Safety, Farm Safety and Animal Management could follow the same format.

The ROOFS training workshop material consisted of:

- ROOFS manual (including templates);
- ROOFS PowerPoint presentation for each workshop;
- ROOFS Environmental Risk Assessment template;
- ROOFS Farm Action Planning template;
- ROOFS Action Planning Assistant CD and instructions;
- ROOFS Tools Database CD and instructions; and
- ROOFS Farm Map (hard and digital copies).

2.3.1 Environmental Risk Assessment

The first step of the Native Vegetation Regional Pilot Project (and what became Stage 2 of the ROOFS PMS during the pilots) involved bringing individual land managers together into groups to undertake an environmental risk assessment workshop. Workshops were held in the Blessington, Pipers River, Hillwood and West Tamar regions during April and May 2007.

The environmental risk assessment component of the Pilot Project involved each participant working through the entire template to identify environmental impacts and causes that could be relevant to their particular property – see Table 3. Participants were then asked to rate the significance of each environmental issue and then prioritise the top 5 environmental issues for their property that they could then work on during the next Farm Action Planning stage.

Risk assessment steps:
Step 1: Identify environmental risks and causes for the property.
Step 2: Assign a significance rating to each environmental issue.
Step 3: Prioritise all highly significant issues until the top 5 have been identified.

Assigning a significance rating to environmental impacts gabe participants a better perspective of how important each of the impacts are in relation to each other. A Significance Rating Matrix was used to determine the significance of each environmental impact by comparing how likely an impact is to occur, together with how severe the impact may be on the environment if it does occur. This is consistent with the international recognised Hazard Analysis Critical Control Point (HACCP) methodology used by food safety management systems.

The risk assessment standards of the Tasmanian Property Management Systems Framework were used as a basis for the development of the risk assessment template. This provides an important link to other property planning programs throughout Tasmania and ensures that participants in the pilot project have undertaken a recognised risk assessment process.

Table 3: ROOFS Risk Assessment Template format.

	Potential Cause	STEP 1 Is this issue Relevant? No	Yes	STEP 2 Rate issues High, Med or Low	STEP 3 Rank issues 1, 2 or 3
	Soil structure decline due to:				
Soil Structure	Lack of organic matter in the soil	☐	☐		
	Vehicle or stock traffic	☐	☐		
	Tillage practices	☐	☐		
	Nutrient imbalance in soil due to:				
Loss of Nutrients	Timing and rates of fertiliser applications	☐	☐		
	Natural soil types	☐	☐		
	Nutrients being exported in farm products	☐	☐		

2.3.2 Farm Action Planning

Once the top five priority environmental issues for the property were identified, participants were asked to come to another workshop to develop a farm action plan. Farm action planning workshops were held with each group in June 2007. Once again a template was developed to assist individuals to complete a farm action plan for their property.

The farm action planning templates provided guidance to the participants about environmental targets and actions that could be taken. Working with a facilitator, the participant's first step was to identify their environmental targets that describe what they want to achieve on their property relating to each of their top five environmental issues. Examples of appropriate targets were given in the templates and participants were asked to amend these to suit their own circumstances – see Table 4 and Appendix 5.

Once the targets were established, participants were then asked to document the specific actions that they were prepared to do to help them to reach those targets. Simple and achievable monitoring activities were then determined which could be used to demonstrate that progress is actually being made towards those targets over time.

The initial feedback from participants has indicated that the templates are very useful and time saving during the farm action planning process. An example of a farm action planning template is given below with descriptions of how it works in italics.

Table 4: Farm Action Plan template example

CAUSE	Short-med term Target examples (12 – 36 months) TARGETS WHAT DO YOU WANT TO ACHIEVE?	Tick to include in FAP	Management Action examples ACTIONS HOW WILL YOU ACHIEVE IT? WHAT WILL YOU DO AND WHEN?	Tick to include in FAP
Loss of organic matter	Maintain current levels of soil organic matter in good paddocks.	☐	Investigate and establish suitable measures to improve soil organic matter.	☐
	INCREASE LEVELS OF ORGANIC MATTER BY __% IN FAIR TO POOR PADDOCKS OVER ___ YEARS.	☐	Review stocking rates in poor paddocks.	☐
			Fence stock out of eroded or susceptible areas.	☐
			Plant native vegetation in fenced off areas to allow regeneration of understorey vegetation.	☐
			Grow more pastures in cropping rotations	☐

***Targets**: the short-med term targets that is specific and measurable*

***Monitoring**: monitoring activities should be able to demonstrate that progress is being made towards the stated targets.*

***Actions**: the actions that the farmers are willing to commit to doing on their property to ensure that the targets of the FAP are met. This might include actions that have already done but still need to be maintained and monitored if they are to remain effective.*

3.1 LEVELS OF PARTICPANT COMPLETION

3.1.1 Stage 1: Introduction

- Of the 39 participants who completed a ROOFS Expression of Interest 31 completed the majority of Stage 1.

