



Application for Licence Amendment

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

Licence Number	L4404/1991/15
Licence Holder	Harvey Fresh (1994) Ltd
ACN	065 591 219
File Number	DWERVT2474
Premises	Harvey Fresh Dairy and Juice Factories Third Street HARVEY WA 6229 Legal description – Lot 1 on Diagram 4786, Lots 20 and 22 on Plan 2344, Lots 187, 189 and 190 on Plan 202110, Lot 200 on Diagram 66494, Lots 33, 34, 35 and 36 on Plan 205324, and Lots 191 and 192 on Plan 202109
Date of Report	08/09/2022
Status of report	Final

1. Background and description of amendment

Secondary containment of wastewater (applicant initiated)

The department granted an amendment to licence L4404/1991/15 on 9 February 2022 which identified through a risk assessment that there is a high risk of nutrient-laden wastewater runoff from spillages and overtopping of tanks impacting on sensitive environmental receptors, such as the Harvey River, due to wastewater not being fully contained on the premises.

Based on this assessment the licence was amended to require the licence holder to construct a suitable secondary containment system for the wastewater treatment plant to manage and be able to contain unplanned discharges of wastewater from the wastewater treatment plant.

On 1 July 2022 the licence holder submitted an application to amend licence L4404/1991/15 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

1. reduce the capacity of the emergency wastewater collection tank (EWC tank) to 140,000 L;
2. amend the construction requirements of the emergency wastewater collection tank from “TEFLON” to “polymer”; and
3. extend the secondary containment works completion date by 8 weeks.

Temporary winter irrigation of wastewater (department initiated)

The department granted an amendment to licence L4404/1991/15 on 6 April 2020 which identified through a detailed risk assessment that there is a high risk of irrigated wastewater impacting on environmental receptors due to the potential for the irrigation areas to experience nutrient and hydraulic overloading during winter months. Based on this assessment, commencing 30 April 2021, the application of treated wastewater to land was restricted to September to April inclusive. The implication of this condition is such that wastewater generated between May and September, from 30 April 2021, would have to be either stored or removed from the premises.

The licence holder was required to submit a winter irrigation management plan (the plan) by 28 February 2021. The plan was required to demonstrate how wastewater irrigation over the winter months could be carried out in a manner that would not cause surface water and groundwater contamination or exceed crop/vegetation nutrient, salt or water requirements. The plan was also required to demonstrate that winter irrigation will not cause wastewater to leach to groundwater or cause waterlogging or overland flow into adjacent environments potentially affecting the health of local ecosystems. The plan was submitted on 30 April 2021 with an updated plan received on 6 August 2021, following comments from the department in May 2021. The department reviewed the updated plan and provided comments to the licence holder on 31 August 2021 with the request for the licence holder to submit a revised plan by 30 September 2021. The licence holder did not provide an updated plan but instead submitted a letter on 22 April 2022, addressing the department’s comments.

Additionally, the licence holder applied for a works approval for the construction of an additional pond (Pond 3) to assist in addressing the issue of wastewater management during winter, which was granted on 11 May 2021. Due to delays in the construction of Pond 3, the licence holder requested an extension on the restriction on winter irrigation until 30 April 2022, which was granted through a licence amendment on 12 May 2021.

The licence holder is now seeking approval to irrigate wastewater over winter 2022 as the newly constructed pond is not yet complete and there is not enough winter wastewater storage capacity even when the new pond comes online. Approval for the temporary irrigation of wastewater over winter under certain conditions was given through a letter dated 26 May 2022. This department initiated amendment is to include those conditions on the licence.

The decision report for the existing licence will remain on the department’s website for future

reference and will act as a record of the department's decision making.

2. Decision

The Delegated Officer has determined to make amendments to Licence L4404/1991/15. The amendments are administrative in nature therefore they do not alter the risk profile of the premises, providing that activities, emissions and receptors as stated in existing approvals remain unchanged.

