Freshcare

Australian Wine Industry
Standard of Sustainable Practice
Winery

Edition 1

Factsheets

Freshcare Factsheet Index – AWISSP-WIN1

Below is a list of Factsheets provided by Freshcare Limited.

Copies of these forms are available for download on **FreshcareOnline** via online.freshcare.com.au

To have your business logon reissued, please email info@freshcare.com.au or contact the Freshcare Office on 1300 853 508.

AWISSP-WIN1 Factsheets

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Factsheet – M1 Scope and commitment

This factsheet covers:

- Scope
- Flowchart
- Property map
- Organisational structure
- Commitment statement

Scope

To ensure activities from all business enterprises undertaken on the business site(s) are considered in relation to the Freshcare Australian Wine Industry Standard of Sustainable Practice – Winery (AWISSP-VIT1), it is important that the owner or appropriate senior manager defines the scope of the business/operation.

The scope clearly identifies the activities conducted by the business for which certification is required, plus any other business enterprises that are undertaken on the property that need to be considered as part of the AWISSP-WIN1 program, such as cellar-door, restaurants, tours etc.

The scope of the AWISSP-WIN1 program must be reviewed if different types of enterprises are introduced or if activities or practices change on site, to ensure appropriate sustainability management has been considered.

Flowchart

All property activities undertaken by a business should be identified in a flowchart. A flowchart template is provided with the Freshcare Forms, which outline generic practices undertaken in wine production.

Flowcharts will be completed differently by each business, depending on the business enterprises undertaken on the property.

Update the flowchart (or develop your own) to ensure all production and post-production practices undertaken by your business are identified and selected.

Property map

A property map is required to identify property areas, infrastructure and surrounding areas.

A property map can be aerial photographs, topographical maps, cadastral maps, self-drawn maps or overlays that document and define the required features, infrastructure and natural resources on or adjacent to the property.

A checklist has been provided with the Freshcare Forms to ensure all items as prescribed by the Standard are considered and identified on the property map(s) as per the following categories:

- property boundaries, buildings and facilities
- production areas and infrastructure
- environmentally sensitive areas on the property
- environmentally sensitive areas adjacent to the property boundary.

Organisational structure

The organisational structure of the business may be documented as a written description of roles identifying who is responsible for the management of the AWISSP-WIN1 program, and the Sustainability Action Plan within the business, and how other workers report to this manager(s).
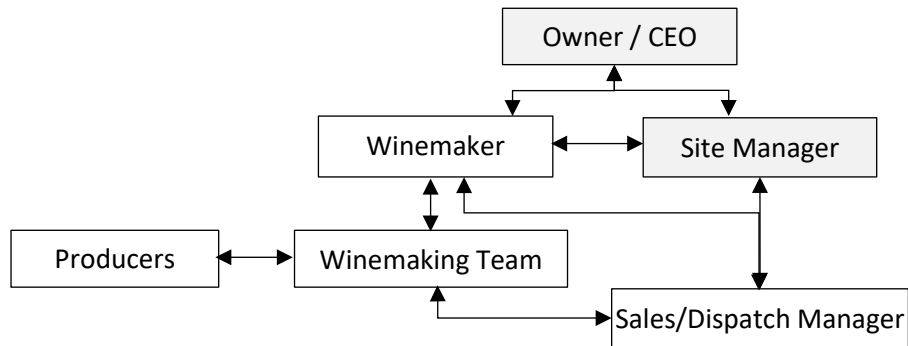
This requirement could be captured in the position descriptions for the specific roles of these workers i.e. Site manager, ENV/QA manager.

Alternatively, an organisational chart could be documented to demonstrate the organisational structure of the business and the roles of workers responsible for the management of the AWISSP-WIN1 program and the Sustainability Action Plan could be identified, with the reporting relationships (flow of information) of all workers whose roles may affect compliance with the requirements of the Standard.

Factsheet – M1 Scope and commitment

Organisational charts example provided below show the workers responsible for the management of the Standard and Sustainability Action Plan in the shaded boxes, arrows included in the diagrams indicate the reporting relationships and flow of information for all workers whose roles may affect compliance with the requirements of the Standard.

Example Organisational Chart – Winery

```
                    ┌──────────────┐
                    │  Owner / CEO │
                    └──────────────┘
              ┌──────────┴──────────┐
        ┌───────────┐        ┌──────────────┐
        │ Winemaker │◄──────►│ Site Manager │
        └───────────┘        └──────────────┘
              ▲                      ▲
  ┌───────────┐  ┌──────────────────┐
  │ Producers │◄►│ Winemaking Team  │
  └───────────┘  └──────────────────┘
                      │        ▲
                ┌──────────────────────┐
                │ Sales/Dispatch Manager│
                └──────────────────────┘
```

A commitment statement should be documented and signed by the owner or appropriate senior manager, to formalise the businesses commitment to meeting the requirements of:

- Freshcare Australian Wine Industry Standard of Sustainable Practice – Winery
- Freshcare Rules
- Sustainable Winegrowing Australia
- Sustainability Action Plan
- Legislative requirements (including licenses and permits).

The commitment statement must be communicated to all workers, to provide awareness of the business' commitment to sustainability and the continuous improvement outcomes of the AWISSP-WIN1 and Sustainable Winegrowing Australia program.

Communicating the commitment statement to all workers also highlights that sustainability is the responsibility of the entire business, and workers should be encouraged to support the sustainability outcomes via monitoring and reporting on activities associated with the program.

Prominently displaying the Commitment Statement will remind visitors and workers of the importance the business places on sustainability.

Factsheet – M2 Sustainability action planning

This factsheet covers:

- **Sustainability action planning**
- **Sustainability assets and environmental values**
- **Sustainability issues**
- **Sustainability Action Plan (SAP)**

Sustainability action planning

All environmental and sustainability management systems require a continuous improvement cycle of 'plan, do, check, act.' The Freshcare Australian Wine Industry Standard of Sustainable Practice applies this cycle via the prescriptive compliance criteria and Sustainability action planning requirements outlined in the Standard.
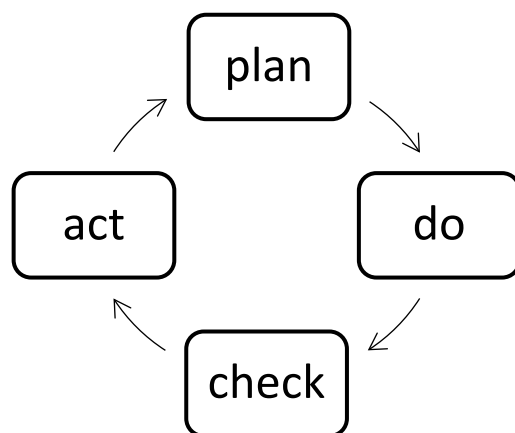
The Standard outlines compliance criteria for a range of property activities common to viticulture farming systems and production inputs that are known to present risks that may cause business, worker, community, or environmental harm. The compliance criteria includes basic requirements for record keeping, documenting property plans, implementing good agricultural practices, and

reviewing performance to demonstrate the business' commitment to sustainability and environmental stewardship are maintained.

Adherence to the compliance criteria is required by all businesses seeking certification to the Freshcare Australian Wine Industry Standard of Sustainable Practice – Viticulture and will ensure the mechanisms for achieving continuous improvement is occurring on-farm.

The Sustainability Action Plan (SAP) will help businesses complete the continuous improvement cycle. See details under Sustainability Action Plan following on in this factsheet.

Sustainability assets and environmental values

Sustainability assets and environmental values can be defined as 'worth that a community or society places on resources or services for their life sustaining, recreational, aesthetic or intrinsic ecological aspects.'

The Freshcare Australian Wine Industry Standard of Sustainable Practice – Winery asks you to conduct an assessment of your property and business operations to identify any sustainability assets and environmental values.

Some examples include: areas of native vegetation; natural waterways, wetlands, riparian areas; areas where rare or threatened native animals nest, roost, rest or feed; a threatened species of animal or plant known to be on the property or in the area; sensitive areas of high conservation value; native grasses and ground covers.

Actions planned to manage and improve identified assets and values will be undertaken via the Sustainability Action Plan (SAP).

Sustainability issues

A sustainability issue is defined as 'the result of the negative impacts of human activity on the natural environment, resources or business services.' The Freshcare Australian Wine Industry Standard of Sustainable Practice – Viticulture

Factsheet – M2 Sustainability action planning

asks you to conduct an assessment of your property and business operations to identify any issues to the sustainability of your business.

Some examples of issues include: soil erosion, creek or river bed erosion, areas affected by salinity or waterlogging, weed infestations, machinery or equipment emitting smoke, a dust or odour problem.

Actions planned to address, manage or improve identified sustainability issues will be undertaken via the Sustainability Action Plan (SAP).
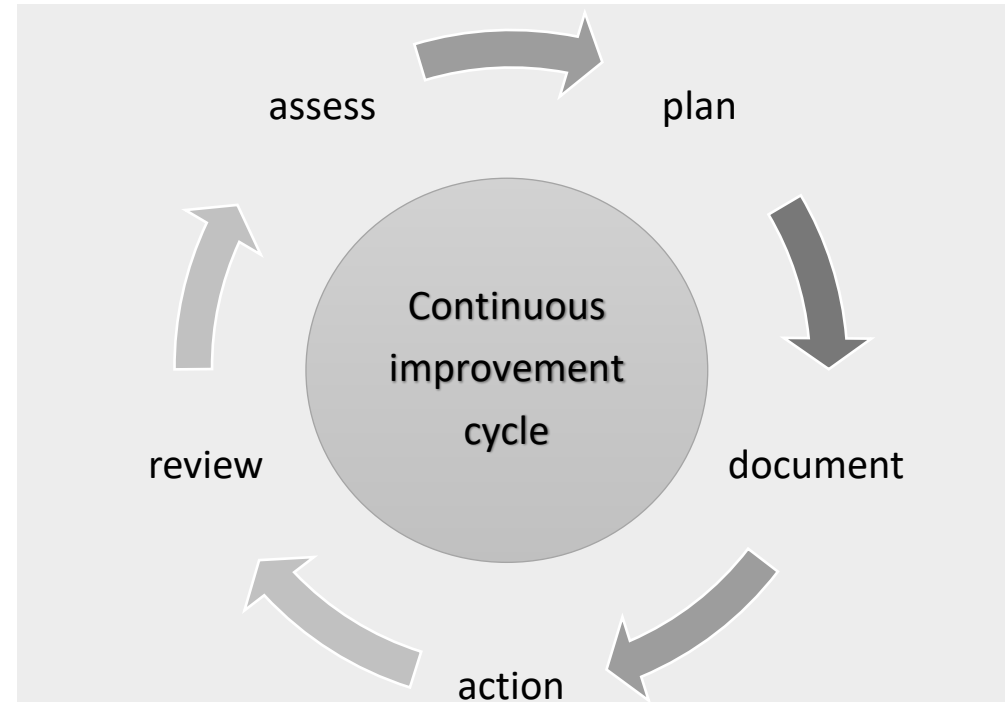
Sustainability Action Plan (SAP)

The Sustainability Action Plan (SAP) is the documentation of planned actions to manage and improve assets and values, and address issues on farm and within your business. The SAP completes the sustainability action planning process and outlines a plan by which a business can establish targets for improving the sustainability outcomes of their property and operations. The SAP should set goals for when future actions are to be completed.

Timeframes and a target date of completion for planned actions need to be included in the SAP. Depending on the actions proposed, timeframes could vary from immediate action (within the next 3 months), to short-term action (within the next 12 months), or long term action (within the next 3-5 years).

The SAP is required to be reviewed and updated annually with records maintained for review during triennial audit cycles.

Part of the annual review process for the businesses SAP should include an evaluation of the progress of planned actions, any changes to set target dates (with an explanation of why), and a sign-off on any completed actions. The review process should also establish any sustainability issues or values to be added to the SAP, setting new targets for management and continual improvement.

During triennial site audits, the auditor will want to see evidence of works towards planned actions, or completed actions documented in the SAP. Evidence might be kept in the form of photographs (demonstrating site rehabilitation, fenced off areas, erosion control); purchase records; or documentation (such as diary entries, planned works).