- Of the eight that did not, one sold the property prior to commencement of ROOFS pilot and the remainder pulled out. Contributing factors to this were that 45% of farmers did not understand the concept or the time commitment required of them at the start (see External evaluation report, page 6, Appendix 5) and the delay between sign up and delivery due in large part to delay in obtaining up to date aerial photographs upon which to base the farm maps.

- Five of the 31 ROOFS farmers did not receive the follow-up farm visit after return of their amended farm map. In large part this was due to the delay in farmers returning amendments to their farm maps to the ROOFS Project Officer. Also contributing was the benefit farmers saw in having additional information on their map and in producing not only a hard copy but a digital copy as well. This meant that resources were tied up in preparing these maps right to the end of the Project Officers contract. These resources were then not available to complete the follow up farm visits for those farmers who proved difficult to contact.

- 26 ROOFS farmers completed all of Stage1.

3.1.2 Stage 2 and 3: Risk Assessment and Farm Action Planning

- Of the 26 ROOFS farmers completing Stage 1 of this pilot project, 23 decided to continue on to Stage 2 and Stage 3.

- Ten training workshops were conducted with 24 participants as part of Stage 2 and Stage 3 of this pilot project during April to June 2007. This has provided an opportunity to collate feedback from landholders on the training material content, relevance and workshop delivery.

- 100% of Stage 2 and 3 participants have completed their farm action plan. Assistance from facilitators was essential in helping people complete their farm action plans.

- A list of lessons learned from the training workshops is given in Appendix 10.

3.2 SUMMARY OF PRIORITY ENVIRONMENTAL ISSUES

The most common environmental issues that evolved from the 23 participants involved in the risk assessment and action planning workshops are elements of management of weeds, pests, farming practices, water and revegetation and bush rehabilitation as shown in Table 5.

Table 5: Summary of Priority Environmental issues listed by ROOFS Farmers.

Issue	**Actions**	**Number of ROOFS farmers / 23**
Weeds	Weed management plan / mapping and spraying	21
Pests	Game management plan / fencing	15
Farming practices	Soil tests / fertiliser monitoring / pH / OM	15
Water	Water development plan / dams	10
	Stabilise stream bank, fencing and rehabilitation	12
Revegetation / bush rehabilitation	Native veg rehabilitation	10

These issues have since formed the key issues being addressed by the 3 Neighbourhood Groups formed from the Blessington, Pipers River and West Tamar ROOFS farmers. The farm action plans developed by each individual farmers have also addressed a number of other environmental issues and causes as shown in Table 6.

Table 6: Participants listed the following issues as priorities in their farm actions plans.

Issue	**Actions**	**Pipers River**	**Blessington**	**West Tamar**	**Hillwood**
Weeds	Weed management plan / mapping and spraying	*6	*6	*5	*4
Pests	Game management plan / fencing	*4	*5	*4	2
Water	Bore	1	1		
	Water development plan / dams	3	3	3	1
	Water tanks and roof catchment	1	1	1	
	Stock watering points	2	1	2	
	Irrigation efficiency		1	3	
Stream bank stabilisation / rehabilitation	Stabilise stream bank, fencing and rehabilitation	*4	*5	2	1
Wetland rehab				2	
Revegetation / bush rehabilitation	Native veg rehabilitation	1	1	*5	3
Farming practices	Tillage practices / stubble retention	1	*3	1	2
	Stock / paddock management	*3	2		2
	Drought lots / drought mgnt strategies		1	1	
	Wind breaks / wildlife corridors	1	1	2	
	Soil erosion	2	1	3	
	Waterlogging / drainage	1		2	2
	Soil compaction		1		
	Pasture types to suit soil	1			3
Soil health	Soil tests / fertiliser monitoring / pH / OM	*6	*3	2	*4
	Salinity management	*3			

Waste management	Waste management plan		1		
	Silage wrap / plastics	1	2		
	Recycling / disposal oils		2		
	Animal effluent system	1			
Fire management				3	1
Alternative energy sources				2	
Air quality / dust				1	
Waste mgmt / recycling		1	2		
Chemicals / oils	Label rates / storage / training	2	1	1	1

* Top priorities have asterisk next to them for each group.
Note: The ROOFS farmers who attended the Hillwood workshops subsequently joined the Pipers River or West Tamar Neighbourhood Groups.

