



Application for Licence Amendment

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

Licence Number	L6772/1997/13
Licence Holder	Waste Stream Management Pty Ltd
ACN	069 513 346
File Number	DER2016/000613-1~3
Premises	Waste Stream Management 2 Ratcliffe Road KWINANA BEACH WA 6167 Legal description – Lot 434 on Deposited Plan 220492, Lot 303 on Diagram 72808 and Part of Lot 304 on Diagram 72808 As defined by the coordinates in Schedule 1 of the Licence.
Date of Report	07 May 2021
Decision	Revised licence granted

**MANAGER WASTE INDUSTRIES
REGULATORY SERVICES**

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

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1. Decision summary

Licence L6772/1997/13 is held by Waste Stream Management Pty Ltd (Licence Holder) for the Waste Stream Management premises (the Premises), located at Lot 434 on Deposited Plan 220492, Lot 303 on Diagram 72808 and Part of Lot 304 on Diagram 72808, Ratcliffe Road, Kwinana Beach.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the conditions of the licence. As a result of this assessment, the Delegated Officer has granted an amended (revised) licence.

The amended licence issued consolidates and supersedes the existing licence previously granted in relation to the premises. The Delegated Officer has granted the amended licence in the new licence format, incorporating some of the new standard licence conditions. However this assessment relates only to the amendment application and assessment. The licence has not been fully reviewed.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department 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 application summary

The Licence Holder currently holds licence L6772/1997/13, authorising the prescribed activities for categories 13 (Crushing of building material), 62 (Solid waste depot), 63 (Class I inert landfill site), 67A (Compost manufacturing and soil blending) and 70 (Screening etc., of material).

The premises primarily receives waste in the form of skip bins and is approved to accept and landfill Inert Waste Type I, Inert Waste Type II, Clean Fill and Special Waste Type I (asbestos). Green waste is also processed on site.

On 23 October 2019, the Licence Holder submitted an application to the department to amend licence L6772/1997/13 under section 59 and 59B of the *Environmental Protection Act 1986* (the Act). The amendment requests changes to the Special Waste Type 1 (asbestos containing material) process limits that were detailed in former Table 1.3.3 (Waste Processing) of condition 1.3.3, relating to the burial of asbestos. Specifically the request was to amend or remove the requirements of items (ii), (iv) and (vi). The Licence Holder also requested an amendment to Table 2.3.1 (Monitoring of ambient groundwater quality), former condition 2.3.1.

In relation to the Special Waste Type 1 amendments requested, the Licence Holder advised that the current process limits prescribed are not practical for the premises' operations, and specifically that:

- with regard to item (ii), the request is to remove the requirement for the sentence reading "which is labelled or marked with the words "CAUTION – ASBESTOS" in letters not less than fifty (5) millimetres high". The Licence Holder advised that the condition is not considered to be workable as none of the asbestos removalist contractors within the Perth Metropolitan area label the black plastic sheeting containing asbestos waste that is taken to landfill;

- with regard to item (iv), asbestos containing material (ACM) is buried in Cell 3 of the landfill which is the only operational cell of the landfill. ACM is deposited in various locations within this cell depending on the location of current benches and other wastes. Therefore the whole of Cell 3 is the location of ACM burial and the licence holder seeks to have the requirements to record grid references asbestos disposal removed from the licence;
- with regard to item (vi) there is a permanent electronic record of all ACM brought to site, including all details required under item (v), and therefore the Licence Holder sought to have this requirement removed from the licence. There is a permanent presence of WSM Pty Ltd employees within the Cell 3 area, thus all ACM containing loads directed to their disposal area are witnessed in terms of daily cover. The ACM register is electronic and checked/approved daily by the site manager. The Licence Holder requested that DWER remove the requirements of item (vi) from the licence.

In regard to the ambient groundwater monitoring, the requirements for condition 2.3.1 of the licence were to perform groundwater monitoring on sampling sites that comprise of shallow, intermediate and deep piezometers (18 monitoring bores in total) six monthly for in-organic parameters and annually for organic parameters. The Licence Holder requested DWER remove the organic parameters from the monitoring suite for all but one downstream trigger bore on which all groundwater monitoring will be performed, and to discontinue organics testing at all other bores.

In the event that the sampled bore identifies contaminants of concern, the testing of all 18 bores would then recommence. This is based on the Licence Holder's justification that none of the parameters for the annual groundwater monitoring suite have been recorded above detection limits for any of the sampling undertaken over the last six years. The existing biannual monitoring program comprises continual monitoring at all bores for metals, nutrients and general water quality parameters.

2.3 Licence consolidation

As part of this amendment the department has consolidated the licence by incorporating changes made under the following Amendment Notices:

- Amendment by notice, granted 29 April 2016 – extension of licence duration.

The obligations of the Licence Holder have not changed in consolidating the licence. The department has not undertaken any additional risk assessment of the premises related to previous Amendment Notices. In consolidating the licence, the CEO has:

- updated the licence format to the department's contemporary licence format;
- replaced the term 'licensee' with the term 'licence holder';
- replaced the term 'shall' with 'must';
- replaced references to the Department of Environment Regulation (DER) with the Department of Water and Environmental Regulation (DWER), inclusive of abbreviations and contact details;
- deleted the redundant AACR form set out in schedule 1 of the previous licence and advised the Licence Holder to obtain the form from the department's website;
- revised licence condition numbers, and removed any redundant conditions and realigned condition numbers for numerical consistency; and
- corrected clerical mistakes and unintentional errors.

Previously issued Amendment Notices will remain on the DWER website for future reference and will act a record of DWER's decision making.

3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guidance Statement: Risk Assessments* (DER 2017). In the case of this amendment application, the risk assessment is based on the requested amendments to the licence.

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Emissions, receptors and pathways

3.1.1 Emissions

The key emissions that relate to the amendment proposal are **asbestos fines and fibres** from the acceptance of asbestos and material containing asbestos, and **leachate** from current and historic landfilling and waste management practices.

The January 2021 fire event and potential for impacts to groundwater from the fire event burning large plastic waste stockpiles on the premises has also been included in the assessment.

3.1.2 Receptors

In accordance with the *Guidance Statement: Risk Assessment* (DER 2017), the Delegated Officer has excluded employees, visitors and contractors of the Licence Holder's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies, and is provided for under other state legislation.

Table 1 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guidance Statement: Environmental Siting* (DER 2016)).

Table 1: Sensitive human and environmental receptors and distance from prescribed activities

Human receptors	Distance from prescribed activity
Nearby industrial receptors	Historic residue area, immediately adjacent on the northern boundary, sharing Lot 304. Limestone quarry (manned premises), 340m north-east of the premises boundary. Scrap metal recycling premises (manned premises), 400m west of the premises boundary.
Medina residential area	674m south-east of the premises boundary.
Medina Primary School	1.4km south-east of the premises boundary.
Rockingham Road (major road)	130m west of the premises boundary.
Kwinana Motorplex	Immediately adjacent on the western boundary.
Thomas Oval (recreation/sport)	689m south of the premises boundary.

(Table 1 continued) Environmental receptors	Distance from prescribed activity
Groundwater contours	Regional groundwater flow appears to be to the north west towards Cockburn Sound, with groundwater flow on the site being in a north-northwest to north-east direction. Groundwater levels vary between approximately 0.5 to 1.4 m AHD across the premises.
Bush Forever Site 349: Leda and Adjacent Bushland, Leda	115m south of the premises boundary.
Threatened Ecological Community (TEC): Tuart woodlands and forests of the Swan Coastal Plain	There are several Threatened Ecological Communities (TEC) approx. 1.3km east of the Premises boundary. The Premises is located outside of the buffer zone for these TECs.
Cockburn Sound	Cockburn Sound is located approx. 1.9km west of the Premises boundary. The premises is located within the <i>State Environmental (Cockburn Sound) Policy 2015</i> area.
Environmental value	Environmental aspect
Acid sulphate soils	No known risk.
Soils and geology	The premises is located within the Spearwood Dune System, characterised by dune ridges with shallow to moderately deep siliceous yellow-brown sands and Tamala limestone outcrops. The premises comprises Safety Bay Sands overlying Tamala Limestone.
Possibly contaminated – investigation required	Lot 434 is classified as 'possibly contaminated – investigated required' under the <i>Contaminated Sites Act 2003</i> (CS Act) due to the site historically operating as a class II and III landfill, including putrescible waste. Landfill activities for Lot 434 are now restricted to Class 1 inert waste only. Lot 304 is classified as 'Contaminated – remediation required' under the CS Act due to the site being used historically by Alcoa for residue storage.
<i>Rights in Water Irrigation (RIWI) Act 1914</i>	Located in the Cockburn Groundwater Area proclaimed under the RIWI Act 1914.
<i>Environmental Protection (Kwinana)(Atmospheric Wastes) Policy 1999</i>	The premises is located within the Kwinana EPP Area, which regulates sulfur dioxide emissions.
Downgradient bore users/abstraction	The primary use of downstream abstraction is considered to be irrigation for residential premises and/or industry.