The Sustainability Action Plan (SAP) is the core of your sustainability management program. By completing the process of assessing, planning, documenting, taking action and reviewing as required by the sustainability action planning element of the Standard, you are demonstrating continuous improvement in sustainability management on farm.

Factsheet – M3 Documentation

This factsheet covers:

- Documents required to be kept
- Record keeping to verify compliance
- Developing effective records
- Document control
- Storing records
- Sustainable Winegrowing Australia reporting requirements

Freshcare have also developed form templates which reflect the record keeping requirements of the Standard. These are provided may be used as is, or modified to suit individual business needs. It is not mandatory to use the Freshcare form templates, however the required information as specified in the AWISSP-WIN1 must be captured.

If you are new to the AWISSP-WIN1 program, it is recommended that a minimum of 3 months of records should be established prior to undertaking your first audit (to achieve initial certification).

Documents required to be kept

It is a requirement that all Freshcare participating businesses have a current edition of the Freshcare Australian Wine Industry Standard of Sustainable Practice – Winery (AWISSP-WIN1) which includes the Freshcare Rules.
The AWISSP-WIN1 Standard is available to download from the Freshcare website: www.freshcare.com.au

If a certified business is using the Sustainable Winegrowing Australia trust mark, the trust mark style guide and rules for use must also be kept, along with evidence of approval for use of the trust mark. To access the Sustainable Winegrowing Australia trust mark rules of use and style guide specifications download: www.awri.com.au/wp-content/uploads/2020/06/trust-mark-rules.pdf

Record keeping to verify compliance

It is important to maintain all records as outlined in the requirements of the AWISSP-WIN1. Records are used to verify your compliance and ongoing management to the Standard and Sustainable Winegrowing Australia at audit. All records kept are required to include the following (as a minimum):

- title and date of issue or version number
- your business name and the name of person completing the record
- date record was completed

Other specific record requirements are outlined in individual elements AWISSP-WIN1, guidance on records required is also outlined in the following Factsheets.

Developing effective records

To be effective, records should be:

- legible
- user friendly
- clearly understood
- relevant to the situation
- consistent in format
- identified with a version number or date of issue
- maintained and kept up-to-date with old records replaced
- signed and dated by the person completing the record
- easily accessible, located where needed

Document control

Someone in the business needs to take responsibility for managing documents and records to ensure that only the latest version is used and available where needed. This applies to business documents and records, and to external documents such as off-label permits and quarantine regulations.

Storing records

Records may be kept in hard copy, soft copy, electronic or digital format. Completed records need to be stored in a safe location for possible reference at a later time or during your triennial audit.

Factsheet – M3 Documentation

The default retention period for records required by the Freshcare Code of Practice Environmental is 2 years, while Corrective Action Records (CARs) are required to be retained for a minimum of 5 years.

Individual States and Territories may also require longer retention periods for some records, such as records of chemical applications.

Sustainable Winegrowing Australia reporting requirements

Wineries participating in the Freshcare Australian Wine Industry Standard of Sustainable Practice – Winery (AWISSP-WIN1) must also adhere to the reporting requirements for Sustainable Winegrowing Australia.

Required business metrics and the best practice workbook must be completed and submitted annually to Sustainable Winegrowing Australia via the businesses online member portal, login: https://member.sustainablewinegrowing.com.au

Evidence of annual reporting provided to Sustainable Winegrowing Australia, including supporting documentation for the metrics data submitted (such as electricity bills, water use statements etc.) should be kept for verification at triennial audits to the AWISSP-WIN1.

Factsheet – M4 Training and development

This factsheet covers:

- Approved training
- Other training requirements
- Review of training needs and staff development
- Instructions and signage to support workers and visitors

Approved training

It is a requirement that a management representative from each participating business completes approved Freshcare training as identified in Freshcare Australian Wine Industry Standard of Sustainable Practice – Winery (AWISSP-WIN1) Appendix A-M4 - Approved training includes:

- Freshcare Australian Wine Industry Standard of Sustainable Practice Edition 1 – Winery training
- Freshcare Environmental Winery 2nd Edition Code of Practice training
- Freshcare Environmental Winery 1st Edition Code of Practice training

Approved Freshcare training is provided by Freshcare trainers or via the Freshcare eLearning platform. Details of training courses are available from the Freshcare website: www.freshcare.com.au.

A receipt of training (detailing the trainees name, trainer and date of training) or a training certificate, should be kept as evidence that approved training has been undertaken by a management representative.

Other training requirements

Workers who complete tasks associated with the management of the AWISSP-WIN1 program should have adequate knowledge and the skills to perform the duties required of them. Workers' training needs relevant to the AWISSP-WIN1 and Sustainability Action Plan need to be considered, with appropriate training planned and carried out.

Within the business, the most appropriate person must conduct internal training.

Training needs to be provided in the relevant language or pictorially, where workers may have a first language other than English.

Records of internal and external training must be kept, and include:

- Name of trainee
- Name of trainer/training provider
- Title or topic of training
- Date of training and/or expiry date

Review of training needs and staff development

A review of all training by the owner or appropriate senior manager should be conducted at least annually, or when a workers tasks change, or a new worker is appointed.

The training review will help identify any new training needs of workers, or refresher training that may be required to ensure adequate knowledge is present for all tasks undertaken. The owner or senior management also needs to be aware of local or regional environmental issues that may impact their business operation, and identify areas where training of workers to manage these issues may be required.

It is a good management practice to advise workers that it is also their responsibility to identify training needs within the business. Workers should be encouraged to notify the owner or senior manager if they identify a process, task or area where further workplace training or external training may be required.

Further Freshcare training or refresher training to AWISSP-WIN1, could be recommended by the auditor conducting your external audit. This would only occur if inadequate understanding, implementation or management of the Standard was evident during the external audit.

Factsheet – M4 Training and development

Instructions and signage to support workers and visitors

Site instructions and signage should be provided to all workers and visitors to support the sustainable outcomes of the program.

The Freshcare Form – M4 Site access instructions provides examples of the information that should be provided to all workers and visitors, including information on the businesses:

- environmental priorities
- biosecurity and hygiene requirements
- site access and movement
- use of protective clothing and footwear (where required)
- emergency procedures
- general behaviour.

Factsheet – M5 Suppliers

This factsheet covers:

- **Establishing approved suppliers**
- **Evidence of compliance**
- **Approved supplier example**
- **Competent laboratories**
- **Plant breeder's rights**
- **Managing certified wine grapes**
- **Supplier requirements table**

Establishing approved suppliers

When sourcing suppliers of materials and services each business should review the supplier to ensure they can demonstrate that they comply with the applicable requirements of the Standard and don't present a risk to the business engaging in their service of product.

Input materials and services should be sourced from businesses whose credentials can be verified for the products and/or services they're providing. Once this verification has been undertaken they can then become part of your 'approved supplier' list which should be reviewed and updated annually.

Suppliers that should be considered include those used by your business for: packaging, fertilisers and agricultural chemicals; as well as services such as transport, or those providing advice such as pest management or nutritional advice.

Managing your suppliers to ensure they meet as a minimum legislative requirements, will help minimise risks to your business.

Purchase records for materials and services that could present a risk to your business must also be kept.

Evidence of compliance

Suppliers of materials and services that may introduce a business or environmental risk, should provide evidence of compliance for them to become an 'approved supplier'.

You can use one of the following methods and evidence of compliance to approve suppliers of materials and services:

- **Independent evidence of compliance** – could include evidence of the suppliers Certification; Business credentials; Qualifications; Certificates of analysis; Water Quality Reports; Statements of Compliance, etc.
- **Freshcare Recognised Supplier Register** – businesses listed on the Freshcare recognised supplier register provide supporting evidence of their credentials to demonstrate they adhere to approved supplier requirements. Visit: www.freshcare.com.au/recognised-suppliers
- **A written declaration from the supplier to comply with requirements** – establishing a supplier agreement that they will meet the specifications as outlined by the business or provided in the supplier requirements table.
- **A record of inspection/assessment against requirements** – in lieu of one of the above options, the business sourcing the material or service could choose to inspect/assess the product or service prior to use, against the specifications in the supplier requirements table (see following section).

If you sourcing from more than one supplier of a material or service, evidence of compliance is required to be managed for each supplier.

The Freshcare Recognised Supplier Register is a subscription service managed by Freshcare. The registration process determines that businesses listed as a Recognised Supplier meet the applicable requirements for supply of the specified materials and services they are listed for.

Reliance on the information provided by suppliers and businesses listed on the F Freshcare Recognised Supplier Register is at the end users' own risk. For more information please refer to: www.freshcare.com.au/recognised-suppliers/about

Factsheet – M5 Suppliers

Approved supplier example

The Freshcare Australian Wine Industry Standard of Sustainable Practice – Viticulture requires that agricultural chemicals are purchased from approved suppliers to demonstrate that the suppliers are meeting best practice requirements.

The following provides three examples of how to establish an 'approved supplier' for agricultural chemicals:

1. **Suppliers' evidence of accreditation to Agsafe**
    Agsafe accredits stores or businesses that distribute or supply agricultural and veterinary chemical products. The accreditation process ensures that stores are compliant with all Commonwealth, state and territory regulations for the transport, storage and handling of these products.

2. *Establishing a supplier agreement/letter* (see example following)
    Supplier agreement/ letter ensures:
    o   *the supplier is approved to operate in accordance with the relevant legislative/regulatory requirements;*
    o   *all chemicals provided are adequately labelled and in acceptable condition;*
    o   *all chemicals provided are within Use By dates; and*
    o   *all chemicals provided are appropriate for the use required.*

3. **Inspect each purchase/delivery against specifications,**
    Inspect and record compliance for each purchase, to ensure:

    o   *all chemicals provided are adequately labelled and in acceptable condition;*
    o   *all chemicals provided are within Use By dates; and*
    o   *all chemicals provided are appropriate for the use required.*

Example of supplier agreement for an agricultural chemicals supplier

> **EXAMPLE ONLY**
>
> Business logo
> Business name
> Business address
>
> Date
>
> **Approved supplier acknowledgement**
>
> We acknowledge the requirements of the Freshcare Standards and agree to:
>
> - provide chemicals appropriate for the use required,
> - be approved in accordance with the relevant legislative/regulatory requirements,
> - provide products that are packaged accordingly and adequately labelled (including Expiry Date or Date of Manufacture),
> - abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.
>
> Regards,
> Name
> Position
> Contact details

Factsheet – M5 Suppliers

Competent laboratories

When testing is undertaken as part of verifying requirements to the Standard, including water, soil or produce testing, a competent laboratory must be used. The Standard defines a competent laboratory as:

"a laboratory with NATA* accreditation, or accredited to ISO/IEC 17025, for the required scope of testing. Or a laboratory run by a local, state, or federal government authority or university that follows Australian Standard methods for the required scope of testing."

*NATA = National Association of Testing Authorities, Australia.

Competent laboratories can be managed via the approved supplier process with records of use kept.

Managing certified wine grapes

The Standard requires that all wine grapes represented for sale by a certified business, must be sourced from a business currently certified to the Freshcare Australian Wine Industry Standard of Sustainable Practice.

This means if you are a certified producer and are sourcing wine grapes from other producers or vineyards, those wine grapes cannot be represented for sale under your certificate/certification, unless those producers and vineyards are also certified.

This can be managed through the suppliers list (refer to Form – M5 Approved supplier table) and traceability records.

Factsheet – M5 Suppliers

Supplier requirements table

Suppliers of materials and services identified in Form – M5 Approved supplier table, must comply with the applicable requirements of the Freshcare Standard, as outlined in the table below.

Input material/service	Requirements for suppliers
Agricultural chemicals	- Evidence of AgSafe accreditation/compliance with legislative requirements. - Provide chemicals appropriate for the use required. - Approved in accordance with the relevant legislative/regulatory requirements. - Packaged accordingly, adequately labelled (including Expiry Date or Date of Manufacture). - Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.
Agricultural chemical application	- Hold appropriate accreditation e.g. commercial spray licence and provide copies of accreditation. - Apply chemicals: - according to label directions, or - under 'off-label permits' issued by the Australian Pesticides and Veterinary Medicines Authority (APVMA), with a current copy of the permit kept, or - according to relevant state legislation for 'off-label use', and - according to specific customer and/or destination market requirements. - Check chemicals for withholding periods prior to use. - Check chemicals for label changes when opening each new container. - Avoid chemical application when the risk of contaminating off-target areas with spray drift is high. - Ensure application equipment is maintained and checked for effective operation before and during each use. - Ensure equipment is calibrated at least annually or as per manufacturer's instructions, and immediately after spray nozzles are replaced. - Dispose of leftover chemical solutions according to label directions where specified, or in a manner that minimises the risk of contaminating the site or waterways. - Maintain records of all chemical applications. - Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.

