1. PURPOSE

1.1. The purpose of this Pollution Incident Response Management Plan ('PIRMP') is to provide an effective and appropriate procedure to communicate to Loris H Hassall Trading ('LHHT') workplace participants and relevant authorities, a pollution incident that causes or threatens material harm to the environment. It provides clear guidance to support a measured and coordinated response, should an incident occur requiring implementation of the PIRMP.

1.2. The plan enables minimisation and control of risks of environmental harm by implementing key actions to identify and manage those risks. Implementation of the plan will be assisted by trained workplace participants, in addition to their roles in its testing and review on a regular and timely basis.

2. SCOPE

2.1. This procedure is applicable to all LHHT employees including labour-hire, contractors and visitors, collectively known as "**workplace participants**". All trained workplace participants will ensure LHHT's compliance and legal obligations are met under this PIRMP.

2.2. All environmental risks and environmental incidents will be managed through the implementation of this Plan. The PIRMP also details the pre-emptive actions that have been implemented at the site, these include:

a) Specific measures implemented to minimise the risk of an incident occurring due to spillage, storage of hazardous materials or fire;
b) inventory of potential pollutants on site;
c) minimum safety equipment requirements;
d) communication with the community;
e) minimising harm to persons;
f) training of personnel; and
g) testing of the PIRMP

3. STANDARDS AND LEGISLATION

3.1. Protection of the Environment Operations Act 1997; Part 5.7A

3.2. Protection of the Environment Operations General Regulations 2009

3.2. EPA Guideline: Pollution Incident Response Management Plans

4. DEFINITION OF POLLUTION INCIDENT

4.1. **The definition of a pollution incident is;**

a) Pollution incident means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur.

b) It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.

5. AIMS AND OBJECTIVES

5.1. The LHHT PIRMP is to be used for supporting the planning, maintenance and safe response to incidents, and consider site specific requirements. The PIRMP works in conjunction with procedures listed in **Section 10.**

5.2. Maintenance of the LHHT PIRMP shall be in accordance with the applicable sections of the LHHT Environmental Procedures and the site specific EPA NSW Licence (12765) requirements.

5.3. The plan must comply with the new requirements introduced by the *Protection of the Environment Legislation Amendment Act 2011* (POELA Act). The Act includes a new requirement under Part 5.7A of the *Protection of the Environment Operations Act 1997* (POEO Act) to prepare, keep, test and implement a pollution incident response management plan.

5.4. **Testing of Plan** - The plan must be tested and routinely reviewed at least once every 12 months, Test records of the PIRMP are recorded in the Emergency Evacuation Handbook and summarised in **Section 20**;

a) Testing and review must cover all components of the plan including the effectiveness of training. The review will consist of a desktop review of the content within this PIRMP to ensure accuracy. A review of the testing of the plan (i.e. emergency exercise) will be undertaken following each exercise to determine any required modifications to this PIRMP.

b) Records of the testing, revision and updates made must be dated including workplace participants who performed the testing, revision and updates.

c) In the instance where a potential pollution incident may have occurred, the plan is to re-test and review within one month of the incident occurring. All records of updates are to be maintained.

5.5. A pollution incident is required to be notified if there is a risk of 'material harm to the environment', which is defined in section 147 of the POEO Act as:

a) harm to the environment is material if:

i. it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or

ii. it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding $10,000 (or such other amount as is prescribed by the regulations), and

b) Loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.

c) Pollution Incidents covered by this plan include:

i. Fire;

ii. Explosion; and

iii. Hazardous material spill/toxic emissions.

6. ENVIRONMENTAL PROTECTION LICENSE DETAILS AND SITE PLANS

6.1. EPL Summary;

Table 1: EPL Summary

DETAILS	
License (EPL) Number	12765
Licensee's Name	Loris H Hassall Trading
Premises Address	Forbes Brinecure, Newell Highway, Parkes Road, Forbes NSW 2871
Scheduled Activities	Livestock processing activities
Fee Based Activities	Tanneries or Fellmongeries [1]
Scale	>10000 T annual processing

6.2. Refer to attached Diagrammatic Representation Site Plans;

a) Dangerous Goods Depots Site Plan, **Figure 2**

b) Drainage Site Plan, **Figure 3**

c) Emergency Evacuation Site Plan, **Figure 4**

[1] Meaning the manufacture of products derived from the slaughter of animals occurring in tanneries or fellmongeries (that is, operations that process animal skins or other animal products to produce leather or other similar products).

7. DESCRIPTION OF SURROUNDING AREA

7.1. Facility and Schedule of Exercises;

a) The facility is situated at the locality of Daroobalgie, 8km north of Forbes, which has a population of 9000 people, in Central West NSW, approximately 300 kms north west of Sydney. The LGA is Forbes Shire Council.

b) The factory facility can be described as follows:

a. Office block – administration and management,
b. Workers Amenities - lunchroom, showers and toilets
c. Factory – 4 preserver mixers, 4 brine raceways, Fleshing Chain, production chain, salt bunkers, hide storage sheds, container loading dock
d. Engineering Shed
e. Chiller – green hide/skin receivals, storage of Short Term Cured hide, ice.
f. Chemical storage area – storage of process chemicals
g. Primary Brine Treatment plant
h. Brine storage tanks for recycling production brine.
i. Brine Evaporation Plant and Boilers
j. Maintenance workshop
k. General Storage Shed
l. Pallet construction workshop
m. Eight lined evaporation pans
n. Two covered evaporation slabs
o. 120 Hectares of active agricultural land

Figure 1: Site Overview

7.2. **Piezometers;**

a) The Brinecure plant is situated on 120 ha of industrial land. 5 Deep Groundwater Monitoring points and 8 shallow ground water monitoring points (piezometers) are strategically placed in and around the perimeter of the fence line which enables Hassall Trading to monitor our underground aquifer against any unlikely adverse effects from brine curing activities.