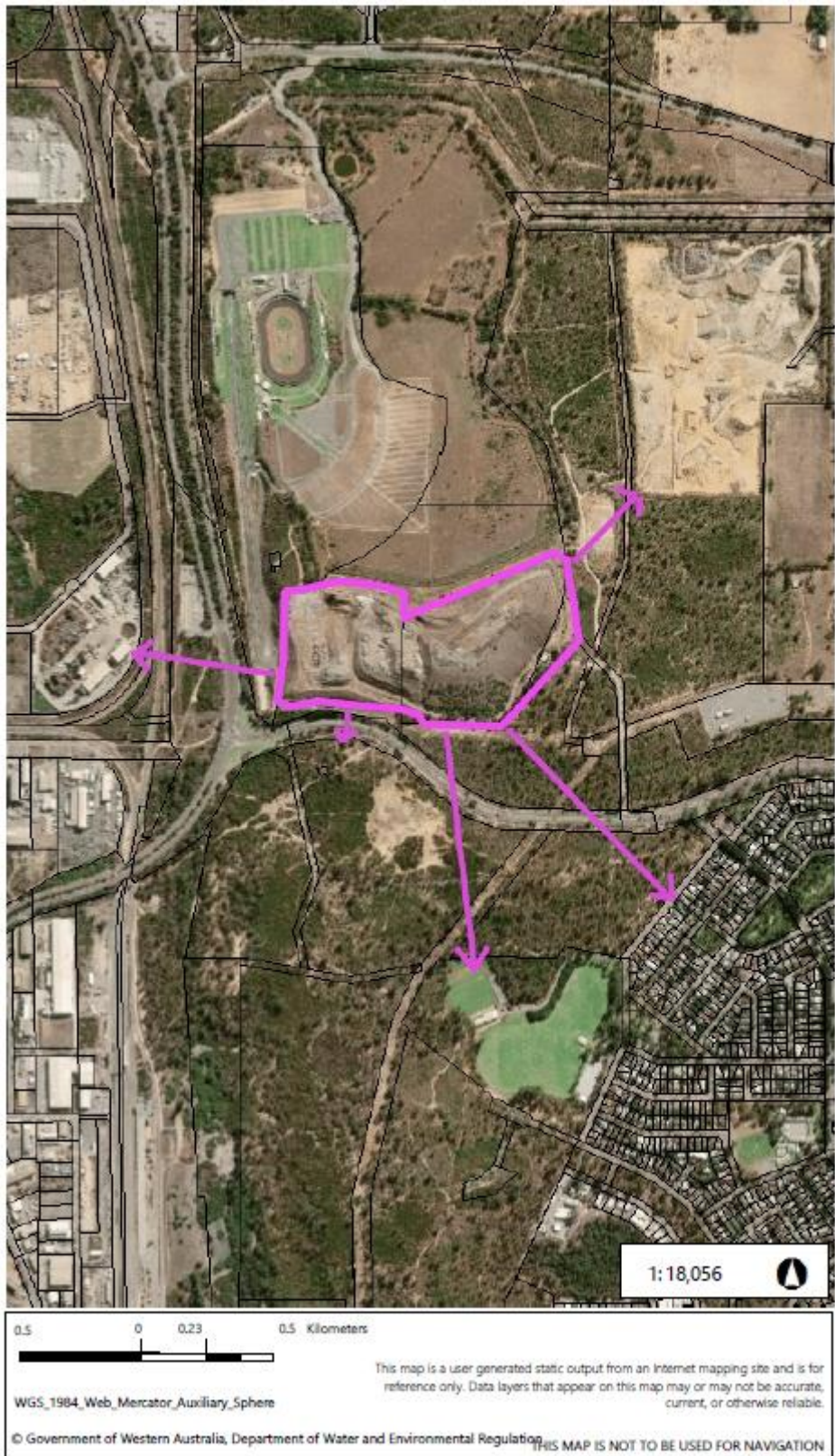


Figure 1: Distance to sensitive receptors

3.1.3 Pathways

There is a potential for **air** to act as a pathway for the release of asbestos fines and fibres into the environment. A review of annual windrose data on the Bureau of Meteorology website on 6 October 2020 for Perth Airport (ID: 94610) indicates that wind direction is predominantly from the east in the morning, with a south-westerly wind in the afternoons.

There is the potential for **groundwater** to act a pathway for leachate from the historic landfilling activities and ongoing waste management on the premises. Regional groundwater flow at the site is in a north-west direction towards the coast.

The department has also considered **groundwater** as a pathway for organic pollutants from the recent fire event on the premises.

3.2 Applicant controls

The key emissions and associated actual or likely pathways during premises operation which have been considered in this Amendment Report are detailed in Table 2 below. Table 2 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 2: Licence Holder controls

Emission	Sources	Potential pathways	Proposed controls
Asbestos fines and fibres	Disposal of asbestos on the premises	Air/windborne pathway	Existing licence conditions relating to asbestos acceptance requirements at the premises. Disposal of asbestos across the active landfilling and Inert Waste Type 1 processing area, on Lot 434.
Leachate	Premises current and historic landfilling activities	Seepage to soils and into groundwater	Existing licence conditions regarding waste acceptance. Groundwater monitoring program.

3.3 Risk ratings

Risk ratings have been assessed in accordance with the *Guidance Statement: Risk Assessments* (DER 2017) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 3.2. Where linkages are incomplete, they have not been considered further in the risk assessment.

Where the Licence Holder has proposed mitigation measures/controls (as detailed in Section 3.2), these have been considered when determining the final risk rating. Where the Delegated Officer considers the Licence Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

The revised licence L6772/1997/13 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises.

The conditions in the Revised Licence have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

Table 3: Risk assessment of potential emissions and discharges from the premises operation, in relation to the amendment application

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
Acceptance and burial of asbestos and material containing asbestos	Asbestos fines and fibres	Air/windborne pathway causing impacts to health and amenity	Adjoining industrial premises and Kwinana Motorplex	Existing licence conditions relating to asbestos acceptance requirements at the premises.	C = Major L = Possible High Risk	N	Conditions 4, 6, 7, 8, 13	See Detailed Risk Assessment Section 3.4
			Residences 674m south east of the premises	Disposal of asbestos across the active landfilling and waste storage area.	C = Major L = Possible High Risk	N	Conditions 4, 6, 7, 8, 13	
Current inert landfilling activities	Leachate	Overland flow runoff and infiltration to the soil causing contamination to groundwater	Groundwater	Receival of inert waste materials only for processing and landfilling Groundwater monitoring program	C= Slight L =Unlikely Low Risk	N	Conditions 16, 17, 18, 19, 20, 22, 26	The existing licence conditions provide sufficient regulation for current site activities.
Historic landfilling activities on the premises	Leachate	Leaching of putrescible waste from historic landfill cells causing contamination to groundwater	Groundwater	Groundwater monitoring program	C = Moderate L = Unlikely Medium Risk	N	Conditions 16, 17, 18, 19, 20, 22, 26	See Detailed Risk Assessment Section 3.5

Risk Event					Risk rating ¹ C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
January 2021 fire event – burning of waste and plastics	Organic pollutants	The burning of waste, particularly plastics, has the potential to cause organic compounds to leach into groundwater and contaminate groundwater supply.	Groundwater	Groundwater monitoring program	C = Moderate L = Possible Medium Risk	N	Condition 22, 26	See Detailed Risk Assessment Section 3.5

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guidance Statement: Risk Assessments* (DER 2017).

3.4 Detailed Risk Assessment – Asbestos fines and fibres

The premises is an inert landfill and solid waste facility, approved to take asbestos and material containing asbestos for burial. Asbestos and material containing asbestos can pose a significant human health risk. The inhalation of asbestos fibres can cause asbestosis, lung cancer and mesothelioma. Where asbestos fibres are maintained in a stable condition, such as bonded in sheeting, they pose little health risk. However where this material is fibrous or is broken or comprises disturbed fibres it can become loose and airborne creating a health hazard.

The previous licence for the premises comprised several conditions to manage the receipt, handling and burial of asbestos on the premises to maintain a low health risk for staff on the premises and nearby receptors. These conditions are in line with current legislation and guidelines, such as the *Environmental Protection (Controlled Waste) Regulations 2004*. This Detailed Risk Assessment assesses the emission and risk rating changes that may occur with the Licence Holder's proposed amendments.