Secondary containment of wastewater

1. The licence holder had originally proposed to locate the EWC tank 0.6 m from the existing equalisation (EQ) tank. The licence holder has since identified that the foundations of the EQ tank are 2 m below ground level, and to ensure the structural integrity of the EQ tank is not compromised, they are proposing to locate the EWC tank approximately 3 m from the EQ tank. Due to an existing roadway and drainage channel, the diameter, and therefore the capacity, of the EWC is proposed to be reduced from 250,000 to 140,000 L. The licence holder has estimated that if the EQ tank were to overflow, it would overflow at a rate of 50 kL/hour, which would provide approximately 2.8 hours of overflow to be captured within the EWC tank. The Delegated Officer considers this capacity change acceptable considering the EWC tank will still be able to contain a volume equal to or greater than the maximum quantity capable of being discharged from the EQ tank during a period of 30 minutes.
2. The Delegated Officer understands that Teflon is a brand name for polytetrafluoroethylene (PTFE), a synthetic polymer consisting of carbon and fluorine; therefore, considers the change of "Teflon" to "polymer" to be acceptable.
3. Given this licence amendment and that the existing licence requires the secondary containment infrastructure to be completed by 31 July 2022; the Delegated Officer has agreed to extend the construction timeframe to 1 March 2023.

Temporary winter irrigation of wastewater

While it is acknowledged that the plan (submitted 6 August 2022) and the email response (submitted 22 April 2022) has included information on evapotranspiration data, estimated daily pasture/crop water use, water holding capacity of the soil, proposed additional groundwater monitoring bores, soil moisture monitoring and withholding irrigation after periods of rainfall, it remains unclear how these measures have been considered within the plan to demonstrate that leaching through the soil profile, or waterlogging / runoff will not occur as a result of winter irrigation.

It remains the view of DWER that a holistic and considered plan is still required to set out a long term sustainable approach to winter irrigation with a focus on achieving a nutrient balance as well as considering additional irrigation areas, establishing (and harvesting) suitable winter crops in the irrigation areas to increase water and nutrient uptake, reducing wastewater, installing additional winter storage and improving the quality of irrigation water.

The department remains concerned with the irrigation of wastewater by the licence holder, particularly over the winter period and the broader environmental implications of this. As such, the department has initiated an internal review encompassing groundwater, contamination and river/estuary health branches. Following completion of this review the findings or recommendations will be communicated to the licence holder and may include further revision and amendment of the licence.

However, given the circumstances, and following the letter, dated 26 May 2022, the Delegated Officer has included conditions on the revised licence to allow the temporary irrigation of wastewater over winter. The conditions are based upon applicant commitments within the plan and additional comments, submitted on 6 August 2021 and 22 April 2022, respectively. The authorisation in the letter dated 26 May 2022 will cease to have effect once the revised licence

is granted.

3. Consultation

The licence holder was provided with the draft amendment report and draft revised licence on 10 August 2022. Comments received from the licence holder on 2 and 7 September 2022 have been considered by the Delegated Officer as detailed in Appendix 1.

The department understands that the licence holder is progressing a project to dispose of some of the wastewater offsite; and therefore, once the offsite disposal project is operational, intends to significantly reduce the volume of wastewater irrigated on the premises. The department understands that this project is in preliminary discussion stages, with an unknown commencement timeframe. While the department is supportive of the licence holder seeking alternative disposal strategies, while irrigation is still occurring on the premises, the Delegated Officer has determined that the licence holder's commitments will be included on the licence. However, some timeframes for works and submission of information have been extended to allow for the licence holder to progress the offsite wastewater disposal project. If the project is successful, the licence holder may apply for a licence amendment and provide justification for any conditions they want to amend.

4. Summary of amendments

The below table provides a summary of the proposed amendments and will act as a record of implemented changes. All proposed changes have been incorporated into the revised licence as part of the amendment process.