3.3 PARTICIPANTS SURVEY

A phone survey of ROOFS Participants was held in July 2007 as part of the External Evaluation. Of the original 39 farmers who began as pilot participants in Stage 1, 13 participants (33%) were interviewed. Results are presented as collated answers to survey questions in Appendix 7 with analysis, discussion and recommendations.

The phone survey indicated that participants valued the experience of being a participant in the ROOFS pilot project despite some initial issues associated with the program being new. Involvement with the initial participants has allowed many of these issues to be ironed out. Some recommendations from this survey are summarised below:

- Understandings of NRM issues both on the property and in the wider catchment were enhanced by the ROOFS process.
- Weeds and pest management issues rated as most important amongst participants
- The ROOFS process is bringing about real changes in the way people manage their properties, in intention if not action (onground changes have NOT been assessed as part of the project evaluation)
- Most participants supported continuance of ROOFS.
- The Neighbourhood Groups should be continued and supported.
- Clear guidelines for the extent and type of farm maps and their updating should be established for any future delivery.
- Ensure condition assessments are implemented and formats kept abreast of best practice standards.
- Most farmers found the Environmental Risk Assessment and Farm Action Plan templates very useful.
- 100% completed their farm action plans within 1 month of undertaking the training.

- The friendly approach was commended by participants.
- Financial incentives to assist with implementing ROOFS were considered necessary by the majority of the participants. Time was the other most limiting factor.
- Develop the link with Regional NRM datasets and target setting.
- Continue to work towards recognition systems.

3.4 ACHIEVING PROJECT OBJECTIVES

3.4.1 Achieving the broad objectives of the ROOFS Regional Pilot (Stage I)

An assessment of the achievement of the aims of the Stage 1 Regional pilot is considered below:

… **to provide an introduction to the ROOFS Delivery System to be delivered on a two-hour farm visit by trained personnel** ..

The ROOFS Coordinator and ROOFS Project Officer undertook farm visits to 31 ROOFS farmers. In addition follow up farm visits were undertaken with 26 farmers to complete Stage 1.

… including

- **Information on sustainable agriculture services available to landholders**

A referral sheet was developed and delivered within the ROOFS Manual. More extensive listing of Service Providers should have been included as discussed in the External Evaluation report (page 15).

- **Provision of information on tools and services available to support management decisions and profitability (ROOFS Tools Database)**

A CD with the ROOFS Tools Database was provided with the User Guidebook in the ROOFs Manual and demonstrated at the farm visit. An additional workshop demonstrating the installation and use of the Database was provided toward the end of the pilots when it became clear that only a limited number of the ROOFS farmers were using it.

- **Basic farm planning support provided through GIS mapping including farm and regional priorities where available (e.g. high conservation vegetation, salinity risk, water quality protection areas)**

Extensive farm mapping resources provided to all ROOFS farmers who were provided with a large hard copy map as well as a digital version with the ARC Reader program and instructions on installation and use (See Appendix . An additional demonstration workshop was run towards the end of the pilots to inform any interested ROOFS farmers of the installation of ARC Reader and demonstrate the use of the digital farm map. 6 farmers attended this workshop.

- **Support to complete an initial review of farm sustainability issues through existing self-assessment tools (SATs)**

Whilst the TFGA's FarmSAT tool was provided to the farmers in the follow up visit prior to the completion of Stage 1, permission had been withdrawn for the ROOFS team to deliver the tool. General discussion of farm sustainability issues ensued during the initial farm visit.

Achievements against each outcome were:

1. **Increase in uptake of land managers in priority areas implementing best practice natural resource management.**

Whilst a number of the ROOFS farmers had been involved in nrm and farm planning programs previously (the responses to the survey at the completion of Stage 1 indicated 64%), this pilot provided information support on best practice management and some basic planning tools such as farm mapping to those not previously involved.

Involvement in a formal process of Property Management Planning allowed farmers to undertake a recognised system and be exposed to a systematic mechanism to identify issues leading to greater adoption of best practice.

2. **Increased awareness and understanding of the importance of natural resource management to sustainable land management.**

The information support tools, workshops, direct one on one delivery and communication as well as the systematic consideration of all environmental risks and identification of priority issues for action ensured that the ROOFS farmers gained both increased awareness and understanding. The comments and results of both surveys reflect this.