3.4.1 Proposed amendments to asbestos conditions

The Licence Holder requested a number of amendments to the conditions of DWER licence L6772/1997/13 relating to asbestos waste processing. These requested changes are:

- Removal of wording from item (ii) from Special Waste Type 1 process limits in Table 1.3.3 "*which is labelled or marked with the words "CAUTION – ASBESTOS" in letters not less than fifty (50) millimeters high*";
- Removal of item (iv) from Special Waste Type 1 process limits in Table 1.3.3 "*record as grid references on a premises plan all locations used for the disposal of Asbestos Waste or Material containing asbestos and keep this plan as a permanent record*"; and
- Removal of item (vi) from Special Waste Type 1 process limits in Table 1.3.3 "*witness the covering of asbestos waste or material containing asbestos and sign the register within two (2) hours of the covering taking place*".

The amendments are mainly administrative, however they require a risk assessment to be undertaken to assess changes to the risk ratings of the premises that may incur. The potential impacts of the proposed amendments are discussed further in Section 3.4.2 below.

3.4.2 Potential impacts to receptors from changes to the asbestos conditions

The removal or amending of conditions on the licence has the potential to alter the risk rating of the premises. The amendments requested in relation to the asbestos processing requirements in Table 1.3.3 are discussed here in further detail.

- 1) *Removal of wording from item (ii) from Special Waste Type 1 process limits in Table 1.3.3 "which is labelled or marked with the words "CAUTION – ASBESTOS" in letters not less than fifty (50) millimeters high*";

The *Environmental Protection (Controlled Waste) Regulations 2004* (Controlled Waste Regulations) provide legislative requirements for the transport and disposal of asbestos and material containing asbestos.

Under the Controlled Waste Regulations, a person who takes material containing asbestos to a waste facility or other place approved by the CEO under regulation 46(a) commits an offence unless that material is separated from other material (where reasonably practicable), wrapped or otherwise contained in a manner that prevents asbestos fibres entering the atmosphere during transportation on a road, and is labelled or marked with the words "CAUTION – ASBESTOS" in letters not less than 50mm high.

The original licence conditions were applied to align the licence with the requirements of the

Controlled Waste Regulations. The Licence Holder has advised that the labelling of waste as per the requirements of the Regulations is not occurring by asbestos removalist contractors who dispose of the material at their premises. This causes the Licence Holder to be non-compliant with their licence conditions.

The removal of labelling requirements for asbestos receipt on the premises' licence is not considered to alter or increase the potential for asbestos emissions, as asbestos and material containing asbestos is still required to be appropriately contained during transport (as per the requirements of the Controlled Waste Regulations), and the licence requires the material to be disposed of to a designated Asbestos Disposal Area on the premises which is recorded for future reference and covered as soon as practicable.

The risk consequence for the handling and disposal of asbestos waste and material containing asbestos is considered to be 'Major' with the 'likelihood' of asbestos exposure during receipt or burial at the premises being 'Possible'. Based on the consequence and likelihood ratings the overall risk rating of this risk event is 'High'. The high risk rating warrants the requirements to ensure that asbestos waste materials which are accepted onto the premises are wrapped and contained in a manner that prevents the release of fibres to the atmosphere, which is consistent with requirements under the Controlled Waste Regulations for transporting these materials on public roads.

Although the requirements for labelling of asbestos waste under the Controlled Waste Regulations still apply during transport, it is also noted that these are the responsibility of the controlled waste carrier to ensure compliance prior to transport to the disposal site. This labelling requirement may only apply to the disposal site if given directions by the department in accordance with r.46(b) of the Controlled Waste Regulations. As such, the Delegated Officer considers the removal of the labelling requirements acceptable, given that the risks associated with the handling and disposal are not altered by the proposed changes.

As part of operational activities the Licence Holder should remind clients of their obligations under the Controlled Waste Regulations to avoid repeat deliveries and to provide greater awareness of statutory requirements for transporting these wastes.

- 2) *Removal of item (iv) from Special Waste Type 1 process limits in Table 1.3.3 "record as grid references on a premises plan all locations used for the disposal of Asbestos Waste or Material containing asbestos and keep this plan as a permanent record"*

The handling, transport and disposal of asbestos and material containing asbestos is regulated and controlled through the premises' licence to maintain a low health risk and reduce the potential for asbestos fibres to become airborne. The requirement for landfills licenced under the EP Act to record the location of asbestos and material containing asbestos disposal areas is a standard licence requirement to ensure that the buried material is not disturbed or exposed in the future, releasing airborne fibres into the environment. A designated asbestos disposal area also provides clear guidance to landfill staff and waste contractors on site regarding the location of the asbestos disposal area, and allows for the material to be contained and controlled to meet cover requirements.

A compliance inspection of the premises undertaken by DWER's Compliance and Enforcement Branch on the 12 November 2019 identified that the Licence Holder was non-compliant with the existing condition 1.3.3(iv) as a permanent record had not been made that records as a grid reference on a premises plan, all locations used for the disposal of asbestos or material containing asbestos. The compliance inspection also identified that there was no defined asbestos disposal area away from the Inert Waste Types 1 and 2 burial areas. The Licence Holder confirmed during the compliance inspection that the entire site is landfilled/contaminated with asbestos and that the City of Kwinana previously landfilled putrescible waste on the premises prior to the Licence Holder's occupancy. This operational practice has reduced the

Licence Holder’s knowledge of where asbestos and material containing asbestos are located on site, increasing the risk of asbestos being re-exposed during site activities and vehicle movements. Further, evidence of asbestos being re-exposed on site during site operations was observed during the compliance inspection on one of the vehicle tracks. The risk of asbestos exposure should not occur if asbestos waste or material containing asbestos is being accepted wrapped, and the material is contained and placed in a designated area with appropriate cover.

In the amendment application the Licence Holder stated that “Asbestos containing materials (ACM) are buried in Cell 3 of the landfill. This is the only operational cell and ACM is deposited in various locations within this cell, depending on current location of benches and other wastes, to ensure that ACM is always buried away from the main disposal bench. This results in ACM being buried all over the Cell 3 and thus the whole Cell 3 is the location of ACM burial”.

The department understood from this statement that the Licence Holder proposed to accept and bury asbestos and material containing asbestos within the ‘Cell 3’ boundary as shown in Figure 2 below, which encompassed the entire active landfill cell comprising of the mixed waste permitted to be accepted and processed under the current licence.



Figure 2: Proposed designated Asbestos Disposal Area (“Cell 3”), located on the western portion of Lot 434.

The disposal of asbestos and material containing asbestos across an active landfilling and larger waste processing area is considered to present a potential 'Major' public health consequence, due to the potential for vehicle movements to expose asbestos and the potential for asbestos and material containing asbestos to be inadvertently processed with other waste materials. The likelihood of asbestos or material containing asbestos being released into the environment is considered to be 'Possible', which results in an overall risk rating of 'High'.

In response to the non-compliance issues raised by the department's Compliance and Enforcement Branch and concerns regarding the proposed disposal of asbestos across an active area of the premises, the Licence Holder provided the department's Compliance and Enforcement Branch with a revised plan for the 'Cell 3' area where asbestos disposal would be occurring (WSM, 20 December 2019). This area is depicted in Figure 3.

Due to the ability to provide greater controls and management with the disposal of asbestos and material containing asbestos into a smaller, defined cell, the risk rating of the revised "Cell 3" area is considered to be lower with an overall risk rating of 'medium' (Major/Unlikely).

Subsequent to the above and in relation to discussions regarding the licence amendment, the Asbestos Disposal Area has further been refined, with the current Active Landfilling Area for waste and Special Waste Type 2 (asbestos) now shown in Schedule 1 of the amended licence as the area coloured yellow. The department's Regulatory Controls will be implemented with the updated area shown as the Active Landfilling Area and Asbestos Disposal Area in Schedule 1 of the amended licence.