Condition no.	Proposed amendments
Licence history	Summary of changes for this amendment added to the table.
2	Secondary containment works completion date amended to 1 March 2023
3, Table 2	250,000 L amended to 140,000 L
3, Table 2 (a)	TEFLON amended to polymer
6	Addition of condition to specify raising of the depression within irrigation area L5
7, Table 3, 8 and 9	Addition of conditions to specify the installation and reporting of two additional groundwater monitoring bores proposed by the licence holder
10, Table 4	Addition of condition to specify monitoring prior to irrigation occurring
11, Table 5 (a)	Removal of section (a) as conditions have been added to the licence for the irrigation of wastewater over the winter months.
11, Table 5 (h) – (k)	Addition of conditions to specify when irrigation may not occur
12, Table 6	Addition of a 900 kL limit for the volume of irrigated wastewater to be applied to an irrigation area during the months of May to August inclusive.
13	Addition of condition for the management of pasture within the irrigation areas.
14	Submission date for a revised winter irrigation management plan extended
15	Removal of section (d) as the licence holder has provided maps of their current irrigation infrastructure and have indicated that no additional infrastructure will be constructed / installed.
22, Table 9	Included MB13 and MB14 in the ambient groundwater quality monitoring – monitoring of these bores is to commence within 30 days of bore installation.
26 and 27	Extended timeframe for submission of reports from 28 to 60 days after the end of the annual period.

Condition no.	Proposed amendments
27, Table 11	Results of monitoring required by Table 4 and condition 13 pasture management to be included in the annual environmental report.
Table 12	Removal of superscript 1, as it does not refer to any notes.
Definitions	Inclusion of L8 to the definition of irrigation area. Addition of the definition for <i>Minimum Construction Requirements for Water Bores in Australia</i> and rainfall event.
Schedule 1: Maps	Wastewater treatment area – secondary containment map amended to change the capacity of the overflow prevention tank from 250,000 L to 140,000 L.
Schedule 1: Maps	Addition of proposed groundwater monitoring bore locations map as provided by the licence holder.

Appendix 1: Summary of licence holder's comments on draft amendment

Condition	Summary of licence holder's comment	Department's response
2	Request date be amended to 1 March 2023 due to construction company availability and tank not arriving until February 2023.	Date has been amended to 1 March 2023, from the proposed date of 30 September 2022.
6	Request a review of the requirement to raise the depression within irrigation area L5. The licence holder is currently undertaking a financial review to support a project to dispose of wastewater offsite; other costs, that may not be required if the project is successful, are currently on hold internally.	<p>The department understands that wastewater is currently flood irrigated to L5 from the eastern edge of the paddock. In section 4.1 of the revised Winter Irrigation Management Plan (Plan) (submitted on 6 August 2021), the licence holder indicated that a pipeline that runs diagonally (NW-SE) underground within L5 and has created a depression on the surface. The licence holder has identified this as an area (approximately 0.55 ha) of potential seasonal flooding. Based on maps of the irrigation infrastructure (provided by the licence holder) it is unclear how wastewater is evenly flood irrigated within this section of L5, particularly west of the depression. The licence holder suggested (within information submitted on 22 April 2022) that the depression in L5 could be filled with appropriate material to aid in wastewater being evenly distributed over this area. Existing condition 11(e) also requires wastewater to be evenly distributed over the irrigation area.</p> <p>The department also understands that the licence holder is progressing a project to dispose of some wastewater offsite and therefore intends to significantly reduce the volume of wastewater irrigated on the premises in the future.</p> <p>Given the above, the Delegated Officer has determined that the requirement to raise the depression within L5 will be included on the licence; however, the timeframe for this to occur will be extended.</p>
7, Table 3, 8 and 9	MB08, MB09 and MB10 have been installed with a bore report sent to the department on 10 May 2022. The licence holder has confirmed that they do not intend to install proposed bores MB13 and MB14 if the project to dispose wastewater offsite is successful.	<p>The department understands that the licence holder has installed and commenced monitoring of 3 bores, MB08, MB09 and MB10, within the vicinity of Pond 3, and refurbished MB11 and MB12, both within 260 m of Pond 3.</p> <p>These bores, MB08 – MB12, are related to the storage of wastewater in Pond 3, rather than the irrigation of wastewater on the premises, and will most likely be added to the licence following a licence amendment application from the licence holder once the construction of Pond 3 is finalised.</p>
22, Table 9	Monitoring of MB08 and MB09 has already commenced and has been recorded in the annual environmental report.	