Figure 2. Piezometer Locations

7.3. Sensitive Receptors;

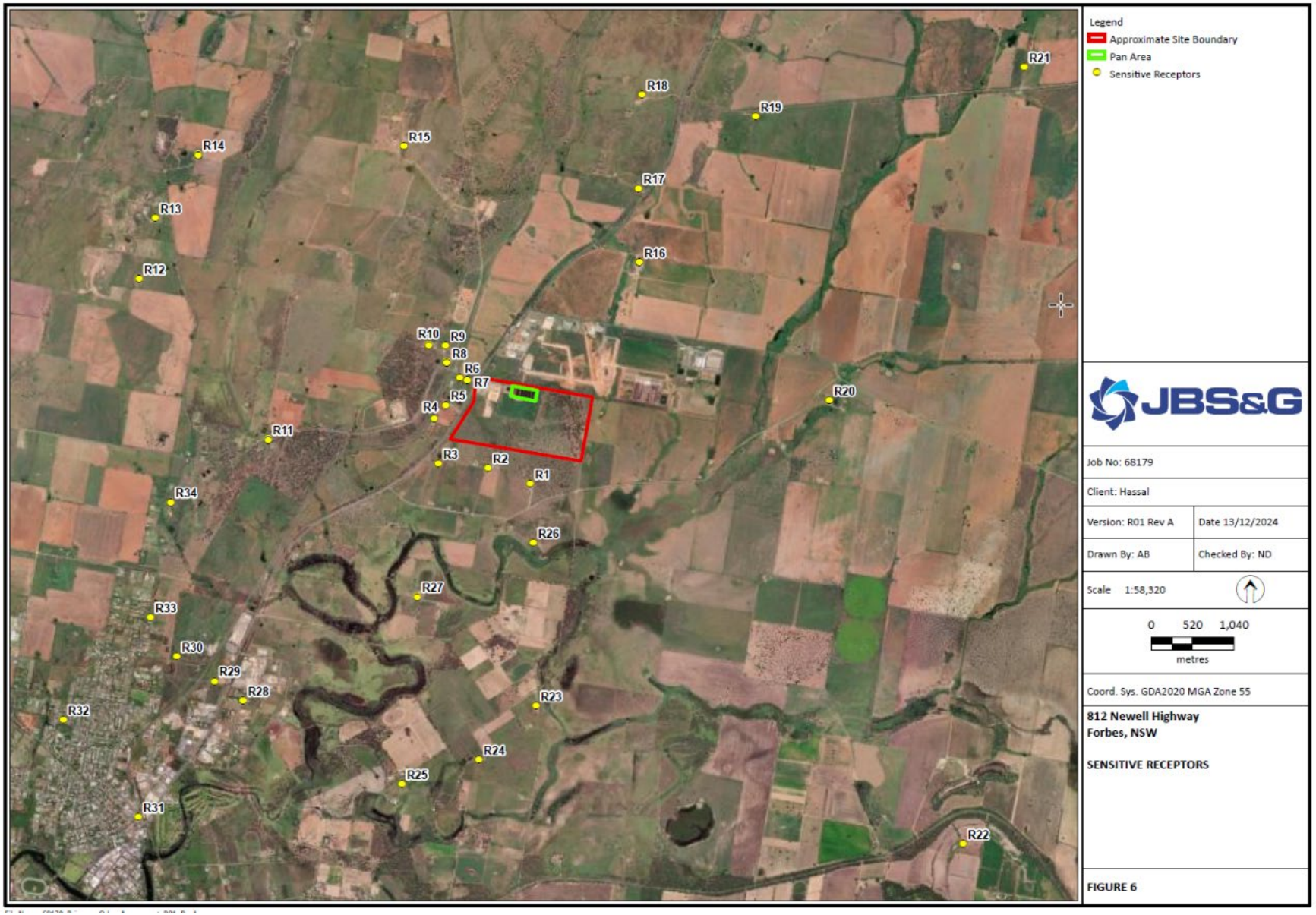
Sensitive receptors in the vicinity of the Facility are described and shown in the following table and image. These receptors represent existing rural and urban residential premises, including the residential premises owned by Hassall Trading, of the Forbes and Daroobalgie area.

Table 2: Sensitive Receptors

RECEPTOR ID	APPROXIMATE COORDINATES (GDA94 – MGA56)		LOCATION FROM NEAREST EVAPORATION PAN		RECEPTOR TYPE
	E	N	DISTANCE (M)	DIRECTION	
R1	598982	6310404	1040	SSE	Rural residential
R2	598455	6310605	940	SSW	Rural residential
R3	597829	6310660	1270	SW	Rural residential
R4	597778	6311225	1050	WSW	Rural residential
R5	597925	6311391	870	W	Rural residential
R6	598097	6311736	700	WNW	Hassall owned rural residential
R7	598192	6311702	600	WNW	Hassall owned rural residential
R8	597933	6311928	920	WNW	Rural residential
R9	597920	6312143	1030	NW	Rural residential
R10	597709	6312145	1220	NW	Rural residential
R11	595691	6310957	3130	WSW	Rural residential
R12	594071	6312977	4920	WNW	Rural residential
R13	594276	6313744	5090	NW	Rural residential
R14	594815	6314532	5030	NW	Rural residential
R15	597398	6314648	3390	NNW	Rural residential
R16	600354	6313187	2130	NNE	Rural residential
R17	600344	6314112	2900	NNE	Rural residential
R18	600387	6315288	4040	NNE	Rural residential
R19	601815	6315019	4500	NE	Rural residential
R20	602738	6311452	3700	E	Rural residential
R21	605187	6315641	7430	NE	Rural residential
R22	604419	6305884	7740	SE	Rural residential
R23	599056	6307619	3830	S	Rural residential
R24	598339	6306937	4540	SSW	Rural residential
R25	597370	6306632	5040	SSW	Rural residential
R26	599020	6309667	1810	S	Rural residential
R27	597564	6308984	2760	SSW	Rural residential
R28	595376	6307680	5120	SW	Forbes townsite (urban)

RECEPTOR ID	APPROXIMATE COORDINATES (GDA94 – MGA56)		LOCATION FROM NEAREST EVAPORATION PAN		RECEPTOR TYPE
	E	N	DISTANCE (M)	DIRECTION	
R29	595019	6307925	5150	SW	Forbes townsite (urban)
R30	594545	6308234	5350	SW	Forbes townsite (urban)
R31	594062	6306217	7100	SW	Forbes townsite (urban)
R32	593118	6307443	6970	SW	Forbes townsite (urban)
R33	594214	6308729	5320	WSW	Forbes townsite (urban)
R34	594468	6310172	4530	WSW	Rural residential

Figure 3: Sensitive Receptors



7.3. **Brine Spill Containment;**

a) The main factory is a concrete floored area surrounded by drains and sumps which collect and store any brine.

b) The stored brine is reused in the brine curing process and any excess is processed through the primary brine treatment plant before being placed in the evaporation pans.

c) The shallow monitoring piezometers are positioned near the evaporation pans to monitor horizontal movement of waters at the base level of the evaporation pans, these piezometers allow for early detection of leaks from the evaporation pans.

7.4. All overland water flows within the site are managed and directed through storage dams prior to the waters flowing from site. All overland flows are directed away from brine infrastructure. The Evaporation pans are constructed so that overland water flows are directed away from the evaporation pans.

7.5. **Topography;**

Landform elements consist of approximately:

a) 40% 'Gilgai' covered area, which are repeated mounds and depressions formed on shrink-swell and cracking clay soils

b) 20% waterways

c) 40% gently sloping land (40%) in the north western corner of site.

The factory is located on the latter. This land slopes into the interior of the site. The whole site slopes gently to the south east.

7.6. **Vegetation;**

The native vegetation is dominated by eucalypts. Eucalypts are the largest tree family in Australia and have adapted to Australia's climatic regions developing more than 900 separate species. Around 100 mature grey box (Euc. Microcarpa) are located throughout the site. About 15% of the site consists of grey box regeneration, dating from 1950s and 1970's. The Gilgai area has few mature trees. A variety of new eucalypt trees from current and previous planting programs exist in several locations.