3. **Increased understanding and awareness of management options to address natural resource management at a property and sub-catchment level.**

The process of developing the farm action plans with provision of templates for each issue ensured ROOFS farmers were more aware of management options and able to prioritise these options and issues for their property.

The development of Neighbourhood Groups has led to an increase in understanding of broader sub-catchment issues and options to address these. These issues have been fed back to consideration for implementation of the Tamar NRM sub-regional Strategy.

3.4.2 Achieving ROOFS Pilot project (Stage I) milestones

The milestones as stated in the Deed of Grant appear below in table format. This provides a brief and concise description of the results of the pilot and also makes comment on how things could have been done differently.

Table 7: Assessment of achievement against ROOFS Regional Pilot Milestones

Milestone as per deed of grant	**RESULTS**	**If we were to do it again we would……**
1. Project Officer employed	ROOFS PROJECT OFFICER EMPLOYED PART-TIME JULY 2006 TO APRIL 2007.	Employ a part-time GIS officer with ROOFS Coordinator delivering to farmers.
2. Reference Group established	COMPLETED	Develop clear Terms of Reference.
3. Identify 20 farms for trialling ROOFS Introductory Stage	COMPLETED 28 IDENTIFIED WITH ADDITIONAL 11 SELF IDENTIFIED	
4. Complete referral fact sheet	COMPLETED	Ensure list is comprehensive.

5. Implement trial on 10 farms	COMPLETED	
6. Implement trial on additional 10 farms	COMPLETED. ADDITIONAL 16 FARMS.	
7. Report on ROOFS PMS Introductory Stage on 20 farms	COMPLETED. REPORT PRODUCED ON DELIVERY TO 26 FARMS.	
8. Test ROOFS Tools Database with stakeholders	COMPLETED.	Provide additional assistance re installation. Refer to particular tools during training and workshops. Update of database required.
9. Produce updated ROOFS Tools Database & report	COMPLETED.	

3.4.3 Achieving broad objectives of the ROOFS Native Vegetation Pilot Project

Objectives for the ROOFS project and how well they have been met are considered below:

Develop and trial Stages 2 and 3 of the ROOFS property management system delivery and associated support systems with 20 farmers to ensure they are user friendly and effective tools for landholders to use in improving their sustainable land management;

The trial of the ROOFS Stages 2 and 3 delivery system has been a good example of how a farmer orientated approach can successfully lead to real on-ground changes and delivery of extension services to landholders. The trial involved farm visits, training workshops, demonstrations, one to one facilitator support, vegetation assessment, environmental risk assessment, farm planning and mapping activities. The trial also assisted in keeping participants informed about NRM projects and funding incentives that were relevant to their property planning activities and created opportunities for social interaction and mutual support by participants.

The Native Vegetation Pilot project resulted in 23 of the original 39 ROOFS participants completing Stages 2 and 3 of the ROOFS program. The farm visits and workshops provided one to one and group facilitation to participants and an opportunity for group discussions and interaction. The use of templates and facilitation techniques created a very user friendly training program where participants were able to work through the training material at their own pace and with assistance.

Changes in environmental management and information transfer have already occurred as a result of the pilots but another assessment will be required at a later stage to verify what actual changes occur to farming practices and land management activities. The best indicator of real change at this point is the summary of farm actions that participants have committed themselves to in their farm action plans (see project evaluation section). These actions indicate that there are likely to be significant environmental and productivity improvements occurring on the 23 properties as the action plans are implemented.

The two pilot programs have raised the awareness and level of commitment of the ROOFS farmers towards sustainable farming practices. Participants found benefit from the workshops and interaction and have now decided to continue to work together by establishing neighbourhood groups. To move to

this next stage required commitment and would not happen unless the farmers saw both financial and environmental benefit

The ROOFS pilots were delivered on time, within budget and with extra participants, within an environment of staff changes and resource constraints. Due to the staff changes the project team was challenged in the final weeks to meet project outcomes on time. However, the project team worked well together to meet this challenge and to deliver the program.

In recognition, project participants received a certificate of achievement from Tamar NRM for completing Stages 1, 2 and 3 and participant feedback has indicated that the ROOFS project has been very successful in engaging farmers in the region. This is reflected in the initiation of the three neighbourhood groups by ROOFS participants as a means of providing mutual support and encouragement during the next phase of implementation of farm actions and monitoring activities on farm.