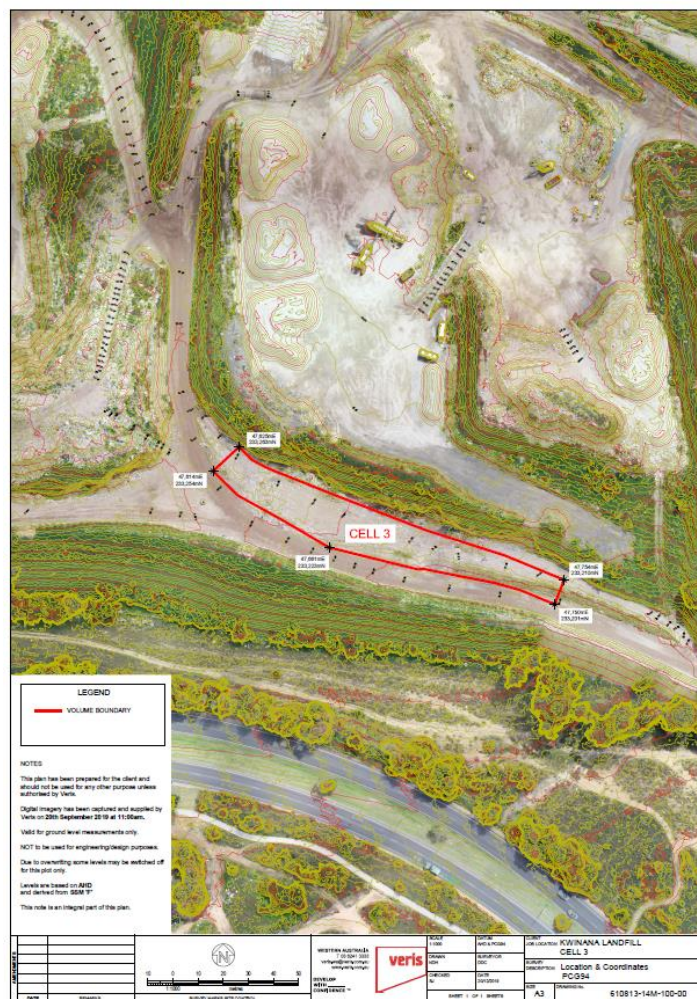


Figure 3: Revised 'Cell 3' (asbestos disposal area).

- 3) *Removal of item (vi) from Special Waste Type 1 process limits in Table 1.3.3 “witness the covering of asbestos waste or material containing asbestos and sign the register within two (2) hours of the covering taking place”.*

Waste Stream Management is a manned landfill premises authorised to accept and dispose of asbestos and material containing asbestos. Condition 1.3.3, Table 1.3.3 Special Waste Type 1 Item (vi) requires the Licence Holder to witness the burial of asbestos and sign a register within two hours of the load being covered.

Waste Stream Management requested that this condition be removed from the licence as the premises has ‘a permanent electronic record of all asbestos contaminated material (ACM) brought to site including all details required under 1.3.3 Special Waste Type 1 item (v)’. In addition ‘there is a permanent presence of WSM Pty Ltd employees within the Cell 3 area and thus all ACM containing loads directed to the disposal area and witnessed in terms of daily cover. The ACM register is electronic and checked/approved daily’.

The licence already requires the Licence Holder to ‘keep a permanent record of each load of asbestos waste or material containing asbestos deposited at the premises, including the date, the name of the person that deposited the asbestos or material containing asbestos, and the vehicle registration number’ under Item (v) of the table. In addition, the covering of Special Waste Type 1 is also regulated under existing conditions of the licence that provide requirements for cover material, cover material depth and the timeframe for covering. The removal of item (vi) from the Special Waste Type 1 process limits in Table 1.3.3 is not considered likely to result in any changes to the risk rating of the premises.

3.4.3 Regulatory controls

- 1) *Removal of wording from item (ii) from Special Waste Type 1 process limits in Table 1.3.3 “which is labelled or marked with the words “CAUTION – ASBESTOS” in letters not less than fifty (50) millimeters high”;*

The Delegated Officer recognises that the requirements for labelling of asbestos waste during transport is the responsibility of the controlled waste carrier, and not specifically of the waste facility. The Licence Holder must still meet the obligations of the Controlled Waste Regulations as a waste facility, and other regulations related to the disposal of asbestos waste.

The amendment of this condition as requested is not considered to increase or alter potential asbestos emissions from the premises, therefore the Delegated Officer considers that the removal of the labelling requirement on the licence is acceptable.

- 2) *Removal of item (iv) from Special Waste Type 1 process limits in Table 1.3.3 “record as grid references on a premises plan all locations used for the disposal of Asbestos Waste or Material containing asbestos and keep this plan as a permanent record”*

The release of asbestos and asbestos fibres into the environment has the potential to significantly impact on human health, therefore strict controls on the disposal of asbestos and material containing asbestos are required. In order to properly manage and monitor asbestos disposal over time and ensure that asbestos disposal areas remain appropriately buried, the locations of disposal areas are required to be mapped and recorded.

The existing conditions on the licence require the Licence Holder to record as references on a premises plan all locations used for the disposal of asbestos or material containing asbestos and keep this plan as a permanent record. These conditions provide the Licence Holder, land owner, relevant agencies and future land users with important information regarding the location of asbestos waste burial areas on the site. This is a standard recording requirement for landfills where asbestos and material containing asbestos is received. Failure to record areas of

asbestos disposal presents a risk to human health where future use of the site may result in these areas being exposed.

A compliance inspection of the premises undertaken by DWER's Compliance and Enforcement Branch on the 12 November 2019 identified that the Licence Holder was non-compliant with the existing condition 1.3.3(iv), and current operational practices have reduced the Licence Holder's knowledge of where asbestos and material containing asbestos are located on site. This has increased the risk of asbestos being re-exposed during site activities and vehicle movements.

Given the significant risks to human health that may result from removing this licence condition, the Delegated Officer considers that licence conditions requiring the recording of asbestos disposal areas are appropriate, and rejects the request to remove this requirement from the licence. However, the Delegated Officer considers that the condition should be amended to provide for a designated Asbestos Disposal Area on the premises with mapped coordinates, to clearly define the area currently approved for the disposal of asbestos and material containing asbestos. The Licence Holder has provided a revised asbestos disposal and landfilling area in response to the draft amended licence. The licence has subsequently been amended to incorporate an updated premises activity areas map and the coordinates for the designated Asbestos Disposal Area. The department understands that this area is currently the only area of the premises receiving waste for disposal.

- 3) *Removal of item (vi) from Special Waste Type 1 process limits in Table 1.3.3 "witness the covering of asbestos waste or material containing asbestos and sign the register within two (2) hours of the covering taking place".*

The removal of the above condition is not considered likely to result in any changes to the risk rating of the premises in regards to the disposal of asbestos and material containing asbestos, as standard recording, cover and burial requirements still apply. Therefore, the Delegated Officer considers it appropriate to amend the wording of this condition consistent with other prescribed premises landfill operations regulated under Part V of the EP Act.

3.5 Detailed Risk Assessment - Groundwater Monitoring Program

The Waste Stream Management premises is subject to a number of historical potentially contaminating activities. This includes historic landfilling at the premises by the Town of Kwinana on Lot 304, with the disposal of Class II and III waste, septic and sullage liquid waste disposal. Following Waste Stream Management's occupation of the premises Class II material continued to be accepted into a lined cell on Lot 304, with acceptance of this material ceasing in 2008. The location of the historic Class II cell used by Waste Stream Management is shown in Figure 6.

The premises is also directly adjacent to the historic Alcoa Residue Storage Area (RSA), which is also located on Lot 304 bordering the premises to the north. Lot 304 was listed as 'Contaminated – Remediation required' under the *Contaminated Sites Act 2003* on 20 February 2009 due to the leakage of caustic leachate through the basal liners of the retired residue storage lagoon within the northern portion into the underlying superficial aquifer. Since its classification Alcoa has undertaken significant works to manage, monitor and remediate the site. As the RSA contamination issue is not related to the actual premises activities, this potential contamination is not considered as part of this assessment and only included to provide context for the site.

Lot 434 and 304 comprise the current Class I inert landfill area and solid waste facility activities. Lot 434 was listed as 'Possibly contaminated – investigation required' on 18 March 2009 due to groundwater monitoring results indicating that nutrients and metals in groundwater exceed assessment levels for long-term irrigation and/or non-potable use of groundwater published in 'Assessment Levels for Soil, Sediment and Water' (Department of Environment and Conservation, 2010). These criteria were relevant at the time of classification, with the likely cause of contamination from the historic burial of putrescible waste on the premises.

The current licence requires bi-annual in-organic groundwater monitoring across 18 sampling sites that comprise of shallow, intermediate and deep piezometers, and annual groundwater monitoring across the same piezometers for organic parameters. Groundwater monitoring is required to assess the potential groundwater impacts from the premises current and historical landfilling activities.

3.5.1 Proposed amendment to groundwater monitoring program

The Licence Holder has requested the department remove the organic parameters from the groundwater monitoring suite for all but one downstream trigger bore on which all groundwater monitoring will be performed, and to discontinue testing at all other bores. If the trigger bore identified results above detection limits, then the testing of all 18 bores would recommence. This request is based on the Licence Holder's justification that none of the parameters for the annual groundwater monitoring suite were recorded above detection limits for any of the sampling undertaken over the last six years.

