



## Department initiated Amendment

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

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<b>Licence Number</b>	L9395/2023/1
<b>Licence Holder</b>	Mindarie Regional Council
<b>File Number</b>	DER2023/000416
<b>Premises</b>	Tamala Park Waste Management Facility 1700 Marmion Avenue CLARKSON WA 6030 Being part of Lot 9020 on Plan 408820 as depicted in Schedule 1.
<b>Date of Report</b>	10 November 2023
<b>Decision</b>	Intent to grant revised licence

**A/MANAGER WASTE INDUSTRIES  
REGULATORY SERVICES**  
an officer delegated under section 20 of  
the *Environmental Protection Act 1986* (WA)

# Table of Contents

<b>1. Decision summary</b>	<b>1</b>
<b>2. Background</b>	<b>1</b>
<b>3. Scope of assessment</b>	<b>2</b>
3.1 Regulatory framework	2
3.2 Amendment summary – DWER initiated	2
<b>4. Risk assessment</b>	<b>2</b>
4.1 Source-pathways and receptors	2
4.1.1 Emissions and controls	2
4.1.2 Receptors	3
4.2 Risk ratings	4
<b>5. Consultation</b>	<b>5</b>
<b>6. Conclusion</b>	<b>6</b>
6.1 Summary of amendments	6
<b>References</b>	<b>6</b>
Table 1: Licence Holder controls	2
Table 2: Sensitive human and environmental receptors and distance from prescribed activity	3
Table 3. Risk assessment of potential emissions and discharges from the Premises operation	4
Table 4: Consultation	5
Table 5: Summary of licence amendments	6
Figure 1: Distance to sensitive receptors	3

## 1. Decision summary

Licence L9395/2023/1 is held by Mindarie Regional Council (Licence Holder/MRC) for Tamala Park Waste Management Facility (the Premises/TPWMF), located at 1700 Marmion Avenue, Clarkson.

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the operation of the Premises. As a result of this assessment, Revised Licence L9395 has been granted.

## 2. Background

MRC holds licence L9395/2023/1 (formerly licence L6963/1997/14) under Part V of the Environmental Protection Act 1986 (EP Act) for the TPWMF. The licence is held for the following prescribed premises categories as defined in Schedule 1 of the Environmental Protection Regulations 1987:

- Category 12: Screening, etc. of material
- Category 57: Used tyre storage (general)
- Category 61: Liquid waste facility
- Category 61A: Solid waste facility
- Category 62: Solid waste depot
- Category 64: Class II or III Putrescible landfill site; and
- Category 77: Concrete batching or cement products manufacturing

The TPWMF primarily services the member councils and public with a refuse disposal service (landfill), a recycling centre with a reuse shop, a transfer station for general waste drop-off and a receival area for recyclables, household hazardous wastes and electronic wastes (e-waste).

The landfill is immediately south of the suburb of Clarkson. The Catalina housing estate, in Clarkson, is about 150 metres north of the landfill boundary and about 530 metres from the active landfill area. The suburb of Kinross is to the south (580 metres from the active landfill) and Mindarie is to the north-west (720 metres from the active landfill).

The Department of Water and Environmental Regulation (the Department) is aware of an increased number of complaints from residences in Clarkson, Mindarie and Kinross. Most of the complaints relate to nuisance odours which may be related to the landfill operations at the TPWMF.

The Department met with the MRC on 23 May 2023 to discuss odour complaints and the controls being implemented at the landfill site to manage or reduce odour emissions. Areas for improvement were discussed with the MRC, especially where other operational controls may be implemented through the licensing process.

Following on-site discussions, the Department advised the Mindarie Regional Council on 2 June 2023 that it will undertake a review of existing licence conditions to determine whether the current controls are adequate or whether changes are required. The review process is likely to take up to six months to complete. The Department will conduct the licence review in accordance with its [Regulatory Framework](#) which uses a risk-based approach to determine the outcome.

### 3. Scope of assessment

#### 3.1 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>.

#### 3.2 Amendment summary – DWER initiated

The Department has determined to implement some immediate licence changes to assist in controlling nuisance odour from the premises. Specifically, this includes the restriction of deliveries of waste overnight that is then left un-covered until the completion of landfill activities the following day.