Provide a mechanism for participant farmers to demonstrate sustainable management of native vegetation to the community; and

The pilot project has provided a means of documenting a formal agreed process for farm action plans and monitoring activities which provides ROOFS participants with the ability to demonstrate sustainable management practices on farm. These achievements can be demonstrated through the presentation of farm action plans, hard copy and electronic farm maps and the ROOFS manual to government, banks, NRM organisations, retailers and the community. These documents and on farm activities will need to be monitored so that actual progress can be measured and documented as further proof of achievement and sustainable farming practices.

Early discussions with local councils have indicated that there may be the potential for some aspects of recognition from individual councils. Discussions with TFGA and NRM North also indicate that the ROOFS program is likely to receive recognition through the Tasmanian Property Management Systems Framework, once developed further. The PMS Framework is expected to develop recognition systems that recognise property planning programs that have followed a management systems approach.

Work in collaboration with the state government, industry, regional organisations and landholders.

The collaboration and networks established by the pilot projects has now created the opportunity to develop better networks and capacity to deliver integrated extension services to landholders. The ROOFS network has been kept informed of other projects occurring in the region and ROOFS participants have been encouraged to develop NRM investment proposals to NRM organisations to fund collaborative projects and activities.

One of the strengths of the project has been the grass roots credibility of having farmers closely involved in the design phase of the project and directly involved in its implementation through the ROOFS reference group and as participants. Some of these participants have become ‘champions’ of the project and actively promote the benefits of property management systems to other landholders.

The ROOFS pilots Reference Group has brought together State agency representatives, service providers and landholders to gain a better understanding of how property management systems can be

used to deliver extension services and benefits to landholders. The breadth of stakeholder organisations represented is shown in the list of members in Appendix 1. This has strengthened the relationships between these stakeholders and provided Tamar NRM with useful feedback and input into the design and implementation of the project.

The condition assessments for native vegetation, riparian areas, water quality, soils and land capability were based on existing national and state standards. Further use of these assessments as shown in the External Evaluation would have assisted the ROOFS farmers understand their environmental issues and provided a bench mark for demonstration of the environmental management to be implemented through their farm action plans.

The involvement of the Tamar Valley Branch of the Tasmanian Farmers and Graziers Association (TFGA) in identifying the original list of farmers to be invited to participate ensured that an important regional industry group was part of the pilots. A number of the ROOFS farmers are members of the Branch and reports were made to their monthly meetings.

The project team has also established a good working relationship with the TFGA over the development of the Tasmanian Property Management System Framework. Discussions have led to the suggestion that the PMS Framework could possibly trial a recognition system with ROOFS participants who have completed Stages 1, 2 and 3 of the ROOFS system.

3.4.4 Achieving ROOFS Native Vegetation Pilot project (Stage 2 and 3) milestones

The milestones as stated in the Deed of Grant appear below in table format. This provides a brief and concise description of the results of the pilot project and also makes comment on how things could have been done differently.

Table 8: Assessment of achievement against ROOFS Native Vegetation Management Pilot Milestones

Milestone as per deed of grant	**Results**	**If we were to do it again we would……**
Milestone 1 Execution of Agreement	Completed.	
Milestone 2 **ROOFS Co-ordinator**	ROOFS Co-ordinator employed	Seek a coordinator with more experience in NRM training and facilitation.
Milestone 3 ROOFS Implementation, Risk Management and Monitoring and Evaluation Plans	Implementation Plan completed Risk Management Plan completed Monitoring and Evaluation Plan completed	
Milestone 4 Tamar NRM ROOFS Reference Group established	Completed	Review role of reference group and ensure members are aware of that role.
Milestone 5 Communication Strategy	Completed	

Milestone 6 Implementation, Risk Management and Monitoring and Evaluation Plans.	Completed	
Milestone 7 June Quarterly Report	Completed	
Milestone 8 2005/06 Audited financial Statements	Completed	
Milestone 9 Recognition Systems	The recognition systems to be negotiated and included in the ROOFS delivery system were submitted to and accepted by the Department.	
Milestone 10 Resource Assessment and Farm Action Planning modules	Resource Assessment (RA) and Farm Action Planning (FAP) module templates accepted by the Department.	
Milestone 11 Support System (component of ROOFS developed for Native Vegetation components/requirements)	Revised support systems outline accepted by the Department. Support Systems include Enterprise Management Planning Toolkit update, resource materials, and training tools.	More time spent on ensuring toolkit installed and utilised and more time / resources on facilitation, monitoring demonstrations and farm visits.
Milestone 12 Implementation of ROOFS trial	Completed	
Milestone 13 September Quarterly Report	Completed	
Milestone 15 December Quarterly Report Half yearly financial Report	Completed Completed	
Milestone 16 Recognition Systems Negotiated	The negotiated and agreed recognition systems were submitted to and accepted by the Department. In context, this is too large a task for Tamar NRM or ROOFS alone – this was recognised in contract with ROOFS pilot contributing to development of recognition systems. Lack of existing Environmental certification systems impeded progress.	A dedicated person would need to be employed to investigate and develop this further. Work with state PMS framework being developed by TFGA/NRM Regional bodies to create recognition systems. NRM incentives to be linked directly to Farm Action Plan actions.
Milestone 14 Implementation of ROOFS trial strategy for delivery	Evaluation of implementation of property management system with landholders identified in Milestone 12	All workshops to date have been funded through NHT. In the future industry may be able to contribute to training and extension costs.
Milestone 17 March Quarterly Report	Completed	

