

On farm

Procedures Guide to an EMS for the Red Meat Industry - print version

Environmental Management System

Project number NBP.323

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NSW Agriculture

Grains Research and Development Corporation

The North Australia Pastoral Company Pty Limited

FOREWORD

This guide to an environmental management system for the cattle industry is an outcome from Meat and Livestock Australia's project NAP3.329 Environmental Management Systems Cattle Industry Pilot, October 2002.

Producers and others are interested to know what is involved in formulating and documenting an EMS. By using a step-by-step process, and adhering to the principles of ISO 14001, this guide looks to explain the processes and illustrate by example. The guide is not meant to be comprehensive and this is apparent with a limited number of cited on-property examples. Many of the examples used relate to Victoria and Queensland as this is the where the pilot EMS groups were based.

Importantly, the reader of this guide, should remember that ISO 14001 is a process standard not an environmental standard. ISO 14001 is used worldwide across all types of industries. This guide attempts to interpret ISO 14001 for use in the grazing industry and should not be treated as a definitive recipe for EMS.

MLA NOTICE

Information in this guide is obtained from a variety of third party sources. To the best of MLA's knowledge guide accurately sets out the requirements for an environmental management system. However, MLA cannot accept responsibility for the accuracy or completeness of the information contained in this guide. You should seek professional advice before making a decision affecting your interests.

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HOW TO USE THIS DOCUMENT

This document contains the process (for inclusion in individual EMS documents) and the templates for recording. Some examples have also been included. The procedures provided in this guide may need to be modified to suite the organisations requirements.


Although the relevant parts of the AS/NZ ISO 14001 Standard (in grey shading) are quoted at the start of each section a full copy should be obtained from Standards Australia (GPO Box 5420, 286 Sussex Street, Sydney NSW 2001 Australia. Phone 1300 654 646, Fax 1300 888 258).


Each section of this EMS guide has been assigned a colour at the top of each section for quick reference. Where necessary tables have a box requiring an Authorising signature (initial) and Date and EMS Document number. This is used to maintain the paper trail and current versions.

If using this guide in the electronic form, the user is advised to save this guide in its original form and rename and save subsequent versions as it is altered. See Microsoft Help for more information.

The electronic version contains comments (MS Word 95-2001) or markup (MS Word 2002). They provide extra comments or directions to the reader. They may be turned on or off (viewing/printing) It is advised that they be turned off for final authorised copies. To view or remove these comments go to View/comments or markup. Depending on the version of word they may appear as a yellow highlight or a (bracket) leading to the comment. See Microsoft Help for more information.

This document utilises the Table feature to format forms. To remove words without altering the structure of the table, highlight and press the Delete key; to remove columns or rows; highlight and press the Backspace key. Table headings have been shaded.

Tables can also be copied (eg to develop more action plans) by left clicking the mouse on the  icon that appears when the mouse cursor is moved over the top left hand corner, and pasting onto a new page.

The electronic version contains links (indicated by an underline), that function like a website. To see the page that the link refers to: left mouse click on an underlined word. To return to the previous location (ie go back to where the link was clicked) left mouse click on the  button. This button is only displayed on the Web tool bar. To view the web tool bar in Microsoft Word go to Tools/Customise/Toolbars then tick the box in front of Web.

Reasonably good computer skills are required to efficiently use the electronic version of the EMS. For more information see Microsoft Help, or complete some form of word-processing training.

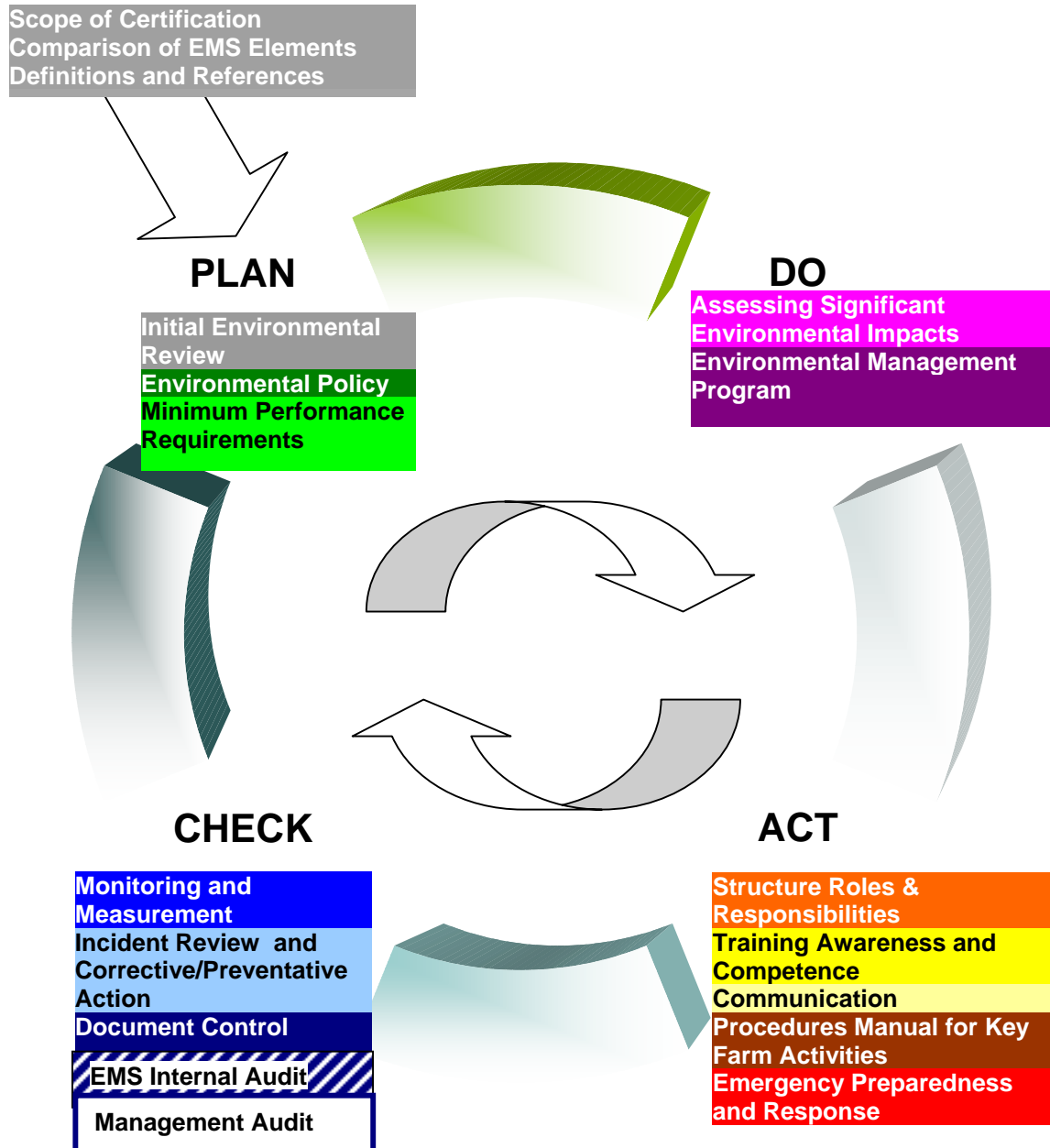
INTRODUCTION

Unlike some other standards, AS/NZS ISO14001 (now referred to as 'the Standard') stipulates that the Environmental Management System (now referred to as 'EMS') must meet all the requirements of the standard, ie elements of the standard cannot be excluded. This EMS documents and manages environmental activities, and procedures used to deal with significant environmental activities. The Standard, purpose of each section, responsibilities, document control, and the actual procedure are outlined.

Compliance with the ISO standard does not guarantee operations and products are environmentally friendly. It does however document minimum performance requirements, procedures, activities and preventative and corrective actions and provides a mechanism for continual improvement. This EMS guide documents all procedures required to meet the Standard, including:

- Writing, maintaining and communicating an environmental policy (public statement of visions and commitment to environmental management);
- Demonstration of awareness and compliance with minimum performance requirements (legislation, catchment guidelines and codes of practice);
- A process for identifying ranking and dealing with significant environmental activities (eg grazing/pasture management or cropping) and their impacts (eg sediment loads in run-off water or chemical spills);
- An environmental management program of actions with realistic objectives (eg improve riparian/creek zone management or improve chemical handling procedures) and achievable targets (for example fenced off by 2010 or chemical mixing procedures displayed in shed by October);
- Clearly defining the structure, roles and responsibilities for all those involved in the organisation and implementation of the EMS (eg owner/manager, employees or contract musterers);
- Awareness of training and competence obtained/required for all involved in the organisation and the implementation of the EMS (eg Agricultural Chemical Safety Certificate or National Feedlot Accreditation);
- Register of both internal and external communications in regards to significant environmental aspects;
- Manual for key farm activities such as grazing/pasture management, fire management or chemical handling/storage;
- Emergency prevention (eg fire breaks maintained or fire extinguishers installed), response (fire warden contacted or machinery moved to secure location) and contacts (displayed in prominent places);
- Monitoring and measurement of natural resources and impacts of management decisions (eg rainfall, sediment load in water or photographs of pasture);
- Review of incidents due to accidents, emergencies or delays in action plans, or breakdowns in the system (identified during audits and reviews) and details for preventing or correcting recurrence (eg shed contaminated by chemical spill – chemicals now mixed in designated area and bucket of loam/sand handy to prevent spread of chemicals or oil spills), register of all documents (including monitoring manuals or records etc) with issue/expiry dates, storage locations (eg filing cabinet or office wall); and
- Audit and review procedures to ensure that the system is working and up to date.

The Environmental Management System Implementation Cycle



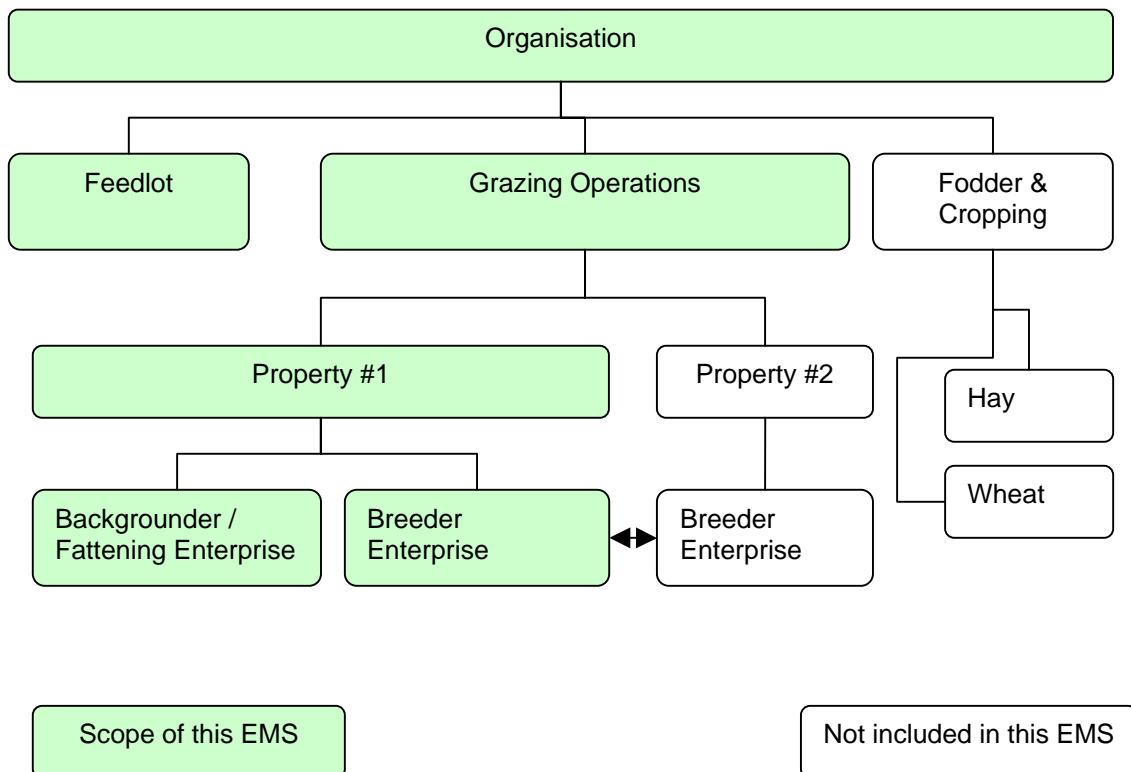
1 Scope of the EMS

The scope of the EMS sets out the areas and activities of the organisation to be included in the EMS. It also outlines the organisations and people responsible for the implementation of the EMS.