7.7. **Land Use;**

The land is used mainly for cropping with cattle grazing on improved pasture. The industrial factory and associated storage sheds and infrastructure occupy approximately 6ha. Evaporation pans occupy about

2 ha. The remaining land is used for agriculture. Approximately 16ha is under irrigation. Production from cropping supports the cattle breeding operation that runs over the remainder of the site. The factory works with production line methods employing over 40 staff. Some areas have been fenced off and left to native vegetation.

8. OVERVIEW OF ACTIVITIES ON SITE

There is one process on site, the processing of Cattle Hides. The handling of Kangaroo Skins is limited to green grading and repacking for transport to the contract processor; no processing of Kangaroo skins occurs at the LHHT site.

8.1 The primary process on site is Green Cattle Hides which are obtained mainly from a variety of abattoirs in Victoria, New South Wales and Queensland, occasionally hides are sourced from South Australia. These hides are processed to the stage of treatment known as “Brine Cured”.

8.2 The first step in the process begins by receiving fresh green hides from the abattoirs.

8.3 Hides are processed through the fleshing hide chain where the hides are trimmed in the green state. The hides are processed through the fleshing machines where the fat and flesh are removed from the carcass side of the hide. The Fleshings are placed into IBC bins before being transferred to a truck for transport to a rending plant to be processed into bio-diesel, tallow and other productions.

8.4 The fleshed green hides are immediately placed into ‘raceways’ with brine (98% saturation saline) and circulated constantly for 18-24hrs. Salted hides are processed in the same manner. A biocide is added to the raceways to assist in preserving the hides.

8.4 After brining, hides are removed by mechanical claw and placed into mesh cages for draining. The hides are left in the cages for a period of time to drain and all Brine runoff is recycled.

8.5 After draining, the hides are processed through the grading chain where the hides are trimmed, graded and packed onto wooden pallets according to weight ranges and grade. Pallets are made on site with timber treated and rated for export.

8.6 Once the hides are palletised the hides are stored on site; this may be for as short as one hour; the average storage for hides on site is one month.

8.7 Hides are moved from site for export in shipping containers which are internally bunded.

8.8 Excess brine is processed through the wastewater treatment plant, known as the primary brine treatment plant prior to being placed in evaporation pans where the water content is evaporated, and the salt is recovered to be re-used in the process.

8.9 Kangaroo skins is the secondary activity on site. Fresh Green kangaroo skins are received chilled from predominantly pet food abattoirs.

8.10 The Skins are graded for size and quality with the lower grades being separated for disposal. The Higher-grade skins are placed in sealed stainless-steel bins for transport to a contract processor.

8.12 A small self-replacing cattle herd is run on dryland areas using production from the cropping area as supplementary feed. During times of drought the cattle herd is either reduced in number or removed completely from site.

9. CONTACT INFORMATION

9.1. The protocol for Industry Notification of Pollution Incidents (Part 5.7 of the POEO Act) requires that the occupier of premises, the PCBU or any person carrying on the activity which causes a pollution incident to immediately notify each relevant authority (identified below) when material harm to the environment is caused or threatened.

(http://www.environment.nsw.gov.au/pollution/notificationprotocol.htm)

9.2. Firstly, call 000 if the incident presents an immediate threat to human health or property. Fire and Rescue NSW, the NSW Police and the NSW Ambulance Service are the first responders, as they are responsible for controlling and containing incidents.

9.3. If the incident does not require an initial combat agency, or once the 000 call has been made, notify the relevant **Authorities** in the following order;

Table 3: Regulatory Contact List

NO	APPROPRIATE REGULATORY AUHTORITY[2]	CONTACT
1	EPA	13 15 55
2	Forbes Shire Council	(02) 6850 2300
3	SafeWork	13 10 50
4	Fire & Rescue NSW	1300 729 579 or 000
5	Emergency Services	000
6	Ministry of Health (www.health.nsw.gov.au/publichealth/infectious/phus.asp)	(02) 9391 9000

9.4. **Site Contacts;**

Table 4: Site Contact list

NAME	TITLE	CONTACT NO
Jay Stottelaar	General Manager	0409 990 238
Terry Rousell	Plant Manager (Chief Fire Warden)	0423 464 569
Grant Rousell	Maintenance and Wastewater Manager (Deputy Fire Warden)	0437 252 303
24 Hour Contact	24 hour contact and complaints line	0492 963 040
Kevin Trembath	Compliance Manager	0403 735 141
Courtney Rousell	WHS/HR Manager	0432 315 395

10. ENVIRONMENTAL INCIDENT

10.1. In the event of an environmental incident or emergency, communication is essential to ensure an efficient response to the incident / emergency. This will assist in minimising the effects of the incident while at the same time maximising the preservation of life. Refer to **Figure 5** for emergency evacuation routes.

10.2. The incident response process is outlined in **Figure 4** and includes initial containment, clean-up, notification and investigation. In addition, incident response procedures are further detailed within the following documents:

a) **IP1.2 - Emergency Preparedness Procedure**; Provides procedures to be followed in the event of an emergency (including environmental incidents).

b) **ESOP1.3 - Emergency Response to Wastewater Spillage**; Details requirements for notification, containment and clean-up of spills.

[2] The Appropriate Regulatory Authority (ARA) for the activity under the POEO Act (usually the EPA or local authority) – the local authority is a local council of an area under the Local Government Act 1993)

c) **SSOP1.5 – Chemical & Waste Water Spill Response**; Details requirements for notification, containment and clean-up of spills.

d) **IP1.4 – Dangerous Goods and Hazardous Substance Procedure**; Provides procedure to ensure all Chemicals and Substances comply with Legislation, Codes of Practice and Standards for handling, storage and use during operations on site.

e) **IF14 - Incident and Investigation Report**; Is used for the reporting and investigation of environmental incidents. Includes a description of the incident, risk assessment and identification of corrective actions. Further details listed in **Section 16.**

f) **ESPO1.2 – Waste Disposal;** details disposal and recording requirements for differing types of waste.

11. LIQUID POLLUTION IDENTIFICATION - DANGEROUS GOODS AND HAZARDOUS SUBSTANCES

11.1. Bulk storage;

a) The chemicals are specifically stored in bulk amounts (Refer table below).

Table 5: Bulk Goods storage List

INVENTORY	STORAGE LOCATION	AMOUNT STORED
Hydraprime HP1240	Chemical Storage Area	16000 Lt
Salt	Salt Bays	80 Tonnes
Reclaimed Salt	Salt Bay	200 Tonnes
LPG	North Boundary Road	6000 Lt
LPG	North East - Evaporation Tunnels	45,000 Lt
Sodium Hydroxide	Chemical Storage Area	15000 Lt

11.2. Production Chemicals;

a) Several chemicals are specifically used in Brinecure production operation (Refer table below).

b) For precise storage location refer to the Dangerous Goods site map, **Figure 5**.

Table 6: Production Chemical list.