The proposed restriction is considered necessary to provide some level of respite to nearby residential receptors from nuisance odours outside of working day hours, and prior to the licence review being completed by the Department which may result in additional requirements being imposed on MRC to mitigate odour from the premises.

### 4. 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 *Guideline: Risk assessments* (DWER 2020).

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.

#### 4.1 Source-pathways and receptors

##### 4.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises operation which have been considered in this Amendment Report are detailed in Table 1 below.

Table 11 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

**Table 1: Licence Holder controls**

Emission	Sources	Potential pathways	Proposed controls
Odour	Active landfill area Active tip face area	Air/windborne pathway	Daily cover requirements for deposited waste in the existing licence. Zeolite (odour control product) spread out on wet areas of the landfill site. EcoSorb (odour neutralisation product) applied to working tip face when complaints are received. Tipping face bench for putrescible waste landfilling limited to 3.5m compared to 5m allowed in licence. Operational controls in-place to ensure

Emission	Sources	Potential pathways	Proposed controls
			appropriate coverage of waste in a timelier manner (to that set-in licence conditions) for known odorous wastes delivered to site.

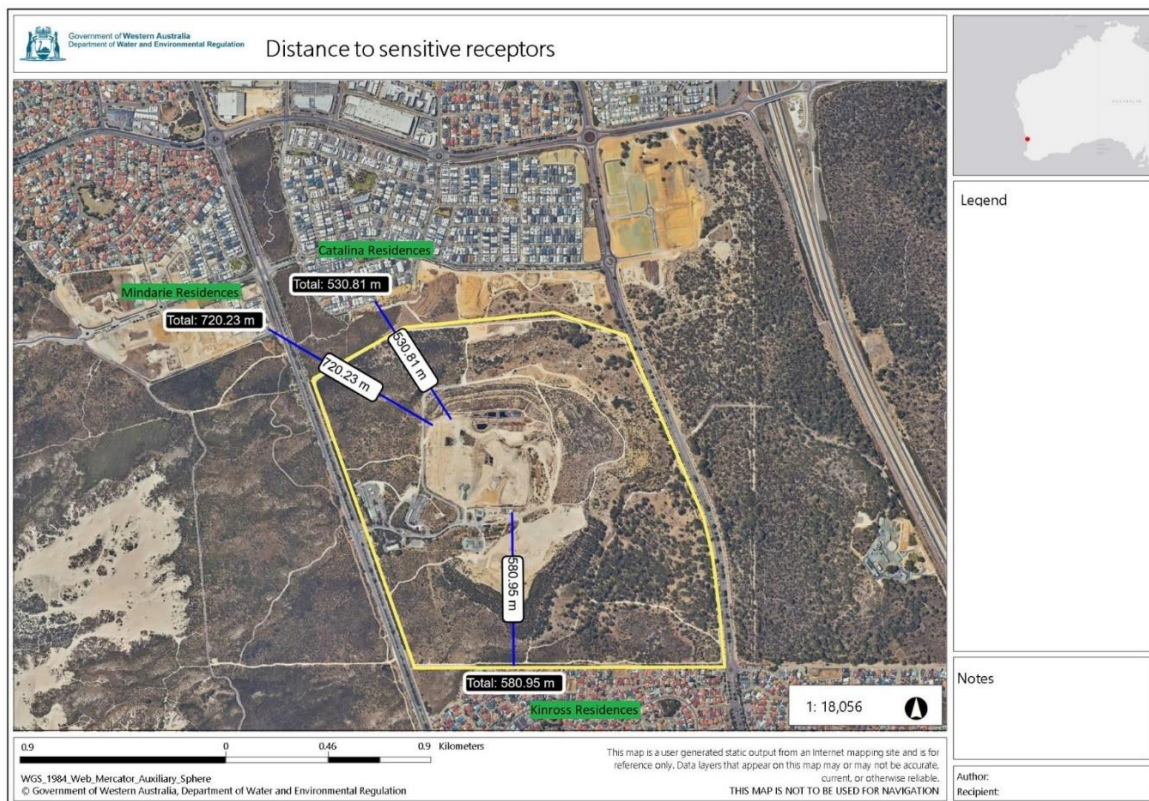
#### 4.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), 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 2 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 (*Guideline: Environmental siting* (DWER 2020)).