Organisation:	The operating unit or person that has its own functions and administration.
EMS Manager:	Person responsible for support/training to staff and maintaining the documents and procedures outlined in the EMS.
Auditor:	Registered external auditing organisation and auditor capable of conducting audits.
Scope of EMS	The areas of the organisation that are to be covered by this EMS

Example Scope Flowchart

Example Only



2 Comparison of EMS Elements

Table 2a Table of Requirements details the linkages between sections of this EMS guide and other existing quality assurance programs.

2a Table of Requirements					
Section number	Section Name	AS/NZ ISO 14001:1996 & 14004*	CATTLECARE or FlockCare	Graincare	Feedlot Manual
4	Property Description			C3.1	
5	Environmental Policy	4.2			
6	Minimum Performance Requirements (Legislation)	4.3.2			
7	Assessing Significant Environmental impacts	4.3.1& 4.3.3 4.2.2*	C1	C1.1	
8	Environmental Management Program	4.3.3 & 4.3.4			F 3-5 Environmental Aspects
9	Structure, Roles and Responsibilities	4.4.1	M1	M1.1	2.2
10	Training Awareness and Competence	4.4.2	M1a	M1.2-M1.6	1C
11	Communication	4.4.3		M2.4	
12	Procedures Manual for Key Farm Activities	4.4.5	C2, C3, L6	C1.02-C1.5 C2.1-C2.8 C3.2-C3.6 G1.2-G1.6 G2.1-G2.2 G3.1-G3.5 G4.1-G4.5 G5.1-G5.7 G6.1-G6.4	2F, 5a-e (Chemicals)
13	Emergency Preparedness and Response	4.4.7			Emergency Contacts
14	Monitoring and Measurement	4.5.1		G3.4, G5.6	1E
15	Incident Review and Corrective/ Preventative Action	4.5.2	M2b	M2.2, M2.3, M2.4	1D
16	Document Control	4.4.5 & 4.5.3	M3 & M4	M3.1, M3.2, M4.1-M4.3 G1.1	
17	EMS Internal Audit	4.5.4	M2a (Part B of EMS)	M2.1	
18	Management Audit	4.6			1A

3 Definitions and References

Definitions

Aspect Cause (of an Impact)

Biodiversity is the variety of all life forms – the different plants, animals and micro-organisms, the genes they contain, and the ecosystems of which they form a part.

Continual Improvement – process of enhancing the environmental management system to achieve improvements in overall environmental performance in line with the organisation's environmental policy. Note – The process need not take place in all areas of activity simultaneously.

(3.1) AS/NZ ISO 14001:1996

Corrective action (AS/NZS ISO 8402:1994, *Quality management and quality assurance – Vocabulary*, Clause 4.14) – action taken to eliminate the causes of an existing nonconformity, defect or other undesirable situation in order to prevent recurrence.

Document an original or official paper/hardcopy or other media, relied on as the basis, proof, or support (Britannica 2002).

Duty of care - All natural resource users and managers have a duty of care to ensure that they do not damage the natural resource base. The users should be responsible for making good any damage incurred as a result of their actions.

Environment: Surroundings in which an organisation operates, including air, water, land, natural resources, flora, fauna, humans and their interrelation. Note – Surroundings in this context extend from within an organisation to the global system. (3.2) AS/NZ ISO 14001:1996

Environmental Aspect: Element of an organisation's activities, products or services that can interact with the environment. Note – Significant environmental aspect is an environmental aspect that has or can have a significant environmental impact. (3.3) AS/NZ ISO 14001:1996

Environmental Impact: any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's activities, products or services.

(3.4) AS/NZ ISO 14001:1996

Environmental Management System: The part of the overall management system that includes organisational structure, planning activities, responsibilities, practices, procedures, processes and resources for developing, implementing, achieving, reviewing and maintaining the environmental policy.

(3.6) AS/NZ ISO 14001:1996

Environmental Objective - Overall environmental goal, arising from the environmental policy, that an organisation sets itself to achieve, and which is quantified where practicable. (3.7) AS/NZ ISO 14001:1996

Environmental performance - Measurable results of the environmental management system, related to an organisation's control of its environmental aspects, based on its environmental policy, objectives and targets.

(3.8) AS/NZ ISO 14001:1996

Environmental policy - statement by the organisation of its intentions and principles in relation to its overall environmental performance which provides a framework for action and for setting of its environmental objectives and targets.

(3.9) AS/NZ ISO 14001:1996

Environmental target - detailed performance requirement, quantified where practicable, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.

(3.10) AS/NZ ISO 14001:1996

Impact – Effect (of an Aspect)

Mitigate means to make less severe or reduce (Britannica 2002).

Interested Party - individual or group concerned with or affected by the environmental performance of an organisation.

(3.11) AS/NZ ISO 14001:1996

Nonconformity (AS/NZS ISO 8402:1994, *Quality management and quality assurance – Vocabulary*, Clause 2.10) – nonfulfillment of a specified requirement [Note that non-conformance and nonconformity are used interchangeably in common use]. Examples include working outside established operating criteria, not meeting legal requirements or failing to notify where required.

Organisation - company, corporation, firm enterprise, authority or institution, or part or combination thereof, whether incorporated or not, public or private, that has its own functions and administration. Note - for organisations with more than one operating unit, a single operating unit may be defined as an organisation.
(3.1.2) AS/NZ ISO 14001:1996

Prescribed wastes: are those listed in the Commonwealth or State EPA Prescribed Waste Regulations 1998 – which because of their risk to the environment require special handling, storage, transport, treatment and disposal. Prescribed wastes cannot be transported without waste transport certificates and can only be carried by accredited transporters to approved locations.

Prevention of Pollution: use of processes, practices, materials or products that avoid, reduce or control pollution, which may include recycling, treatment, process changes, control mechanisms, efficient use of resources and material substitution. Note: The potential benefits of prevention of pollution include the reduction of adverse environmental impacts, improved efficiency and reduced costs.
(3.13) AS/NZ ISO 14001:1996

Preventive action (AS/NZS ISO 8402:1994, *Quality management and quality assurance – Vocabulary*, Clause 4.13) – action taken to eliminate the causes of a potential nonconformity, defect or undesirable situation in order to prevent occurrence.

Procedure (AS/NZS ISO 8402, 1.3) – specified way to perform an activity.

Record (AS/NZS ISO 8402, 3.15) – document, which furnishes objective evidence of activities performed or results achieved.

Reference List

Information from other sources that may be used in the development and maintenance of property operations has been included in the reference list below. Relevant management sections have been indicated to the right.

3a Reference List	Relevant Management Areas covered by the reference											
	Administration	Landscape & Biodiversity	Soil & Water	Pasture	Stock Water	Livestock	Cropping and Grain Storage	Pollution Control	Chemical Handling	Waste	Energy Efficiency	Minimum Performance
Government Departments												
Agriculture Fisheries & Forestry Australia (AFFA) http://www.affa.gov.au http://scaleplus.law.gov.au		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								<input checked="" type="checkbox"/>
ChemCollect Qld Ph: 1800 501 087 www.env.qld.gov.au /environment/environment/waste/								<input checked="" type="checkbox"/>				
Environmental Protection Agency (EPA) www.epa.qld.gov.au		<input checked="" type="checkbox"/>										
Land & Water Australia (LWA)			<input checked="" type="checkbox"/>									
Environment Australia http://www.ea.gov.au			<input checked="" type="checkbox"/>									
Victorian Legislation http://www.dms.dpc.vic.gov.au/ http://www.nre.vic.gov.au http://www.epa.vic.gov.au												<input checked="" type="checkbox"/>
Natural Resources & Mines (DNR&M) PO Box 589, Dalby Qld 4405 Local Extension Staff www.dnr.qld.gov.au		<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>
NSW Agriculture Sustainable Grazing Systems – Michael Beer, Tamworth Ph: (02) 6763 1100						<input checked="" type="checkbox"/>						
Queensland Department of Primary Industries (QDPI) Meiers Rd, Indooroopilly Qld 4068 Local Extension Staff www.dpi.qld.gov.au		<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>						
State Development www.sd.qld.gov.au	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>								

3a Reference List	Relevant Management Areas covered by the reference											
	Administration	Landscape & Biodiversity	Soil & Water	Pasture	Stock Water	Livestock	Cropping and Grain Storage	Pollution Control	Chemical Handling	Waste	Energy Efficiency	Minimum Performance
Other Organisations												
ChemCollect schedule - http://www.qff.org.au												
Birds Australia www.birdsaustralia.com.au		<input checked="" type="checkbox"/>										
DrumMuster www.drummuster.com.au								<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Fitzroy Basin Association Rockhampton Ph:07 49 212 443 Fax: 49 212 843		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
Greening Australia Queensland Inc. GPO Box 9868, Brisbane Qld 4001 Ph: 07 38 440 211 Fax: 38 440 727 www.qld.greeningaustralia.org.au		<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>							
Resource Consulting Services Pty Ltd Ph: 07 49 395 255, Fax: 49 395 144				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						
Qld Landcare & Catchment Management www.landcareqld.org.au		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>									
General Reference												
Balancing Production with Nature Conservation – case studies from inland Queensland (1998) Dorricott, K., Voller, P. and Lawrie, B. Available from DNR&M		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>								
Balancing Conservation & Production year of publication and editors CSIRO Tropical Agriculture		<input checked="" type="checkbox"/>										
CATTLECARE Manual	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Feedlot Manual	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Graincare On-farm Quality Assurance Program (2000) Grains Council of Australia ISBN 1 875477 61 6	<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
Farm Monitoring Kit - Land Management Society WA. Ph: 08 94 506 862 www.lms.info.com/		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>							
GrassCheck Monitoring Manual		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>								

3a Reference List	Relevant Management Areas covered by the reference											
	Administration	Landscape & Biodiversity	Soil & Water	Pasture	Stock Water	Livestock	Cropping and Grain Storage	Pollution Control	Chemical Handling	Waste	Energy Efficiency	Minimum Performance
Land Use, Pesticide Use and Their Impact on Water Quality on the Liverpool Plains (1998) Mawhinney W., Department of Land and Water Conservation – Liverpool Plains Water Quality Project. ISSN 1329-8984									<input checked="" type="checkbox"/>			
Natural Resource Monitoring Guide (1999). ISBN 0 7242 7440 5 Department of Natural Resources Qld.		<input checked="" type="checkbox"/>										
Monitoring Farm Flora & Fauna (2000) Greening Australia (Dalby)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>									
Pasture Watch Manual (1993) QE92007 Department of Primary Industries, Qld		<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>								
Prime Notes (CD ROM) - Department of Primary Industries Qld www.dpi.qld.gov.au		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		
SaltWatch (1994) QE94004 Qld Department of Primary Industries and Qld Landcare and Catchment Management												
Waterwatch and Sediment Watch Manuals - Department of Natural Resources & Mines, Biloela (Qld)		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>									
Legislation												
Law of the Land – A guide to Environmental Law for Farmers 2nd Ed. (1998) Environmental Defenders Office	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Free email legislation update available from http://www.freehills.com	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Queensland legislation regular updates: http://www.legislation.qld.gov.au	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Native Vegetation management in Australia available at http://www.ea.gov.au/land/vegetation/management/commonwealth.html		<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>
Environmental Protection and Biodiversity Conservation Act http://www.ea.gov.au/epbc		<input checked="" type="checkbox"/>										<input checked="" type="checkbox"/>
<i>Environmental Legislation Register</i> January 2001, Queensland Government Department of Main Roads Document Control Officer, Road System & Engineering (07) 3834 2035												<input checked="" type="checkbox"/>