STORAGE AREA	DEPOT No	SHIPPING NAME	COMMON NAME	UN No	CLASS	PG	HAZCHEM CODE	TYPICAL QTY	UNIT
Chemical Storage Area	3	Fendona	Fendona	3082	9	III		10	LTS
Chemical Storage Area	3	Py Insecticide Fog	Py Insecticide Fog	1993	3	III	3Y	40	LTS
Chemical Storage Area	3	Aqua-K-Othrine Insecticide Space-Spray Concentrate	Aqua-K-Othrine Insecticide Space-Spray Concentrate	3082	9	III	3Z	3	LTS
Chemical Storage Area	3	HydraBase HE-2130	Sodium Hydroxide 30%	1824	8	II	2R	5000	LTS
Primary Treatment Plant		Hydrabase HE-2130	Sodium Hydroxide 30%	1824	8	II	2R	1,000	LTS
Chemical Storage Area	3	Busan 1455	Busan 1455	3265	8	II		2000	LTS
Chemical Storage Area	3	Podica 19	Potassium Dimethyl Dithiocarbamate	1719	8	II	2R	1000	LTS

11.4. Containing Spills On-Site;

a) On site there are many Dangerous Goods and Hazardous Substances. Workplace participants will be provided with "Chemical Response" training to ensure they can safety clean up and dispose of any spills that may occur;

b) Spills are to be cleaned up immediately using the spill kit; and

c) The Compliance Manager and Production Manager must be notified immediately of any on-site or off-site spills.

d) For all Major pollutant spills, refer to *ESOP1.3 - Emergency Response to Wastewater Spillage.*

11.5. **Spill Kits Are Located On-Site in The Following Areas;**

a) Wastewater;

b) Maintenance Shed;

c) Chemical Storage Area

11.6. Spill kits contain instructions, absorbents and protective equipment to clean up any spills.

A low risk or minor spill is one that workplace participants should be capable of handling safely after receiving appropriate training.

11.7. Operators must wear appropriate personal protective equipment when cleaning up any spills including:

a) Chemical suit;

b) Long sleeve shirts and pants;

c) Safety glasses/face shield/goggles;

d) Gloves/chemical gloves;

e) Chemical splash apron/Chemical resistant overalls and respirator;

f) Non-slip footwear/safety boots;

11.8. **Treating Non-Mobile Spillages;**

a) Once a spillage has been immobilised it must be disposed of as follows:

i. **Chemicals** – consult the SDS and the "*SSOP1.5 – Chemical & Wastewater Spill Response*". Follow the instructions and dispose of accordingly.

ii. **Salt containing solid waste** – shovel sand and salt into salt waste bin.

iii. **Non-salt solid waste** – shovel sand and solid waste general waste bin.

12. DETERMINING THE SIGNIFICANCE OF ENVIRONMENTAL ASPECTS[3]

12.1. The significance of the identified environmental aspects will be determined by considering the consequence and likelihood of impacts arising from the aspects. The significance will be given a category as per the following **Table 7**.

12.2. **Consequence;**

a) Consequence will be considered as **SEVERE** if:

i. Irreversible and extensive damage is caused to the environment and human health;
ii. The receiving environment is known to be sensitive;
iii. The impact is known to be permanent;
iv. The impact is high and wide scale;
v. A breach of license conditions results; or
vi. Major business disruption occurs.

b) Consequence will be considered as **MAJOR** if:

i. Significant damage is caused to the environment or human health that involves either extensive remediation or relocation;
ii. The receiving environment is known to be sensitive;
iii. The impact is known to be long-lived;
iv. The impact is high;
v. A breach of license conditions results; or
vi. Significant business disruption occurs.

c) Consequence will be considered to be **MODERATE** if:

i. Moderate damage to the environment or human health;
ii. The receiving environment is possibly sensitive;
iii. The impact is short-lived;
iv. The impact is smaller;
v. No breach of license condition results; or
vi. Some business disruption occurs.

[3] Refer to EM05 – Environmental Aspects

d) Consequence will be considered to be **MINOR** if:

i. Minor damage to the environment or human health that is immediately managed on-site;
ii. The receiving environment is not sensitive;
iii. The impact is short-lived;
iv. The impact is small;
v. No license conditions are breached; or
vi. No disruption of business occurs.

e) Consequence will be considered to be **INSIGNIFICANT** if:

i. Negligible damage to the environment or human health which is fully recoverable with no permanent impact on the environment or human health;
ii. The receiving environment is not sensitive;
iii. The impact is short-lived;
iv. The impact is trivial;
v. No license conditions are breached; or
vi. No disruption of business occurs.

13.3. **Likelihood;**

a) Likelihood will be considered as **ALMOST CERTAIN** if:

i. The risk is expected to occur; or
ii. Occurrence is inevitable; or
iii. May occur many times.

b) Likelihood will be considered as **LIKELY** if:

i. The risk will probably occur in the circumstances present; or
ii. Occurrence not surprising; or
iii. May occur more than once.

c) Likelihood will be considered as **POSSIBLE** if:

i. The risk could occur at some time; or
ii. Likely to occur sometime.

d) Likelihood will be considered as **UNLIKELY** if:

i. The risk is not likely to occur in normal circumstances; or

ii. Unlikely to occur, though conceivable.

e) Likelihood will be considered as **RARE** if:

i. The risk is very unlikely; or

ii. The risk is so unlikely that probability is close to zero.

TABLE 7

	CONSEQUENCE				
LIKELIHOOD	**SEVERE - 5**	**MAJOR - 4**	**MODERATE - 3**	**MINOR - 2**	**INSIGNIFICANT - 1**
ALMOST CERTAIN - 5	EXTREME – 25	EXTREME – 20	HIGH – 15	MEDIUM – 10	MEDIUM – 5
LIKELY - 4	EXTREME – 20	HIGH – 16	HIGH – 12	MEDIUM – 8	LOW – 4
POSSIBLE - 3	HIGH – 15	HIGH – 12	MEDIUM – 9	MEDIUM – 6	LOW – 3
UNLIKELY - 2	MEDIUM – 10	MEDIUM – 8	MEDIUM – 6	LOW – 4	LOW – 2
RARE - 1	MEDIUM – 5	LOW - 4	LOW - 3	LOW - 2	LOW - 1

13.4. ER1.3 - Register of Aspects;

Table 8: Register of aspects:

PRIORITY	ACTIVITY	ELEMENT	MODE OF OPERATION	ASPECTS	IMPACTS	SIGNIFICANT (S) / NOT SIGNIFICANT (NS): CONSEQUENCE / LIKELIHOOD PRIOR CONTROL	CONTROL	SIGNIFICANT (S) / NOT SIGNIFICANT (NS): CONSEQUENCE / LIKELIHOOD AFTER CONTROL
1	**Brine curing – Evaporation Dams**	Air	Abnormal	Evaporating Brine causes odour due to BOD	a) Odour – Nuisance to Neighbours	**EXTREME - 25**	a) Brine is treated prior to discharge to remove suspended particles and reduce BOD loading b) pH of discharged brine is maintained above 9.5 c) pH within pans is monitored and maintained above 8 with sodium hydroxide d) De-odourise chemical available to treat and naturalize immediate odours e) EPA License	**MEDIUM - 10**
2	**Brine curing - Raceways**	Water	Normal	Release of brine into waterways	a) Possible contamination of waterways and groundwater	**EXTREME - 25**	a) Bunding, drains and sumps capable of holding contents of raceway should it breach b) Bunding, sumps and drains are regularly inspected to ensure its integrity c) EPA License d) Personnel trained in spill containment	**MEDIUM - 5**
3	**Brine curing - Tanks**	Water	Normal	Release of brine into waterways	a) Possible contamination of waterways and groundwater	**EXTREME - 25**	a) Bunding has the capacity to hold the volume of the tanks it contains. b) Bunding has a sump for the collection and pumping of spilled brine c) Bunding is regularly inspected to ensure its integrity	**MEDIUM - 5**
4	**Brine curing – Evaporation Pans**	Water	Normal	Release of brine into waterways	a) Possible contamination of waterways and groundwater	**EXTREME - 25**	a) Evaporation pans are constructed of compacted clay and HDPE lined. b) The Volume of stored brine and liner integrity is inspected twice weekly. c) Shallow monitoring piezometers are installed down gradient of the pans to monitor horizontal water flows at the base level of the pans	**MEDIUM - 5**
5	**Chemical Storage**	Land/Air	Normal	Spillage	a) Possible contamination of storm water and soils	**EXTREME - 20**	a) All chemical storage areas have bund walls, drains and sumps to contain and send spills to onsite wastewater plant for treatment b) On site overland water flows managed through fresh water dams prior to leaving site to capture spills as final protection should all other containments fail at once.	**LOW - 4**

PRIORITY	ACTIVITY	ELEMENT	MODE OF OPERATION	ASPECTS	IMPACTS	SIGNIFICANT (S) / NOT SIGNIFICANT (NS): CONSEQUENCE / LIKELIHOOD PRIOR CONTROL	CONTROL	SIGNIFICANT (S) / NOT SIGNIFICANT (NS): CONSEQUENCE / LIKELIHOOD AFTER CONTROL
							c) Compliant with DG License; Manifest, site plans, Chemical Substance Register, SDS's up to date e) Spill kits accessible and located across site f) Chemical storage Depots for Dangerous Goods clearly label/marked. g) Follow IP1.4 - Dangerous Goods and Hazardous Substance Procedure	
6	**Fire Protection**	Air	Abnormal	Bush Fire	a) Possible destruction of facility by bush fire damage	**EXTREME - 20**	a) The Site is fully equipped with firefighting equipment which is serviced and maintained on a regular basis. b) 10 ML dam available and fitted with adapter enabling fire trucks to pump directly from dam c) Evacuation Procedure d) Fire Warden training e) Monthly evacuation drills f) Firebreaks around each paddock made by farm operator each fire season g) Aerosols, paints and solvents stored in fire and explosion resistant cabinets with flues to vent fumes outside building h) Garden around plant keep green and trimmed to reduce fuel load of any potential fire hazard	**MEDIUM - 8**
7	**Wastewater – Primary Treatment**	Waste	Normal	Off-site brine cake disposal	a) Waste to Landfill	**HIGH - 12**	a) Primary brine waste compressed into cake using plate press to ensure spadability b) EPA License c) Annual Waste Classification testing completed to ensure compliance with landfill d) ESOP1.2 – Waste Disposal e) all waste disposal recorded for type quantity and disposal location	**LOW - 4**
8	**Brine curing – Salt Waste**	Waste	Normal	Off-site salt waste disposal	a) Waste to Landfill	**HIGH - 12**	a) Salt contaminated waste is made spadable through mixing with sawdust if required. b) EPA License	**LOW - 4**

PRIORITY	ACTIVITY	ELEMENT	MODE OF OPERATION	ASPECTS	IMPACTS	SIGNIFICANT (S) / NOT SIGNIFICANT (NS): CONSEQUENCE / LIKELIHOOD PRIOR CONTROL	CONTROL	SIGNIFICANT (S) / NOT SIGNIFICANT (NS): CONSEQUENCE / LIKELIHOOD AFTER CONTROL
							c) Annual Waste Classification testing completed to ensure compliance with landfill d) ESOP1.2 – Waste Disposal e) all waste disposal recorded for type quantity and disposal location	
9	**Brine Curing – Non-salt Waste**	Waste	Normal	Non-salt waste	a) Waste to Landfill	**HIGH - 12**	a) All waste to be transported to licenced waste facility. b) Waste is recorded for type, quantity and disposal location. c) EPA License d) ESOP1.2 – Waste Disposal	**LOW - 4**
10	**Transport**	Land Air	Normal	Raw hides, blood, Fat & grease, BOD	a) Public Amenity b) Odour	**HIGH - 12**	a) Sealed hide bins for hides b) Sealed tipper trucks for hides c) Sealed tipper truck for fats/grease d) Transport Company and Driver Procedure	**LOW - 4**
11	**Brine Curing – Primary Brine Treatment**	Land	Abnormal	Adverse weather Events	a) Wastewater plant overwhelmed with rainwater run-off	**HIGH - 16**	a) Divert excess brine to secondary storage tank farm b) Divert back-ramp drain to holding sump c) run primary treatment plant 24hrs d) Divert hides if adverse weather continues	**MEDIUM - 8**
12	**Energy Consumption** a) LPG b) Petrol & Diesel	Climate Change	Normal	Air Emissions – CO, CO_2, NOx, SOx, VOC, Particulates &Temperature	a) Contributes to Global warming b) Burns c) Odour d) Liquid fuels can contaminate soils and surface waters	**HIGH - 12**	a) Fuels and Oils are stored in bund areas and self-bunded tanks b) Change forklift fleet every 3 years to more fuel efficient models c) Ektimo – Emission Testing	**LOW - 3**
13	**Maintenance** (Including contractors)	Climate Change	Normal	Waste oils, solvents, metals, CFC's	a) Oils/solvents could contaminate soils, surface water b) CFC's from refrigeration units could contaminate atmosphere c) Housekeeping	**HIGH - 12**	a) Fuels and Oils are stored in bunded areas or self-bunded tanks. b) Solvents are stored in fume cabinets c) DG License d) Replace R22 refrigeration gas with environmentally friendly gas e) oils are sent for recycling	**LOW - 3**

PRIORITY	ACTIVITY	ELEMENT	MODE OF OPERATION	ASPECTS	IMPACTS	SIGNIFICANT (S) / NOT SIGNIFICANT (NS): CONSEQUENCE / LIKELIHOOD PRIOR CONTROL	CONTROL	SIGNIFICANT (S) / NOT SIGNIFICANT (NS): CONSEQUENCE / LIKELIHOOD AFTER CONTROL
14	**Plant Operation**	Health	Normal	Noise Emissions	a) Health effects for workplace participants b) Nuisance to neighbours	**MEDIUM - 9**	a) Ear Protection provided b) Employee hearing tests every 2 years after initial testing before starting at HT c) Full factory site noise testing every 5 years d) JTA – Noise Assessment Reports	**LOW - 3**
15	**Energy Consumption**	Climate Change	Normal	Electricity – Air Emissions (at power plant) CO, CO_2, NOx, SOx, VOC, Particulates	a) Contributes to global warming b) Smog	**MEDIUM - 9**	a) Utilising energy efficient machinery and equipment b) Turn factory lights off during the day if suitable. c) Large Scale 90 KW Solar plant installed to reduce power consumption	**LOW - 3**
16	**Brine Curing Operation**	Air	Normal	a) Odour – Caused by spillage of blood water and or rotten hides received. b) Fat and Grease	a) Health effects for workplace participants b) Odour - Nuisance to neighbours c) Slippery driving conditions	**MEDIUM - 9**	a) Hide Delivery area surrounded by drains and sump to capture spills b) hides processed quickly upon arrival c) Housekeeping – working area washed down daily	**LOW – 3**
17	**La Nina**	Climate Change	Normal	Heavy Rainfall	a) Flooding b) Pollution	**MEDIUM – 9**	a) All storm/rainwater is diverted away from the factory and evaporation pans b) Evaporation pans have a freeboard capacity to contain any rainfall capture. Water runoff is directed away from the evaporation pans. c) Freeboard level is monitored and maintained to ensure sufficient storage. d) extra storage is available to hold excess brine within tank network, e) When heavy rain/flooding forcast Brine drain network cleared of brine, holding all brine in raceways and tanks.	**LOW – 3**

