



Australian Government

AHCLSK514 Design livestock effluent systems

Release: 1

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Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Release 11.0.

Application

This unit of competency describes the skills and knowledge required to design and plan livestock effluent systems.

The unit applies to individuals who apply specialised skills and knowledge to design livestock effluent systems, take personal responsibility and exercise autonomy in undertaking complex work. They analyse and synthesise information, and analyse, design and communicate solutions to sometimes complex problems.

All work must be carried out to comply with workplace procedures, according to state/territory health and safety regulations, legislation and standards that apply to the workplace, and animal welfare legislation, regulations, standards and guidelines, and sustainability and biosecurity practices.

This unit applies to livestock production managers or specialists who design effluent and disposal systems.

No licensing, legislative or certification requirements are known to apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Livestock (LSK)

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Determine the	1.1 Determine planning parameters that affect the design of effluent

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feasibility of an effluent management system	management systems 1.2 Identify and assess statutory, local government and environment authority requirements for effluent disposal 1.3 Assess the environmental impacts of livestock effluent disposal 1.4 Evaluate effluent recycling options according to workplace plan 1.5 Analyse effluent processing options on the basis of their merits and suitability for the environment 1.6 Obtain effluent management information from effluent management specialists 1.7 Assess and determine an effluent management system based on a cost-benefit analysis
2. Design an effluent management system	2.1 Calculate the volume of livestock effluent using information collected from workplace plans, industry and workplace production data and other sources 2.2 Calculate the volume of water flowing into the effluent management system 2.3 Calculate storage requirements 2.4 Obtain professional advice appropriate to the complexity of the task and the financial risk involved 2.5 Ensure plan and layout include provision of access and availability and the incorporation of technological innovations 2.6 Identify hazards and risks associated with work activities, and implement control measures according to workplace health and safety procedures 2.7 Produce detailed livestock effluent management system design according to workplace business plan, production plan and management plan requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Identify and interpret textual and numerical information from a range of sources to identify relevant and key information regarding design requirements for livestock effluent systems, including statutory, local government and environment authority requirements
Writing	Use clear language, accurate industry terminology and logical structure to prepare and document a livestock effluent management system design
Oral communication	- Initiate discussions with effluent management specialists, using clear language and standard industry terminology to discuss and obtain effluent management information - Respond to questions, clarify information and seek advice
Numeracy	- Calculate livestock effluent volume, water flow and storage requirements associated with livestock effluent management system design - Assess livestock effluent management systems based on a cost-benefit analysis

Unit Mapping Information

Code and title current release	Code and title previous release	Comments	Equivalence status
AHCLSK514 Design livestock effluent systems	AHCLSK506 Design livestock effluent systems	Minor changes to application Minor changes to elements and performance criteria Foundation skills added Assessment requirements updated	Equivalent

Links

Companion Volumes, including Implementation Guides, are available at VETNet: - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCLSK514 Design livestock effluent systems

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has designed livestock effluent systems on at least one occasion, and has:

- assessed the effectiveness of a range of effluent management systems to meet the requirements of statutory, local government and environment authorities for effluent disposal
- conducted cost-benefit analysis of livestock effluent management systems to select a suitable effluent management system
- designed an effluent management system and planned the layout of the system that meets environmental standards and workplace requirements
- implemented and incorporated relevant workplace health and safety and environment and biosecurity legislation, regulations and workplace procedures into the design of livestock effluent management systems.

Knowledge Evidence

An individual must be able to demonstrate knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- workplace requirements applicable to health and safety in the workplace for designing livestock effluent systems
- environment and biosecurity legislation and regulations and workplace practices relevant to designing livestock effluent systems
- principles and practices for designing livestock effluent management systems, including:
 - types, functions, characteristics, disadvantages and advantages of effluent management systems, including storage, recycling, processing and disposal
 - industry standards, industry and workplace production parameters, data and information for the design and planning of effluent management systems

- uses and processes for cost-benefit analyses, and their applications in relation to livestock production and effluent management
- types and use of information required, and methods for the assessment and determination of effluent production, output and volume for livestock workplaces
- effects and impacts of different livestock production systems on the design and planning of effluent management systems
- types and use of information and advice from other professions or industry sectors that are relevant to livestock workplaces in the design of effluent management systems, including engineering and financial professions.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - computer hardware and software relevant to researching livestock effluent management systems and documenting the design
- specifications:
 - workplace requirements applicable to health and safety in the workplace for designing livestock effluent management systems
 - environment and biosecurity legislation and regulations and workplace practices applicable to designing livestock effluent management systems
 - industry standards, industry and workplace production parameters, data and information for the design and planning of effluent management systems
- relationships:
 - effluent management specialists
- time frames:
 - according to job requirements.

Assessors of this unit must satisfy current the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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