3 Definitions and References

3a Reference List	Relevant Management Areas covered by the reference											
	Administration	Landscape & Biodiversity	Soil & Water	Pasture	Stock Water	Livestock	Cropping and Grain Storage	Pollution Control	Chemical Handling	Waste	Energy Efficiency	Minimum Performance
Codes of Practice & Guidelines												
Australian Model Code of Practice for the Welfare of Animals (1992) CSIRO. Standing Committee on Agriculture, Animal Health Committee SCA Report Series No.39					<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>						<input checked="" type="checkbox"/>
Code of Practice for the Storage and Use of Chemicals at Rural Workplaces (2000) Qld & NSW, Also see Australian Standard 2507								<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Graincare On-farm Quality Assurance Program (2000) Grains Council of Australia Ph: 02 62 733 000								<input checked="" type="checkbox"/> <input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Graincare Code of Practice								<input checked="" type="checkbox"/>				<input checked="" type="checkbox"/>
Individual property fire management planning kit. SEQ Fire and Biodiversity Consortium. Logan City Council Phone: 07 3826 5555		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
Queensland Farmers Federation Environmental Code of Practice http://www.qff.org.au		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					<input checked="" type="checkbox"/>

ENVIRONMENTAL REVIEW AND PLANNING

4 Initial Environmental Review

Purpose

The initial environmental review aims to clarify controllable primary production and environmental issues that may occur on the property. It covers a range of issues relating to grazing, the environment and the community. A significant benefit of the initial environmental review is that it initiates an overall review of production activities on the property. The review is designed as a tool for evaluating the strengths and weaknesses of property management.

Responsibility

The EMS manager shall be responsible for completing the initial environmental review, upon consultation with other relevant parties.

Document Control

The initial environmental review shall be reviewed annually at the 18a Management Review. It is not expected to vary significantly between audits. The location of copies shall be recorded in the Document Control Register (see 16. Records and Document Control Register)

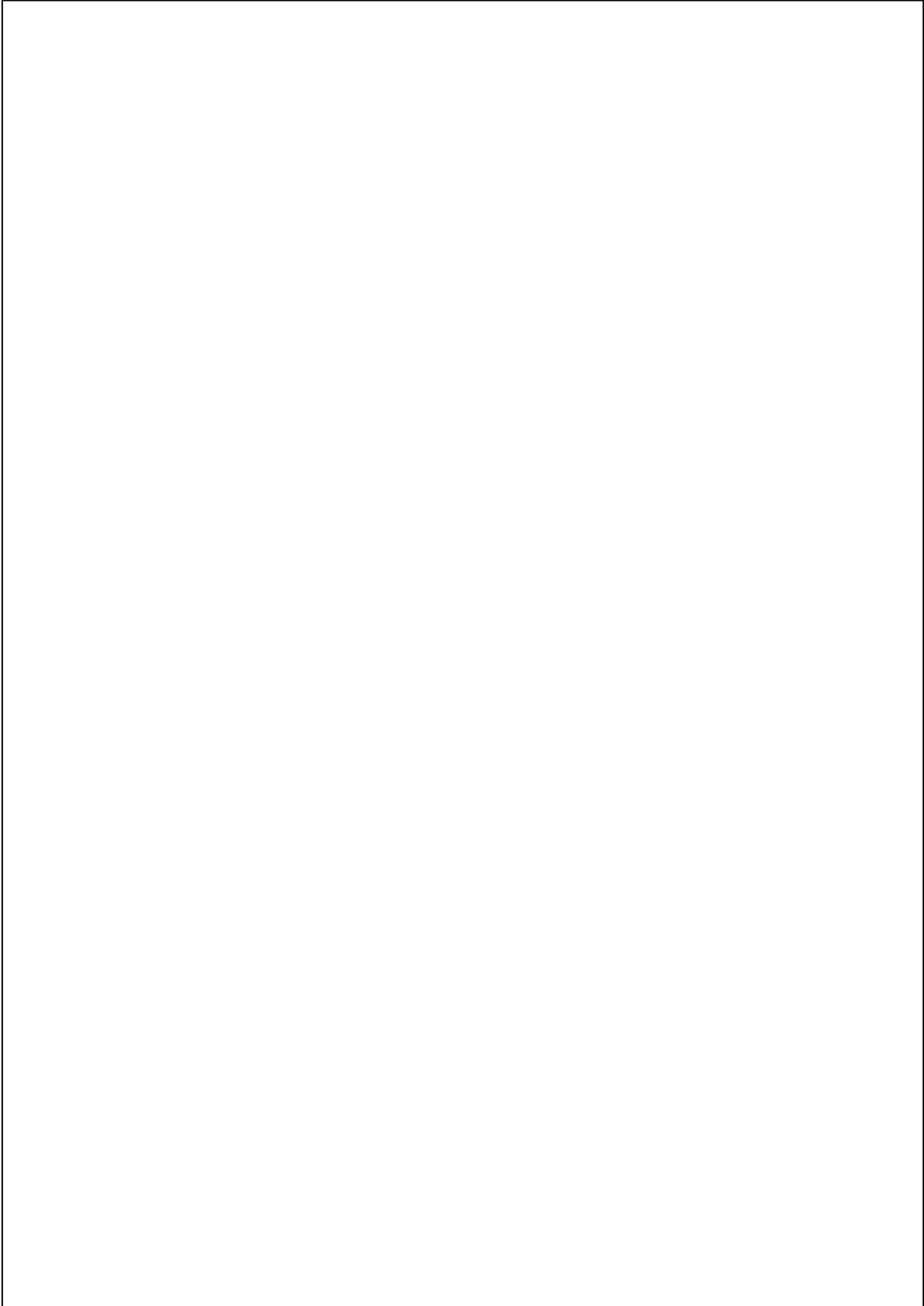
Procedure

1. Complete the Property Description Summary, including a brief description of the physical, natural and managerial resources available on the property (4a Property Description).
2. Draw or insert a property plan (4b Property Plan), in order to provide a brief overview of the scale and nature of the property.
3. Describe the major property activities and their associated inputs, outputs and broad environmental impacts. This information may be recorded in 4c Initial Environmental Review.
4. It may also be useful to complete a SWOT or Strength, Weaknesses, Opportunities and Threats analysis on some of these activities.
5. The information detailed in the initial environmental review may be used later in 7 Assessing Significant Environmental Impacts.

4a Property Description

Organisation Name:			Quality Assurance Programs in Place:
Location:			
Rainfall			
Title Details:			
Lot #		Property Plan numbers and Tenure	
Major Production Activities			
Natural Resources Overview			
History			
Future Goals			

4b Property Plan



Example Only

Authority	Issue Date	EMS Doc#
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4c Initial Environmental Review

Organisations (or property) Main Activities	Supplies or Inputs	Outputs		Broad Environmental Impacts
	Raw Materials	Products or services	Wastes / Emissions	
Livestock Production	Sun, wind, water and fossil fuels Timber, fuel and oil (fencing) veterinary supplements. fodder, hay and molasses	Beef, sheep, wool	Steel wire, exhaust emissions, methane gas, oil	Improved pasture quantity/quality, gully erosion in heavy traffic areas
Harvesting – Seed and Hay	Fuel, oil, seed, herbicides and pesticides, solvents. Drums, tanks and containers	Buffel seed, native pasture and hay	Batteries, tyres, packaging, chemical sprays, solvents	Reduced nutrient cycling in soil, compaction.
Pasture, wildlife and water management		Diverse native flora and fauna		
Rural Living	Groceries and Beef		Domestic or household waste. Electrical consumption	

Activity		
Strengths		Weaknesses
Opportunities		Threats

Activity		
Strengths		Weaknesses
Opportunities		Threats

5 Environmental Policy

Environmental Policy

Top management shall define the organisation's environmental policy and ensure that it:

- a) is appropriate to the nature, scale and environmental impacts of its activities, products or services;
- b) includes a commitment to continual improvement and prevention of pollution;
- c) includes a commitment to comply with relevant environmental legislation and regulations, and with other requirements to which the organisation subscribes;
- d) provides the framework for setting and reviewing environmental objectives and targets;
- e) is documented, implemented and maintained and communicated to all employees; and
- f) is available to the public

(4.2) AS/NZ ISO 14001:1996

Purpose

The purpose of the environmental policy is to define a vision for the future of the organisation, its environmental priorities and goals. The policy is a publicly available document outlining the environmental management commitment.

Responsibility

This policy and its implementation is the responsibility of management in general. The policy is a working document that is reviewed as technology and practices are developed in the coming years.

Document Control

A current signed original of the policy shall be included in the EMS manual. An authorised copy shall be available to all staff, contractors, interested parties and management. A current copy shall be on display in the office.

Communication

An authorised (signed and dated copy) copy shall be made available to any interested party on request (including neighbours and clients). This copy shall be provided on company letterhead, and outgoing correspondence recorded in the 16a Document Control Register.

Example Only

Environmental policy of(business name)

To reflect our concern for managing the environmental issues highlighted in this review we have developed an environmental policy.

The purpose of this environmental policy is to define a vision for the future, its environmental priorities/ goals and to provide a framework for setting target and reviewing environmental standards. This policy covers all aspects of our grazing/ farming operation. The policy is a publicly available document outlining our environmental management commitment.

The policy, and its implementation is the responsibility of(the owner/manager name here).

The property produces livestock and a range of fodders and grains for domestic and international markets. We are committed to managing key environmental issues, with particular emphasis on promoting soil health, and maintaining environmental standards that are consistent with the local town plan, State codes of practice, industry codes of practice and all relevant legislation.

Through the promotion of the continual improvement (inherent in our Environmental Management System) we are committed to achieve the above objectives by:

- ✓ Preventing pollution of land, water and air by strict adherence to government regulations and industry codes of practice, and through continual improvement of our grazing/ farming operations using realistic and achievable guidelines;
- ✓ Protecting native flora and fauna in all areas of grazing/farming operations where possible;
- ✓ Dedicating human and financial resources to fulfil our environmental goals;
- ✓ Minimising the volume of waste generated on property and implementing reusing and recycling opportunities wherever possible and practicable;
- ✓ Using the most appropriate indicators available to monitor property operations and document our environmental progress; and
- ✓ Informing all property members, employees, contractors and suppliers of their environmental responsibilities, through training and communication.

We aim to produce a high quality product and achieve ecologically sustainable production of beef on(business name) by minimising direct and indirect environmental and social impacts and conserving our natural resources. We have taken account of relevant State and Federal compliance requirements.

.....Date

Name:.....

Position:.....Location

6 Legal and Other Requirements

Legal and other requirements

The organisation shall establish and maintain procedures to identify and have access to legal and other requirements to which the organisation subscribes, that are applicable to the environmental aspects of its activities, products or services.

(4.3.2) AS/NZ ISO 14001:1996

Purpose

Establish a system or process that keeps track of ongoing changes to legislation, guidelines and codes of practice etc.

