Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L9398/2023/1
Licence holder	Mallokup Malt Pty Ltd
ACN	626 944 116
Registered business address	155 Spencer Street South Bunbury 6230
DWER file number	DER2023/000420~2
Duration	05/10/2023 to 04/10/2043
Date of issue	05 October 2023
Premises details	Mallokup Malt 1129 Ludlow Road North Stirling Estate 6271 Legal description - Lot 51 on Deposited Plan 61595 As defined by the premises map in Schedule 1

Prescribed premises category description (Schedule 1, ***Environmental Protection Regulations 1987***)	**Assessed production capacity**
Category 18: food processing – premises (other than premises within category 24) – (a) on which vegetables are, or fruit or meat is, preserved, cooked, dried, canned, bottled or processed; and (b) from which liquid waste is or is to be discharged onto land or into waters.	No more than 500 tonnes of malt produced per annual period

This licence is granted to the licence holder, subject to the attached conditions, on 05 October 2023, by:

Caron Goodbourn

Digitally signed by Caron Goodbourn
Date: 2023.10.05 14:00:09 +08'00'

MANAGER, PROCESS INDUSTRIES

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Licence history

Date	Reference number	Summary of changes
27/01/2021	W6398/2020/1	Works approval granted
05/10/2023	L9398/2023/1	Licence granted

Interpretation

In this licence:

(a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;

(b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(c) where tables are used in a condition, each row in a table constitutes a separate condition;

(d) any reference to an Australian or other standard, guideline, or code of practice in this licence:

  (i) if dated, refers to that particular version; and

  (ii) if not dated, refers to the latest version and therefore may be subject to change over time;

(e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

Licence conditions

The licence holder must ensure that the following conditions are complied with:

Infrastructure and equipment

1. The licence holder must ensure that the site infrastructure and equipment listed in Table 1 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 1.

Table 1: Infrastructure and equipment requirements

	Site infrastructure and equipment	Operational requirement	Infrastructure location
Malt production			
1.	Malt production shed Enclosed shed housing the following: • Concrete graded floor that gravity drains all liquid spills to the grated concrete floor drain that drains into a 30kL concrete solids sump. • Stainless steel steep tank, 10.82 m^3 • 2x Stainless steel germination/ kilning vessels 240 m^3 • Filter basket with 3 mm aperture located within the grated drain. • Vacuum transfer machine • Bagging machine • Impervious solid waste storage bins Enclosed machinery shed housing the following: • Boiler • Flu (A2) exit point at 6.1m abgl • Genset Malt infrastructure outside on a concrete hardstand: • 4x grain silos • Malt silo • Grain cleaner with connecting IBC • Dust extractor connected to an enclosed container.	(a) All wastewater generated within the malt operational area must be directed to the concrete solids sump before being pumped to the Wastewater treatment plant (WWTP) (b) From 1 June to 30 September each year only a one-steep cycle must be used to produce malt products. (c) Solid waste material (malt culms) must be stored in plastic pallet bins located within the production shed for no longer than 24 hours before being disposed offsite. (d) All grain dust and oversized grain must be stored on the concrete hardstand within enclosed containers until removed offsite.	As shown in Schedule 1, Figure 2, labelled as: Gravity waste collection Steeping Tank GKV (Germination Kilning Vessel) Malt cleaner (vacuum) Bagging Machine Boiler Flu – A2 Genset Silo Malt silo Grain cleaner Dust extractor
Wastewater treatment plant (WWTP)			
2	WWTP consisting of the following:	(a) A high-level alarm system within the sump, aeration and	As shown in Schedule 1, Figure 2, labelled