Milestone 18 Implementation of ROOFS trial	Stage 2 and 3 completed for 23 properties. Draft report on ROOFS trial submitted to the Department and accepted.	More time given between workshops. An additional initial workshop on local issues and support tools in preparation for farm action planning workshops. Ensure that project resources are spread more evenly throughout the program. Additional farm visits, demonstrations and implementation of condition assessments and monitoring demonstrations.
Milestone 19 Final Reports	Completed	
Milestone 20 2006/07 End of Pilot Audited financial Statements	In progress.	

3.5 STRENGTHS, WEAKNESSES, OPPORTUNITIES AND THREATS

STRENGTHS	**WEAKNESSES**
Community based – Tamar NRM is a community managed, not for profit, incorporated group with a history of delivering effective programs. Landholders have preference to deal with community group rather than an agency. Linked to catchment planning through sub regional NRM plans. ROOFS is an innovative/unique product Utilises current information, not reinventing the wheel / compatible to some degree with QA, food safety systems. Simple/user friendly with facilitation assistance. Personnel running the program are knowledgeable and dedicated landcare professionals. Supported by Commonwealth funding. Potential for adaptation/flexibility.	Future in doubt due to lack of ongoing funding. Competition for funding from other programs. Potential for confusion about Property Management Systems – terminology is not consistent. Shortage of experienced, trained facilitators. ROOFS staff leaving the program can cause some lack of continuity and efficiency. The project is new and not widely known about. Minimal initial capital investment for project. Project needs core funding to continue. Lack of financial incentives for participants
OPPORTUNITIES	**THREATS**
Some industry groups are ready for ROOFS type of approach. Potential for market recognition. Potential for partnerships/alliances. Opportunities for farmers to be pro-active in relation to meeting anticipated consumer needs for products which have been produced in an environmentally sustainable way. Australian Government is seeking data and lessening of reliance on government funding sources. Existing landcare links, such as targeted incentive projects. ROOFS could be the tool used to assess suitability of properties for investment. Measurable outcomes are possible – through monitoring component of ROOFS project. ROOFS could be used as a state benchmark for landholders to document their landcare activities. Opportunity for more funding ROOFS can incorporate existing community resources. Develop of further neighbourhood Groups from future ROOFS delivery.	Lack of longevity in program. Lack of uptake from farmers. Unrealistic expectations of the system. Political influences i.e. PMS may no longer be considered the answer. Competition from other systems and consultants. Loss of integrity in the system. Number of business pressures on farmers will increase and drought. Competing resources for funding.

Whilst there are a considerable number of threats and perceived weaknesses for ROOFS, the opportunities for this project continue to grow and add to its success, need to be pursued with vigour. The pursuit of opportunities and the will to make these succeed will assist in overcoming and negating many of the threats and weaknesses identified in the SWOT analysis.

3.6 LESSONS LEARNT

ROOFS Property Management System – Staged Approach

In practice, the staged approach proposed for the ROOFS Property Management System (Table 1, page 6) from the Scoping Study was modified with regrouping of modules to different stages as shown in Table 6.

Table 6: ROOFS Property Management System as Adapted through the Pilots

ROOFS Proposed Stages from Scoping Study, 2006	**Actual Stages delivered in Pilots, 2007**
STAGE 1: Introduction	**STAGE 1: Introduction** Module 1: Baseline assessment (part) Module 2: Land Capability Assessment (part)
STAGE 2: Resource Assessment - Property Management Planning Module 1: Baseline assessment Module 2: Land Capability Assessment Module 3: Condition Assessment	**STAGE 2: Resource & Risk Assessment** Module 3: Condition Assessment Module 4: Environmental risk assessment & management **Process identified to be applied as appropriate:** Module 5: Food Safety Module 6: Farm Safety Module 7: Animal risk assessment & management
STAGE 3: Farm Action Planning Module 4: Environmental risk assessment & management **As appropriate:** Module 5: Food Safety Module 6: Farm Safety Module 7: Animal risk assessment & management	**STAGE 3: Farm Action Planning**
STAGE 4: Third party review of Property Management System or relevant components Approval of PMS Module 8: Sustainability evaluation	**Stage 4: Third party review** (Not tested as part of the ROOFS Pilots)