Responsibility

Knowledge of the minimum performance requirements is the responsibility of the EMS manager. This includes the responsibility of periodically checking for updates (via email, newspapers, local community groups, farmer/agricultural/primary production groups/bodies and government agencies). Websites and mailing lists that may be checked are listed in section Reference List.

Document Control

Where possible electronic copies of updates and email shall be maintained on the property computer. Paper copies shall be maintained as per 16a Document Control

Procedure

The following steps should be followed :

1. Identify (See Reference List) and summarise the relevant minimum requirements in – 6a Environmental legislation, guidelines and codes of practice summary. This should be completed as part of the initial environmental review and as a result of triggers such as media coverage of legislation / obligations, significant changes in production activities. Minimum performance requirements should be updated at least annually.
2. Identify those actions or management procedures that demonstrate compliance with the minimum requirements.
3. Where applicable list reference documents in the 16a Document Control or Reference List.
4. In order to track changes and updates, record details of minimum requirement checks in Table: 6b Legal and other requirements update log.

Example Only

Authority	Issue Date	EMS Doc # 6a -
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6a Environmental legislation, guidelines and codes of practice summary

Guiding Document	Obligations & responsibilities Overview	Compliance Details
Australian / New Zealand Standard		
<i>Environmental management systems – Specification with guidance for use</i>		
“...continual improvement...”	Support the continual improvement in environmental management.	
“..implement all current legal requirements..”	To meet the businesses’ legal responsibilities and ensure compliance.	
“..minimising wastes..”	Recycling where possible, but also reduce amount of waste produced.	
“informing all property members”	To ensure that all staff are aware of the businesses’ environmental policy and objectives and that all staff meet their environmental responsibilities.	
“..preventing pollution..”	Safe storage and use of chemicals and fuels, also includes waste materials, air pollution etc	
“..broadly communicate this policy..”	The policy is displayed in our office and is available to the public on request. Certification number will be displayed on our letterhead.	
Commonwealth Legislation		
<i>Environment Protection and Biodiversity Conservation Act 1999</i>	Commonwealth focus on ‘national environmental significance’ including: <ul style="list-style-type: none"> • World heritage areas • RAMSAR wetlands • Nationally threatened species and communities • Listed migratory species 	
State Legislation		
<i>Agricultural and Veterinary Chemicals (Qld) Act 1994</i>	Safe storage and handling of agricultural and veterinary chemicals.	
<i>Environmental Protection Act QLD 1994</i>	Principal guiding document for environmental management. Outlines a responsibility to meet a general Environmental Duty of Care. A person must not carry out any activity that causes or is likely to cause environmental harm unless they take reasonable and practicable measures to prevent or minimise harm. Requires demonstration of due diligence.	
Regional Guidelines		
East Gippsland Catchment Management Authority Catchment Management Plan	Under the provisions of the Catchment and Land Management Act 1994, the Government has given the Regional Catchment and land Protection Boards the function of preparing a regional catchment	

	<p>strategy and co-ordinating and monitoring its implementation. The Regional Catchment Strategy will provide a strategic, long-term basis for natural resource management in West Gippsland as well as highlighting the economic, social and environmental benefits, which will accrue.</p> <p>The strategy identifies particular sub-regional environmental issues that may be associated with properties such as waterways degradation, vegetation/habitation loss, soil structure decline, pest plants and animals. It identifies programs that producers may be able to link in to resolve environmental issues on farm.</p>	
Other		
<p><i>Australian Standard 1940</i> Standard for Storage and Handling of Fuel</p>	<p>Standard for storage and handling of fuel. Minor storage 5000L petrol 10 000L diesel Emergency planning Signs Bunding or containment Spill prevention, control and clean up Fire extinguishers Larger than minor storage must have strict procedures in place as indicated by Sect 9.</p>	
<p>Local Council Pest Management Plans</p>		

Authority	Issue Date	EMS Doc # 6b-
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6b Legal and other requirements update log

Date	Details (include source if not on the frequent list)	Frequent update sources (initial)					
References:							

ENVIRONMENTAL IMPACTS AND ACTIONS

7 Assessing Significant Environmental Impacts

Environmental Aspects

The organisation shall establish and maintain (a) procedure(s) to identify the environmental aspects of its activities, products or services that it can control and over which it can be expected to have an influence, in order to determine those which have or can have significant impacts on the environment. The organisation shall ensure that the aspects related to these significant impacts are considered in setting its environmental objectives.

The organisation shall keep this information up-to-date. (4.3.1) AS/NZ ISO 14001:1996

Objectives and Targets

When establishing and reviewing its objectives an organisation shall consider the legal and other requirements, its significant environmental aspects, its technological options and its financial, operational and business requirements, and the views of interested parties.... (4.3.3) AS/NZ ISO 14001:1996

Purpose

Identify all key activities, that can be controlled (ie not natural disasters), and rank the aspects. Aspects were defined as the part of an activity (pasture or livestock management, infrastructure siting and design etc) that causes an environmental impact such as soil erosion or increased biodiversity.

Responsibility

Owners and all levels of management shall have input into the development of the 7b Aspects and Impacts Register. Where appropriate, outside expertise (Landcare, agency officers etc) shall be enlisted.

Document Control

The location and version number (both electronic and Hardcopy) of the Aspects and Impacts Register (Table 7a) shall be recorded in 16a Document Control.

Procedure

1. Identify the principle property activities that are controllable (Column A).
2. Identify the aspect (cause) of each of the current and potential impacts. (Column C)
3. Identify all current and potential impacts that may occur as a result of the activity (both positive and negative) (Column C).
4. Indicate if the impacts are relevant to the local catchment. (Column D)
5. Where applicable the relevant legislation, industry guideline or code of practice shall be noted in column D.
6. Indicate with a Yes or No in Column E if the impact is applicable on the property.
7. Notes are made in column E, indicating whether the impacts have a positive or negative effect on the environment.
8. Significant aspects shall be identified by completing the 7a Risk Assessment Matrix, in the table below. The impacts of activities shall be assessed **without risk controls** (that is disregarding current management procedures that may reduce or change risk of

7 Assessing Significant Environmental Impacts

impacts) to determine the “real” or inherent risk and the most appropriate method of risk control. The all important *impact score* is an index of frequency x severity rating. The *total score* includes a practicality component (financial cost and ‘fixability’ constraints) (Column F).

Impact score = A * B

Total score = A * B * C

9. The cut off point for significance shall be recorded in the total score significance threshold box in 7a Risk Assessment Matrix. For the changes to the environment (impacts listed in column C) that had a total score over the threshold; ‘yes’ shall be placed in column G. This column shall also used to indicate relative operational procedures/ management strategies or action plans. Those not yet in place shall be underlined. Where relevant the EMS Document Reference Number should also be recorded.

Impact Score Significance Threshold	8
---	---

7a Risk Assessment Matrix

A Frequency		B Severity (including potential)		C Practicality	
Continuous or several times per day	5	Where action requires a licence / permit, or is specifically covered by legislation	100	Simple to fix No cost	5
Very Frequent (several times per week)	4	Severe impact- Permanent or wide scale damage to the landscape / ecosystems, loss of flora/fauna, may take greater than 10 years to recover	4	Simple to fix Low-Moderate cost	4
Frequent (several times per year)	3	Moderate impact - Able to be contained and remediated with no long-term effects	3	Hard to fix Low cost	3
Seldom (once every couple of years)	2	Indirect impact	2	Hard to fix High cost	2
Once in 10 years or over	1	Minor indirect impact	1	Impact is wider than property High cost and resources	1
Unheard of	0	Negligible	0		

10. Aspects with significant impacts shall be ranked according to the impact score. Those without controls or management strategies already in place shall be rewritten in the table 7c Ranked Significant or Priority Issues. Ranking may not always fully reflect the real situation – decisions can be made and recorded to ensure that key issues were tackled first in the action plans. Consideration should also be given to the ‘fixability’ rating (refer to the Total Score).

11. Action plans shall be developed for all significant impacts not covered by operational/management procedures (See section 12. Procedures Manual for Key Farm Activities). If an issue received a low total score, but is considered to be of principal concern (received a high impact score) to the property or region, it should also have an action plan (see section 8 Environmental Management Program).

Example Only

Authority	Issue Date	EMS Doc # 7b-
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7b Aspects and Impacts Register

A Principal property activity	B Aspect or Cause Issue Address in action plans if related to a significant impact	C Relevant Impacts		D Relevant Legislation, Industry Guidelines or Codes of Practice Legislation in italics	E Impacts applicable on property Yes or No Indicate if positive or negative impact	F Scores		G Significant Impacts	
		Current or potential	Watchmen Scale? Yes or No			Impac Score	Total Score	Yes or No?	Indicate relevant Management Strategy
Grazing	Grazing of riparian (creek) zones	Reduced creek bank stability (due to stock movement)	Y		Y -	20	80	Y	
		Weed seed spread	Y	Rural Lands Protection Act (QLD) 1994	Y -	5	20		
		Nutrification (from stock watering in creek)	Y		Y -	15	60	Y	
		Fire hazard			Y -	12	24	Y	<u>12.4 Fire Management</u>
		Erosion/ sedimentation	Y	Water quality standards	Y -	12	36	Y	
		Changes in diversity (tall rank grass on creek flats)	Y		Y -	16	48	Y	

Example Only

Authority	Issue Date	EMS Doc # 7C-
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7c Ranked Significant or Priority Issues					
Aspect	Impact	Impact Score	Total	Rank	Environmental Management Program proposed or in place
Grazing in Riparian zones	Reduced creek bank stability (due to stock movement)	20	80	1	<u>8b-01 Riparian Zone Management</u>
Grazing in Riparian zones	Changes in Diversity (tall rank grass on creek flats)	16	48	3	
Grazing in Riparian zones	Nutrification (from stock watering in creek)	15	60	2	
Grazing in Riparian zones	Erosion / Sedimentation	12	36	4	
Grazing in Riparian zones	Fire hazard	12	24	5	<u>12.4 Fire Management</u>

8 Environmental Management Program

Objectives and targets

The organisation shall establish and maintain documented environmental objectives and targets, at each relevant function and level within the organisation.

The objectives and targets shall be consistent with the environmental policy, including the commitment to prevention of pollution. (4.3.3) AS/NZ ISO 14001:1996

Environmental Management Programs

The organisation shall establish and maintain (a) program(s) for achieving its objectives and targets. It shall include:

- a) designation of responsibility for achieving objectives and targets at each relevant function and level of the organisation; and
- b) the means and time-frame by which they are to be achieved.

If a project relates to new developments and new or modified activities, products or services, programme(s) shall be amended where relevant to ensure that environmental management applies to such projects. (4.3.4) AS/NZ ISO 14001:1996

Actions within this EMS will be given priority to ensure that all plans are achievable and contribute to improvements in property management and sustainability, and take into account the viability of the enterprises on the property.

Purpose

In order to deal with the significant impacts listed in table 7c Ranked Significant or Priority Issues goals or objectives are to be identified. By setting targets and completion dates progress can be managed, monitored and audited.

Responsibility

The development and monitoring action plans are the responsibility of the EMS manager and management.

Document Control

The location and version number (both electronic and hardcopy) of the environmental management program shall be recorded in 16. Records and Document Control.

Procedure

1. Based on the ranking of significant impacts (7c Ranked Significant or Priority Issues), priorities for action shall be established in the 8a-01 Action Plan Summary.
2. Objectives to achieve these actions shall be identified. For each objective, achievable target dates, responsibilities and performance indicators shall be established.
3. Where more space is required a detailed action plan (eg 8b-01 Riparian Zone Management) may be completed.
4. When objectives (and targets) have been met, they should be signed off (initialled and dated).
5. Where targets have not been completed, or if changes are required to action plans the corrective action review section at the end of the action plan shall be completed. If a complaint or significant change is needed an 15a Incident Preventative and Corrective Action Reporting Sheet shall be completed.