Factsheet – M5 Suppliers

Calibration of thermometers, cool rooms	• Be a licensed certifier as per the relevant legislation i.e. Trade Measurement Act, and provide evidence of certification. • Provide a record of calibration results. • Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.
Chemicals – cleaning	• Ensure chemicals are approved for use in a food handling area and provide evidence. • Packaged accordingly and adequately labelled (including Expiry Date or Date of Manufacture). • Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.
Chemicals – water treatment	• Ensure chemicals are approved for use in a food handling area and provide evidence. • Packaged accordingly and adequately labelled (including Expiry Date or Date of Manufacture). • Where required, ensure additional validation and monitoring requirements are provided for the required use. • Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.
Consultants	• Ensure consultants or consultancy service providers are appropriately qualified for the scope of service. • Where required be appropriately licensed/certified, provide copies of credentials. • Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.
Contract cleaning	• Ensure chemicals are approved for use in a food handling premises and provide evidence. • Ensure cleaning equipment and chemicals are stored, applied and handled to prevent contamination. • Provide details of cleaning activities as requested including areas/items cleaned, cleaning agents and methods used and frequency of cleaning. • Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.
Contract labour	• Provide evidence of compliance or licensing to relevant statutory/regulative requirements for this type of business (i.e. State licensing schemes, Worksafe, superannuation, etc.). • Ensure all workers have been appropriately trained for work to be undertaken. • Maintain records of training and provide copies of records. • Ensure staff/workers abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.

Factsheet – M5 Suppliers

Equipment and machinery	• Ensure equipment and machinery are constructed from appropriate materials. • Ensure new equipment and machinery meet the appropriate safety requirement and/or Australian Standards. • Ensure maintenance of equipment and machinery is carried out by appropriately qualified person. • Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.
Laboratory testing	• Hold NATA accreditation to ISO/IEC 17025 for the specific testing requested and provide evidence of accreditation. • Laboratory run by a local, state, or federal government authority or university that follows Australian Standard methods for the required scope of testing.
Packaging	• Ensure packaging is appropriate for use and made of substances that are non-toxic and food grade when required. • Ensure packaging is compliant with relevant statutory/regulative/customer requirements. • Ensure packaging is clean and free of foreign objects and pest infestation prior to delivery. • Ensure packaging meets businesses requirements for reuse and/or recycling
Pest control	• Be appropriately licensed/certified, and provide copies of credentials. • Ensure all chemicals and baits supplied or recommended are approved for use, used in accordance with label instructions. • Ensure baits/traps are located and contained to minimise the risk of contaminating the site, equipment, and surrounding environment. • Provide a map of bait/trap locations. • Provide written records of inspections, pest levels and action taken after each visit. • Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.
Portable toilets	• Position portable toilets to minimise risk of contamination to the site, environment and waterways. • Regularly maintain and service portable toilets. • Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.
Technical advisor	• Be appropriately certified/qualified and provide details of these qualifications. • Make all recommendations in writing. • Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.

Factsheet – M5 Suppliers

Training	- Ensure trainers or training service providers are appropriately qualified for the scope of service. - Where required be appropriately licensed/certified, provide copies of credentials. - Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.
Transport	- Evidence of current certification to a third party audited food safety standard for the scope of transport services being supplied. - Ensure produce is not transported under conditions or with other goods that present a potential source of contamination. - Check transport vehicles before use for cleanliness, foreign objects and pest infestation and, where necessary, clean to prevent contamination of produce. - Check transport refrigeration systems prior to loading to ensure they are operating at specified temperatures. Maintain records to verify temperature during transit. - Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.
Waste management	- Ensure waste disposal services (where required) are appropriately licensed/certified, provide copies of credentials. - Ensure workers undertaking waste disposal are appropriately trained. - Ensure waste containers provided are appropriate for use. - Check waste transport vehicles prior to entering the site for cleanliness, foreign objects and pest infestation and, where necessary, clean to prevent contamination on site. - Provide records of waste disposal. - Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.
Water	- Ensure water supplied meets relevant quality for use, and evidence of compliance is provided (e.g. Certificates of Analysis, Water Quality Reports, Statements of Compliance). - Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.
Water – recycled/reclaimed	- Ensure water quality supplied for use meets the appropriate specifications as defined in the Australian Guidelines for Water Recycling and evidence of compliance is provided (e.g. Certificates of Analysis, Water Quality Reports, Statements of Compliance). - Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.

Factsheet – M5 Suppliers

Wine grapes	- Provide evidence of certification to the Freshcare Australian Wine Industry Standard of Sustainable Practice. - Advise the business immediately if the certification is withdrawn or expires. - Ensure produce supplied is compliant with relevant statutory/regulative/customer requirements, and provide evidence of compliance. - Ensure staff abide by site access and movement instructions including priorities for environmental management, biosecurity and hygiene requirements if/when entering the business premises.

Factsheet – M6 Customer and regulatory requirements

This factsheet covers:

- **Customer specifications**
- **Customer requirements**
- **Regulatory body or legislative requirements**
- **Record keeping requirements and verification at audit**

Customer specifications

Meeting customer expectations is an important part of any business. To be able to meet these expectations, a clear understanding of what the customer requires is essential.

Customers will often set specific specifications and requirements for suppliers to comply with, these may be issued as part of your contract, written agreement or provided in writing.

Customer specifications most commonly relate to:

- Product quality
  - variety, size, maturity, colour.
- Handling requirements
  - temperature management,
  - handling instructions,
  - packaging,
  - transport.
- Compliance requirements
  - compliance with a nominated standard, practices or limits.

Customer requirements

Customer requirements are other specific requirements set or agreed with your customer.

If your Customer is sourcing your product for specific markets (e.g. EU or US export), they may set specific environmental, sustainable agriculture or greenhouse gas emission targets not covered specifically covered in this Standard (e.g. ISO 14067 Carbon footprint).

Such additional customer requirements should be managed in alignment with this Standard, a written copy of these practices should be kept and complied with and included in M7 Internal audits.

Regulatory body or legislative requirements

Regulatory bodies or legislative requirements may be applicable to businesses based on their location or proximity to sensitive areas with high conservation value (such as the Great Barrier Reef).

Businesses operating in such locations may have specific nutrient application limits, environmental licensing requirements, or business practice records that must be maintained in order to demonstrate they are complying with regulatory and legal requirements.

Element M6 of the Standard requires that any business that needs to comply with regulatory or legislative requirements that relate to specific environmental guidelines, sustainable agriculture or greenhouse gas emission practices, must maintain records of these requirements for review at their AWISSP-WIN audit.

Record keeping requirements and verification at audit

Customer, regulatory body or legislative requirements to be taken into consideration under M6 of the AWISSP-WIN1 are those that relate to specific environmental guidelines, sustainable agriculture or greenhouse gas emission practices, **outside of the requirements outlined in the Standard.**

It is only if a specific requirement as outlined above is required of your business, that a written copy of these practices be kept and complied with and included in M7 Internal audits.

Factsheet – M7 Incident management, internal audit, corrective & preventative action

This factsheet covers:

- Business continuity
- Incident management plan
- Responding to an incident
- Defining audits
- Internal auditing
- External auditing
- Corrective and preventative action
- Documenting corrective actions
- Management review

Business continuity

Business continuity is about planning and preparing your business to avoid and reduce the risks associated with events or environmental incidents that could result in major disruptions to operations; and preparing a plan to ensure services to customers can continue.

Business continuity planning will help detail the steps to be taken before, during and after an incident or event to maintain the financial viability of the business. It helps you to anticipate, prevent or prepare for disruptions such as fire, flood or storms, computer or system crashes, or illness, and how to respond and recover from them.

Preparing for business continuity makes your business more likely to survive an emergency or critical disruption, as well as forecasting ways to minimise potential impacts to the site, business, community and environment.

Incident management plan

An incident management plan should be developed in consideration of business continuity to identify ways to:

- reduce the likelihood of an incident occurring
- respond to, and recover from, an environmental incident.

Document an incident management plan and identify and include:

- potential environmental risks to business continuity
- strategies and practices to manage the identified risks
- workers responsible for incident management
- contact details for internal and external stakeholders
- name of the person developing and documenting the plan
- date the plan was developed.

A test of the businesses incident management plan must be conducted at least annually, with a record kept.

Responding to an incident

When responding to an incident, it is important for the business to first ensure the safety of workers and the surrounding environment and wider community are protected.

When an incident occurs, the incident management plan must be followed to ensure:

- workers safety is protected
- risks to the environment are minimised
- product safety and quality is not compromised
- affected areas are segregated and controlled
- if impacted, affected product is identified and isolated

If an incident has occurred requiring the incident management plan to be actioned, a record of protocols undertaken must be kept.

Following an incident, a review of the event and incident management plan should be undertaken by workers responsible for incident management and the appropriate supervisors. A record of the review and any updates to the plan must also be documented.

The incident management plan should be reviewed at least annually, and after any event requiring the incident management plan to be actioned. Records of reviews must also be maintained.

Factsheet – M7 Incident management, internal audit, corrective & preventative action

Defining audits

An **audit** is a formal review of practices.

- An internal audit is when a worker representing the business, reviews practices within the business
- An external audit is when a customer or an independent organisation (auditor from one of the nominated Freshcare Certification Bodies) reviews the business practices.

Internal auditing

The purpose of internal auditing is to:

- confirm that practices are being carried out as required by the Freshcare Standard
- ensure records are up-to-date, accurate and contain all the required information
- identify inefficiencies and problems and correct them.

Who should conduct the internal audit?

Any person representing the business can conduct the internal audit. This may be an owner, worker or external consultant. If it is an external consultant, it is important that the owner or senior manager is made aware of the results of the internal audit.

Ideally, the person conducting the internal audit should be independent of the practices being carried out, however Freshcare recognises that this may not be achievable by some businesses.

How often should internal audits be done?

It is always best to do an internal audit before any external audits from customers or other independent organisations are undertaken, as it is better for you to detect problems and correct them before the external auditor does.
Freshcare requires businesses to conduct a minimum of one internal audit each year covering all elements of the Freshcare Standard, and a record of internal audits must be kept.

Freshcare encourages internal audits to be used as a tool to improve areas of the business, and therefore the internal audit activities can be spread out throughout the year.

Internal audit report

Form M7 Internal audit report, provides a useful tool to assist you in conducting your internal audit. It provides a simple, systematic outline of the elements to assist you in reviewing practices. Sections of the internal audit report should be signed and dated by the person completing that section. Once completed the internal audit report provides a record of the internal audit conducted and any areas that need to be addressed or actioned as a corrective action.

Conducting an internal audit

Conducting a thorough internal audit involves:

- talking to workers
- observing operations
- checking records for accuracy and completeness
- recording your findings, both positive and negative .

External auditing

An external audit is a review of your practices and documentation by someone external to your business, such as a customer or an independent auditing organisation – a Certification Body (CB).

Customer audits (2nd party)

Wholesalers, packers and processors who have implemented a sustainability standard may be required to carry out an audit of their suppliers. They may carry out the audit themselves or contract an external auditor.

Their audit activities may include:

- checking your records

Factsheet – M7 Incident management, internal audit, corrective & preventative action

- internal audit report
- requesting a copy of your Freshcare certificate
- carrying out on-site audits of operations on your farm.

Independent or external audits (3rd party)

An independent or external (3rd party) audit will provide objective evidence of compliance against a nominated Standard. It is carried out by a certification body independent of your business and of your customers. A Freshcare (3rd Party) audit will provide objective evidence to your customers that you have met the requirements of the Freshcare Australian Wine Industry Standard of Sustainable Practice – Winery.