The bi-annual monitoring program is not proposed to change and will continue to provide monitoring at all bores for metals, nutrients and general water quality parameters.

3.5.2 Potential impacts to changes in the groundwater monitoring program

The Licence Holder has requested the department remove the groundwater monitoring requirements for organic parameters in all but Bore TMP6 (S), located on the southern boundary of the premises. Organic parameters have been included on the licence to help identify potential contamination from the premises' historic landfilling activities.

The premises' historic Class II waste landfilling activities are considered to have a 'moderate' environmental consequence should leachate from the old lined cell contaminate groundwater. The risk likelihood is considered to be 'unlikely' resulting in an overall 'medium' risk rating. Therefore, monitoring of groundwater for organics is considered suitable for the ongoing monitoring of this historic activity.

Recent groundwater monitoring reports indicate that no organic analytes have been identified above detection limits in the past six years of ambient groundwater monitoring and there does not appear to be evidence from the recent groundwater sampling program to indicate that the premises is being impacted by organic contamination. Therefore, the Delegated Officer supports a revised organics monitoring program.

Groundwater monitoring reports for the last 3 years have been reviewed to consider the premises' groundwater attributes and determine groundwater flow directions, to ensure that the correct downgradient bore is used for the reduced organics monitoring program. Inconsistencies exist in inferred groundwater flow since 2017 and between consultants, and the Delegated Officer notes that these may be due to the impact of the two production bores on the inferred groundwater flow (due to local drawdown at the bores). TMP3 appears to be one production bore, being licensed to take water for dust suppression. A second production bore located near the south western corner of the premises is used for irrigation by the City of Kwinana.

The most recent groundwater monitoring report for the premises indicates that on-site groundwater flow is to the north west and north east (See Figures 4 and 5 from Stass, 2020). This appears to be somewhat consistent with regional groundwater flow which appears to be to the north and north-west towards the coast.

As on-site groundwater flow is generally in a northerly direction, the sampling of TMP6 is not considered suitable to detect potential contamination from the historic landfilling activities as this bore appears to be placed up-gradient of the premises. Waste Stream Management's historic landfilling activities occurred on Lot 304 as shown in Figure 6. The Delegated Officer considers that bores TMP1 and TMP2 are best placed to capture potential organic contaminants from the premises historic Class II landfilling activities.

Whilst the Licence Holder has asked for the reduced sampling program to comprise of only one bore, there are uncertainties with groundwater flow on the premises and within the vicinity of the historic Class II cell. Therefore the Delegated Officer considers that a reduced organics sampling program comprising of two bores (TMP1 and TMP2) satisfies the requirements to monitor potential leachate emissions to groundwater.

In addition, as part of a future licence review, it is recommended that Waste Stream Management be required to resurvey the bores to provide more accuracy on groundwater levels.

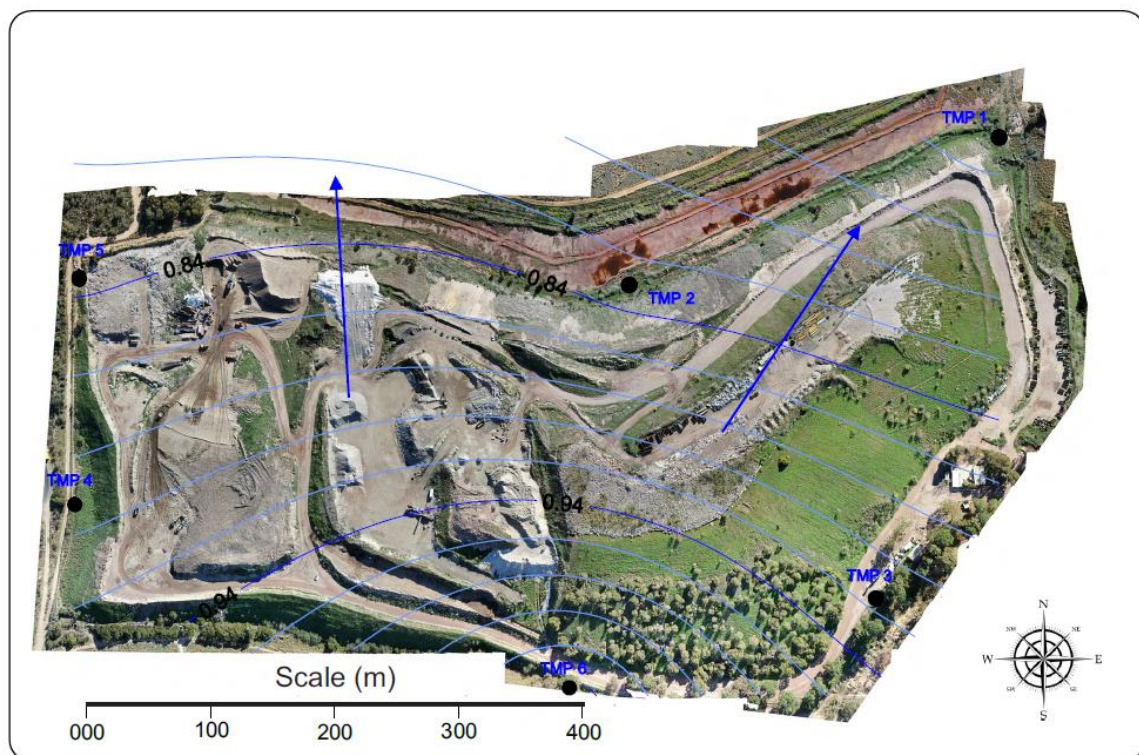


Figure 4: Groundwater contours September 2019 (Stass, 2020).

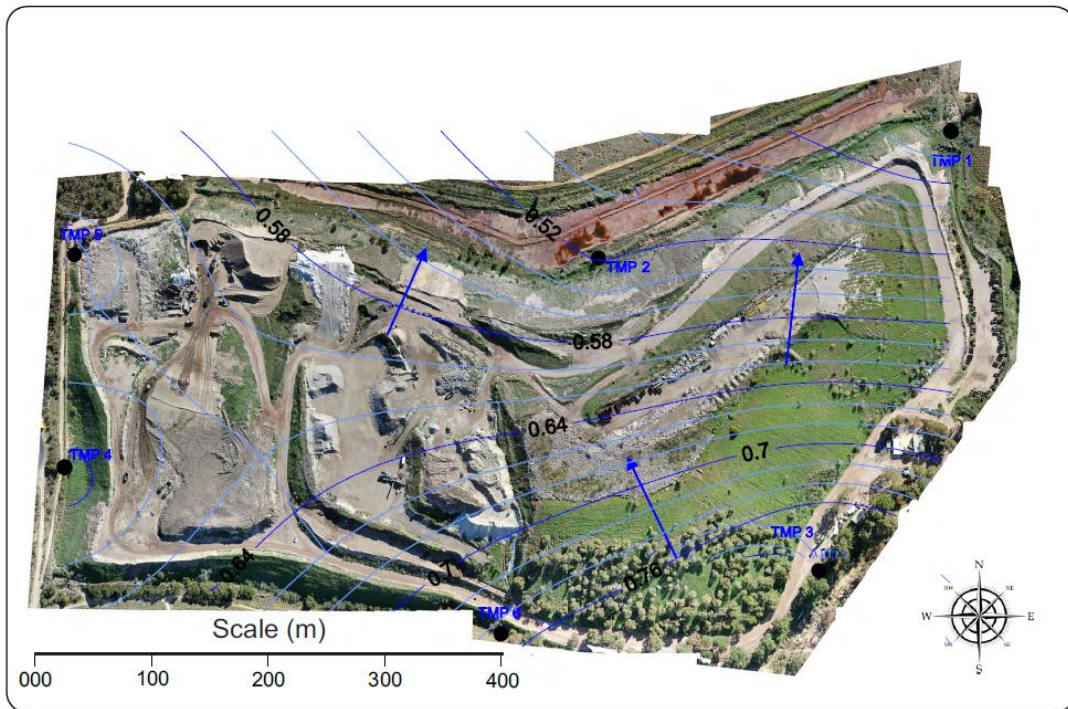


Figure 5: Groundwater contours March 2020 (Stass 2020)



Figure 6: Historic Waste Stream Management Class II landfill area
 (Source: Environmental Assessment Report for L6772/1997/11, amendment 1/4/2010)

3.5.3 Impacts from the January 2021 fire to the groundwater monitoring program

On Sunday 3 January 2021 a large bushfire burnt through the Waste Stream Management premises. The fire which started in nearby bushland, spread on to premises, burning waste stockpiles on site. This included a large area of Inert Type 2 (plastic) waste located within the north west corner of the premises within the 'Solid waste processing and storage area' depicted in the licence, and an area of plastics and timber located within the construction and demolition (C&D) crushing, screening and storage area depicted in the licence. Due to the loss of power at the premises and inaccessibility to the waste stockpiles, the fire was left to burn through the waste on the premises. Whilst efforts have been made to extinguish the fire, the waste continues to burn and smoulder on the site. The burning of waste on the premises is currently being addressed as a compliance matter by the department.