Example Only

Authority	Date	EMS Doc# 8a-01
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8a-01 Action Plan Summary

EMS Doc # and Action plan Title: Objective (or issue to be improved)	Objective	Person responsible	Completion date	Performance indicator	Cost or benefit to be gained	Done? (Initial and date)
<u>8b-01 Riparian Zone Management</u>	See detailed action plan	Owner / Manager	01/06/03 30/11/03	Fence completed and pasture monitoring in place	Improved riparian zone management	

Example Only

Authority		Date	EMS Doc # 8b- 01	
Title	8b-01 Riparian Zone Management			
Purpose or issue to be addressed	Creek banks stability, weed seed spread, nitrification, erosion/ sedimentation, pasture diversity/ quality.			
Aims, goals or objectives	Minimise stock movement in the creek bed, limit stock access to stream water, and improve the quality (both species diversity and quality) of feed on the creek flats.			
References	Riparian Land Management Technical Guidelines vol. 1 & 2. Land & Water Resources Research & Development Corporation. www.rivers.gov.au			
Actions	Person responsible	Performance indicator	Start date and completion date	Completed (initial and date)
Design layout of fence line (taking into consideration structure siting and design procedures)	<u>9a-01 Mr Beef Producer (Owner/ Manager)</u>	Fence line added to property map	01/01/03 01/02/03	20/01/03 OM
Develop a budget for construction	Owner/ Manager	Know the total cost of construction	20/01/03 01/02/03	25/01/03 OM
Contact Greening Australia and Landcare to see if project is suitable for a devolved grant.	Owner/ Manager	Contact details logged in the <u>11a Communication Register</u> .	01/01/03 01/02/03	10/01/03 OM
Purchase materials	Owner/ Manager	Equipment / materials on property.	01/02/03 01/03/03	28/02/03 OM
Clear and peg line;	Owner/ Manager	Fence line cleared	01/02/03 01/06/03 30/11/03	...
Erect Fence	<u>9a-03 Contractors Name</u>	Photographs taken if grant successful	01/02/03 01/06/03 30/11/03	...
Cost/ benefit	Currently the creek flats have a large quantity of rank, unpalatable grass. By completing this fencing project we will be able to alter the grazing pressure to suit the creek country. This will also reduce some of the pressure on the 'sweeter' surrounding hill country. This should result in improved pasture quality and quantity in both paddocks.			
Monitoring and recording	Pasture condition shall be monitored using Grasscheck. Benchmarks shall be established before fence line is complete. Monitoring shall be carried out at least once a year to evaluate the impact of changed management.			
Corrective Action/ Review	Due to illness and contractor delays only 50% of fence line has been completed (review date 15/06/03). See <u>15a-01 Riparian Zone Management</u> . A new completion date has been set for 30/11/03.			

IMPLEMENTATION AND OPERATION

9 Structure, Roles and Responsibilities

Structure and Responsibility

Roles responsibilities and authorities shall be defined, documented and communicated in order to facilitate effective environmental management.

Management shall provide resources essential to the implementation and control of the environmental management system. Resources include human resources and specialised skills, technology and financial resources.

The organisation's top management shall appoint (a) specific management representative(s) who, irrespective of other responsibilities, shall have defined roles, responsibilities and authority for:

- a) ensuring that environmental management system requirements are established, implemented and maintained in accordance with this International Standard;
 - b) reporting on the performance of the improvement of the environmental management system.
- (4.4.1) AS/NZ ISO 14001:1996

Purpose

The purpose of this element is to define the roles, responsibilities and authorities of those involved in the implementation and control of the EMS. The roles, responsibilities and authorities must be defined to ensure that the EMS is implemented and maintained according to the Standard. This shall include specific representative(s) and their roles in the management and reporting of the EMS.

Responsibilities

The owner/manager controls all management responsibilities for farm activities and the EMS. (See 1 Scope of the EMS) It is the responsibility of the owner/manager to ensure that roles and responsibilities are current, and communicated appropriately. Where staff and other individuals have acknowledged responsibilities they shall then assume them

Document Control

All current, authorised, Roles and Responsibility Sheets shall be maintained in the EMS Manual. Authorised copies shall be provided to staff/ managers on completion and upon request.

Procedure

Roles and Responsibility sheets shall be completed for all involved individuals. Staff and management shall then sign off, indicating their intention to carry out assigned duties, and assume responsibilities bestowed upon them.

The procedures of Key Farm Operations (eg branding, handling chemicals etc) shall be defined in 12. Procedures Manual for Key Farm Activities.

Roles, responsibilities and authorities must be defined to ensure that the EMS is implemented and maintained according to the standard. This shall include specific representative(s) and their roles in the management and reporting of the EMS. Contractors are listed in external communications.

Example Only

		Authority	Date	EMS Doc # 9a- 01
Name:	9a-01 Mr Beef Producer			
Position:	Owner/ Manager and EMS Manager			
Role:	Ultimate responsibility for the total business.			
Responsibilities[A37]				
1.	Carries out the majority of office (including EMS manager) and manual work and maintaining this EMS to the ISO 14001 Standard.			
2.	Responsible for all staff			
3.	Provide training to new staff in the areas of livestock management, agricultural management, natural resource management, and workplace health and safety.			
4.	Provide training to staff in environmental awareness and management.			
5.	Responsible for the husbandry practices conducted on the property, such as mustering, branding, supplementary feeding, mating, weaning and supervision of animal welfare.			
6.	Responsible for ensuring proper use and administration of veterinary chemicals, including drenching, vaccination, and treatment of external parasites.			
7.	Responsible for marketing and sales of livestock from the property, including live animal assessment and preparation.			
8.	Responsible for completing chemical inventory and self-assessment.			
9.	Recording of all "Quality" records including Livestock Sales and Purchases, Treatments and Feeding Records.			
10.	Responsible for organising internal audits, audits and carrying out action plans or corrective action as outlined by audits.			
Chemical Authorisation Details:[A38]				
Permitted to use all property chemicals used on the property.				
Declaration:				
I understand the above Roles and Responsibilities and have a copy of the environmental policy for In addition the Quality Assurance Programs, Emergency response procedures and Operating Procedures for Key Farm Activities have been outlined to me.				
Signed:		Date:		
Print Name				

Example Only

		Authority	Date	EMS Doc # 9a- 02
Name:	9a-02 Casual Employee Name			
Position:	Casual station hand			
Role:	Provide assistance to the owner/ manager and complete tasks as outlined.			
Responsibilities[A41]				
1.	Reports to owner/ manager.			
2.	Use of property chemicals under supervision based on quality assurance procedures outlined during induction training.			
3.	Animal husbandry duties under supervision taking into account quality assurance procedures outlined during induction training.			
4.	Carry out station duties as instructed by owner/ manager taking into account environmental policy, environmental awareness training and occupational health and safety.			
5.	Use property plant and equipment as instructed by owner/ manager taking into account environmental policy and environmental awareness training and occupational health and safety.			
6.	Other duties as directed.			
Chemical Authorisation Details:[A42]				
Permitted to use property chemicals on the property under supervision.				
Declaration:				
I understand the above roles and responsibilities and have a copy of the environmental policy for In addition the Quality Assurance Programs, Emergency response procedures and Operating Procedures for Key Farm Activities have been outlined to me.				
Signed:		Date:		
Print Name				

Example Only

	Authority	Date	EMS Doc # 9a- 03
Name:	9a-03 Contractors Name		
Position:	Contractor		
Role:	Fence construction		
Responsibilities[A44]			
1.	Reports to owner/ manager.		
2.	Carrying out standard contractor duties with an awareness of the property environmental policy and workplace health and safety.		
3.	Ensuring that work complies with the property environmental policy and workplace health and safety.		
4.	Work complies with CATTLECARE, Flockcare and Organic Quality Assurance Guidelines or other quality assurance certification.		
Chemical Authorisation Details:[A45]			
Permitted to use chemicals on the property under supervision if required as part of the contract work.			
Declaration:			
I understand the above roles and responsibilities and have a copy of the environmental policy for In addition the Quality Assurance Programs, emergency response procedures and Operating Procedures for Key Farm Activities have been outlined to me.			
Signed:		Date:	
Print Name			

10 Training Awareness and Competence

Training Awareness and Competence

The organisation shall identify training needs. It shall require that all personnel, whose work may create a significant impact upon the environment, have received appropriate training.

It shall establish and maintain procedures to make its employees or members at each relevant function and level aware of:

- a) the importance of conformance with the environmental policy and procedures and with the requirements of the environmental management system;
- b) the significant environmental impacts, actual or potential, of their work activities and the environmental benefits of improved personal performance;
- c) their roles and responsibilities in achieving conformance with the environmental policy and procedures and with the requirements of the environmental management system, including emergency preparedness and response requirements; and
- d) the potential consequences of departure from specified cooperation procedures.

Personnel performing the tasks which can cause significant environmental impacts shall be competent on the basis of appropriate education, training and/or experience.

(4.4.2) AS/NZ ISO 14001:1996

Purpose

Training records enable the owner/ manager to identify the skills and qualifications of workers relating to the property and documents what, if any, training needs to be carried out. This element enables the owner/ manager to establish and maintain procedures in order to ensure that all managers and employees are aware of the environmental impacts (actual/ potential) of their work, and that their training is adequate to understand the importance of, and carry out their work, according to, the environmental policy and procedures the EMS.

Staff who are aware of the environmental impacts of their work are likely to be more enthusiastic. Adequate training and/or experience in their duties will lead to a better understanding of the EMS and decrease the chance of negative impacts occurring.

Responsibility

The EMS Manager is responsible for assessing competence and/or the need for training of staff and contractors, or for delegating roles to third parties.

Document Control

Training record details shall be maintained within this EMS. Where necessary copies (certified if required) of certificates and qualifications should be kept with employee records and noted in the 16a Document Control.

Procedure

All new personnel (including employees, managers and contractors) undergo induction training and through that process identify training needs. External training is provided by independently audited organisation where appropriate.

Complete the 10a-01 Training Record Register, by identifying current and future training needs of all staff and management. This should be reviewed on an annual basis, or for new staff. Key questions to be answered:

- a) Is current training adequate to perform their duties?
- b) If not, what training would best suit their needs and what training is planned?

Example Only

Authority	Date	EMS Doc # 10a-01
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10a-01 Training Record Register					
9 Structure, Roles and Responsibilities (EMS Document Reference, including Staff Name)	Training Adequate Yes/No	Required or completed training Details (Title, Certificate Numbers and Renewal Date)	Provider	Location	Date completed or to be completed by:
<u>9a-01 Mr Beef Producer</u>	Y	Agricultural Chemical Safety Certificate	ChemSafe Training Qld.		
		Veterinary Chemical Safety Certificate	ChemSafe Training Qld.		
		Artificial Breeding Australia Certificate	Qld Rural Training Council		
		MSA Producer Certificate	Meat and Livestock Australia Ltd.		
		National Feedlot Accreditation Scheme	AusMeat Accredited		
		40 years on the job training and general experience.	Prior learning		

11. Communication

Communication

With regard to its environmental aspects and environmental management system, the organisation shall establish and maintain procedures for:

- a) internal communication between the various levels and functions of the organisation;
- b) receiving, documenting and responding to relevant communication from external interested parties.