The independent or external audit provides customers with the option of using 3rd party auditors rather than doing the auditing themselves. It also means one audit may satisfy all of your customers, rather than having many customers auditing your business. Auditing of the Freshcare Standard is managed by Freshcare Ltd and its approved Certification Bodies.

Preparing for an external audit

The idea of an audit is not to 'pass' or 'fail'. The audit should be seen as an opportunity to identify areas in your business where procedures and practices can be improved. Part of the auditor's role is to be helpful and understanding of your needs.

The most important thing to do is review your practices and documentation to ensure that everything has been identified and applied as required by the Standard Use your internal audit checklist to complete this process.

Make sure records are up-to-date and available (or easily retrievable) for the auditor to review.

What will happen on the day of the external audit?

Your audit will consist of three stages; the entry meeting, the audit, and the exit meeting.

At the entry meeting, the auditor will discuss your business, your expectations, describe what will happen during the audit and set a timeframe for the audit.

During the audit itself, the auditor will be looking for objective evidence that requirements of the Standard are being met. The auditor does this by asking you questions, talking with your workers (and observing practices) in the work environment and reviewing your documents. The auditor will be working through a checklist similar to your internal audit checklist.

At the exit meeting the auditor will discuss their audit findings and provide you with a written report of the audit. They will identify the strong points of your system and any areas that you may need to improve. You will be invited to respond and comment about the audit or audit process. If there are things that need to be rectified before certification is recommended, then they will be discussed at this point.

Corrective and preventative action

Despite best intentions, you can still have problems from time to time. Whenever a problem arises, you must take action to ensure that the problem has been brought under control. Further actions may be required to prevent the problem happening again, thereby improving the system.

Keeping a record of corrective actions helps you to look back at problems that have occurred in the past, and show customers and other external bodies that you have a system in place to fix such problems.

A Corrective Action Record (CAR) is completed when requirements of the Standard are not being met, problems have caused or have the potential to cause significant environmental harm. The recording of near miss activities is also useful in identifying any areas where procedures or processes may require additional support through training etc.

An important aspect of corrective action is checking that the steps taken have been effective in eliminating or controlling the problem. Once the actions are completed, a review must be conducted to ensure actions taken have been effective. This is often termed preventative action.

Factsheet – M7 Incident management, internal audit, corrective & preventative action

If the problem has not been fixed, or the same problem reoccurs, then the action has not been effective and another CAR must be completed, including alternative actions.

Reoccurrences of non-compliance must be reviewed by the owner or appropriate senior manager, to ensure adequate measures are taken to effectively address the problem and prevent the non-compliance from occurring again.

Documenting corrective and preventative actions

A Corrective Action Record (CAR) should be completed when the requirements of the Freshcare Standard, Freshcare Rules or legislation are not being met. Issues may be identified through:

- routine activities
- internal audits
- annual external audits
- complaints (received from a neighbour, customer or regulatory authority)
- incidents and near misses (environmental harm has occurred/may occur as a result of property activity, neighbouring activity or a natural event).

Form M7 Corrective action record (CAR) provides you with a template to be used when an issue is identified.

Corrective Action Records must be retained for a minimum period of five (5) years (or longer if required by legislation or customers).

Corrective Action Records are tool for documenting and demonstrating continuous system improvement, as they provide the mechanism for identifying a problem, whether it has occurred before, how the problem is being managed and what resolve has been established to prevent the problem from recurring.

Management review

A management review is a structured meeting which involves owners and/or senior managers of the business that takes place at least annually to review and review the Standard implemented and systems in place in the businesses remains suitable, adequate and effective to achieve the sustainability outcomes as set by the business' Sustainability Action Plan and commitment to Sustainable Winegrowing Australia

The Management Review must cover the following agenda items:

- internal and external audits
- corrective and preventative actions
- complaints
- incidents and near misses
- training
- the Sustainability Action Plan (SAP).

It is a requirement that a record of the management review and any follow-up actions is kept.

The Freshcare **Form – M7 Management Review Minutes** has been provided as a template for capturing a record of the management review/meeting process, and includes the required agenda items. Please note that this form is provided is a suggested template only – minutes in an alternate format; diary entry of the actions and discussion; or alternate records could be used as evidence for the management review taking place.

Factsheet – M8 Product identification, traceability, withdrawal and recall

This factsheet covers:

- Manage certified wine
- Product identification and traceability
- Recall and withdrawal
- Conducting a recall
- Trade level recall
- Consumer level recall
- Conduct a mock withdrawal or recall

Manage certified wine.

A winery presenting wine for sale under the Sustainable Winegrowing Australia trust mark and certification to this Standard, must demonstrate 85% of **wine grapes** have been sourced from businesses currently certified to the Freshcare Australian Wine Industry Standard of Sustainable Practice – Viticulture.

A record of all wine grapes received from external suppliers is kept, and must include:

- supplier business name
- crop/variety
- quantity/amount
- date received
- evidence of certification.

Wineries using the Sustainable Winegrowing Australia trust mark on their *wine labels/ product*, must be able to provide evidence that 85% of wine crush was sourced from **certified viticulture** producers. This evidence will be checked at audit to the AWISSP-WINERY.

*Where certified bulk wine is transferred (or sold) from one entity to another, the load must be accompanied by either a statutory declaration **OR** a copy of the AWRI Trust Mark Approval and evidence of certification (AWRI or Freshcare Issued). This document must demonstrate that 85% of wine grapes have been sourced from businesses currently certified to the Freshcare Australian Wine Industry Standard of Sustainable Practice – Viticulture (Appendix – A-M3). Records*

are to be kept for both the transfer entity as well as the receiving entity to enable end to end traceability.

Product identification and traceability

The Freshcare Australian Wine Industry Standard of Sustainable Practice – Winery requires that traceability must be maintained for all products.

Traceability is the ability to trace product within and through the supply chain, from raw material inputs to finished and dispatched products.

One of the most important parts of a traceability system is the ability to trace produce 'one step up and one step back'. When all members of the supply chain, from paddock to plate, have strong identification and traceability systems, unsafe or unsuitable product can be easily identified and removed from sale.

Processing records must be kept so that all batches of product can be readily identified, tracked and traced, and that the amounts of any raw materials used including the incoming wine grapes are clearly identified and recorded to comply with all relevant legislation. These records must satisfy the requirements of the Wine Australia's Label Integrity Program and Food Standards Australia New Zealand. The supply of wine grapes for certification

Records of all production/packaging runs should be maintained detailing the wine product type, code, quantity and other relevant packaging information

Important: The packing date and/or batch identification code for all packed product must be linked to the suppliers and destination.

The product traceability system used by the business should be tested at least annually to verify full traceability of wine from production to its destination, or vice versa, with a record kept.

Factsheet – M8 Product identification, traceability, withdrawal and recall

Recall and withdrawal

In the event of a potential issue regarding product safety, quality or regulatory compliance, the matter is investigated to determine the extent of the problem and where required, further action should be taken.

Product recall

A product recall is defined as 'an action taken to remove from distribution, sale and consumption, food which may pose a health and safety risk to consumers'. A recall may arise from:

- internal reviewing of records
- adverse test results (e.g. residue test results show MRL and/or ML's exceeded)
- customer complaint/feedback
- notification of a problem from a raw material supplier (packaging manufacturer)
- government authorities such as local government or Food Standards Australia New Zealand (FSANZ) indicating there is an issue with a particular product.

More information on product recalls can be sourced from Food Standards Australia and New Zealand (FSANZ) by visiting the food recall section of the FSANZ website: www.foodstandards.gov.au/industry/foodrecalls.

Product withdrawal

A product may be withdrawn from sale for two reasons:

- the product has a quality defect (e.g. colour or texture); is underweight or has labelling irregularities that do not pose a potential risk to public health and safety
- as a precaution, produce may be withdrawn from distribution and/or sale pending further investigation — if a risk to public health and safety is established, the product must be recalled.

Withdrawals do not require notification to statutory authorities or media.

Image 1: Deciding whether to recall or withdraw

Image source -© Food Standards Australian New Zealand, Food Industry Recall Protocol, 7th Edition May 2014, Section 5, Attachment 6, page 41.
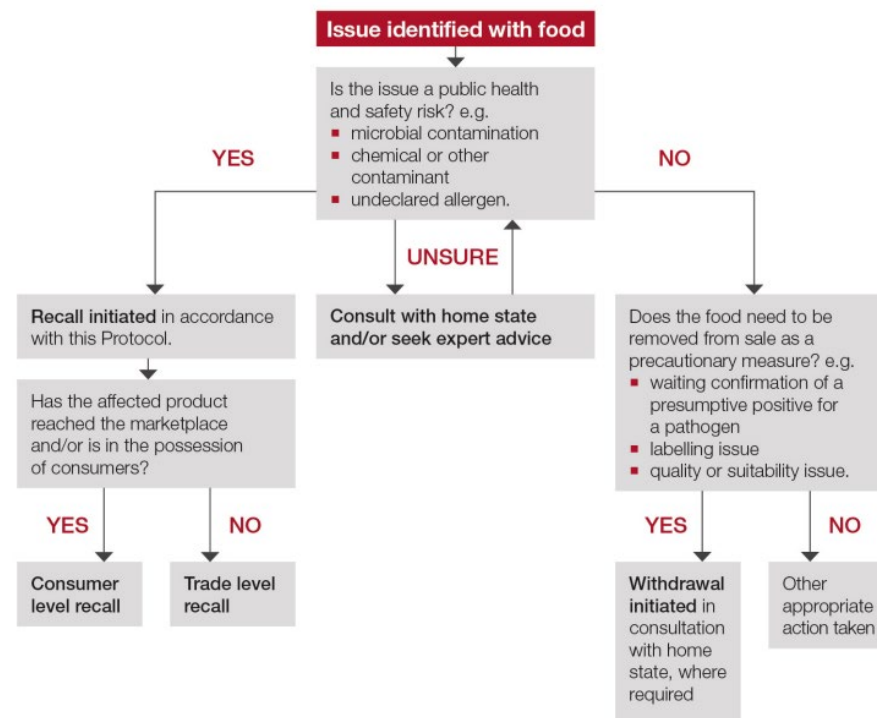
Conducting a recall

If a batch of product has been identified as being contaminated or potentially contaminated, a product recall must be carried out as a corrective action. This involves using the product identification and traceability system to:

- identify where produce from the same batch has been sent
- notify customers to remove affected produce from sale
- trace affected produce using records to identify the cause of the contamination and prevent it from occurring again.

Factsheet – M8 Product identification, traceability, withdrawal and recall

It is recommended that the Food Standards Australian New Zealand (FSANZ) **Food Industry Recall Protocol** booklet be used as a reference when conducting any recalls. This booklet as well as other resources on conducting a food recall can be found on the FSANZ website: www.foodstandards.gov.au/industry/foodrecalls.

There are two levels of recall: **Trade level recall** and **Consumer level recall**, see information following.

Trade level recall

A Trade level recall involves recovery of product from businesses in the supply chain that are not controlled by the primary supplier of the product (i.e. grower). It does not involve recovery of product from consumers.

When conducting a Trade level recall, as much information as possible is obtained on the batch or batches of product that may be affected, the source of the product, and the cause of the problem. Information should be recorded on the Trade level recall form (refer to Form – M8 Trade level recall/withdrawal form).

Consumer level recall

A Consumer level recall involves recovery of product from consumers and businesses in the supply chain.

A determination must be made on whether the situation requires a recall (carried out if there is a food safety or potential food safety risk to consumers) or a withdrawal (carried if there is a quality defect or regulatory breach). Withdrawals are managed using a corrective action record.

As much information as possible must be obtained on the batch or batches of product that may be affected, the source of the product, and the cause of the problem. Information is recorded on the A&NZ Product Recall/Withdrawal form.

Updated copies of the A&NZ Product Recall/Withdrawal form can be found on the Australian Food and Grocery Council website: https://www.afgc.org.au/publications/crisis-management.

Conduct a mock withdrawal or recall

The Freshcare Australian Wine Industry Standard of Sustainable Practice – Winery requires a 'mock' product withdrawal or recall be completed annually, using the A&NZ Product Recall/Withdrawal form. It is not necessary to notify customers of the mock recall. A record of this activity should be kept as part of your AWISSP-WIN1 records.