14. TRAINING

14.1. Wastewater and hide curing Operators will be provided with spill response training to ensure they can safely clean up and dispose of any chemical spills that may occur.

14.2. All workplace participants will be provided with training during the induction on how to report any hazardous spills and complete an Incident Report and Investigation Form. Refresher training will be provided annually to ensure workplace participants are aware of their responsibility to report any emergency hazardous materials and wastewater pollutant spills.

14.3. Training records for all workplace participants shall be maintained by the WHS department.

14.4. The Department Supervisors or delegate will conduct a training needs analysis on an annual basis to determine training requirements and will be discussed with the Production Manager.

15. COMMUNICATING WITH THE LOCAL COMMUNITY

15.1. Community residents that are potentially affected by an environmental incident at the LHHT will be notified immediately by one of the following methods:

a) Phone call by the Compliance Manager or General Manager; or

b) Door knocking by the Compliance Manager or appropriate delegate for face-to-face communication wherever feasible.

15.2. Correspondence received by LHHT relating to environmental issues will be managed by the Compliance Manager. Advice may be sought from the Production Manager or from the Maintenance Manager depending upon the complexity of the issue.

15.3. Any additional communication will be determined by the nature of the event or as directed by the relevant agency. Regular updates will be provided to the affected community residents and local council throughout the course of the event.

15.4. In the event of a major pollution incident, residents or businesses may be further contacted by an emergency service representative, such as in a case where evacuation or critical safety actions are necessary.

15.5. A follow up telephone call will also be made to residents when the incident is no longer of concern or normality has been restored.

15.6. In the event of an environmental incident, only the General Manager or delegate are authorised to make any statements to the media or public. Workplace participants will be informed to direct all media attention to the General Manager.

16. INFORMATION TO BE TAKEN IN THE EVENT OF A POLLUTION INCIDENT

16.1. The following information (as a minimum) should be included in the initial notification on the **IF14 - Incident and Investigation Report Form;**

a) The nature of the incident, Time and date of incident;

b) Location of incident;

c) Number of persons involved (if any);

d) Description of injuries (if any);

e) Number and type of vehicles involved

f) Name and contact details of the person in charge at the incident site;

g) Potential hazards;

h) Dangerous goods.

16.2. **Air Emissions – Offensive Odours;**

a) Questions to ask the caller in the event of an odour complaint phone call and recorded on **EF02 - Pollution and Odour Complaints Form**;

i. Residents name and contact number;

ii. How long have you noticed the odour – Duration of the odour;

iii. How strong is the odour – Strong, mild or weak;

iv. What does the odour smell like – rotten eggs, urine or something else – description of odour;

v. Thank you for providing us with the information we will try and rectify the problem immediately; and

vi. Our Wastewater Supervisor or General Manager will be in contact with you shortly.

b) Hassall Trading Response;

i. Record all weather details provided on the Davis weather station i.e. direction wind is blowing;

ii. All details of investigation are to be recorded under section 2.7 on EF02 - Pollution Complaints form;

iii. A response will be given to the complainant by the Production Manager or Compliance Manager. This response shall be documented on the EF02 - Pollution and Odour Complaints Form, under section 2.6.

17. VARIATIONS

17.1. LHHT reserves the right to vary, replace or terminate this Procedure if legislation or other references change or, as a minimum, 3 years from last review date.

18. REFERENCES

18.1. IP1.2 - Emergency Preparedness Procedure

18.2. IP1.11 – Infectious Disease Procedure

18.3. ESOP1.3 - Emergency Response to Wastewater Spillage

18.4. SSOP1.5 – Chemical & Wastewater Spill Response

18.5. EP1.1 - Emissions to Air and Odour Procedure

18.6. EM05 – Environmental Aspects

18.7. EM08 – Training, Awareness and Competence

18.8. EM09 – Communication

18.9. **Additional references from SOP EMS; Wastewater** (Used in conjunction with the PIRMP)

a) ESOP1.1 - General Operations

b) ESOP1.2 - Waste Disposal

c) ESOP1.4 – Primary Treatment

19. REFERENCES/OTHER RELEVANT DOCUMENTS

19.1. WHS Policy

19.2. Environmental Policy

19.3. IR1.3 - Legal and Obligation Register

19.4. SR1.4 - Incident Investigation and Hazard Register

19.5. ER1.2 - Pollution and Odour Complaints Register

20. PIRMP TESTING RECORDS

NO	DATE	METHOD	WORKPLACE PARTICIPANTS	INCIDENT TYPE
1	23 Nov 2018	Odour Complaint	Management and Wastewater operators	Test Complaint of rotten odour
2	18 Mar 2019	Scenario	Management and Supervisors	Major off-site emergency – Fire
3	20 Oct 2020	Scenario	Management, Supervisors, Wastewater operators	Brine water spillage – Tank breach
4	12 May 2021	Scenario	Management, Supervisors, Wastewater operators	Odour Management – Self detected complaint of evaporation pan odour.
5	12 May 2022	Scenario	Management, Supervisors, Wastewater operators	Chemical Spillage – Sodium Hydroxide IBC tank leak.
6	13 Nov 2022	Actual Event	Management Team, Wastewater Operators	Flood Incident on the 13/11/2022 impacting Forbes and the site. Operations ceased; brine drainage network cleared of brine. Freeboard of Evaporation Pans maintained. Emergency pumps set up and activated. No brine containment breached.
7	15 Nov 2023	Scenario	Management, Supervisors, Wastewater operators	Brine Drain overflow scenario
8	29 Nov 2024	Actual Event	Management Team, Wastewater Operators	High Rainfall event. Freeboard of Evaporation Pans maintained. Emergency pumps set up and activated. No brine containment breached.
9	5 August 2025	Scenario	Management Team, Wastewater Operators	Chemical Spillage – Sodium Hydroxide IBC tank leak.
10	17 March 2026	Actual Event	Management Team, Wastewater Operators	Chemical Spillage – Sulphuric Acid IBC tank leak.