Condition	Summary of licence holder's comment	Department's response
Schedule 1: Maps	Map needs updating to include MB08, MB09, and MB10.	The additional 2 proposed groundwater monitoring bores, MB13 and MB14, as committed to by the licence holder in documentation submitted in April 2022, will be added to the licence; however, the timeframe for their installation has been extended.
10, Table 4	<p>Request a review of the requirement to conduct visual inspections for waterlogging and/or ponded water, soil moisture readings with handheld soil moisture probe, and reviewing expected precipitation and evaporation prior to irrigation occurring.</p> <p>The licence holder is currently undertaking a financial review to support a project to dispose of wastewater offsite; other costs, that may not be required if the project is successful, are currently on hold internally.</p>	The department understands that the licence holder is progressing a project to dispose of some of the wastewater offsite; however, while wastewater is being irrigated on the premises, the Delegated Officer has determined that the licence holder's commitments will be included on the licence.
11, Table 5 (i) to (l)	<p>Requesting to amend condition 11 such that sections (h) to (k) (<i>regarding no irrigation when rainfall is occurring, no irrigation 24 hours following a 5-10 mm rainfall event, no irrigation for 48 hours following a 10 – 20 mm rainfall event, and no irrigation for 72 hours following a >20 mm rainfall event</i>) are only applicable to irrigation of wastewater during winter months.</p> <p>The licence holder is currently undertaking a financial review to support a project to dispose of wastewater offsite; other costs, that may not be required if the project is successful, are currently on hold internally.</p>	In section 8.1.1 of the Plan previously submitted to the department, the licence holder stated that wastewater discharge withholding periods will be employed to ensure wastewater is not discharged during heavy rainfall events or immediately after, when the irrigation area soils will be saturated, and the mobilisation of nutrients into surface water bodies is more likely. Given that this can occur at any time of the year, the Delegated Officer has determined that the irrigation withholding periods will apply to year-round irrigation, as committed to by the licence holder.
12, Table 6	<p>Requesting a review of the 900 kL/day limit for the volume of irrigated wastewater to be applied during the months of May to August inclusive.</p> <p>The licence holder is currently undertaking a financial review to support a project to dispose of wastewater offsite; other costs, that may not be required if the project is successful, are currently on hold internally.</p>	The department understands that the licence holder is progressing a project to dispose of some of the wastewater offsite; however, while wastewater is being irrigated on the premises, the Delegated Officer has determined that the licence holder's commitments will be included on the licence.

Condition	Summary of licence holder's comment	Department's response
13 27, Table 11	<p>Requesting a review of the requirement to remove excess kikuyu biomass, and establish and maintain a winter crop within the irrigation areas by 30 May each year.</p> <p>Requesting a review of the requirement to report on the type of pasture(s) established within each irrigation area and the amount of kikuyu biomass removed from each irrigation area.</p> <p>The licence holder is currently undertaking a financial review to support a project to dispose of wastewater offsite; other costs, that may not be required if the project is successful, are currently on hold internally.</p>	<p>From the Plan submitted to the department it was unclear whether kikuyu is suitable for removal of nutrients during winter irrigation as the licence holder stated that kikuyu has poor growth in winter and therefore less water and nutrient requirements during this time.</p> <p>Additionally, in information submitted on 22 April 2022, the licence holder stated that kikuyu can become dormant throughout winter, with the potential to add a winter crop of sub clover.</p> <p>Given the above the Delegated Officer has determined that the requirement to establish and maintain a winter crop will be added to the licence.</p>
14	<p>An updated Winter Irrigation Management Plan may not be required with the progression of the project to dispose of wastewater offsite. The licence holder does not wish to finance another version of the plan that may not be required.</p>	<p>The department understands that the licence holder is progressing a project to dispose of some of the wastewater offsite; and therefore, once the offsite disposal project is operational, intends to significantly reduce the volume of wastewater irrigated on the premises. The department understands that this project is in preliminary discussion stages, with an unknown commencement timeframe. While the department is supportive of the licence holder seeking alternative disposal strategies, there is no guarantee the project will be successful with irrigation occurring at the premises indefinitely. Therefore, the Delegated Officer has determined that the submission of a revised winter irrigation management plan is required. However, the timeframe for submission of this plan has been extended.</p>
Additional comments		
26 and 27	<p>Requesting a longer time period than 28 days to prepare the annual reports as the consultants struggle to prepare the data in the tight timeframe.</p>	<p>The Delegated Officer agrees that 28 days is a short timeframe; therefore, the conditions have been amended such that the reports are to be submitted 60 days after the end of each reporting period.</p>