The organisation shall consider processes for external communication on its significant environmental aspects and record its decision. (4.4.3) AS/NZ ISO 14001:1996

Purpose

To establish and maintain procedures for communications within the organisation and for receiving, documenting and responding to relevant communication from interested external parties. Communication procedures also provide the scope for significant environmental aspects to be communicated to outside parties.

Internal communication regarding the EMS will help employees manage the environment better and deal with questions and concerns about the environmental impact of the organisation's activities. Addressing these questions or concerns and dealing with any incidents will lead to a more informed workforce and continual improvement in environmental management. .

Communication with external interested parties will increase awareness of the organisation's environmental performance and this understanding should lead to fewer complaints. Contractors who are made aware of their obligations are less likely to create negative impacts on the environment. Communication with external parties also increases awareness within the organisation (ie contact with research organisations, government agencies, and conservation groups).

Responsibility

Maintaining the communications register is the responsibility of the EMS Manager. Managing and responding to relevant (significant environmental issues), communications is the responsibility of the EMS manager.

Document Control

Relevant correspondence records shall be logged according to the procedure below. Location of key references such as the farm diary shall be recorded in 16a Document Control Register.

Procedure

Internal communication of incidents relating to environmental management shall be recorded on form 11a Communication Register. Management will determine the nature and extent of action to be taken and where necessary document the actions taken. Staff and external parties shall be made aware of the results of their reports (or communications) and any changes in policy or procedure that occur as a result of them (also to be recorded in the Communication Register).

External communication received on significant environmental aspects shall be recorded on form 11a Communication Register. These communications and their replies are to be stored in a manner as to prevent deterioration for a period of **five** years.

Where communications relate to significant impacts (Complaints), the procedure should be followed as in 15. Incident Review and Corrective / Preventative Action.

Example Only

Authority	Date	EMS Doc # 11a-
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11a Communication Register

Date	Person who initiated Contact	Person who replied	Inwards, Outwards or Internal	Details – including main topics, type of communication & location of copy.	Action Needed? If yes Include Incident Reporting Sheet where necessary.	EMS Amendment Details
12/12/02	Shire Council / Landcare Group			*Letter: Advising that several weed species commonly occur within the local creek and subcatchment.	None at present – awareness information	Information to be considered when looking at management of creek areas (<u>8b-01 Riparian Zone Management</u>)

12. Procedures Manual for Key Farm Activities

Operational Control

The organisation shall identify those operations and activities that are associated with the identified significant environmental aspects in line with its policy, objectives and targets. The organisation shall plan these activities, including maintenance, in order to ensure that they are carried out under specified conditions by:

- a) establishing and maintaining documented procedures to cover situations where their absence could lead to deviations from the environmental policy and the objectives and targets;
 - b) stipulating operating criteria in the procedures; and
 - c) establishing and maintaining procedures related to the identifiable significant environmental aspects of goods and services used by the organisation and communicating relevant procedures and requirements to suppliers and contractors.
- (4.4.5) AS/NZ ISO 14001:1996

Purpose

Procedures shall be developed to minimise any adverse affects that relevant operations or activities may have on the environment.

By establishing and maintaining documented procedures, the risk of adverse affects on the environment is minimised, and the potential benefits of operations are greater. These procedures may cover a wide range of operations, help with management planning and reduce costs. They also provide a guide for staff and contractors to follow.

Responsibility

The key farm management and operation procedures should be developed in conjunction with all staff and management. The EMS Manager is responsible for ensuring that all relevant people are aware of and follow procedures in day-to-day operations.

Document Control

An authorised copy shall be maintained in the EMS Manual. Relevant sections should be displayed where needed (chemical handling procedures stored in chemical shed). The location of these copies should be recorded in the 16a Document Control Register.

Procedure

1. Based on identified **significant environmental issues (7c Ranked Significant or Priority Issues)**, identify the key aspects and **property operations involved**.
2. Establish a set of written procedures to cover those operations that relate to significant aspects, stipulating operating criteria where necessary.
3. Review these procedures annually or when changes occur that may impact upon them.

12.1 Management and Administration

- Property and business management plan has addressed all relevant topics and documented information is up to date.
- All staff have been made aware and understand, the documented management and administration plan, and are committed to its application. Workplace Health and Safety issues have been addressed. Relevant documentation is up to date and displayed.
- Staff training is in place and regularly updated. Training and cross-skilling in all relevant facets of the business, has been undertaken. Regular Workplace Health and Safety checks are undertaken.
- Staff are allocated tasks in which they are fully trained and competent. Multi-skilled staff attend refresher courses, and are rotated.
- Training has been put in place to establish a chain of command (succession). To overcome staff changes, and to ensure the business continues to function competently (especially in emergencies), retraining is ongoing.
- Detailed records are kept of financial, management, succession, and staff details. Disaster and accident or other emergency response plans are documented and displayed.

12.2 Machinery

- Oil, water and fuel are to be checked prior to starting the machine at the beginning of each day.
- Tyres (including spare) are to be checked once a week to ensure all are inflated to correct level.
- Appropriate personnel protective gear is to be worn when using grader, bulldozer, tractor, and backhoe.
- Seatbelts are to be worn in all vehicles that have them provided.

- Helmets are to be worn on motorbikes and horses.
- Information relating to location of where work is to take place is to be given to another person when work is taking place away from the homestead.

12.3 Grazing

- A sustainable utilisation rate is used, and strategic resting of pasture is always practiced.
- Grazing decisions are based on suitable, fixed time frame repeatable monitoring program. These standard practices lead to improved pasture health, and minimal water run-off.
- Full consideration is given to the relationship between trees and pastures before any development is undertaken.

12.4 Fire Management

- Fire breaks maintained on boundaries (especially along public and access roads). Controlled burns also conducted in high-risk areas, especially along public access roads.
- Sensitive areas identified (houses, machinery shed, softwood scrub, orchards) and protected from potential fires (slashing and firebreaks).
- Internal fences protected by slashing when appropriate.
- Full consideration is given to a balanced eco-system. Fire is only used under strictly controlled conditions. Fire prevention measures are in place at all times. Fire control equipment is fully maintained.
- Essential service features such as water storages, and creek crossings are marked on property map or emergency plan. Location of fire extinguishers and fire fighting equipment also marked. Appropriate training undertaken with the rural fire brigade.

13. Emergency Preparedness and Response

Emergency Preparedness and response

The organisation shall establish and maintain procedures to identify potential for and respond to accidents and emergency situations, and for preventing and mitigating the environmental impacts that may be associated with them.

The organisation shall review and revise, where necessary, its emergency preparedness and response procedures, in particular, after the occurrence of accidents or emergency situations.

The organisation shall also periodically test such procedures where practicable.

(4.4.7) AS/NZ ISO 14001:1996

Purpose

Develop an emergency plan to respond to and minimise environmental damage that may occur as a result of a normal conditions, accidents or natural disasters.

Responsibility

It is the responsibility of the owner/ manager and all staff to be aware of emergency response procedures and contact numbers (or at least the location of such information). The owner/ manager shall be responsible for maintaining the procedures, running drills and tests where necessary and ensuring that an up to date copy is available.

Document Control

Response Plans and Contacts should be highly visible. Authorised copies shall be made available to all staff, management and contractors.

Procedure

1. Develop a set of emergency response procedures using table 13a Emergency Prevention & Response Plan.
2. Define appropriate emergency response.
3. Include preventative measures that should be undertaken to avoid emergency situations developing.
4. Complete 13b Emergency Contact List containing numbers and addresses.
5. When significant emergencies do occur, complete an 15a Incident Preventative and Corrective Action Reporting Sheet.

Example Only

Authority	Date	EMS Doc # 13a-
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13a Emergency Prevention & Response Plan

Incident (in order of relative risk)	Preventative measures	Responses
Bush Fire	<p>Ensure that critical areas such as fuel bowzers, chemical shed and equipment storage areas are free of litter and fire risk is reduced.</p> <p>Maintain fire breaks on boundary fences (see the farm plan in section 2.0) and other sensitive environmental areas (eg riparian zones)</p> <p>Use slasher to reduce fuel load on relevant internal fences.</p> <p>Conduct controlled burn in high-risk areas along public access roads.</p> <p>Join, or be in contact with members of the local bush fire brigade.</p> <p>Attend Bushfire Brigade training courses.</p> <p>Locate essential features such as nearest suitable water and creek crossings on farm plan (have copies available).</p> <p>Designate an emergency channel (UHF or mobile phone number)</p>	<ul style="list-style-type: none"> ➤ Contact local fire warden and neighbours where necessary. ➤ Load fire-fighter pump and water tank on vehicle. ➤ Assess situation and do one of the following if necessary - make new firebreaks (grader or bulldozer) or back-burn.
Fuel Spills	<p>Ensure tanks are sealed with protective coatings.</p> <p>Locate major storage units away from environmentally sensitive areas, such as creeks, water bodies and underground aquifers.</p> <p>Regularly check the maintenance of bulk fuel storage facilities (minimise leaks, and identify potential risks).</p> <p>Never leave running fuel tanks unattended.</p> <p>Where possible have back up shut off taps (especially if facility uses gravity).</p>	<ul style="list-style-type: none"> ➤ Cut off flow of fuel to prevent further spillage. ➤ Transfer remaining fuel to other storage. ➤ Spread absorption material (sawdust/sand) and prevent spill from reaching waterways. ➤ Clean up, removing contaminated soil into bucket or appropriate container. ➤ Inform relevant authorities if required. ➤ Complete incident report.

Example Only

<p>Chemical Spills including smaller quantities of fuels and oils)</p>	<p>Ensure storage and mixing occur in specified areas (bunded or contained if large quantities are involved). Ensure all operators have protective clothing and appropriate training. This includes access to clean water where relevant. Bucket with absorbent material checked before chemicals mixed or used.</p>	<ul style="list-style-type: none"> ➤ Where spills occur small use sand/bentonite/soil/sawdust or other absorbent material to minimise spread of contamination. ➤ Place contaminated absorbent material into a bucket or suitable container. ➤ Where possible soil is renovated in situ, or deposited in a secure landfill. <ul style="list-style-type: none"> • Report according to legal requirements (if the spill is significant).
<p>Equipment or machinery fire</p>	<p>Ensure that all machinery have fire extinguishers available for when in use. Fire fighting equipment (including extinguishers, water trailers, pumps, overalls etc) are serviced and ready to be used.</p>	<ul style="list-style-type: none"> • In the event of significant fire contact Emergency Services. • Where appropriate contact the local Rural Fire Brigade. • Isolate fire where possible using appropriate extinguishers.
<p>Flood</p>	<p>Where possible move livestock to higher ground.</p>	<ul style="list-style-type: none"> •
<p>Septic Systems</p>		<ul style="list-style-type: none"> •

13. Emergency Preparedness and Response

Example Only

Authority	Date	EMS Doc # 13b-
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13b Emergency Contact List

		Business Hours	After Hours
Police			
Rural Fire Service	All fires 24 hours	000	
	Fire Control Officer		
	Mobile service		
	Radio channel		
	Permit		
State Emergency Services SES	Phone		
	UHF		
	Mobile		
Shire Council	Administration		
	Waste services		
	Environmental services		
Ambulance	Local office		
	All hours	000	
Doctor	Hospital		
	Out-patients		
Poisons Info Centre		131 126	
Electricity Provider	Supply		
	Customer service		
	Emergency line	QLD – Ergon Energy 132 296 VIC - TXV 131 799	
	Local contractor		
Department of Natural Resources & Mines	Local officer		
	Dalby office		
Environmental Protection Agency	Roma		
	Toowoomba		
	Pollutions & incidents	1300 130 372	
Department of Land and Water Conservation/ Department Natural Resources	Catchment manager	5662 4555	
	Regional office	5662 9900	
Department of Primary Industries – Exotic Diseases		1800 675 888	
Insurance Company			
Workers Compensation		1800 01716	
WorkCover	Information	QLD – 1300 362 128 VIC – 9641 1444	
	Emergency		
Fuel	Emergency all hours		
Spray Contractors			
Vet			

CHECKING AND CORRECTIVE ACTION

14 Monitoring and Measurement

Monitoring and Measurement

Organisation shall establish and maintain documented procedures to monitor and measure, on a regular basis, the key characteristics of its operations and activities that can have a significant impact on the environment. This shall include the recording of information to track performance, relevant operational controls and conformance with the organisations environmental objectives and targets.