Knowledge

Landholders need access to more information and training regarding basic NRM principles. Although participants in the training workshops were able to work through the tasks in the training material and develop a Farm Action Plan, it would also be beneficial to have an additional preliminary workshop describing the environmental impacts in the catchment and how they relate to individual properties. Some participants had limited knowledge of environmental management and would have benefited from such workshops.

More information is also needed about landcare activities or alternative farming practices that can help farmers to save money as well as improve environmental performance.

Use of templates

Templates can work very well to reduce the pain factor within the decision making process for individual businesses if designed correctly. The use of well thought out templates, linked to catchment planning targets can significantly inform landholders and help them to prioritise on ground works for action.

Economic Drivers

The biggest and most attractive economic incentive for landholders to participate in property planning is to identify and focus on areas of everyday farm management where an activity can improve environmental performance and also save or make money. Future training materials should use examples of economic benefits for on ground works or changes in farming practices. Starting with these economic drivers provides a good introduction leading to less economically driven changes.

Language

The language currently used in the ROOFS training materials reflects the language used in the sub regional NRM plan of Tamar NRM. This language can seem foreign to industry groups who are more likely to prefer farming system terms as a basis for determining environmental impacts. For example: irrigation, chemical use, soil health etc.

Farm visits and monitoring

The farm visits could have more emphasis on knowledge transfer than focussing mostly on mapping activities. One farm visit is not enough time to have a significant impact with the landholder. More time is needed at the commencement of Stage 2 to provide additional training for condition assessment activities and provision of information as required. This must be balanced with the need to encourage self responsibility by the landholder to actually undertake on ground work. This is what is needed if condition assessment and some form of monitoring activities are to occur. A proportion of farmers do not have the experience or confidence to assess and then monitor environmental changes on their property without some initial support. What seems simple to experienced environmental managers can seem daunting and foreign to landholders who are very busy people. This could prove to be a bottleneck in moving towards public demonstration of environmental improvement on farm. To be effective the condition assessment and monitoring activities need to become part of everyday routine on farm with information, encouragement and possibly incentives provided to encourage this shift in management practice.

Resources

Training workshops and farm visits require a high level of human resource support and need to be adequately funded, preferably with longer project timeframes. Participants wanted more information on farm maps than resources were originally allocated for including electronic versions of farm maps.

Follow up assistance in subsequent years with review of current Farm Action Plans and setting new Plans will be required. There is currently no additional resources available to do this. An option for providing for additional farm visits and additional map information beyond the core data may be that

some contribution is made by the landholder. The management issue now is how many new participants the project can accept whilst still maintaining contact with existing landholders involved in the program. The answer probably lies in group workshops. The Neighbourhood Groups appear to provide some assistance in this regard. With continued growth in interest in the project, new staff will need to be recruited and trained.

Storage of GIS Data

Further development of the current system to store the ROOFS GIS and other data should occur in future roll out. The links to regional NRM data recording, without compromising farmer confidentiality, should also be investigated.

Linking farm planning to NRM strategy, programs and incentives

Over the life of the pilot project it became increasingly clear that PMS can provide a vital link between onground actions at the landholder level and the planning being carried out at the catchment / regional level. The Tamar NRM strategy for the sub-region has been developed to guide future investment in NRM and also documents environmental targets and actions to achieve short and long term goals within the sub-region.

The future design of the ROOFS material could provide a way of incorporating catchment and regional level targets and objectives into the planning process at the individual property level. Through this, the language of regional strategies is transformed to the language of the farm action plan, more applicable to implementation at the farm level. This creates a dialogue for communication between the two scales on the applicability of regional objectives and targets.

Another way of linking Farm PMS to the Tamar NRM strategy is to provide direct linkages to funding and incentives programs offered by Tamar NRM and other funding bodies. In this way landholders are encouraged to undertake specific actions that meet the objectives of both the regional and sub-regional NRM strategy. The process aims to assist landholders to integrate the demands relating to catchment and regional targets established under catchment and Regional NRM plans with personal and business objectives for the farm.

