



Department initiated Amendment

Part V Division 3 of the *Environmental Protection Act 1986*

Works Approval Number	W6318/2019/1
Works Approval Holder	Fletcher International Exports Pty Ltd
ACN	003 213 652
File Number	DER2019/000598
Premises	Ronneby Park Street address 670 Youngs Road BEAUFORT RIVER, WA 6394 Legal description - Part of Lot 1 on Deposited Plan 21594, Part of Lot 4 on Plan 21594
Date of Report	9 February 2021
Proposed Decision	Revised works approval granted

Amine Fisher

A/MANAGER, PROCESS INDUSTRIES

An officer delegated by the CEO under section 20 of the EP Act

Table of Contents

1. Decision summary	3
2. Scope of assessment	3
2.1 Regulatory framework	3
2.2 Amendment summary	3
3. Decision making clarifications	3
3.1 Drain lining	3
3.2 Wastewater evaporation pond lining	4
3.3 Clarification of pond sizing	4
3.4 Separation distances	4
4. Consultation	4
5. Conclusion	4
5.1 Summary of amendments	4
References	5
Table 1: Summary of works approval amendments	4

1. Decision summary

Works Approval W6318/2019/1 is held by Fletcher International Exports Pty Ltd (Works Approval Holder) for the Ronneby Park sheep feedlot (the Premises), located at 670 Youngs Road Beaufort River, WA 6394.

This amendment report documents the changes made to the works approval following its original issue, to better align the controls with the requirements of the *National procedures and guidelines for intensive sheep and lamb feeding systems* (MLA 2020) and further justifies the variations from the requirements in those guidelines which may not have been specified in the Decision Report for the works approval.

2. Scope of assessment

2.1 Regulatory framework

In completing this amendment report, the Department of Water and Environmental Regulation (the department, DWER) has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Amendment summary

Following discussions with the Department of Primary Industries and Regional Development (DPIRD), the department initiated an amendment to Works Approval W6318/2019/1 on 25 November 2020. The amendment requires the sheep pens be constructed with a base that has a hydraulic conductivity of less than or equal to 1×10^{-9} m/s to ensure that the pen floors are constructed to an appropriate standard to ensure the protection of groundwater from the seepage of wastewater through the pen flooring. The works approval already has a condition requiring the pen floors to be lined with a 200mm compacted clay or gravelly clay. Specifying a permeability rate will ensure the pen floors are constructed appropriately, provide a suitable barrier to protect groundwater from being impacted by nutrients in the solid and liquid wastes in the pens, and better align controls with design specifications from MLA 2020.

3. Decision making clarifications

This section of the amendment report seeks to clarify some of the variations in the works approval conditions to the design specifications set out in MLA 2020, and provide further explanation of other factors in the decision making relating to the grant of Works Approval W6318/2019/1.

3.1 Drain lining

MLA 2020 states that '*drains, sedimentation systems, holding or evaporation ponds and terminal systems should be lined with a material that prevents the infiltration of water*' and states '*the permeability standard used in many states is 1×10^{-9} m/s*'. DWER agrees this permeability is appropriate for ponds that contain water and therefore have a hydraulic head, and potentially for drains and areas of feedlots that are likely to experience long periods of holding water or moisture. Given this premises is in an area of WA with an average annual rainfall of less than 550 mm, the drains are not likely to experience periods of extended flows or contain pooled water so it is considered that a permeability of 1×10^{-8} m/s is appropriate for preventing seepage likely to impact the groundwater. This variation means the approximate infiltration rate increases from 1mm a day to 1cm a day, however this rate would be if water was constantly in the drains. The drains will only have water in them during flow events that are not likely to last for more than a few hours.

3.2 Wastewater evaporation pond lining

The works approval requires that the sedimentation and evaporation ponds have a clay liner that has a coefficient of permeability of 1.5×10^{-9} m/s and are 450 mm thick. This is a variation from pond liner permeability specified in MLA 2020. The guidelines do not specify a thickness of liner with 300 mm being industry standard for clay lined wastewater treatment ponds. A water balance conducted by DWER shows the ponds will likely be dry for approximately nine months of the year during a year with average rainfall, so any seepage is likely to be limited. DWER has determined the increased liner thickness of 450 mm will provide adequate containment for wastewater based on the separation to groundwater, the limited amount of time the ponds will contain water and the maximum depth of the ponds to being 2 m resulting in a limited hydraulic head on the liner.

3.3 Clarification of pond sizing

The works approval conditions require the ponds to be constructed to a size that is able to retain a 1 in 20 year storm event. DWER conducted a water balance for the premises which showed that the volume of the proposed evaporation pond is capable of holding a 90th percentile wet winter worth of run-off from the premises' catchment area. While the water balance was not included in the original decision report for Works Approval W6318/2019/1, the evaporation pond has been assessed as being suitably sized to hold a wet winter's volume of rainfall runoff.

3.4 Separation distances

The applicant did not supply an S-Factor calculation for the separation distance from the proposed feedlot to the nearest sensitive receptors. DWER assessed the risk of odour impacts on amenity based on the proposed feedlot size, the proposed waste management practices to mitigate odour, the low number of receptors and the distance to those receptors. Based on this assessment DWER deemed the separation distance of 1.2 km to the nearest receptor to be adequate to mitigate odour impacts on amenity.

4. Consultation

The draft amendment report and draft amended works approval were sent to the works approval holder on 18 January 2021. No comments were received from the works approval holder.

5. Conclusion

Based on this amendment report, the Delegated Officer has determined that a revised works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

5.1 Summary of amendments

Table 1 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the revised works approval as part of the amendment process.

Table 1: Summary of works approval amendments

Condition no.	Amendments
Condition 1 Table 1	Amended to include a requirement for pen 200mm compacted gravelly clay floors to be constructed and compacted to achieve a permeability of less than or equal to 1×10^{-9} m/s

References

MLA 2020, *National procedures and guidelines for intensive sheep and lamb feeding systems*, Meat and Livestock Australia Limited, Sydney