Monitoring equipment shall be calibrated and maintained and records of this process shall be retained according to the organisation's procedures.

The organisation shall establish and maintain documented procedure for periodically evaluating compliance with relevant environmental legislation and regulations

(4.5.1) AS/NZ ISO 14001:1996

Purpose

Monitoring is an essential part of the property /operational plan. It enables success and progress (of Action Plans and environmental management) to be benchmarked, and standards set in order to achieve goals. Regular monitoring should also identify changes or situations where monitoring targets have not been met.

Responsibility

It is the responsibility of the EMS manager to ensure that the monitoring program is current and implemented.

Document Control

The relevant sections and records of the monitoring program (eg. rainfall chart and 14a Monitoring Program) shall be displayed in the office. All monitoring records are to be maintained for at least five years before being archived.

Procedure

Individual monitoring procedures shall be identified in the table 14a Monitoring Program . They may also be detailed in other documents if more room is required. Location of these documents shall be recorded in the 16a Document Control.

Responsibilities, frequencies and locations of records shall also be recorded.

Legal requirements shall be monitored and legal and other requirements will be in compliance.

Example Only

Authority	Date	EMS Doc # 14a-01
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14a Monitoring Program

Activity or Indicator	Method	Person responsible	Frequency	Record location
Rainfall	Rain gauge at house	Owner/ manager	When necessary	Rainfall Recording sheet.
Chemical Store Inventory	Determine condition of stored chemicals. Check use by dates and remove from store. CATTLECARE Code of Practice	Owner/ manager	Biannually	CATTLECARE Records
Water Quality	Daily and weekly checks of stock water quality and quantity	Owner/ manager and all employees	Daily - Weekly	Farm diary
	Sediment watch, pesticide and nutrient sampling, see manual	Employees	As needed, during water flows	Landcare office and farm office
Sediment run-off / erosion from paddock	As above Sediment watch			
	During stock checks major erosion events are noted	All	As needed	Farm Diary
	Monitor soil levels (photographs) against permanent pegs placed in key erosion points of riparian zone			
Soil Salinity				
Soil Water				
Soil Nutrients	Agritech Food Method	Owner/ manager	Periodically – within seven years	
Pest Levels				
Groundcover	Photo-standards- photographs taken showing permanent markers (pickets)	Owner/ manager	At least twice a year	Farm office
	Grasscheck pasture monitoring	Owner/ manager	At least twice a year	Farm office

15. Incident Review and Corrective / Preventative Action

Non-conformance and corrective and preventative action

The organisation shall establish and maintain procedures for defining responsibility and authority for handling and investigating non-conformance, taking action to mitigate any impacts caused and for initiating and completing corrective and preventative action.

Any corrective or preventive action taken to eliminate the causes of actual and potential non-conformances shall be appropriate to the magnitude of problems and commensurate with the environmental impact encountered.

The organisation shall implement and record any changes in the documented procedures resulting from corrective and preventative action. (4.5.2) AS/NZ ISO 14001:1996

Purpose

To verify ongoing compliance with the EMS standard by undertaking and recording periodic internal audits and implementing corrective and preventative actions for any complaints and non-compliance identified. Corrective action shall also occur as a separate process to auditing. Management should ensure that the corrective actions are implemented and that there is a systematic follow up to ensure their effectiveness.

Responsibility

Filing of incident reports may be done by staff, management and contractors. Oversight, monitoring and action of results is the responsibility of the EMS manager. Authorisation is the responsibility of the EMS manager (specifically relating to responding to complaints and significant incidents).

Document Control

Periodic internal audits are required to verify on-going compliance with the EMS standard. Records of internal audits shall be kept.

Procedure

1. Identify non-conformity (targets dates have not been met, minimum performance requirements have not been met or a specific incident may have occurred).
2. Isolate the non-conformity.
3. Assess the extent.
4. Identify root cause(s) of incidents or non conformity.
5. Notify staff and discuss how to correct.
6. Correct errors, operational procedures or improve staff training.
7. Record non-conformance and actions taken in the form provided 15a Incident Preventative and Corrective Action Reporting Sheet.

Example Only

Authority	Date	EMS Doc # 15a-01
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15a Incident Preventative and Corrective Action Reporting Sheet

Title	15a-01 Riparian Zone Management		
Review Date	15/06/03	Did all elements of the procedure work?	YES NO
Reviewed By	Owner/ Manager	If No, why not?	
Incident Location	Creek Paddock	NA	
Date	15/06/03	Time:	
Details:	Amendment to action plan <u>8b-01 Riparian Zone Management</u> Half of the fencing of the creek was not completed on time due to illness and contractor delays. The new estimated time of project completion shall be 30/11/03		
Risk (assess probability to cause harm and seriousness of that harm)	LOW MEDIUM HIGH	Are there any control preventative actions that should be implemented?	YES NO
Controls currently in place:	no	NA	
Were there any injuries, & if so to whom?	NA	Is it necessary that these actions are carried out immediately (Date)	YES NO
		Date:	Action plan extension to take effect immediately
Report on Damage to property/ infrastructure	NA	Who is responsible for carrying out these actions	As stated in the Action Plan
Was the issue avoidable, & how?	No, illness and delays were sudden and unexpected.	Were the Corrective & Preventative actions effective	YES NO
		If not, what should be done?	NA
Were there procedures to be followed for this type of issue in the Emergency Response Plan?	YES NO	Is there anything that should be reviewed during the Management Review	No
Which procedure?	NA		
Was the Procedure Followed?	YES NO	Auditor	Auditor's Name
NA		Date:	20/07/03
		Signed:	

16. Records and Document Control

Document Control

The organisation shall establish and maintain procedures for controlling all documents required by this International Standard to ensure that:

- a) They can be located;
- b) They are periodically reviewed, revised as necessary and approved for adequacy by authorised personnel;
- c) The current versions of relevant documents are available at all locations where operations essential to the effective functioning of the environmental management system are performed;
- d) Obsolete documents are promptly removed from all points of issue and points of use, or otherwise assured against unintended use;
- e) Any obsolete documents retained for legal and/or knowledge preservation purposes are suitably identified.

Documentation shall be legible, dated (with dates of revision) and readily identifiable, maintained in an orderly manner and retained for specified period. Procedures and responsibilities shall be established and maintained concerning the creation and modification of the various types of document. (4.4.5) AS/NZ ISO 14001:1996

Purpose

To ensure that all EMS documentation reflects precisely what actually occurs within the business, and that information has been stored or communicated according to the relevant procedures. It shall also facilitate location of information by other interested parties, especially where EMS has been integrated with other quality assurance programs.

Operational processes and procedures should be defined and appropriately documented and updated as necessary.

Responsibility

Maintaining the records and documents shall be the responsibility of the EMS manager. EMS manager is also responsible for final authorisations on procedures, changes to documents and EMS records.

Document Control

Obsolete files shall be removed from the EMS manual, only the latest revision shall be available.

Procedure

All individual documents when issued shall contain an Authorisation (Signature, Date, EMS Document Reference Number)

The naming convention for electronic files shall consist of: the title, version number and issue date. To be identified as an authorised copy the document shall be password protected, but able to be viewed as 'read only' document without authorisation. Permanent back up copies of all electronic files shall be made after EMS Audits and Reviews.

A list of all documents shall be maintained in 16a Document Control.

Out of date documents shall be marked as Archived and removed from the EMS Manual. The version number on both Electronic and Hardcopy documents shall change, and major changes/ reviews recorded in the 16a Document Control.

No record to be maintained within the EMS Manual. The Archived records of this EMS, and other supporting evidence shall be recorded in the 16b EMS Records Register.

Example Only

Authority	Date	EMS Doc # 16a-
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16a Document Control Register

Document Title	Date		Number of Copies & Type	Location	Details
	Issue	Expiry			
Environmental Management System manual latest version	06/11/02	01/07/03	2, Electronic and hard copy	Filing cabinet and computer	Office computer C:/EMS/property name V8 05 Jan 2003.doc Filing cabinet Drawer 2
<u>Initial Environmental Review</u>	06/11/02	01/07/03	2 hardcopy	EMS manual and office wall	Copy included in the latest version of the EMS manual above.
<u>6a Environmental legislation, guidelines and codes of practice summary</u>	06/11/02	01/07/03	1	EMS manual, office bookcase	Copies of the reference documents located in office bookshelf Legislation section. Electronic updates and copies stored in c:/EMS/Legislation
<u>8b-01 Riparian Zone Management</u>	01/01/03	01/06/03 30/11/03	1	EMS manual	

Example Only

Authority	Date	EMS Doc # 16b-
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16b EMS Records Register

Document Title	Date		Number of Copies & Type	Location	Details
	Issue	Expiry			
<u>6a Environmental legislation, guidelines and codes of practice summary</u>	06/11/02	01/07/03	1	EMS manual, office bookcase (notes on compliance)	Copies of the reference documents located in office bookshelf Legislation section. Electronic updates and copies stored in c:/EMS/Legislation
Pasture Monitoring Records			1	Monitoring folder	Field notes and photographs maintained in the monitoring folder in the office
			2	Spreadsheet on computer (C:/My Documents/Monitoring/2003)	Data analysed in a spreadsheet to track changes over time.
Rainfall Records			1	Rainfall charts on office wall	Rainfall records recorded on rainfall chart in office.

17. EMS Internal Audit

Environmental management system audit

The organisation shall establish and maintain (a) programme(s) and procedures for periodic environmental management system audits to be carried out, in order to:

- a) determine whether or not the environmental management system:
 - 1) Conforms to planned arrangements for environmental management including the requirements of this International Standard; and
 - 2) Has been properly implemented and maintained; and
- b) provide information on the results of audits to management.

The organisation's audit programme, including any schedule, shall be based on the environmental importance of the activity concerned and the results of previous audits. In order to be comprehensive, the audit procedures shall cover the audit scope, frequency and methodologies, as well as the responsibility and requirements of conducting audits and reporting results. (4.5.2) AS/NZ ISO 14001:1996

Purpose

Internal Audits should be carried out in order to ensure that the EMS conforms with the Standard, and that it has been properly implemented and maintained.

Responsibility

It is the responsibility of the EMS Manager to ensure that audits are carried out within the required timeframe and that the recommendations following audits have been implemented.

Record Control

Only the latest authorised copy shall be retained in this EMS manual. 16b EMS Records Register shall record the archived copies.

Procedure

Internal audits shall be carried out according to the 17a EMS Internal Audit Schedule.