**Table 2: Sensitive human and environmental receptors and distance from prescribed activity**

Human receptors	Distance from prescribed activity
Catalina residences (within Clarkson) residences	530m north from the active landfill area
Kinross residences	580m south from the active landfill area
Mindarie residences	720m north-west from the active landfill area



**Figure 1: Distance to sensitive receptors**

## 4.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 4.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the Licence Holder has proposed mitigation measures/controls (as detailed in Section 4.1), 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 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 landfilling operations after-hours**

Risk Event					Risk rating <sup>1</sup>	Licence Holder's controls sufficient?	Conditions <sup>2</sup> of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls	C = consequence L = likelihood			
<b>Operation</b>								
Acceptance and processing of waste deliveries outside of working day hours	Odour	Air/windborne pathway causing impacts to health and amenity	Residences (closest 530m north from the active landfill area)	Refer to Section 4.1	<u>C = Major</u> (Local scale impacts: high level impact to amenity)  <u>L = Possible</u> (The risk event could occur at some time)  <b>High Risk</b>	N	<u><b>Condition 1 and 7.</b></u> <u><b>Definitions</b></u>	Waste that is left un-covered over-night forms a primary source of nuisance odour to nearby residential receptors. Although plume behaviour is not yet well understood for this complex terrain situation, odour plumes emitted from waste that is left uncovered overnight may have poor dispersion characteristics owing to the presence of stable atmospheric conditions (clear night-time skies, light winds). The possibility also exists that odorous air may accumulate in low-lying areas of the landfill site (ponding) during night-time neutral or stable atmospheric conditions. Plumes of odorous air originating from such ponding can then potentially be pushed towards receptors when stronger winds prevail.  These potential impact scenarios suggest a mitigation strategy to evening or night-time odour complaints of not leaving waste uncovered overnight. The Delegated Officer has included specifications in the licensed waste acceptance criteria (Condition 1) that require MRC to only receive waste during working day hours. Condition 7 includes requirements for daily landfill cover to ensure that waste is covered at the end of the working day to control odour, reduce fire-risk and prevent the spread and harbouring of disease vectors.

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020).

Note 2: Proposed Licence Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by Department.