21. DOCUMENT HISTORY

VERSION	DATE	SUMMARY OF CHANGES	TRAINING REQUIRED
Rev 1	11.Dec 2017	Initial	Yes
Rev 2	4 Oct 2018	Reviewed and updated	No
Rev 3.1	24.12.18	Significant changes to format and content	Yes
Rev 3.2	10.1.2019	Edits before posting on website as final	No
Rev 3.2.1	27.3.19	Additional chemical in Inventory of Pollutants. PIRMP paper versions (SDS box & office) removed & replaced.	No
Rev 4.1	5.8.18	Change of formatting and content	Yes
Ver 4.2	29/10/2020	Update to formatting. Removal of kangaroo processing references. Update to titles.	No
Ver 4.3	1/6/2021	Update to chemical register	No
Ver 4.4	7/7/2021	Creation of section 12. Updated Section 11.5 – Spill kit locations Update all polices, procedures and SOPS to new document names.	Yes
Ver 4.5	29/11/2021	Updated Section 7.4 – included heavy rainfall procedure as per EPA email alert 25 Nov 21; 'NSW EPA Severe Weather forecast to February 2022" Update Section 13.4, Register of aspects to include point 16.	No
Ver4.6	22/04/2022	Updated Chemical Register and Maps Updated job title and descriptions. Insert WHS/HR	No
Ver4.7	12/05/2022	Update following PRIMP Test	No
Ver4.8	17/11/2022	Updated Section 20 to include recent evacuations. Annual review PIRMP nil updates required	No
Ver 5	28/11/2023	Update of maps and content to included EvapX and Fleshing	No
Ver 6	22/1/2025	Update of maps, inclusion of sensitive receptors. Update of monitoring locations. Formatting of tables and layout.	No
Ver7	7/8/2025	Update of maps, Inclusion of new LPG Tanks	No
Ver7.1	15/9/2026	Update of registers and document	No