Figure 7: Smouldering shown on waste stockpiles ignited during the Jan 2021 fire event.
(Source: Nearmaps)

The burning of plastics and timber has the ability to release organic compounds, such as Benzene, Toluene, Ethylbenzene, phenols and Polychlorinated biphenyls (PCBs) into soil and subsequently into groundwater.

In order to adequately monitor the impact of the fire on ambient groundwater quality, the Delegated Officer has retained bore nest TMP5 on the annual organics monitoring program. The TMP5 piezometers are located directly adjacent to the large plastic stockpile that was incinerated in the fire, and downstream of a portion of the burnt waste stockpile. The department will reconsider annual sampling of this bore nest at a later date once sufficient data becomes available to assess the impacts to groundwater from the fire event.

3.5.4 Regulatory controls

Groundwater monitoring for the last six years at the premises has not identified organic parameters within any of the 18 piezometers above the relevant detection limits. Therefore, the Delegated Officer concludes that the Licence Holder's proposed changes to the groundwater monitoring program are reasonable.

However there are uncertainties with groundwater flow on the premises, therefore the Delegated Officer's approval for a reduced annual groundwater monitoring program for organic parameters is for annual ambient groundwater monitoring for organics to be undertaken at two downgradient bores, being bore nests TMP1 and TMP2. In addition, the recent fire on the premises has burnt through large stockpiles of plastic waste and timber within the solid waste processing and stockpile area and C&D processing and stockpile area. Therefore bore nest TMP5 has been retained for annual organics monitoring to assess the impacts to groundwater from this fire event.

Should organic compounds be detected in any of the monitored bores, then the Licence Holder has committed to monitoring of all 18 piezometers for organics.

Key findings:

The Delegated Officer considers that:

1. Annual groundwater monitoring of the site has not identified organic analytes above detection limits for the last six years of sampling;
2. Annual monitoring of two downgradient bore for organic analytes is suitable to identify potential contamination from historic and current premises activities;
3. The retention of bore nest TMP5 is required to monitor potential groundwater impacts from the January 2021 fire event;
4. Should any organic parameters be identified above detection limits in the revised annual monitoring program, the monitoring of all 18 piezometers for organics will recommence (Licence Holder commitment); and
5. It is recommended that Waste Stream Management be required to resurvey the bores to provide more accuracy on groundwater levels.

4. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

The Licence Holder was provided with a copy of the draft licence and amendment report on 27 October 2020. A revised draft licence and amendment report was provided on 9 March 2021, with a subsequent meeting held on 18 March 2021 to discuss the items raised in the licence amendment and draft response, prior to the Licence Holder's final representations.

Waste Stream Management's comments and the department's response are addressed in Appendix 1.

Table 4: Consultation

Consultation method	Comments received	Department response
<p>City of Kwinana advised of proposal 23/12/2019</p>	<p>The City responded on 28 January 2020. The City of Kwinana advised that they are not opposed to the amendments to conditions 1.3.3 and 2.3.1 of the licence. However the City did recommend an amendment to the premises boundary to remove Lot 303, the area of the Alcoa clay bund on the northern side of the property, and the gas pipeline easement on the southern portion of the premises. The reason for requesting the removal of Lot 303 was due to the planning approvals for the landfilling activities not applying to Lot 303.</p>	<p>In undertaking this licence amendment DWER has sought additional advice from City of Kwinana and the Department of Planning, Lands and Heritage regarding the area subject to the lease arrangements in place. A revised premises boundary map has been provided which aligns the premises boundary with the cadastral boundary for Lot 434 and with the shapefile provided from DPLH relating to the leased areas for Lot 303 and 304.</p> <p>Further clarification to changes the boundary are provided in Appendix 1 (responses to the applicants comments on the draft amendments).</p>
<p>Department of Planning, Lands and Heritage (DPLH) were advised of the proposal on 23/12/2019</p>	<p>DPLH responded on 6 February 2020. DPLH raised concerns regarding alleged damage to the Alcoa RSA bund and that current condition of groundwater monitoring bores and sampling adjacent to this area was not being completed as per licence conditions and requirements. DPLH therefore advised that they oppose the amendments to groundwater monitoring, as the reduced groundwater sampling would not help to identify the consequences that may occur from the damage to the Alcoa RSA bund.</p>	<p>The alleged damage to the RSA is under investigation, and not within the scope of this licence amendment. Compliance matters regarding the condition of bores and monitoring of groundwater will be considered by DWER on review of the annual environmental report and as part of periodic compliance inspections. The groundwater monitoring bores on the premises are provided to identify potential contamination from the premises' activities, not the RSA area. Whilst reduced sampling would not provide organic data for the northern bores next to the RSA, any contamination would still be picked up by the bores retained for sampling. Contamination from the Alcoa RSA bund damage should be dealt with separately to the amendment of the Waste Stream licence.</p>

5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined to grant an amended licence, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

During the assessment of this amendment application and following the review of the submitted information, the Delegated Officer is also aware that the prescribed activities and operational areas on the premises have changed significantly since the previous licence was issued. As the assessment of these changes is outside the scope of this licence amendment application, the Licence Holder is required to submit a new licence amendment application to the department that provides detailed information regarding the premises' current activities, operational areas and infrastructure. However in order to consider changes to the landfilling activities on the premises and provide the department with some clarity around future landfill cells, the Licence Holder has agreed to submit to the department a Landfill Development Plan that shows the proposed staging of future landfill areas across the premises. A new condition requiring the submission of this plan has been added to the amended licence for the provision of this report.

5.1 Summary of amendments

Table 5 provides a summary of the proposed amendments related to this amendment application, and will act as record of implemented changes. All proposed changes have been incorporated into the amended licence as part of the amendment process.

Table 5: Summary of licence amendment

Condition no.	Proposed amendments
Existing Licence – Condition 1.3.3, Table 1.3.3 Special Waste Type 1, item (ii) Revised Licence – Condition 6, Table 2.	Removal of the wording “which is labelled or marked with the words ‘CAUTION – ASBESTOS’ in letters not less than fifty (50) millimeters high.
Existing Licence – Condition 1.3.3, Table 1.3.3 Special Waste Type 1, item (iv) Revised Licence – Condition 6, Table 2.	Asbestos Disposal Area has been updated and defined to show clear disposal area.
Existing Licence – Condition 1.3.3, Table 1.3.3 Special Waste Type 1, item (vi) Revised Licence – Condition 6, Table 2.	Removal of the item from the condition set (witness the covering of asbestos waste or material containing asbestos and sign the register within two (2) hours of the covering taking place)
Condition 2.3.1 Table 2.3.1 Groundwater monitoring Revised Licence – Condition 22, Table 5	Annual organic monitoring program reduced to three bores, TMP1, TMP2 and TMP5.

Condition no.	Proposed amendments
Conditions 1.2.4 1.3.1 (Table 1.3.1) 1.3.13 3.1.1 (Table 3.1.1) Premises map	<p>All references to the acceptance and storage of Acid Sulphate Soils acceptance have been removed. Planning approval has not been issued for this activity and the ASS activity area has never been built.</p>
Condition 16	<p>Inclusion of a new condition requiring a Landfill Development Plan to be prepared and submitted to show the Licence Holder's proposed staging of landfilling activities across the premises, to June 2031.</p> <p>Following a meeting with the applicant on 18 March 2021, the department discussed the approach to specifying the active landfilling areas on the licence and the need for them to have flexibility in the licence to allow progressive landfilling across the site.</p> <p>On 22 March 2021, the department wrote to the applicant providing follow-up notes from the meeting and proposed the option to finalise the amendment with the current operational landfill areas specified (limited to that reflected in the current 'premises activities map') and include an additional licence condition which requires WSM to submit a progressive landfilling plan within 3 months of the amendment being finalised. Once submitted, the department would review the plan and if appropriate an amendment to the licence may be initiated to specify the parameters for landfilling across the site in accordance with the plan. This approach would allow WSM sufficient time to develop such a plan without holding up the current amendment package.</p> <p>No written comments were provided against this option in response to the second draft amendment package. However, on 21 April 2021 the department confirmed with WSM (via their authorised representative) that they wanted this requirement included in the final amendment which would allow them time to develop and submit a progressive landfilling plan for the premises.</p> <p>4 months has been afforded in the new licence condition for WSM to develop and submit this plan.</p>

As the licence is in the old licence format, a number of additional amendments have been made to align the licence more closely to the current licensing format. A full review of this licence may be undertaken at a later date.