	Site infrastructure and equipment	Operational requirement	Infrastructure location
	• 30kL concrete solids sump • 60kL aeration tank • Concrete bunded bunk • 250kL wastewater storage tank • Aeration and transfer pumps	storage tanks must be maintained to alert of potential containment overtopping. (b) Sampling point W1 on the outlet of 250kL storage tank is maintained to allow for periodic sampling of treated wastewater. (c) Sump must operate with a removable lid that covers the opening of the sump. (d) Aerator tank must be kept covered from May to October inclusive to prevent egress of stormwater. (e) All solids removed from the concrete solid's sump must only be stored in the concrete bunded area prior to off-site disposal and for not longer than 24 hours. (f) All sludge and excess wastewater removed from the aeration and storage tanks must be removed for offsite disposal by a licensed controlled waste carrier.	as: Solid sump Aeration tank Wall bund and concrete hardstand Wastewater tank W1
Irrigation			
3	0.9 Ha irrigation area (A1) consisting of the following: • Pipeline connecting 250kL wastewater reservoir to the sprinkler lines. • Cultivated pasture. • Flow meter (M1) located on the out-take pipeline from the 250kL wastewater storage tank. • Sampling point on the outtake pipeline from the 250kL wastewater storage tank • 5 x Irrigation valves and sprinkler lines • Sprinklers located 10 metres apart along sprinkler line • A tensiometer • Computer monitoring program that records soil moisture in kPA, that	(a) Wastewater must only be discharged (irrigated) to the irrigation area (A1) (a) Wastewater must be treated in the wastewater treatment system, which includes pH buffering, aerobic treatment and settling, prior to discharge to irrigation area (A1); Flow meter is maintained to enable the cumulative volume of wastewater discharged from the storage tank to the irrigation area to be measured. (b) Irrigation system valves, pumps, pipelines, and other fittings must be maintained and inspected daily for ruptures or leaks when irrigating. (c) Integrated computer-controlled irrigation system maintained so that irrigation ceases when the tensiometer detects 10 kPA or less at 30cm below ground level.	As shown in Schedule 1, Figure 2 is labelled as: Flow meter M1 As shown in Schedule 1, Figure 1 as Irrigation area A1 MB3 and MB 4

	Site infrastructure and equipment	Operational requirement	Infrastructure location
	relays information to a computer. • Weather Station that records daily rainfall in millimetres. • Monitoring Bores MB3 and MB4	(d) Tensiometer must be located within the irrigation area (A1) and maintained to be capable of measuring soil moisture in kPA at least 30 cm below ground level. (e) Monitoring bores are maintained to enable water level readings and water samples required by condition 8 to be collected.	

Emissions and discharges

Authorised discharge.

2. The licence holder must ensure treated wastewater is discharged to land only at the locations specified in Table 2, in accordance with the corresponding discharge requirements.

Table 2: Authorised discharge of treated wastewater via irrigation

Discharge point	Discharge via irrigation requirements
Irrigation area, A1 as shown in Schedule 1 Figure 1	(a) irrigation occurs on a rotational basis ensuring that areas are dry for 24 hours between applications; (b) no irrigation occurs between 1 June to 30 September (inclusive); (c) no irrigation-generated run-off, spray drift or discharge occurs beyond the boundary of the irrigation area A1; (d) irrigation is not undertaken 12 hours before, during or 24 hours immediately after a rainfall event of greater than 2 millimetres; (e) wastewater is evenly distributed over the irrigation area; (f) there are daily visual inspections of the irrigation area including sprinklers, pipeline; valves and pump, when irrigation is occurring; (g) vegetation in the irrigation area A1 is harvested at least twice during the annual period; (h) no livestock is permitted to graze the irrigation area (i) no soil erosion occurs, and (j) healthy vegetation cover is maintained over the irrigated area.

Authorised emissions limits

3. The licence holder must ensure that wastewater is only discharged via irrigation to the specified discharge point(s) in accordance with the limits specified in Table 3.

Table 3: Wastewater irrigation emission limits

Discharge point	Parameter	Concentration limit	Loading limit
Irrigation area A1 as shown in Schedule 1 Figure 1	Total nitrogen	-	≤34 kg/ha/annual period
	Total phosphorus	-	≤5 kg/ha/annual period
	BOD	-	≤1500 kg/ha/month
	pH	5.5 - 9	-
	EC	≤2.9 dS/m	-

4. The licence holder must notify the CEO with a written report for any limit exceedances of any of the limit values identified in Table 3, for any spills, incidents, or unauthorised discharges occurring within the premises within 7 days of becoming aware of the incident.

Monitoring

5. The works approval holder must ensure that:

(a) monitoring is undertaken in each monthly period such that there are at least 15 days in between the days on which samples are taken in successive months, and

(b) monitoring is undertaken each quarterly period such that there are a least 45 days in between the days on which samples are taken in successive months.

6. The works approval holder must ensure that all samples required for collection by Conditions 7, and 8 are submitted to and tested by a laboratory with current NATA Accreditation for the parameters being measured unless indicated otherwise in the relevant table.

7. The licence holder must undertake treated wastewater monitoring specified in Table 4 according to the specifications in that table.

Table 4: Treated wastewater monitoring

Monitoring point reference and location	Parameter	Frequency	Unit	Method	
				Sampling	Analysis
M1 as shown in Schedule 1 Figure 2 (flow meter))	Volumetric flow rate	Continuous when discharging	m3/day or kL	N/A	N/A
W1 as shown in Schedule 1 Figure 2 (wastewater storage tank outlet tap)	pH[1]	Monthly when discharging	-	Spot sampling	AS/NZS 5667.1 1998 and AN/NZS5667.10-1996
	Electrical conductivity[1]		dS/m		
	Total nitrogen		mg/L		
	Total phosphorus				
	Total dissolved solids				
	Total suspended solids				
	Biological oxygen demand				

Note 1: In-field non-NATA accredited analysis permitted.