Legislative and Regulatory Requirements

The Action Planning Assistant (APA) decision support tool includes legislative requirements for the management issues dealt with under the three focus land use types – Grazing Modified Pastures, Remnant Natural Vegetation and Grazing Natural Vegetation. However, as the ROOFS farmers did not utilise the APA prior to undertaking the environment risk assessment, consideration of legislative and regulatory requirements was not emphasised.

Future roll out of the ROOFS PMS should ensure that the link is made with legislative requirements prior to or as part of completing the risk assessment. This may be aided in the future with the finalisation of the TFGA guide to legislative requirements for farmers in Tasmania.

Marketing and recognition systems

The marketing of PMS does not seem very important to ROOFS participants at this stage. Certification, however, is desired by some but most likely to encourage performance and self

accountability / motivation more than for marketing purposes. Community recognition is important and this could be one important driver for formal certification in the future.

The best form of marketing for the ROOFS project itself is currently word of mouth by ROOFS participants to other landholders. It is expected that new participants will be sourced from friends and family of existing participants. It is felt that any regional branding efforts must be driven by industry or farming groups.

ROOFS due to its catchment rather than industry focus, has the potential to provide a 'catch all' for those landholders not belonging to an industry or farming group who are looking to develop a systematic approach to environmental management of their land.

Social Focus and Neighbourhood Groups

The use of a friendly social approach including events that incorporated plenty of social and networking time is considered very important in the success of ROOFS. A continuing focus on families and ensuring that women are empowered by the process (particularly as they are the ones most likely to be doing the recording of the system) is highly recommended.

The ROOFS project provided the conduit and point of discussion for families to discuss key aspects of the farming operation which are now to be continued through the initiation of local neighbourhood groups. The process of identifying, prioritising and developing actions for environmental issues on farm has provided the conduit for more inclusive discussions involving all of the family. It is hoped that this will continue beyond this project through participation in the neighbourhood groups.

The Future….

The number of participants currently involved in ROOFS represents less than 1% of farmers in the Tamar region. Participants currently involved in the ROOFS pilots have supported the process in a very positive manner as has been recorded in the independent survey. There is a need to provide both ongoing support to those already engaged and also to be able to offer the ROOFS PMS to other landholders. To continue the enthusiasm and to get to the level of benefit required for farmers and industry to continue the support further investment will be required.

Landholders do not have the resources to meet community expectations without support.

Achieving the implementation of on ground works and monitoring the outcomes of this work will be dependent upon individual commitment and peer support with each participant actively engaged in the implementation process.

4.1 RECOMMENDATIONS

1. Investigate opportunities to coordinate mutual recognition with other PMS programs and the Tasmanian Property Management Systems Framework. ROOFS participants could then choose to be part of other PMS program support networks.

2. Integrate where possible with other NRM initiatives (incentive preference to landholders with an EMS, market-based instruments, ecosystems services payments, biodiversity incentives, resource condition reporting, compliance to legislation.).

3. Further develop the sub-regional to property link component of the ROOFS system. The mechanisms are there but further resources are required to further integrate this and explore ROOFS as a tool for sub-regional delivery.

4. Integrate delivery of ROOFS with extension support tools.

5. Investigate the potential for ROOFS to be delivered within the NRM North regional property management planning program.

6. Review the ROOFS extension methodology to maximise the most efficient use of time and resources across various aspects of program delivery.

7. Identify potential partners with similar objectives and purpose to form alliances and / or partnerships including funding opportunities.

8. Review the role of the ROOFS reference group.

9. Investigate other funding sources to continue the work of ROOFS program building on the foundation of the pilot project.

4.2 FUTURE ROLL OUT OF THE PROGRAM

If future funding is made available ROOFS has the opportunity to:

- Develop a project for the Tamar region that can be transferred to other regions by building on the existing ROOFS model, but incorporating new self-assessment tools and education workshops to support the development and implementation of a PMS specifically tailored to suit this area. Enhanced with a training program based on the ROOFS model and possibly interlinked with regional NRM incentives programs.

- Continue to develop existing ROOFS material and training program. If funding can be sourced conduct another training round in 2008 for an additional 30 growers and continue to support current participants with monitoring workshops, reviews etc.

- Investigate the potential for a new project to use ROOFS as an NRM incentives delivery or pre requisite mechanism.

- Investigate the potential to utilise ROOFS as an program for specific industry sectors.

- Further develop the certification system supporting ROOFS PMS in partnership with the Tasmanian PMS Framework.

- Explore opportunities for supporting 'eco-conscious' supply chains for produce from ROOFS farms to enable branding of products as environmentally friendly.