Table 6: Consolidation of licence conditions in this amendment

Existing condition	Condition summary	Revised licence condition	Conversion notes
N/A	Expiry Date: 24 July 2016	Expiry Date: 15 July 2031	In accordance with the Notice of Amendment of Licence Expiry Dates (29/04/2016)
N/A	Prescribed Details: Address	Inclusion of Lot 303 on Diagram 72808	This lot forms part of the premises boundary, containing the site office and storage areas.

Existing condition	Condition summary	Revised licence condition	Conversion notes
1.1.1 1.1.2	Interpretation and definitions	N/A Interpretation section, Definitions Table	Redundant condition. Revised to current licensing format.
1.1.3	Australian or other standard	N/A Interpretation section, Definitions Table	Redundant condition. Revised to current licensing format.
1.1.4	Reference to code of practice	N/A Interpretation section, Definitions Table	Redundant condition. Revised to current licensing format.
1.1.5	Reference to authorising emissions	N/A Interpretations section.	Redundant condition. Revised to current licensing format.
1.2.4	ASS leachate pH	N/A	Redundant condition. The ASS area has never been built. The condition has been removed.
1.3.1(d)	Reference to Landfill Waste Classification and Waste Definitions 1996 (As amended December 2009)	Condition 4(d)	Reference is now to 'Landfill Definitions', and defined in the Definitions Table.
1.3.1 and Table 1.3.1	Waste acceptance table	Condition 4 and Table 1	Inert Waste Type 1 clarified to contain no visible asbestos. Table now requires that Special Waste Type 1 (asbestos) is only received and buried within the designated Asbestos Disposal Area. Acid sulphate soils removed from acceptance criteria as ASS facility has not been built.
1.33 and Table 1.3.3	Waste Processing Table	Condition 6 and Table 2	Conditions reworded to provide better clarity. Inclusion of tyre storage limits Removal of items (ii), (iv) and (vi) in line with licence holder's application. Provisions for the temporary storage of waste contained in skip bins on Lot 303 included. Removal of acid sulphate soils, as ASS area never built. Removal of requirement to show records, as this is already provided for in the Act.

Existing condition	Condition summary	Revised licence condition	Conversion notes
1.3.10	ACM	13	ACM changed to 'material containing asbestos' for consistency.
1.3.13	Treatment of Acid Sulphate Soils	N/A	Removed from the licence. The ASS area has never been built. Redundant condition.
2.2.1	Inputs and outputs monitoring	Condition 21 and Table 4	Table has been extended out to clarify the monitoring is for each waste type (not all waste types as a whole)
2.3.1 Table 2.3.1	Ambient groundwater monitoring	Condition 22 and Table 5	Slight improvement to condition wording. Table amended to reflect the reduced organics sampling regime at TMP1, TMP2 and TMP5 only.
3.1.1 Table 3.1.1	Improvement conditions	N/A	The improvement conditions and program have been removed from the licence. The ASS facility was never constructed, and therefore the condition set is redundant.
4.1.3	Annual Audit Compliance Report	Condition 27	Revised to current licensing format.
4.1.4	Complaints	Condition 25	Revised to current licensing format.
4.2.1	Annual Environmental Report (AER)	Condition 26	Revised to current licensing format. Reporting requirements for groundwater monitoring also updated.
4.2.2	AER contents	N/A	Removed and included under AER condition
Schedule 1: Maps	Premises map	Schedule 1: Figure 1, Premises map and Table 9	Map updated to reflect DPLH lease area on Lot 304 and Lot 303. The coordinates of the premises boundary are also now recorded in Table 9.
Schedule 1: Maps	Premises map	Schedule 1, Figure 2, Premises activities map and Table 10, 11, 12 and 13	New map added to better demonstrate activity areas. Coordinates are recorded in a table for ease of reference.

Existing condition	Condition summary	Revised licence condition	Conversion notes
Schedule 1: Maps	Premises map	Schedule 1, Figure 3, Ambient groundwater monitoring bores map and Table 14.	New map generated to better show groundwater monitoring bore locations. Coordinates are recorded in a table for ease of reference.
Schedule 2 Reporting & notifications	Annual Audit Compliance Report Form N1 Notification	N/A	Redundant attachment. Deleted from licence Forms accessed at www.dwer.wa.gov.au

References

1. Department of Environment and Conservation (DEC) 2010, Environmental Assessment Report, Licence Amendment L6772/1997/11 (DWER Record A141731).
2. Department of Environment Regulation (DER) 2016, *Guidance Statement: Environmental Siting*, Perth, Western Australia.
3. DER 2017, *Guidance Statement: Risk Assessments*, Perth, Western Australia.
4. DER 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
5. DER 2020, Memorandum. Contaminated Sites advice – Groundwater Monitoring advice for licence L6772/1997/13, 14 January 2020 (DWER Record A1921325).
6. Stass Environmental (2019), Waste Stream Management Pty Ltd, Report on Groundwater Monitoring for the year 2018, Ratcliffe Road Landfill, Kwinana WA June 2019 (DWER Record A1816558).
7. Stass Environmental (2020), Waste Stream Management Pty Ltd, Report on Groundwater Monitoring for the year 2019/20, Ratcliffe Road Landfill, Kwinana WA June 2020 (DWER Record A1916893).
8. Stass Environmental (2021), Waste Stream Management, Email from Andre Stass to Jarrod Abrahams (DWER) with final representations relating to the proposed licence amendments, 14 April 2021 (DWER Record 2001858).
9. Waste Stream Management (WSM) 2003, Management Plan: Extension of Construction and Demolition Waste Recycling Facility and Landfill Lots 303/304 Thomas Road – Kwinana, to incorporate Lot 434 Thomas Road – Kwinana and increase elevation to RL 62.
10. Waste Stream Management (WSM) 2019, Response to Inspection Findings, Email from Sharyn Otto dated 2 December 2019 (DWER Record A1847409).
11. Waste Stream Management (WSM) 2019, Response to Inspection Findings with Requested Actions – Waste Stream Management – 18 November 2019, Email from Mike Rumford dated 20 December 2019 (DWER Record A1873387).

Appendix 1: Summary of Licence Holder's comments on risk assessment and draft conditions

Condition	Summary of Licence Holder's comment	Department's response
First draft provided 27/10/2020		
Premises address	The site description should read as per all previously issued licences: "Lot 434 on Deposited Plan 220492, Lot 303 on Diagram 72808 and Lot 304 on Diagram 72808". Waste disposal at Lot 304 is not complete as the final height requirement to finalise landfilling at Lot 434 to reach approved level is yet to be achieved".	The current licence premises address reads "Lot 304 on Diagram 72808 and Lot 434 on Plan 220492". The current address does not list Lot 303, which forms part of the premises. The amendment seeks to better define the premises and those areas which are legally covered by the licence.
4, 6 (1.3.1 and 1.3.3 of previous licence)	Lot 303 is requested for inclusion for waste storage activities and approved prescribed activities, including Category 13, 62, 61A, 63 and 70. Further correspondence from A.Stass has been provided with documents which are advised to indicate that planning approval has been granted.	Lot 303 has been omitted from undertaking prescribed activities based on a review of issued planning approvals for the Lot and advice from the City of Kwinana that waste activities are not approved on the Lot. The Lot is allocated in the licence for the site office, fuel storage area/workshop and storage of empty skip bins only. DWER has reviewed all additional documentation and information provided by Mr A.Stass, and the issued planning approvals for the premises. These documents and approvals concur that there is no planning approval current for waste processing and landfilling on Lot 303. DWER notes that the Lot is zoned for 'Primary Regional Road' under the Metropolitan Scheme, and that it was also indicated in Waste Stream's 2003 Management Plan: " <i>Extension of Construction and Demolition Waste Recycling Facility and Landfill Lot 303/304 Thomas Road, Kwinana</i> " as being an area of 'Proposed Controlled Access Highway' outside of the proposed landfilling area. The restrictions to activities on Lot 303 remain until such time as planning approval for the prescribed activities on this Lot is provided.