Note 2- Means the lowest measurable unit for the analysis.

8. The licence holder must monitor ambient groundwater for concentrations of the identified parameters in accordance with Table 5.

Table 5: Ambient groundwater monitoring operations

Monitoring well location	Parameter	Unit	Frequency	Method		Laboratory detection limit[2] mg/L
				Sampling	Method	
MB3, and MB4 as shown in Schedule 1 Figure 1 (monitoring bores)	Standing water level	m(AHD) and mbgl	Monthly	N/A	N/A	N/A
	pH[1]	-	Each quarterly period within the months of March, June, September, and December	Spot sample	AS/NZS 5667.11.	
	Electrical conductivity[1]	dS/m				
	Total nitrogen	mg/L				0.01
	Ammonia - nitrogen					0.01
	Nitrate - nitrogen					0.01
	Total phosphorus					0.001
	Filterable reactive phosphorus (phosphates)					0.001
	Biological oxygen demand	mg/L				

Note 1: In-field non-NATA accredited analysis permitted.

Note 2- Means the lowest measurable unit for the analysis.

9. The works approval holder must record the results of all monitoring activity required by conditions 7 and 8.

Records and reporting

10. The licence holder must record the following information in relation to complaints received by the licence holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

(a) the name and contact details of the complainant, (if provided);

(b) the time and date of the complaint;

(c) the complete details of the complaint and any other concerns or other issues raised; and

(d) the complete details and dates of any action taken by the licence holder to investigate or respond to any complaint.

11. The licence holder must:

(a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and

(b) prepare and submit to the CEO by no later than 1 March after the end of that annual period an Annual Audit Compliance Report in the approved form.

12. The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:

(a) the calculation of fees payable in respect of this licence;

(b) any maintenance of infrastructure that is performed in the course of complying with condition 1 of this licence;

(c) monitoring programmes undertaken in accordance with conditions 7, 8 and 9 of this licence; and

(d) complaints received under condition 11 of this licence.

13. The books specified under condition 12 must:

(a) be legible;

(b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;

(c) be retained by the licence holder for the duration of the licence; and

(d) be available to be produced to an inspector or the CEO as required.

14. The licence holder must submit annually to the CEO an Annual Environmental Report no later than 1 March after the end of each annual period, for conditions listed in Table 6 in accordance with the corresponding requirement set out in Table 6.

Table 6: Annual Environmental Report

Condition or table	Requirement
Condition 1 Table 1	(a) Details of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken.
Condition 2 Table 2	(b) The date and type of each crop harvest including the dry weight of the crop.
Condition 3 Table 3	(c) Calculation of the monthly loads of BOD, TN and TP through the application of wastewater applied to the irrigation area, using the Nutrient Loading Spreadsheet in Appendix 2 of the Decision Report (d) Any exceedance of discharge emission limits and measures taken by the licence holder to reduce water quality concentration and/or loadings.
Condition 7 Table 4	(e) Volume (m3) of wastewater discharged to A1, including monthly and annual volumes, presented in tabulated form, including the monthly meter reading numbers and date of reading. (f) Wastewater monitoring data in monthly tabulated and graphical form including the sampling date. (g) An assessment and interpretation of the water quality data including comparison to historical trends. (h) Copies of laboratory sample analysis reports. (i) Copy of water quality sampling methods and procedures.
Condition 8 Table 5	(j) Groundwater monthly standing water level in tabulated and graphical form including the monitoring date. (k) Groundwater quarterly water quality data in tabulated and graphical form including the sampling date. (l) An assessment and interpretation of the water quality and standing water level data including comparison to historical trends. (m) Copies of laboratory sample analysis reports. (n) Copy of groundwater quality sampling methods and procedures.
Condition 10	(o) A summary of complaints received for the annual period.
Condition 11	(p) An audit of compliance against all conditions in the licence.

Definitions

In this licence, the terms in Table 7 have the meanings defined.

Table 7: Definitions

Term	Definition
ACN	Australian Company Number
magl	meters above ground level
mbgl	meters below ground level
AHD	Australian Height Datum
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website). **Error! Hyperlink reference not valid.**
annual period	a 12-month period commencing from 1 January until 31 December of the same year.
books	has the same meaning given to that term under the EP Act.
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
Department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
dS/m	deciSeimens per metre
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	*Environmental Protection Regulations 1987* (WA)
IBC	intermediate bulk container
kPa	kiloPascals
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.