Updated copies of the A&NZ Product Recall/Withdrawal form can be found on the Australian Food and Grocery Council website: https://www.afgc.org.au/publications/crisis-management.

Factsheet – E1 Biosecurity

This factsheet covers:

- **What is biosecurity?**
- **Biosecurity Management Program**
- **Restrict property access**
- **Monitor and report biosecurity threats**
- **Further information**

What is biosecurity?

Biosecurity is the management of risks to the environment, the economy, and the community, of pests and diseases entering, emerging, establishing or spreading within Australia.

Biosecurity as referred to in the Freshcare Australian Wine Industry Standard of Sustainable Practice is focused on awareness and industry preparedness, to minimise and manage the risk and spread of pests and diseases in vineyards and winery sites.

Biosecurity Management Program

A Biosecurity Management Program should be established to identify any biosecurity threats (exotic pests or diseases) known to target the Australian Wine Industry.

Information on biosecurity threats to specific crops is released directly via industry updates or can be accessed via the Plant Health Australia or farm biosecurity websites, see details under '**Further information**' in this factsheet for website links.

Once potential threats have been identified, strategies and practices to manage and minimise the risk of the threats occurring on your sites should be documented in the Biosecurity Management Program, and implemented.

Dependant on the threats identified, there may be pre-established industry guidelines; quarantine regulations or requirements that need to be followed. If specific guidelines are not available for the threats identified, suggested focus areas within your business may include:

- production inputs and outputs;
- production practices;
- people, vehicles, equipment;
- feral animals, pests and weeds.

Examples of strategies and practices to minimise biosecurity threats may include:

- maintaining purchase records for all wine grapes, to enable traceability in the event of threats being identified;
- restricting access to sites and movement of vehicles;
- site monitoring for unusual pests and diseases.

Evidence should also be kept in relation to strategies and practices outlined in your Biosecurity Management Program. Examples of evidence may include:

- signage on-site;
- worker training log;
- visitor sign-in or induction;
- monitoring records.

The Biosecurity Management Program should also identify workers who are primarily responsible for ensuring the practices are undertaken on site.

The Biosecurity Management Program should be regularly reviewed and updated to include the latest industry information at least annually as per the Standards requirements.

Factsheet – E1 Biosecurity

Restrict property access

The Freshcare Standard, requires that access to the property and any growing sites is restricted to authorised persons and vehicles.

An authorised person is defined as *'a person delegated the right to perform a task or access specific areas of a business; authorisation may be in consideration of training completed or position held.'*

Property signage (examples provided below) may also assist in restricting property access to authorised persons only.

Freshcare provides access to free sign templates, such as those provided above. Freshcare signs can be downloaded via the Resources section of the Freshcare eLearning website: www.freshcare.com.au/elearning/pages/resources

Monitor and report biosecurity threats

The best defence against managing pests and diseases, is to implement a Biosecurity Management Program and ensure vigilant monitoring is undertaken to identify anything exotic.

Any suspicious or unusual plant pest, disease or weed identified on your property should be reported immediately via the **Exotic Plant Pest Hotline – 1800 084 881**.

For more information visit: www.planthealthaustralia.com.au/biosecurity/emergency-plant-pests/reporting-suspect-pests.

Factsheet – E1 Biosecurity

Further information

There are a number of biosecurity resources available online, providing industry and commodity specific resources to assist in managing biosecurity threats. Please see website details following:

Plant health Australia: www.planthealthaustralia.com.au

Farm biosecurity: www.farmbiosecurity.com.au

Factsheet – E2 Chemical management

This factsheet covers:
- Hazardous chemicals and dangerous goods
- Obtaining hazardous chemicals and dangerous goods
- Storing chemicals and dangerous goods
- Managing hazardous chemicals and dangerous goods
- Train and authorise workers
- Disposing of chemicals and chemical containers

Hazardous chemicals and dangerous goods

The Freshcare Australian Wine Industry Standard of Sustainable Practice – Winery defines substances that need to be considered and managed under the Chemical management section as:

Chemicals include products such as sanitisers, cleaning agents and grease used in and around premises or facilities. It also includes insecticides, herbicides, pheromones and other organic treatments used to control pests and weeds applied on or around premises, facilities or product.

Hazardous chemicals are substances, mixtures and articles that can pose a significant risk to health and safety if not managed correctly. They may have health *hazards*, physical *hazards* or both.

Hazardous chemicals are classified on the basis of their potential health effects, whether acute (immediate) or chronic (long-term).

Globally Harmonized System of Classification and Labelling of Chemicals (GHS) is commonly used when classifying hazardous chemicals.

Dangerous goods are substances that are corrosive, flammable, combustible, explosive, oxidising or water-reactive or have other hazardous properties.

Dangerous goods can cause explosions or fires, serious injury, death and large-scale damage to property or the environment.

Some substances are both hazardous chemicals/substances and dangerous goods.

Obtaining hazardous chemicals and dangerous goods

It is important to ensure that any chemical products purchased are safe for the intended use.

It is important to ensure that any chemical products you purchase are safe for the intended use and are purchased from a reputable supplier. This will help to ensure the risk of chemical contamination of the environment is managed within your business.

For more information on managing approved suppliers refer to Factsheet – M5 Suppliers.

Storing hazardous chemicals and dangerous goods

Incorrect and careless storage and handling of hazardous chemicals and dangerous goods can lead to the contamination of water, equipment, containers and packaging materials. *It can also lead to serious health and safety issues for workers.*

For safe and effective chemical storage:

- locate the storage area where it will not be flooded, or where chemical spills can be contained without contaminating the site or surrounding environment
- use a structurally sound, adequately lit, well-ventilated storage facility that protects chemicals from direct sunlight and weather exposure
- use an impervious floor (e.g. concrete), preferably with a bund to contain any spills or leaks and to prevent water entering
- keep the storage area locked to prevent unauthorised access
- store chemicals in their original containers with labels intact
- *allow for separated storage of chemical types, where different types of chemicals are stored on site. Refer to information below.*
- separate containers of chemicals awaiting disposal so they are not accidentally used
- keep a spill kit handy, including:
  - a shovel

Factsheet – E2 Chemical management

- o dustless absorbent material e.g. kitty litter, activated charcoal, vermiculite, hydrated lime, clay, earth or dry sand (avoid using sawdust and other combustible materials)
- o a container to hold the absorbent material or other leaking containers.

Note: The chemical storage area can be located inside other facilities, provided it is segregated from product packing, storage and handling areas.

Managing hazardous chemicals and dangerous goods

Chemical inventory

Keep a record of all chemicals purchased in a chemical inventory, or equivalent record. The record must include:

- date received
- supplier or place of purchase
- name of chemical
- batch number (where available)
- expiry date or date of manufacture
- quantity.

Freshcare have provided the Form – E2 Chemical Inventory to capture the required information, however these details could also be captured on purchase/delivery receipts or via other purchase recording systems.

Safety Data Sheet (SDS)

A current Safety Data Sheet (SDS) must be kept for all chemicals stored in the chemical storage area, or demonstrated to be easily accessible if and when required (e.g. on an app).

If all workers do not have ready access to SDS, then hard copies should be maintained.

Annual check

An annual check of chemicals in storage will ensure that they are still within their expiry date and that containers are intact with readable labels. This will avoid

unsafe use, ensure chemicals are still effective, and containers can be safely handled.

Stored chemicals must be checked to identify and segregate chemicals for disposal that have:

- exceeded the label expiry date
- exceeded the permit expiry date *(where applicable)*
- had their registration withdrawn
- containers that are leaking, corroded or have illegible labels.

Hazardous Chemical Information System (HCIS).
www.hcis.safeworkaustralia.gov.au

This is managed through Safe Work Australia: www.safeworkaustralia.gov.au/ There are also state level requirements that may differ between states. It is your responsibility to ensure you are familiar with the requirements you need to meet regarding storage, handling and use of chemicals and dangerous goods.

*A poster can be **downloaded here** for use in workplaces to ensure storage and labeling requirements are met.*

Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Information and downloadable copies of symbols required for labeling can be found here: www.unece.org/transportdangerous-goods/ghs-pictograms

Examples of chemicals and dangerous goods that may be found in Winery businesses.

GHS02 – Flame

Flammable liquids, solids and gases; including self-heating and self-igniting substances

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GHS04 – Gas cylinder

Gases under pressure.

GHS05 – Corrosion

Corrosive chemicals, may cause severe skin and eye damage and may be corrosive to metals.

GHS07 — Exclamation mark

Low level toxicity. This includes respiratory, skin, and eye irritation, skin sensitisers and chemicals harmful if swallowed, inhaled or in contact with skin.

Disposing of chemicals and chemical containers

Disposal of chemicals

Unwanted chemicals can be disposed of through ChemClear®, some local councils, or through a certified or approved chemical waste contractor.

For more information regarding disposal of unwanted chemicals and chemical containers, contact ChemClear®, drumMUSTER® or your local council.

Disposal of chemical containers

Under various state regulations, businesses are required to dispose of empty chemical containers safely. When purchasing, ask if used chemical containers can be reused, returned, refilled or recycled.

Empty chemical containers must be stored in a designated, secure area and disposed of either through a controlled approved disposal scheme, such as drumMUSTER®, *or through approved waste management providers.*

A record of disposal is kept e.g. disposal receipts/records.

Train and authorise workers

Workers involved in the supervision of storage, handling, use and disposal of hazardous chemicals and dangerous goods must have completed hazardous chemicals and dangerous goods training; and remain competent in hazardous chemical and dangerous goods storage, handling, application and disposal as specified by this Standard and regulatory requirement.

Maintenance and calibration of equipment

Maintenance of chemical equipment must be undertaken regularly to ensure equipment *is operational prior to use and prevent spills and leakage.*

When required, it should also be calibrated as per manufacturers guidelines.

Factsheet – E3 Emergency response

This factsheet covers:

- **Emergency response**
- **Spill response procedure**
- **Training and testing the spill response procedure**
- **Further information**

Emergency response

Emergencies that pose a risk to wineries, including workers health and safety, the environment and business operations are typically caused by accidental spillage of solid, liquid or gaseous substances. Spillage risks may include hazardous substances and dangerous goods, wine and winery wastewater.

Responding appropriately to emergency situations requires:

- assessing the spill risks
- planning response procedures
- ensuring workplaces are equipped with appropriate spill response equipment
- training workers
- appropriate signage

The Freshcare Australian Wine Industry Standard of Sustainable Practice – Winery, requires the following specific actions to be undertaken to manage emergency response:

- The potential spill risks for wine, wastewater and hazardous chemicals and dangerous goods are assessed.
- Spill control materials and equipment are adequate for containing spill risks and located in relevant areas.
- Internal and external emergency contacts required in the event of a spill are documented and displayed in relevant areas.
- Spill response procedures are documented and displayed in relevant areas.
- Workers are trained in spill response procedures.
- Spill response procedures are tested, reviewed and verified/updated annually.

Spill response procedure

Freshcare Form – E3 Spill response procedure provides a generic spill response procedure and template for capturing the required emergency contact information for the business.

This Form is provided as a template only and not required to be used if the business has an established emergency or spill response procedure in place.

Once established the spill response procedure should be displayed in relevant areas and reinforced with worker training.

Training and testing the spill response procedure

Workers responsible for supervising spill response procedures should be identified in emergency contacts and assigned to train new workers in the procedures and equipment to use.

Good signage, positioned in highly visible, relevant and accessible areas, will assist with timely responses to accidental spillage events.

Annually reviewing, testing and updating spill response procedures will ensure that training and equipment are appropriate to manage spills and minimise risks in the event of a spill.

Further information

Safe Work Australia provide a number of online resources and factsheets to assist businesses in developing emergency plans and procedures for their workplace, including guidance on training in emergency procedures.

For more information visit: www.safeworkaustralia.gov.au/topic/emergency-plans-and-procedures

Download the emergency plans factsheet: www.safeworkaustralia.gov.au/system/files/documents/1702/emergency_plans_fact_sheet.pdf

Factsheet – E4 Water management

This factsheet covers:

- **Water Management Program**
- **Water sources and supply**
- **Contingency plans if water is unavailable**

Water Management Program

The Water Management Program includes an analysis of the water available, the production aims and the water resources needed to meet these aims.