FIGURE 4: OVERVIEW OF INCIDENT RESPONSE PLAN

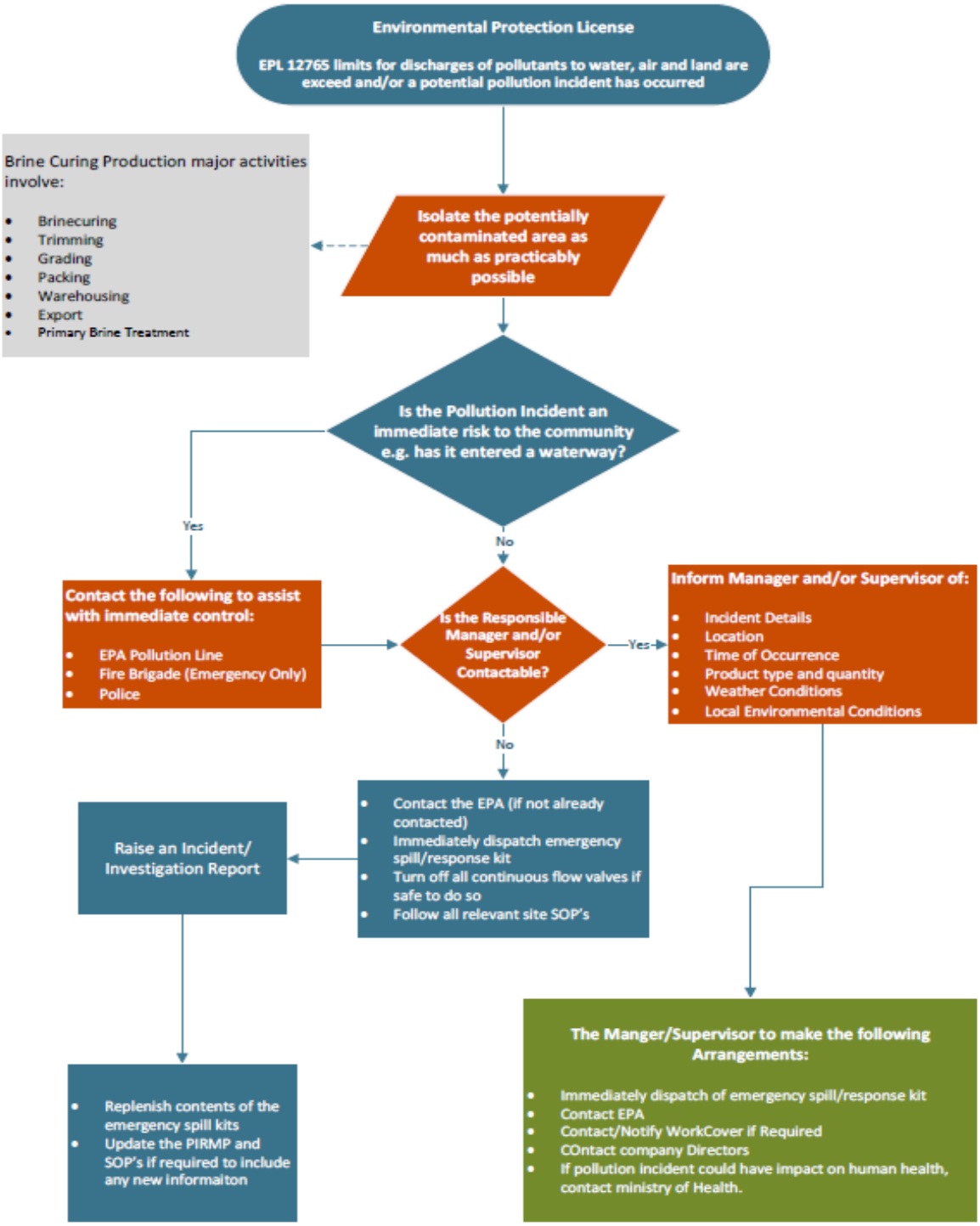


FIGURE 5: DANGEROUS GOODS DEPOT SITE PLAN AND EMERGENCY EVACUATION PLAN

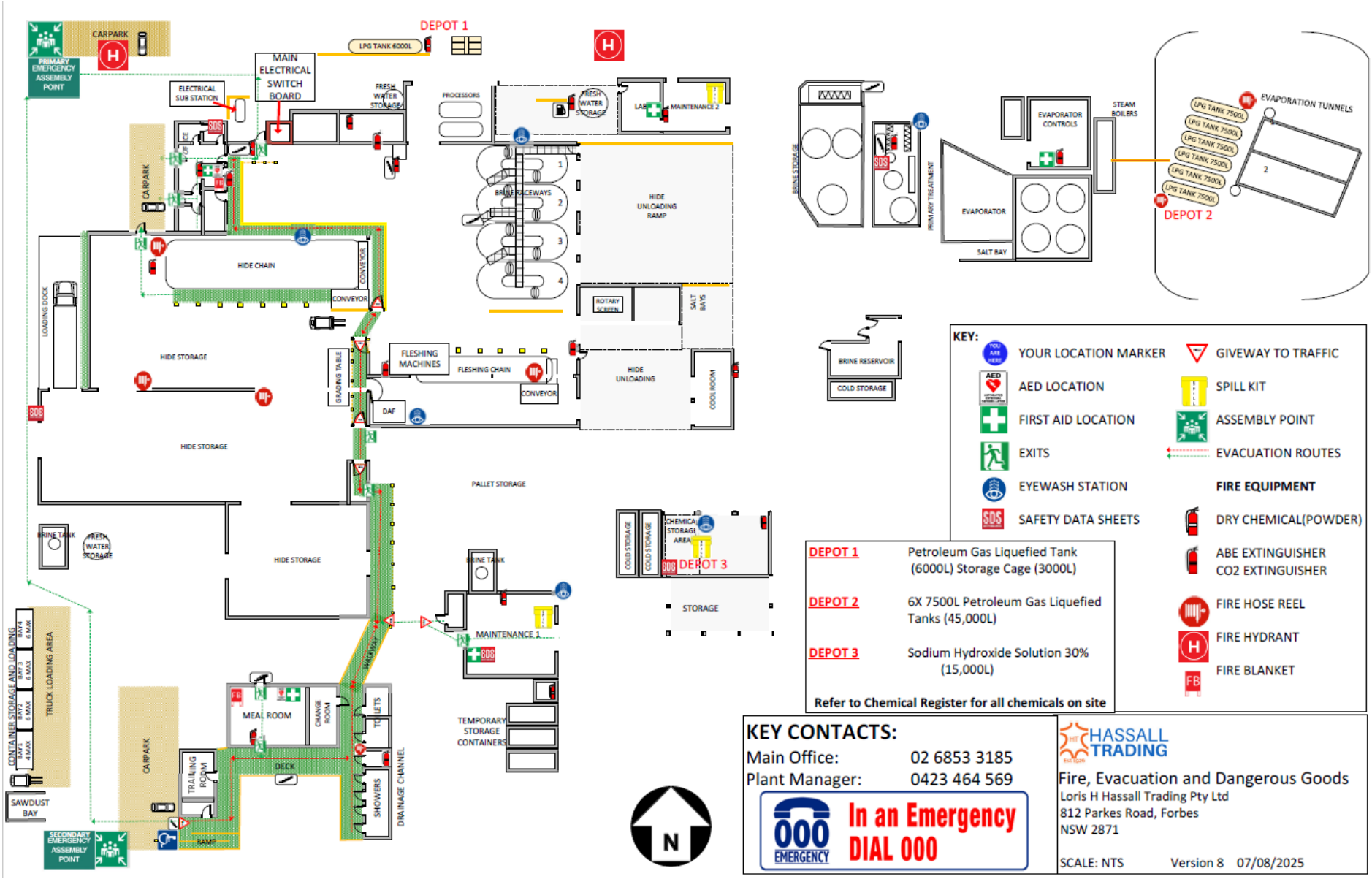
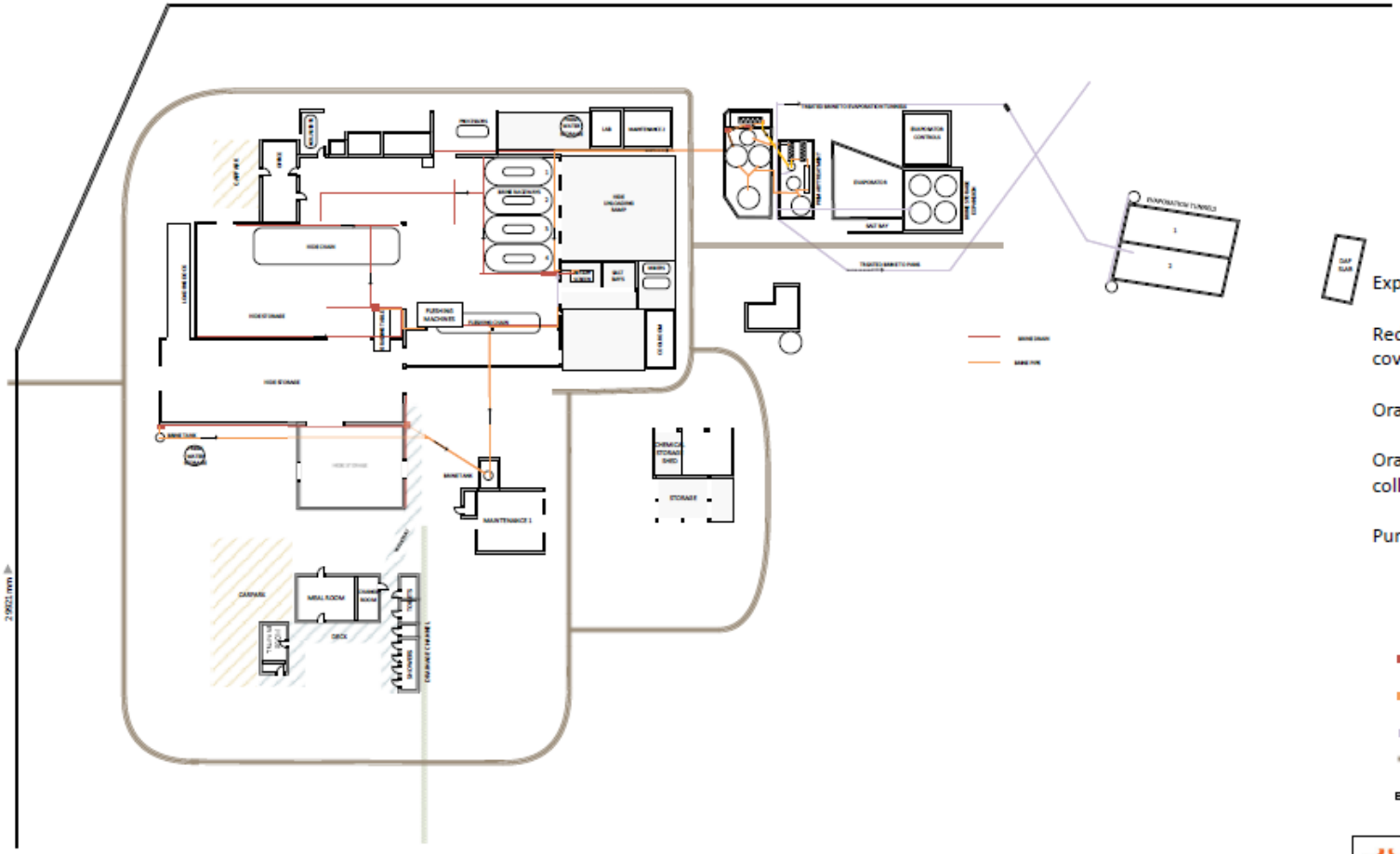


FIGURE 6: DRAINAGE SITE PLAN



Explanatory Notes:

Red lines indicate open gravity flow brine drains covered with grates or plates.

Orange Lines indicate pumped brine pipelines.

Orange and Red blocked sections indicate a brine collection sump.

Purple Lines indicated pumped treated brine pipelines

KEY

BRINE DRAIN

BRINE PIPE

TREATED BRINE PIPE

ROADWAY

N

Scale 100 Metres

HASSALL TRADING

SITE OVERVIEW

Loris H Hassall Trading Pty Ltd
812 Parkes Road, Forbes
NSW 2871

Version 5 07/08/2025