Term	Definition
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
mbgl	metres below ground level
mg/L	milligrams per litre
monthly period	means a one-month period commencing from the first day of a month until the last day of the same month.
premises	refers to the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map Figure 1 in Schedule 1 to this licence.
prescribed premises	has the same meaning given to that term under the EP Act.
waste	has the same meaning given to that term under the EP Act.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in the map below (Figure 1).

Figure 1: Map of the boundary of the prescribed premises, groundwater monitoring points and wastewater irrigation area A1

Site layout map

The layout of the WWTP and malt infrastructure is shown in the map below (Figure 2)

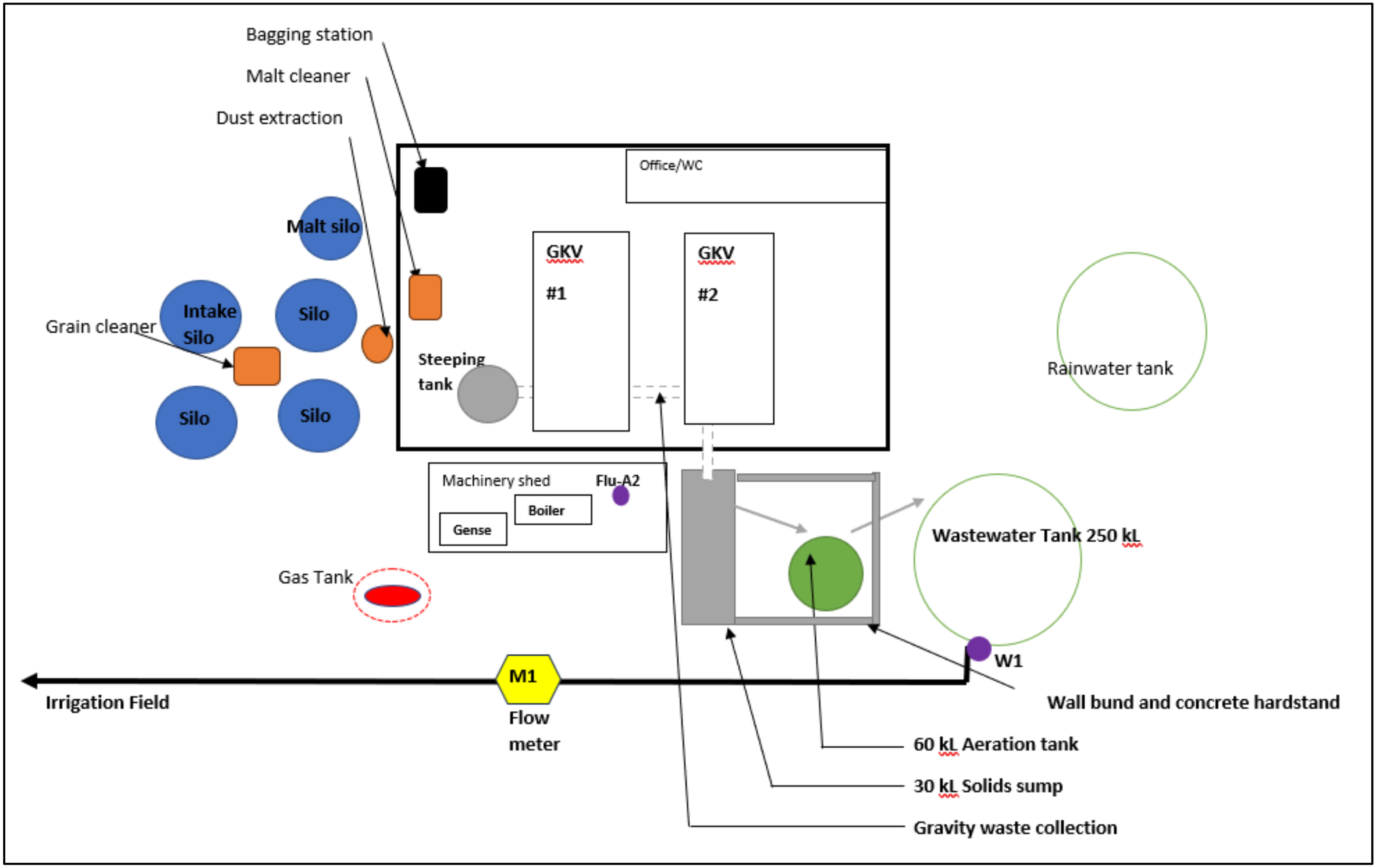

Figure 2: Map of the site layout of the WWTP, and malt facility.