Example Only

17a EMS Internal Audit Schedule:	
Location	On property or head office
Date/Frequency	To best fit in with the property activities cycle. Minimum of 2 audits per year
Scope/ Summary	To be indicated on the front page of the audit (<u>17b-01 Summary Internal Audit Inspector's Report</u>).
Auditor	Various (some may be self audited)
Audit Structure	A. Interview with property management – complete checklist, brief inspection of key property documents and site inspection. <u>17c Internal Audit Checklist Part A</u> B <u>17d Audit of Key Farm Activities Part B</u> Audit significant activities that can be observed.
Audit Duration	A 4 hours B 4 hours (approximate)
Reference documents	EMS manual, and tables, monitoring records etc.
Report Structure	<ul style="list-style-type: none"> ➤ Conforms to ISO 14001 and established procedures ➤ Review objective evidence ➤ Dated ➤ Conclusions and recommendations ➤ Detailed minutes to accompany report
Legal Information	Review significant impacts, and compliance with legislation (<u>6 Legal and Other Requirements</u>)
Objective	To check how well the EMS is functioning
Priorities	Streamline paperwork – to keep concise clear records, and continually improve the EMS
Language	Plain English
Audit Length	Concise with observations and recommendations

Example Only

Authority	Date	EMS Doc # 17b-01
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17b-01 Summary Internal Audit Inspector's Report

Area/Location		Report Date:	
Conducted By:		Period Since Last Audit:	
Position:		Aim:	
Audit Structure and Scope:			
EMS Document Reference	Key Findings and Recommendations	Corrective Action Report	
8b-01 Riparian Zone Management	New completion date set due to illness.	15a-01 Riparian Zone Management	
U			
Summary:	Management Systems Audit	Key Farm Activities Audit	
Auditor's Signature	Date:	Audit Duration:	

Authority	Date	EMS Doc # 17c-
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17c Internal Audit Checklist Part A	Done	Needs Work	N/A	Evidence Sighted or Actions Required "Minutes"
Environmental Management System				
1. An environmental Policy is displayed on the property.				
2. All staff, contractors and interested parties have access to a copy of the policy.				
3. A register of legal and other obligations is maintained and updated at least annually.				
4. Relevant codes of practice and best management practice have been identified.				
5. Compliance with key environmental legislation has been checked.				
6. The list of all current property general activities is up to date.				
7. The environmental risk assessment of property activities and environmental impacts is reviewed annually.				
Action Plans – Objectives and Targets				
8. Action plans have been developed with appropriate objectives and targets listed.				
9. The action plans are consistent with the Environmental Policy.				
10. Actions are reviewed at least annually.				
Communications				
11. Communications between neighbours and interested parties are recorded. Any immediate actions needed were attended to and recorded.				
Emergency Planning				
12. Emergency response plans are available, and have been given to all relevant parties.				
13. Training has been given, and has been recorded, for all those who may be required to respond in an emergency.				
Corrective Action				
14. An issue review record is used to deal with issues or incidents of significance.				

17c Internal Audit Checklist Part A	Done	Needs Work	N/A	Evidence Sighted or Actions Required "Minutes"
<p>Monitoring</p> <p>15. Monitoring programs are in place to assess environmental impacts of property activities.</p> <hr style="border-top: 1px dashed black;"/> <p>Records</p> <p>16. Records are legible, identified and accessible.</p> <p>17. Records are reviewed during the annual management review.</p> <p>18. The EMS Manual documentation is checked to ensure that only the latest version of each document is being used.</p> <p>19. The EMS is reviewed at least annually and changes or updates made where needed. The review covers audit reports; issues review records, corrective action records, property activities environmental aspects/ impacts review, business goals, action plans, monitoring records, communications, staff training and capabilities.</p> <p>Key Farm Activities</p>				
<p>Livestock</p> <p>20. Stock identification system in place (includes brands and if appropriate individual beast identification).</p> <p>21. Mob numbers recorded.</p> <p>22. Animal health program in place.</p> <p>23. Stocking rates match available feed.</p> <p>24. Groundcover in pastures maintained according to best practice.</p> <p>Soil</p> <p>25. Significant erosion occurrences are identified, monitored and dealt with where necessary.</p> <p>Energy Efficiency</p> <p>26. Regular equipment and maintenance of property machinery is carried out and a clear record kept.</p> <p>27. Energy efficiency is considered when buying household and property items.</p>				

17c Internal Audit Checklist Part A	Done	Needs Work	N/A	Evidence Sighted or Actions Required "Minutes"
28. Fuel and oil consumption is monitored. Efficiency is compared to previous audits.				
29. Machinery practices aimed at increasing energy efficiency ie: appropriate tractor/ dozer/ vehicle size for operations, Tyres inflated appropriately, vehicles run at appropriate revolutions.				
Emergency Planning				
30. A site plan is displayed in the office and the workshop, identifying hazardous storage areas, environmentally sensitive areas, safety equipment and contaminated sites.				
31. Safety equipment is in an identified place, is regularly inspected for damage, wear and compliance dates.				
Staff				
32. A record of the job description, responsibility and training for all staff is maintained.				
Waste Management				
33. Household wastes are disposed of to landfill or recycled.				
34. A recycling program is in place for suitable waste materials.				
35. Metal and machinery wastes are recycled, sold or stored in an appropriate manner.				
36. Waste oil is collected and disposed or recycled.				
Crops				
37. Water use (irrigation) efficiency is calculated for crops on the property.				
38. Crop pests are monitored and managed using IPM principles.				
39. Crop rotation combined with opportunity cropping is an integral part of the crop, soil and disease management strategy.				
40. Planting decisions based on available nutrients and the depth of wet soil in the fallow.				
41. Fallow efficiency and crop water use monitored.				
42. Crop diseases managed through cultural methods (resistant varieties, rotations, equipment sanitation,				

17c Internal Audit Checklist Part A	Done	Needs Work	N/A	Evidence Sighted or Actions Required "Minutes"
<p>certified seed etc.).</p> <p>43. Property plan shows soil type, erosion risk, compaction problems, slope class, wetlands and drainage lines and nutrient status.</p> <p>44. Crop/paddock fields tested annually, Sampling takes place across all paddocks and the property.</p> <p>45. Leaf tissue analysis taken and nutrient budgeting used to match soil condition to crop needs.</p> <p>46. Field conditions are always assessed prior to operations.</p>				
<p>Managing Chemicals (Ag and Vet)</p> <p>47. Chemical containers are rinsed/ disposed of correctly.</p> <p>48. Unregistered chemicals have been disposed of in legal off property areas (eg ChemCollect) or isolated from other chemicals in separate locked storage.</p> <p>49. The chemical storage areas has adequate spill control measures.</p> <p>50. A stock take of the chemical store is completed annually, and a record kept of any chemicals disposed of and how, and the date of the stock take and name of the person.</p> <p>51. Chemicals used are approved and applied according to the label permit.</p> <p>52. Chemical application equipment is calibrated at least yearly. Date and person responsible is recorded.</p> <p>53. The application of chemicals is recorded, detailing date, chemical used, application rate/ method, area treated, withholding period/ date safe to harvest/ stock, and operator.</p> <p>54. The person responsible for supervising the use of property chemicals has a current certificate from a NRA approved property chemical use course.</p>				
<p>Fuel and Oil Storage</p> <p>55. Fuel and oil storage areas are identified and if applicable meet the storage and handling requirements of the Australian Standard 1940 –</p>				

17c Internal Audit Checklist Part A	Done	Needs Work	N/A	Evidence Sighted or Actions Required "Minutes"
<p>Storage and Handling of Fuel.</p> <p>56. Fuel hoses have cut-off nozzles and taps.</p> <p>Fertilisers</p> <p>57. The application of fertilisers and soil additives is recorded, detailing name of product, date, area treated, rate and person applying.</p> <p>58. Fertilisers and soil additives are stored, used and disposed of in a manner. Where there is a significant risk of heavy metal contamination, fertilisers and soil additives are selected to minimise the risk.</p> <p>Grain Storage</p> <p>59. Grain stores are monitored as per GrainCare guidelines.</p> <p>60. Treatments of storage facilities and treatment of product after harvest have been recorded, including: date; chemical (type and amount); amount grain treated; rate and method; withholding period; name of person who applied treatment. Withholding periods are clearly identified at the storage facility.</p> <p>61. Grease, oil, fuel, property machinery, and workshop equipment are separated from grain storage areas to prevent contamination of produce.</p> <p>62. You notify all neighbours of your intention to spray where applicable</p> <p>Delivering Produce and Livestock</p> <p>63. Delivery vehicles are checked for cleanliness, physical contamination and weed infestation before loading/disembarking.</p> <p>64. Copies of National Vendor Declarations are maintained.</p> <p>65. Records have been kept of harvest/b Sale date and growing/ grazing area, and destination of produce/livestock.</p> <p>Natural resources</p> <p>66. Watercourses, tree lines, and other wildlife features are protected from field operations by uncropped/ buffer strips. Buffer zones managed for multiple use eg occasional shelter, windbreaks, protection from pests.</p>				

17c Internal Audit Checklist Part A	Done	Needs Work	√/A	Evidence Sighted or Actions Required "Minutes"
67. Environmental weeds are monitored and controlled. 68. Surface and ground water tested for excessive nutrients and chemicals. Salinity levels monitored. 69. Contoured buffer or filter strips in place to slow run-off transport of soil, nutrient and chemical into watercourses. 70. The property management plan identifies endangered or threatened species/ communities on or likely to be on your property and implements actions to protect them.				

Auditor's Name: _____

Auditor's Signature: _____

Date: _____

Authority	Date	EMS Doc # 17d-
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17d Audit of Key Farm Activities Part B

Activity:			
Location:			
	Done	Needs work	Comments
1. Observe activity. Does it compare with the procedure and were there any differences?			
2. Questions for the operator. Have well do you understand the procedure? What happens if variations are required? Have you made the appropriate record for this activity (if applicable)?			
3. Activity Records Are records up to date? Easy to read? Easy to find?			
Recommendations Does the procedure need any changes to be implemented?			
Does the recording format require any changes to show all the required information?			
Does the operator require any further training in this activity?			
Have recommendations from previous audits for this activity been carried out?			
Other Recommendations?			
Auditor's Name:	Signed:		Date:

18. Management Review

Management Review

The organisations top management shall, at intervals that it determines, review the environmental management system, to ensure its continuing suitability, adequacy and effectiveness. The management review process shall ensure that the necessary information is collected to allow management to carry out this evaluation. This review shall be documented.

The management review shall address the possible need for changes to policy, objectives and other elements of the environmental management system audit results, changing circumstances and the commitment to continual improvement.

(4.6) AS/NZ ISO 14001:1996

Purpose

To review the management system to ensure that the system is:

- Suitable
- Adequate
- Effective

Responsibility

It is the responsibility of the EMS manager to ensure that management reviews are carried out, that any areas of concern are being addressed and outputs of previous audits/reviews have been dealt with.

Record Control

Only the latest authorised copy shall be retained in this EMS manual. 16b EMS Records Register shall record the archived copies.

Procedure

Management reviews are completed each year.

The following are considered as part of the review:

- Normal property activities
- Incidents, accidents and potential emergency situations; and
- Past activities, current activities and planned activities.

Authority	Date	EMS Doc # 18a-
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18a Management Review

Area/Location		Report Date:	
Conducted By:		Period Since Last Audit:	
Position:		Aim:	
Audit Structure and Scope:			
	Person Responsible	Target Date	Completed Date and Signature
Environmental Policy: Is it still relevant?			
Review of Legal Issues and compliance with Existing Legislation: Have Websites been checked? Is the copy of the Primary Producers Legal Guide current?			
Results of Internal Audit: What are recommendations and have they been implemented?			
Training Review: Are there areas where training needs to be improved?			
Review Communication Register Have any concerns raised by interested parties been recorded and dealt with?			
Incident Review sheets: Anything urgent to deal with? Including complaints incident review and corrective & preventative action?			
Aspects & Impacts Register: Is the ranking and identification of significant impacts still current?			
Monitoring Program & Action Plans: Have the monitoring and action plans been updated? Are objectives and Targets being met?			

Action Plan Targets – Alterations to dates and Progress to date:	
EMS Reference #	Progress and comments
New Action plans proposed (if relevant)	
Miscellaneous Actions or Events	