By developing the Water Management Program, the business is required to consider their water use, protection of water as a resource, and treatment and disposal strategies for wastewater.

A Water Management Program should be developed and include the following requirements:

- date developed
- name of the person documenting the Program
- method(s) and frequency of water consumption measurement
- strategies used for minimising water use
- method(s) and frequency of wastewater measurement
- method(s) of wastewater treatment
- wastewater reuse, recycling, treatment or disposal strategies
- worker(s) responsible

The Water Management Program should be reviewed and updated annually in consideration of improvement strategies for water use efficiencies and wastewater management. Research and development into water and wastewater improvement should be documented and considers as part of the businesses Sustainability Action Plan.

Water sources and supply

The Standard requires that your business identifies all water sources used for production are recorded, Form E4 – Water source record provides a template for this purpose.

Water sources used by the business must be monitored and managed to minimise potential contamination impacting viability of water use. Potential contamination of water sources and supplies can occur from business and human activities, livestock and domestic animals, wildlife, pests and other activities.

Water extraction points, water storage, delivery infrastructure and equipment should be monitored and maintained to ensure water use efficiency.

Applicable licences and permits for on-site infrastructure and activities in water harvesting, extraction, storage, use and discharge must be obtained, current and adhered to.

Contingency plans if water is unavailable

Understanding your water use requirements and supply is critical. It is also important to establish preparedness for times of drought or changes to water allocations that can occur in certain regions of Australia.

A contingency plan will help you identify options for how to manage your business if changes to water allocation occurs. Your contingency plans need to consider all options that are available to you within a viable budget.

Questions to be considered when establishing your contingency plans may include:

- What are the costs and available sources of water?
- Is purchasing water a viable option to sustain production?
- How long can the business be sustained if water purchasing is required long term or expenses increase?
- Are the current production methods sustainable if water availability is significantly reduced?
- Are there options for improvement to water use efficiency?

Factsheet – E5 Wastewater management

> **This factsheet covers:**
>
> - **Winery wastewater**
> - **Manage wastewater to minimise contamination of land, soil and water**

Winery wastewater

Wineries can be significant users of water and thus generate significant volumes of wastewater. Understanding the volume of winery wastewater and when peak volumes are generated are key factors in the design of appropriate winery wastewater management systems.

Freshcare requires that all winery wastewater drain to the wastewater system. The wastewater is either treated to an acceptable standard before re-use or discharge and treatment systems records verify the treatment is effective or, where wastewater is captured and re-used for irrigation, soil testing is undertaken to demonstrate that the wastewater is not contributing to increased soil salinity, soil acidity, soil alkalinity, or soil sodicity (i.e. the use of winery wastewater is not causing environmental harm to the areas where it is being used for irrigation).

Manage wastewater to minimise contamination of land, soil and water

Wastewater needs to be managed to minimise its impact on site and the surrounding environments. Strategies are implemented to prevent contamination and sedimentation of water sources.

Some of the possible characteristics of winery wastewater, their sources and their potential effects that need to be considered are outlined in Table 1 following.

Table 1: Potential environmental impacts of winery wastewater

Winery waste characteristic	Indicators	Sources	Effects
Organic matter	BOD[1], TOC[2], COD[3]	• Product loss – juice, wine and lees. • Residues in cleaning waste. • Residues in DE filter waste. • Solids reaching wastewater drains including skins, seeds, etc.	• Depletes oxygen when discharged into water. • May cause oxygen imbalance in soil leading to inefficient removal of organic contaminants from soil or impacts on plant health. • Malodours if waste is stored in open lagoons or land applied.
Alkalinity / acidity	pH	• Ion exchange – acidic, pH around 2. • Product loss – juice and wine – acidic, pH 3.5 to 5.5. • Alkali/caustic • Microbial metabolism of organic substrates during storage of wastewater further acidifies the wastewater.	• Death of aquatic organisms at extreme pH ranges. • Affects microbial activity in biological treatment processes. • Affects the solubility of heavy metals in the soil and availability and/or toxicity in waters. • Affects plant growth.
Nutrients	nitrogen, phosphorus, potassium, sulphur	• Product loss – juice, wine and lees. • Proteins removed from wine to prevent haze are a source of nitrogen and to a lesser extent phosphorus. • Phosphate detergents and phosphoric acid.	• Eutrophication when discharged to water or stored in lagoons. • N as nitrate and nitrite can be toxic to infants. • Toxic to plants in large amounts. • Can acidify soil over time. • Potassium may affect soil structure, resulting in decreased infiltration.
Salinity	EC[4], TDS[5]	• Alkali washing – caustic. • Saline groundwater used for cleaning. • Product loss – juice, wine and lees. • Ion exchange.	• Toxic to aquatic organisms. • Affects water uptake by crops.
Sodicity	SAR[6], ESP[7]	• Alkali washing – caustic. • Product loss – juice, wine and lees. • Saline groundwater used for cleaning.	• Affects soil structure, resulting in low infiltration and hydraulic conductivity, poor aeration, hard and dense subsoil. • May increase susceptibility of soil to waterlogging.
Heavy metals		• Al, Cu, piping and tanks, Pb soldering, brass fittings	• Toxic to plants and animals.
Solids	TSS[8]	• Product loss – juice, wine and lees. • Residues in caustic/citric acid cleaning waste. • Residues in DE filter waste. • Solids reaching wastewater drains including skins, seeds, etc.	• Reduces soil porosity, leading to reduced oxygen uptake. • Can reduce light transmission in water. • Smothers habitats. • Odour generated from anaerobic decomposition.

Source: modified from South Australia EPA, 2004 and Chapman et al., 2001.
Wine Watch Factsheet 1 *download:*
http://sustainableagriculture.perthregionnrm.com/sites/default/files/Winewatch1-winery-wastewater-small-wineries.pdf

When using winery wastewater as a source of irrigation water there are also other factors that need to be considered with regards to both crop health and the environment.

Factsheet – E5 Wastewater management

Land areas receiving irrigation from untreated wastewater must be tested and monitored for changes to soil salinity, soil acidity, soil alkalinity or soil sodicity.

The Standard requires test results be kept including:

- date of testing
- area and parameter(s) tested
- testing result(s) and action recommended
- name and signature of the person who carried out the testing

Irrigation records must also be kept for land areas irrigated with untreated wastewater, including:

- date of irrigation(s)
- areas irrigated
- volume of water used or duration of irrigation
- name of the person who managed the irrigation activity.

On-site or surrounding land areas that have been identified as being highly degraded, eroded or contaminated are managed to minimise further degradation, erosion or contamination from wastewater disposal.

Property managers should aim to minimise soil movement off contaminated sites by:

- maintaining groundcover on contaminated sites,
- implementing effective soil erosion control strategies for larger cultivated sites (see the section on 'Soil Erosion' for erosion control strategies),
- fencing off or preventing access or disturbance to smaller 'hotspot' sites,
- if the contamination is significant, affected soils may need to be removed from the site and disposed of at an appropriate facility.

Remediation activities for sites identified as being highly degraded, eroded or contaminated should be considered and documented as part of the businesses Sustainability Action Plan.

See Factsheet: M2 Sustainability Action Planning.

Factsheet – E6 Biodiversity

This factsheet covers:

- **Biodiversity**
- **Biodiversity Management Program**
- **Regional biodiversity priorities**
- **Biodiversity on-site**
- **Reducing threatening processes**
- **Monitor, record and review**
- **Biodiversity resources**

Biodiversity

Biodiversity is the variety of all life forms; the different plants, animals, fish, birds, insects and micro-organisms, and the ecosystems of which they are a part. Biodiversity is increasingly recognised for its contribution to sustainability and productivity.

Native biodiversity refers to the biodiversity found in a particular locality. It is restricted to the local ecosystems and their components, be they native plants, animals or micro-organisms. If native biodiversity and ecosystems deteriorate, the quality of the soil, water, air and ultimately agricultural productivity will also decline. Property activities can have a significant impact on the level of biodiversity in the surrounding environment.

To manage biodiversity effectively a number of management practices need to be considered, starting with an understanding of biodiversity present on the property. Although biodiversity is normally discussed in terms of animals and plants, **micro-scale biodiversity** is equally important and valuable to sustaining local populations and regionally specific biodiversity.

Biodiversity Management Program

A Biodiversity Management Program details the strategies and practices established to protect areas of biodiversity and native vegetation identified on the property, reduce threatening processes and manage feral animals, invasive species, pests, environmental weeds and diseases. The Program should be regularly reviewed and updated at least annually. The information contained in this factsheet provides details on aspects to consider when developing a Biodiversity Management Program.

Regional biodiversity priorities

Regional biodiversity priorities are generally set by Catchment Management Authorities (CMA) or Natural Resource Management (NRM) committees. The regional biodiversity priorities are established using a variety of methods including assessing risks to the regions environmental assets, identifying the regions' major environmental issues and consulting and collaborating with other local groups. The regional priorities are reviewed on a regular basis to allow for new knowledge.

Identifying the regional priorities will assist in developing strategies and practices for managing biodiversity by helping to identify local issues and assets. There may be some management strategies and practices already developed by the local CMA or NRM. Regional biodiversity priorities can be accessed from the local CMA or NRM website, or by contacting the local branch office. Wineries can then use this information to identify and manage biodiversity values within their local environment.

Common biodiversity priorities include maintaining native vegetation along watercourses and around wetlands, protecting any threatened plants and animals found on site, and maintaining blocks or corridors of native vegetation on sites to provide habitat for native animals and allow them to move through the landscape.

Biodiversity on-site

Identification of vegetation
Although valuable biodiversity can be found in healthy soils and grassy orchard floors, the presence of native trees and shrubs is often used as a 'surrogate' indicator of biodiversity on the property – therefore the more native trees and shrubs, the greater potential for biodiversity.

Factsheet – E6 Biodiversity

An initial assessment should identify any remnant native vegetation on the property (exclude plantations and vegetation planted for commercial purposes). It is also a good idea to consider native vegetation adjacent that may be impacted by business operations.

Individual State or Territory conservation, natural resources or sustainability departments may have maps or lists of the native vegetation types likely to be present and can provide advice regarding management of native plants and animals that may be on a property. Other people who may be able to help with identification include:

- field naturalists
- Greening Australia
- local Catchment Management Authorities (CMA) or regional Natural Resource Management (NRM) groups
- Bushcare and Landcare groups
- local or State herbarium

Assess special importance

Native vegetation is more valuable if it is:

- remnant vegetation (has never been cleared or has regrown to a mature state),
- in wide blocks instead of narrow strips,
- close to other blocks of native vegetation.

The Government has developed lists of plants that are considered important because they are rare, particularly subject to threats, or support other significant features (e.g. as a drought refuge for native animals).

Contact the local government department, regional CMA or NRM committee for information about any important or significant vegetation that may be in your region. Species listed as critically endangered, endangered or vulnerable may carry specific legislative responsibilities that landholders are required to undertake. Current lists of these species can be found at: www.environment.gov.au/biodiversity.

Assess off-site impacts and threats

The impact of property activity on adjacent areas also needs to be considered. Some properties may have little or nil remnant native vegetation on them but may be adjacent to a neighbour's bushland area, a National Park, State Forest, wildlife corridor or other conservation or sensitive area. It is important to mark these adjacent areas on the property map, assess property activities that may cause environmental harm to them and implement control measures to minimise any chance of environmental harm occurring.

As native animals travel between regions, there are biodiversity benefits in cooperating with your neighbours to, where possible, connect your remnant bushland areas with theirs.

Management of vegetation

Once native plants are identified on a property (including their significance), actions to manage and protect them may include:

- Fencing off areas to exclude vehicles, people and stock. Select fence types that enable native animals to have access to natural drinking water sources and to move between habitats.
- Leaving dead trees standing and logs, branches, twigs and rocks on the ground as homes for birds, insects and other animals.
- Not clearing or cleaning up places with native vegetation. By not tidying up understorey grasses, shrubs and fallen trees, birds and beneficial native animals will have places to hide from introduced predators or competitors or as a food source.

State biodiversity or environmental officers can provide advice or assistance on priorities for management.