## 5. Consultation

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

**Table 4: Consultation**

Consultation method	Comments received	Department response
<p>Licence Holder was provided with draft amendment on 4 October 2023.</p>	<p>In relation to the requirement to cease receiving waste outside of a usual working day by 20 October 2023, MRC provided the following comments:</p> <p>MRC can accommodate the proposed change in time however, there are two critical concerns that must first be addressed to ensure that changes can be implemented appropriately:</p> <ol style="list-style-type: none"> <li>1. Tamala Park Waste Management Facility operations require additional personnel and a roster change; and</li> <li>2. The night-time waste collection and waste disposal requirements of the City of Perth.</li> </ol> <p><u>Item 1</u></p> <p>MRC must substantially change its staff roster to accommodate operations from 0600 hrs to 1800 hrs herein referred to as 'working day hours'. Employee agreements and work schedules are governed by an Enterprise Bargaining Agreement (EBA) and an "alteration of hours of work" is deemed a "major change" in MRC's WA State Industrial Relations Commission approved EBA. As such, the amendment of the EBA necessitates formal consultation with staff and unions.</p> <p>MRC is of the opinion that the transition in staff rostering, as well as the amendment of associated contracts and additional personnel will require a minimum of four additional weeks to complete. The MRC requests additional time to process this change and have indicated that it should be resolved by no later than 10 November 2023.</p> <p><u>Item 2</u></p> <p>The proposed changes present substantial issues for one member council of MRC, being the City of Perth (CoP). Due to the unique nature of CoP's catchment area and central business district, it is only able to remove rate-payer waste materials after normal business hours, for delivery to Tamala Park. In this regard, night-time kerbside waste collection by COP is limited to between 8:00 PM to 4:30 AM and has been their usual method of service delivery for many years.</p> <p>CoP has informed MRC that it is currently working through its options, but that the timeline proposed is insufficient to allow them time to identify a suitable transport/transfer option, noting that any resultant operational changes for themselves is likely to result in a substantial increase in costs and that this may require formal Council approval. The CoP initially requested a two-month extension (to 20 December, 2023) to accommodate changes to budgets, schedules, council notifications, etc. In response the MRC informed CoP that their proposed implementation date is not feasible due to the heightened levels of activity through the Tamala Park site during the festive period, and the increased risks associated with making any "major change" to staffing conditions during that time period.</p> <p><u>Closing</u></p> <p>MRC acknowledges accountability for the noxious odour emanating from the Tamala Park Landfill and has suggested five interim solutions for consideration by DWER, with the intention of advancing the implementation date to Monday 10 November 2023:</p> <ul style="list-style-type: none"> <li>• All night loads received will be positioned directly adjacent to odour pods (x5) that will be relocated to the tip face. These devices will function throughout the night to assist in the elimination of odours caused by night-time loads.</li> <li>• MRC shall administer an odour neutralising agent product directly to the tip face daily, at 5:30 PM and 6:30 AM.</li> <li>• MRC will cover the tip face with cover material promptly. The Tarpomatic system will be indefinitely discontinued from service and no longer used as it not considered effectively in controlling odours at the tip-face overnight.</li> <li>• The MRC intends to decrease the width of the night-time tip face to a reduced length of 10 metres. This will ensure that the surface area of deposited waste is reduced with waste to be deposited directly on refuse rather than in an elongated, dispersed pattern.</li> <li>• The current active tip face exceeds the lowest section of the active landfill by 25 metres. All night-time loads will only be deposited during this period in the lowest section of the active landfill space. Odours will be more effectively contained in the lower section of the active landfill until the licence amendment for night loads is implemented.</li> </ul>	<p>The Delegated Officer acknowledges the operational constraints regarding the need to negotiate changes to the EBA for TPWMF site personnel and in relation to the constraints for the CoP to modify their operational practices and seek alternatives for transport and/or transfer options.</p> <p><b><u>The proposed extension to cease the acceptance of waste after operational hours to 10 November 2023 is therefore accepted.</u></b></p> <p>The Department supports the interim solutions to be put in-place and confirmed this position to MRC on 18 October 2023 and requested that this be implemented immediately.</p>
	<p>Proposed changes to the definition of 'usual working day': the MRC accepts, in part, the proposed amendment but requests the definition be amended slightly to match with the site's historic operations, to read:</p> <p>'Usual working day: Means 0600-1800 hours, seven days a week, excluding Good Friday, Christmas Day and New Year's Day'.</p>	<p>Proposed changes supported regarding operating hours and public holiday exclusions.</p> <p><b><u>Additional changes made with the defined phrase changed from 'usual working day to 'working day'.</u></b></p>

## 6. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that a Revised Licence will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

### 6.1 Summary of amendments

Table 5 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Licence as part of the amendment process.

**Table 5: Summary of licence amendments**

Condition no.	Proposed amendments
1	Waste acceptance criteria updated to specify when waste can be accepted at the premises.
7	Wording changes in Table 3 that clarify the intent of daily cover requirements and that which are outcome based and require MRC to use appropriate cover materials to control odour, reduce fire-risk and prevent the spread and harbouring of disease vectors.
N/A	Defined phrase changed from 'usual working day' to 'working day' and hours modified from '0800 – 1700 hours' to '0600 – 1800 hours', seven days a week, excluding certain public holidays.  MRC is still required to adhere to the provisions of <i>Environmental Protection (Noise) Regulations 1997</i> to ensure that noise emissions from the premises do not breach the related assigned levels, noting that different levels apply to noise sensitive premises before 0700 hours (i.e., between 0600- 0700 hours).

## References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
3. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.