Condition	Summary of Licence Holder's comment	Department's response
<p>4, 6 (1.3.1, 1.3.3, 1.3.13, 2.2.1 and 3.1.1 of previous licence)</p>	<p>Retention of acid sulphate soils storage conditions in future, designated on Lot 304 and Lot 434.</p> <p>Further email text added 4/12/20 from A.Stass "With respect to ASS treatment licence conditions, (we were) unaware that we had a deadline in which to start/finalise construction operations. At no time in the previous years have we received a notice from DWER that we should comply with a construction deadline. The land was cleared in 2015 for construction of the ASS pads, but has since been used for another purpose due to market and business development, raising capital and planning.</p>	<p>The licence issued on 23 July 2015 provided for the construction of an Acid Sulphate Soils (ASS) treatment facility. As the facility was assessed under a licence amendment and not a works approval, a construction timeframe for the facility was provided by Improvement Condition 3.1.1, Table 3.1.1. This condition required that the ASS treatment facility be constructed before 30 April 2016, with a compliance document to be provided following construction and prior to commissioning.</p> <p>The construction timeframe lapsed nearly 5 years ago. DWER has not received any correspondence during this time for an extension of time to construct the facility.</p> <p>Due to the length of time that has lapsed, a new environmental impact assessment would need to be completed to assess the proposal if the Licence Holder is seeking to have the facility and materials included on the licence.</p>
<p>Premises activities map</p>	<p>Prescribed activity coordinates were provided to DWER in the response to the draft licence.</p> <p>A revised site map showing the current prescribed activity areas/boundaries for the premises was provided to DWER on 19/02/2021.</p>	<p>In regard to the prescribed activity boundaries, DWER has further liaised with the Licence Holder as the boundaries provided in the initial draft response did not delineate activity areas on the premises and include all operational areas.</p> <p>The revised map in this draft has been developed from the 'Site Operations December 2020' map provided by the Licence Holder's consultant on 19/02/2021.</p>
<p>N/A</p>	<p>The Licence Holder raised concerns that excluding Lot 303 from future excavation and waste storage is a substantive obstacle to the landfill's future viability and is without legal and/or environmental basis.</p>	<p>DWER notes that the Licence Holder has raised concerns that omitting Lot 303 from the prescribed activity areas affects the premises' future viability. In this regard, DWER notes that no planning approval for the prescribed activities is in place for Lot 303, and that the current licence and conditions do not preclude Waste Stream Management applying for a licence amendment to undertake the activities on this Lot in the future if planning approval becomes available.</p>

Condition	Summary of Licence Holder's comment	Department's response
Second draft provided 09/03/2021		
<p>4, 6 Schedule 1, Figure 1 and Figure 2</p>	<p>The Licence Holder has asked the department to return the premises boundary on Lot 434 to the cadastral boundary, and asked the department to remove the restrictions imposed on Lot 303.</p> <p>The Licence Holder's representative has advised that "Lot 303, as per documents supplied to DWER earlier is part of the suite of land lots which were approved by Kwinana Town Council and WAPC as part of the landfill operation. Offices and workshops were placed on Lot 303 as a matter of convenience and also because of uncertainty relating to a road development in that area, which has now been shelved by the Roads Department. Lot 303 was never before included as a restricted site in DWER licences and WSM ask that references to this Lot (303) in the licence be removed."</p> <p>To support the Licence Holder's response to the revised draft licence the Licence Holder's representative provided the department with:</p> <ol style="list-style-type: none"> 1. Updated operations map for the site (Site operations March 2021) 2. Lot 434 (Tenement M70/1043) boundary – to be included as part of the operations boundary for WSM landfill 3. Mining Tenement summary 4. A survey showing Lot 303 and Lot 304 (Survey for H 175 Thomas Rd, Kwinana) 	<p>The Delegated Officer has granted the amended licence with restrictions retained on Lot 303 to prevent waste processing and burial on the lot. The temporary storage of skips bins (containing waste) has been allowed, which is consistent with current site operations. No restrictions have been included on the storage of empty skip bins in this area.</p> <p>The premises boundary has been reinstated to align with the cadastral boundary of Lot 434, noting that a gas easement exists at the southern end of the Lot. The premises boundary on Lot 304 remains amended as per the draft licence provided, as this is the GIS shapefile of the 'lease area' provided to the department from DPLH.</p> <p>The decision to retain restrictions on Lot 303 is made considering:</p> <ol style="list-style-type: none"> 1) a review of issued planning approvals for the Lot and all information provided to the department in support of these issued planning approvals (e.g. Waste Stream Management's 2003 Management Plan, issued planning approvals and WSM's 2004 Landscape and Visual Impact Assessment Report); 2) advice from the City of Kwinana; 3) advice from the Department of Planning, Lands and Heritage; and 4) that the prescription and identification of operational areas on premises to assist with managing potential emissions is consistent with the department's current licensing practice. As this licence is an old format licence, the amended licence has been updated as much as possible to reflect the department's current licensing format. <p>In response to the planning matters for Lot 303, it is noted that both DPLH and the City of Kwinana have advised that waste landfilling activities are not currently approved on Lot 303 under the current planning approvals. Therefore Lot 303 is identified in the amended licence for use as the site office area, fuel storage</p>

Condition	Summary of Licence Holder's comment	Department's response
		<p>area/workshop and for the storage of skip bins only.</p> <p>The department has reviewed all documentation and information provided by Mr A.Stass to date, and the issued planning approvals for the premises. The department understands that whilst Lot 303 is listed as one of three lots identified within the planning approval documents, the approvals relate to plans and documents that show landfilling will not occur on that Lot, and are instead restricted to Lots 304 and 434 (previously Lot 50) only.</p> <p>Therefore the documents and approvals provided concur that there is no planning approval current for waste landfilling on Lot 303. DWER also notes that the Lot is zoned for 'Primary Regional Road' under the Metropolitan Scheme, and that it was also indicated in Waste Stream's 2003 Management Plan: "<i>Extension of Construction and Demolition Waste Recycling Facility and Landfill Lot 303/304 Thomas Road, Kwinana</i>" as being an area of 'Proposed Controlled Access Highway' outside of the proposed landfill area.</p> <p>The restrictions to activities on Lot 303 will remain until such time as Waste Stream Management can demonstrate that planning approval for landfill and waste processing has been issued for this Lot.</p>

Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)				
Application type				
Works approval	<input type="checkbox"/>			
Licence	<input type="checkbox"/>	Relevant works approval number:		None <input type="checkbox"/>
		Has the works approval been complied with?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Has time limited operations under the works approval demonstrated acceptable operations?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	
		Environmental Compliance Report submitted?	Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Date Report received:		
Renewal	<input type="checkbox"/>	Current licence number:		
Amendment to works approval	<input type="checkbox"/>	Current works approval number:		
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L6772/1997/13	
		Relevant works approval number:	N/A	<input checked="" type="checkbox"/>
Registration	<input type="checkbox"/>	Current works approval number:	None	<input type="checkbox"/>
Date application received	23 October 2020			
Applicant and Premises details				
Applicant name/s (full legal name/s)	Waste Stream Management Pty Ltd			
Premises name	Waste Stream Management			
Premises location	Lot 434 on Deposited Plan 220492, Lot 303 on Diagram 72808 and Part of Lot 304 on Diagram 72808			
Local Government Authority	City of Kwinana			
Application documents				
HPCM file reference number:	DER2016/000613-1			
Key application documents (additional to application form):	A1834602			

Scope of application/assessment		
Summary of proposed activities or changes to existing operations.	Removal or amendment to Waste Processing table for Special Waste Type 1 (asbestos). Annual organic groundwater monitoring to be amended to only one downgradient bore only (currently 6 bores require this monitoring)	
Category number/s (activities that cause the premises to become prescribed premises)		
Table 1: Prescribed premises categories		
Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity
Category 13 Crushing of building material	90,000tpa	Nil
Category 61A Solid waste facility	100,000 tpa	Nil
Category 62 Solid waste depot	90,000tpa	Nil
Category 63 Class I inert landfill site	500,000tpa	Nil
Category 70 Screening etc of material	50,000tpa	Nil
Legislative context and other approvals		
Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input type="checkbox"/>
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ministerial statement No: EPA Report No:
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No:
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Ongoing monthly lease with City of Kwinana. City of Kwinana have advised that WSM occupy the site with their consent.
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Approval: Expiry date: If N/A explain why?
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No clearing is proposed.

Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Licence / permit not required.
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<i>Environmental Protection (Controlled Waste) Regulations 2004,</i>
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Kwinana EPP
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Lot 304 Classification: contaminated – remediation required Date of classification: 20/02/2009 Lot 434 Classification: Possibly contaminated – investigation required Date of classification: 11/06/2010