Depending on the jurisdiction, it may be possible to enter into a voluntary conservation agreement or similar agreement with the relevant State agency to formalise protection of wildlife and significant habitat on part of a landholder's property.

Site development or redevelopment work needs to be assessed for potential impact on the existing vegetation on the property.

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Increase on-site native vegetation

Windbreaks and shelterbelts using local native species can be planted. Shelterbelts and windbreaks may be best placed on the property boundaries and developed with consideration of establishing interconnecting wildlife corridors.

Identify areas that will not be used for production where it would be possible to begin a restoration project. It is a good idea to choose areas such as steep slopes, riparian areas near the sides of rivers, creeks and dams, saline areas and wetlands. These areas are usually poorly utilised and don't make a major contribution to horticultural production.

Select a mix of native plants, including trees, shrubs and grasses, preferably native to your local area (known as provenance species). Plantings should copy nature and not be as regular as a crop. It may be useful to use a consultant to ensure that the species you are planting will attract favourable native animals.

Dams and watercourses also significantly contribute to increasing biodiversity by providing a habitat for native animals, birds, frogs, insects, fish, invertebrates and plants. Wetlands, bogs and marshy areas can be turned from unprofitable areas to rehabilitated areas of great biodiversity significance by fencing out animals and revegetating with suitable fauna.

Some local authorities and organisations will provide advice and support to landholders undertaking revegetation activities. Flora, fauna and bush regeneration consultants are also available to assist in design of restoration projects.

Living with native birds and animals

There are many benefits to having native animals on or near agricultural land. For example, many native birds eat pests, pollinate plants and disperse native seed. However, problems may arise when native birds and animals eat or cause damage to local crops. Where growers are faced with 'problem' native animals, specialised advice must always be sought from State conservation departments to avoid implementing illegal control methods.

Options for responding to problem native animal management will include how to mitigate the problem and live with them. As standard practice, always consider non-lethal management options. These may include:

- netting
- fencing
- sound or light based systems (sirens, gas cannons)
- encouraging predators (e.g. hawks)
- providing alternative habitat

If growers have sought advice and trialled applicable non-lethal management options without success, lethal management options may have to be considered as a last resort.

It is important to check whether wildlife is protected and be aware of any licensing requirements before undertaking lethal management options. Lethal management options must be carried out in a humane manner.

Reducing threatening processes

The *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) provides for the identification and listing of key threatening processes, these can be found here:

http://www.environment.gov.au/cgi-bin/sprat/public/publicgetkeythreats.pl.

Feral animals and invasive species control

Invasive species include feral animals, pests, weeds, non-native insects and other invertebrates, and diseases and parasites. Invasive species can be native or exotic. They may reduce farm and forestry productivity, threaten native species and contribute to land degradation.

Feral animals, invasive species and other pest animals may damage vegetation and soils, foul water and compete with native animals for habitat and food. Animals such as rabbits, foxes, feral pigs, dogs and cats need to be controlled.

Check local regulations and laws about the control of feral animals and invasive species in your area, before you begin any control program.

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Environmental weed management

Exotic plants may require specific management. Problem exotic or native plants can be escapees from commercial operations, such as escaped olive trees or native species introduced from another region in Australia. In the right place these plants are not a problem, but once they start replacing native vegetation, intervention is required. The landowner must take all reasonable measures to prevent the land being infested with an environmental weed and prevent the spread of these weeds to adjacent areas or properties.

Weeds need to be controlled to reduce the potential for the harbouring of pests and increase the chance of native vegetation surviving. An example is Bridal Creeper (*Asparagus asparagoides*), a Weed of National Significance (WONS) that causes losses by shading citrus and avocado trees and interfering with fruit picking. It is considered the most important weed threat to biodiversity at this time.

Environmental weeds are different to declared weeds, also known as noxious weeds. Declared weeds pose a greater threat to natural and agricultural systems and must be controlled by law. Contact the local council or CMA or NRM committee for a list of declared weeds in your region.

Before undertaking weed control, contact your local agricultural department. In some areas the local agricultural department may assist in developing a weed management strategy, and even undertake the first few sprayings. For more specific information on threats and control methods for individual weeds refer to www.weeds.gov.au or your local agricultural department.

Fire management

Management of vegetation areas needs to consider fire control and the role of fire in maintaining the diversity of plants that make up the bush. Much of Australia's flora has evolved in an environment where fires periodically occur, with many plants requiring fire/smoke to assist in seed activation and regeneration.

Considerable care is required to manage fires and local fire authorities should be consulted and alerted before burning. Neighbours may be affected by smoke and should also be notified.

The following points should be considered:

- check whether permits are needed to carry out a burn,
- choose a fire regime to suit the desired outcome (if you are burning to reduce fuel loads then fires will need to be more frequent than if you were burning to promote tree regeneration),
- if you have native or threatened species, choose a fire regime that suits their needs,
- time burning to suit the plants' lifecycles, these will vary depending on where you are in Australia, but generally autumn burns are best,
- fireproof buildings and ensure sufficient fire breaks around production areas, boundaries and other areas that must not be burnt,
- burn only dry materials, as green materials produce more smoke,
- do not burn 'controlled' or 'prescribed' wastes,
- only burn on days where the weather conditions are favourable.

Disease management

Disease management is the practice of minimising disease in crops to increase quantity or quality of yield. Disease occurs due to weather conditions and as a result of contamination from equipment and / or people.

Control measures are important to ensure that contractors and visitors visiting the property do not contaminate crops in any way. Such control measures may include:

- not allowing visitors on site without knowledge of where they have been previously,
- ensuring contractors thoroughly clean down equipment between properties,
- only purchasing plant materials and / or produce from suppliers who can prove the goods are free from disease,
- keeping up to date with external agency disease alerts.

Checks may need to be done to ensure that plants and plant materials or wine grapes being transported inter- and intra-state comply with phytosanitary specifications and other quarantine requirements.

Factsheet – E6 Biodiversity

Monitor, record and review

A vegetation assessment is a good way to understand current on-site biodiversity and establish a benchmark for your property. Repeated over time, a vegetation assessment can monitor and measure changes. Some guidance may be available from government environment departments and regional CMA or NRM groups.

In the absence of better information, applying the general principle of trying to maintain the current condition of natural areas and taking some steps to improve them will benefit the environment and demonstrate good environmental stewardship.

A property map and photos can be used to demonstrate revegetation of local native species and future plans. Property managers may find it helpful to record sightings of rare or unusual animals along with vegetation maps and assessment documentation.

Strategies for control of problem native animals, feral animals and environmental weeds can be documented and kept along with any licences required. These strategies need to be reviewed annually to ensure they continue to be relevant, and comply with relevant legislation

Biodiversity resources

The Australian Government developed a Biodiversity Resource Guide, which can be found here: http://www.agriculture.gov.au/ag-farm-food/natural-resources/soils/ems/biodiversity.

The Biodiversity Resource Guide contains information on:

- the main national and state level legislative requirements including a brief description and follow up contacts,
- the main national and state level policy objectives that are relevant to landholders,
- a listing of available biodiversity resources, information and contacts,
- a listing of biodiversity support services available,
- a listing of sectoral and policy Codes of Practice and best management practice guidelines relevant to landholders and biodiversity which includes a brief description, contacts and references for these.

Factsheet – E7 Waste

This factsheet covers:

- **Waste Management Program**
- **Avoid**
- **Reduce**
- **Reuse**
- **Recycle**
- **Recover**
- **Dispose**
- **Waste collection programs**

Waste Management Program

By identifying and assessing the types of waste streams, and waste generated by your business; strategies to eliminate, reduce, reuse or recycle wastes can be investigated.

Documenting a Waste Management Program will assist you in identifying waste types, their location within your business, how the wastes are managed, and help instruct workers in their roles to manage waste.

The Waste Management Program should be reviewed and updated at least annually in consideration of improvement strategies for better waste management and reduction.

Items that cannot be implemented or undertaken immediately to improve air quality, should be included in the businesses Sustainability Action Plan to allow for future improvements to be planned out and undertaken.

See Factsheet: M2 Sustainability Action Planning

Information within this factsheet, provides guidance on aspects to consider in developing a Waste Management Program, based on the **waste management hierarchy *(Image 1)*** of avoid, reduce, reuse, recycle, recover, treat, dispose.

Image 1. Waste management hierarchy

The waste management hierarchy pictured, was taken from the Zero Waste SA website, for more information visit: http://www.zerowaste.sa.gov.au

Avoid

Managing wastes can be expensive and time consuming. Minimising waste streams can have a positive financial impact for your business. Look closely at what gets purchased and then ends up as waste and how processes may be reorganised to minimise the creation of waste.

Consider waste disposal issues and costs when choosing/purchasing products, and look for materials that are reusable or biodegradable. Wherever possible, choose methods and equipment that offer extended life and eliminate or minimise waste for disposal.

Reduce

One option to minimise waste is to reduce packaging by opting for bulk supplies of inputs where appropriate. The exception is chemicals and fertilisers, where it is good practice to keep stored supplies to a minimum.

A review of the businesses raw material inputs should be undertaken at least annually to identify areas for waste reduction. The review of input materials should take into consideration the size, quantity/weight, the potential for reuse or recycling, and the residual waste product.

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Businesses should also focus on the reduction of plastic wastes wherever possible with a priority on reducing plastic inputs to the business and plastic waste products derived from supplier packaging.

Reuse

Materials that can be reused within the operation or sent for recycling. For example, wooden bins can be repaired rather than sent to waste. Storage areas can be established for materials such as timber and steel.

When donating waste materials to outside groups or organisations, ensure they are safe before releasing them. Consider distributing out-of-specification produce that is safe to be consumed to charity organisations.

Consider composting waste vegetation and produce. The composted product can be returned to production areas as a soil ameliorant. Waste produce can also be returned uncomposted to fallow areas. If recycling waste produce as feed for livestock, ensure it does not contain unacceptable chemical residues.

Ensure waste produce composting or dumping areas are well away from neighbours if it is likely to give off a strong odour. Consider the environmental impacts of compost sites, such as nutrient rich run-off and the potential for contamination of watercourses (surface and groundwater).

Take advantage of returnable packaging systems and consider reusing plastic materials. If an item can be used several times before it becomes unserviceable, the quantity of material that needs to be disposed of will be greatly reduced. To maximise recycling, take care when handling and using plastics.

Recycle

Materials being sent for recycling (for example paper, oil, glass, timber, steel) need to be collected and separated into dedicated recycling containers or areas for pickup.

Local councils may have recycling facilities in conjunction with their waste management facilities, or a local charity may collect materials for recycling.

Some manufacturers provide their own recycling service that has extended from office based supplies such as print cartridges to manufacturers of on-farm materials such as 'Netafim' drip irrigation supplies, which will take used drip tape back and recycle it.

Consider recycling substrates, particularly peat-based products, as not all sources of peat are environmentally sustainable.

Recover

Where possible, use waste collection recovery programs. Such programs are available in some regions to collect a range of items including batteries, tyres, oil, cardboard and paper for recycling. Use a licensed waste contractor in preference to unlicensed operators.

Waste oil from operating activities may be contaminated with substances such as metal particles from engine wear, fuel from incomplete combustion, rust, dirt, carbon, heavy metals and water. If not dealt with effectively, waste oil can lead to pollution of the environment and may be a potential risk to public health and safety. Wherever practicable, waste oil should be recovered for treatment where it can then be reused.

Waste oil should be stored in a leak-proof container in a bunded area awaiting collection by a reputable recovery business or delivered to a recognised disposal facility such as a local government collection depot or service station. Waste oil must never be applied to roadways as a dust mitigation strategy.

Dispose

Disposal of waste materials should be the last resort. Dependant on waste type, options may include burial in landfill (council disposal facility) or burning (where legal). There are strict regulations related to the disposal of certain types of waste, particularly wastes that are defined as 'controlled' wastes.

Controlled wastes include items such as agricultural chemicals and chemical containers, tyres and oil. These wastes need to be carefully managed and are

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closely regulated because of their potential adverse impacts on human health and the environment.

Treated timber is not considered to be a controlled waste, however due to the chemicals used in the treatment process, it is considered toxic. Disposal methods for treated timber will differ depending on the quantity to be disposed of, and State legislation, local authorities can advise on disposal options.

Waste collection programs

ChemClear® – Collection of unwanted or out of date chemicals. Also provides handling and storage tips via the website: www.chemclear.com.au.

ChemClear® documents are issued to prove chemicals have been booked in for collection and also when chemicals are collected.

DrumMUSTER® – Collection of empty chemical containers see the website: www.drummuster.com.au for more information.

Official receipts are provided to participants in the drumMUSTER® program when drums are brought in for disposal. This is a signed document distributed through authorised inspectors at official drumMUSTER® collection sites, listing the number of drums brought in for disposal. The receipt provides proof of participation in drumMUSTER® and therefore proof of responsible disposal.

Charities that recycle and redistribute surplus fresh produce in Australia include:

- Foodbank: www.foodbank.org.au
- OzHarvest Food Rescue: www.ozharvest.org
- Fareshare (VIC only): www.fareshare.net.au

Factsheet – E8 Air quality

This factsheet covers:

- **Air Quality Management**
- **Dust**
- **Light**
- **Noise**
- **Odour**
- **Smoke**

Air Quality Management

Air pollution from odour, smoke, dust, noise and lighting can occur as a result of farming and business activities and needs to be managed to reduce the impact on the environment, neighbours and community.

An Air Quality Management Program is developed to document how issues affecting air quality will be managed within the business. The Air Quality Management Program will consider any issues to be addressed, the areas and location within the business, the management methods to control and/or improve the issues and the workers responsible.

Workers should be trained and aware of the requirements of the Air Quality Management Program and any associated operating procedures. Appropriate protective equipment (when required) should also be provided for workers use in accordance with the Air Quality Management Program.

The Air Quality Management Program should be reviewed and updated at least annually in consideration of improvement strategies for the better management of dust, light, noise, odour and smoke within the business.

Items that cannot be implemented or undertaken immediately to improve air quality, should be included in the businesses Sustainability Action Plan to allow for future improvements to be planned out and undertaken.

See Factsheet: M2 Sustainability Action Planning

Dust

Excessive dust can cause annoyance and potential health problems to neighbours and workers.

Dust control measures may include:

- planting shelterbelts and windbreaks
- only cultivating damp soil
- maintaining inter-row groundcover
- using slower cultivation speeds when there is a risk of dust
- wetting down, sealing and use of 'minimal dust materials' (for example blue metal or hardstand) for the surfaces of frequently used traffic ways (transport delivery and pickup areas, harvested produce delivery points and forklift routes at the packing shed)
- implementing slower traffic speeds around the property.

Shelterbelts/windbreaks should be designed to allow 30-50% of the wind to pass through. The protective effects from a shelterbelt/windbreak reduce with distance away from it (protection extends no more than 20 times the height of the vegetation).

Do not apply synthetic or mineral based oils to suppress dust on traffic ways as it may end up in watercourses (both ground and subsurface).

Light

Lights and lighting used around production areas or on machinery during vintage or on for winery operations could also impact negatively on neighbours at night.

Light management strategies include:

- inform neighbours of operations occurring at night under lights
- avoid (flood) lighting unnecessary areas of the site or property.

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Noise

Noise may impact on neighbours and workers in the business. Workplace protection needs to be provided for workers, whereas buffer zones and vegetative or constructed barriers are useful to reduce noise if neighbours are close.

Noise reduction strategies include:

- changing pumps near residential areas from diesel to electric
- constructing sound barriers around pumps
- muffling/soundproofing equipment where daytime intermittent noise levels are excessive
- where machinery is used at night, start work closer to the most sensitive area and then work away - the converse applies for early morning activities
- use gas guns, and frost protectors in a considerate manner (daylight hours) and in accordance with local bylaws
- where possible have onsite parking located away from neighbours
- inform workers and transport operators that access the site to be considerate and not use exhaust brakes, horns or cause other unnecessary noise nuisance to neighbours
- reinforce requirements with on-site signage where appropriate.

Odour

Odours can be caused by animal manures, mulches, fertilisers and chemicals, composting sites and activities, waste disposal sites and waste management equipment.

Manure storage and application

Animal manure is often stored and used on farms, however, most people do not like the smell of raw manure. Ensure manure is stored and used in a way that minimises the nuisance to neighbours.

The nuisance impact on neighbours of odour from manures can be reduced by:

- replacing raw animal manure with other less odorous products such as composted or dry manure (more expensive but less volatile and less odour)
- discussing manure use strategies with neighbours in advance
- locating storage piles downwind from prevailing winds and as far from neighbours as is possible
- protecting stored manure (and compost) from rain to help reduce odours
- scheduling manure spreading on weekdays during office hours when neighbours are more likely to be away from home – avoid spreading manure on weekends, holiday periods or when social events are taking place
- rapidly incorporating manure into the soil after spreading
- ensuring adequate soil moisture (where possible) to allow rapid initial breakdown
- screening the storage and production areas to reduce perceptions of an odour problem and likelihood of complaints.

Waste management and disposal sites

Waste disposal areas and practices need to managed to prevent odours on-site and nuisance to neighbours. Similar principles to those of manure management need to be in place for organic waste; with composting waste is also an option.

Factsheet – E8 Air quality

Smoke

Burning off can be illegal or may require a permit in many local government areas. Before burning, check local bushfire restrictions and permit requirements. If burning is the only practical method of disposal of materials, and it is legal in your area, precautions should be taken to prevent dark smoke being produced and causing a nuisance.

Do not burn plastics, chemical containers, rubber, tyres, synthetic or mineral based oil or other materials known to produce harmful gases and dark smoke. Where possible, recycle, reuse or dispose of these waste items at local waste depots.

Before burning:

- inform immediate neighbours, as a courtesy
- check material to be burnt is dry and has low moisture content
- check wind direction to ensure it is away from nearest neighbours
- check wind speed is favourable
- consider localised landscapes that can induce smoke problems, such as valleys.

Do not burn green vegetation. Keep fires small and continually add combustible material, minimising the depth of the combustion area. Minimise the quantity of incombustible material added to the fire. Wherever possible keep incombustible materials separate from materials to be burnt. For better combustion, agitate the base of the fire to improve air supply.

Factsheet – E9 Energy and fuel

This factsheet covers:

- **Reducing emissions**
- **Optimising energy and fuel efficiency**
- **Monitoring energy and fuel usage and maintaining records**
- **Fuel storage on-site**
- **Fuel storage legislation**

Reducing emissions

Improvements in the efficiency of energy use, more effective fertiliser management and minimising soil disturbance play an important role in reducing greenhouse gas emissions and in reducing the operating costs of business operations.

Activities such as planting, growing and harvesting, produce little net carbon dioxide as it is absorbed by growing plants. However, carbon dioxide emissions from transport and energy sources remain a significant issue.

Optimising energy and fuel efficiency

Sustainable practices can contribute to efficient energy use. Saving energy also makes good business sense as energy (fuel and electricity in particular) represents a significant cost to horticultural operations.

Ways to save energy include:

- adopting work procedures that minimise the running time and energy consumption for major plant and machinery
- maintaining engines by following the manufacturers' recommendations
- regularly servicing vehicles and equipment to ensure efficient operation (fuel consumption can be reduced 5-15% by servicing air cleaners and fuel injectors regularly)
- minimising unnecessary journeys and cultivation passes (consider installing GPS on tractors to prevent overlap or missed coverage, utilise multi-row equipment or multi-task equipment)

- reducing loss of heating/cooling through effective insulation and preventing unintentional ventilation
- using properly designed and built coolrooms (regularly check door seals, hinges and catches to reduce leaking of warm air into the room, regularly check for damage to walls and roof)
- site coolrooms in shady areas
- minimise time coolroom doors are open and/or use plastic door strips
- using energy efficient lighting best suited for the task at hand
- considering energy efficiency when new buildings, equipment, machinery and vehicles are purchased
- selecting and maintaining irrigation pumps and irrigation systems (pumping water for irrigation is one of the main ways energy is used in horticultural production)
- installing or turning on the power-save function on office equipment such as computers and photocopiers
- turn equipment off when work is finished
- consider solar panels or alternative energy sources (bio-fuel) that may be locally available
- consider an energy audit to identify areas for electricity and cost savings

Annual Review

Improvement strategies for reducing electricity and fuel use should be reviewed by the business at least annually. Items that cannot be implemented or undertaken immediately should be considered for inclusion on the businesses Sustainability Action Plan, allowing future improvements to be planned out and undertaken.

See Factsheet: M2 Sustainability Action Planning

Factsheet – E9 Energy and fuel

Monitoring energy and fuel usage and maintaining records

It is most useful to review energy and fuel use at the same time each year to assess energy efficiency over time. For many businesses an energy and fuel review coincides with the end of each tax year as receipts and records are accumulated.

By reviewing and keeping records of your electricity usage, diesel use, LPG use, unleaded petrol use, and amount of nitrogen fertiliser applied for a financial year period, you are then able to compare usage records against production yields or throughput to determine whether energy and fuel are being used efficiently, or whether there are areas for improvement, cost and resource savings.

Servicing and maintenance records of machinery, equipment and vehicles are required to be kept. These records can also aid in identifying cost savings when reviewed with electricity and fuel usage records. For example, a review of energy and fuel usage against the servicing and maintenance records of two machines being used over the same time period might identify that an older machine is using significantly more energy/fuel than a newer machinery.

Options to resolve the issue might be a change to servicing frequency for the older machine to determine whether more frequent services increase its operating efficiency; or a comparison of the cost of energy and fuel use against the cost of replacing the older machine to identify whether an upgrade proves to be more cost effective.

Fuel storage on-site

Incorrect and careless storage of fuel can lead to accidental spillage and contamination of soil, water and other materials that come into contact with the spill. Regular checking of fuel tanks, particularly underground tanks, is beneficial to ensure that there are no leaks, and if there are, they are promptly repaired.

In general, fuel storage is best located away from watercourses and with sufficient surrounding space to permit easy access, thus reducing the chance of accidental damage. Placarding of fuel storage may also be required.

If fuel tanks are bunded, all valves should be inside the bund and should be closed and locked when not in use.

Where possible, the risk of fire should be minimised.

If bulk fuel storage is in a mobile tank, the following should apply:

- tank is designed to prevent accidental damage;
- all connections and valves, where fuel could empty by gravity, are kept locked when not in use;
- used with care, especially when near water courses; and
- not left near or uphill from a watercourse (where possible).

A current Safety Data Sheet (SDS) must be kept for all bulk fuel types stored on the property. These should be located near to where the fuel is stored and easily accessible. These can be obtained from the supplier of the fuel, with some available online.

Workers should be trained in the correct use, handling, safety procedures and required protective equipment as specified by the Safety Data Sheet (SDS) for the fuel type, and any on-site operating procedures.

Workers should also be trained and aware of emergency procedures and action to be taken in the event of a spill.

Factsheet – E9 Energy and fuel

Fuel storage legislation

Fuel storage (including underground tanks) must comply with relevant state and federal legislation.

Australian standards and national legislation includes:

Australian Standard 1940-2004: Storage and Handling of Combustible and Flammable Liquids

This Standard provides requirements and recommendations for the design, construction and operation of installations where flammable or combustible liquids are stored and handled. Fuels are defined in this standard as combustible materials. A preview of the standard is available:

https://saiglobal.com/PDFTemp/Previews/OSH/as/as1000/1900/1940-2004(+A2).pdf

National Standard for Storage and Handling of Workplace Dangerous Goods [NOHSC:1015(2001)]

The National Standard for the Storage and Handling of Dangerous Goods sets out the requirements to ensure the effective control of the storage and handling of dangerous goods. A copy can be freely accessed at:

https://www.safeworkaustralia.gov.au/system/files/documents/1702/nationalstandard_storagehandling_workplacedangerousgoods_nohsc-10152001_pdf.pdf

The Australian Dangerous Goods (ADG) Code

The ADG Code sets out the requirements for transporting dangerous goods (including by road or rail). Dangerous Goods have been classified into different classes, with the ADG Code detailing requirements for each class. A copy can be freely accessed at:

https://www.ntc.gov.au/codes-and-guidelines/australian-dangerous-goods-code