



Government of **Western Australia**
Office of the **Appeals Convenor**
Environmental Protection Act 1986

Appeals Convenor's Report to the Minister for Environment

Appeal objecting to amendment of licence: L8889/2015/1
Red Hill Waste Management Facility, Toodyay Road, Red Hill



| | |
|-----------------------|--|
| Appellant | Denise Fernie |
| Licence holder | Eastern Metropolitan Regional Council |
| Authority | Department of Water and Environmental Regulation |
| Appeal number | 055 of 2020 |
| Date | September 2021 |

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Cover image: Red Hill Waste Management Facility, DWER Licence L8889/2015/1

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Acknowledgement of Country

The Office of the Appeals Convenor acknowledges the traditional custodians throughout Western Australia and their continuing connection to the land, waters and community.

We pay our respects to all members of the Aboriginal communities and their cultures, and to Elders past, present and emerging.

Contents

| | | |
|-------------------|---|-----------|
| 1 | Executive summary | 1 |
| 1.1 | Decision under appeal | 1 |
| 1.2 | Grounds of appeal and appellant concerns | 2 |
| 1.3 | Key issues and conclusions | 2 |
| 1.4 | Recommendation to the Minister | 3 |
| 2 | Reasons for recommendation | 4 |
| 2.1 | Do the amended conditions provide adequate regulatory control and monitoring of dust emissions from shredding power pole waste? | 4 |
| 2.2 | Did DWER adequately assess potential impacts to John Forrest National Park from contaminated dust emissions and discharges? | 9 |
| 3 | Supporting information | 12 |
| 3.1 | Premises categories and licence amendments | 12 |
| 3.2 | Maps | 13 |
| 3.3 | Proposed operational dust monitoring program | 13 |
| 3.4 | Other matters | 14 |
| Appendix 1 | Appeal process | 16 |

1 Executive summary

1.1 Decision under appeal

The Eastern Metropolitan Regional Council (EMRC) (licence holder) holds licence L8889/2015/1 (the licence) for the Red Hill Waste Management Facility (the premises), Toodyay Road, Red Hill in the City of Swan. The Department of Water and Environmental Regulation (DWER) amended the licence on 4 November 2020.

The premises are prescribed as Categories 12, 61A, 62, 64, 65 and 67A, as defined under Schedule 1 to the *Environmental Protection Regulations 1987*. Refer to Table 2 in Section 3 for a description of the prescribed categories.

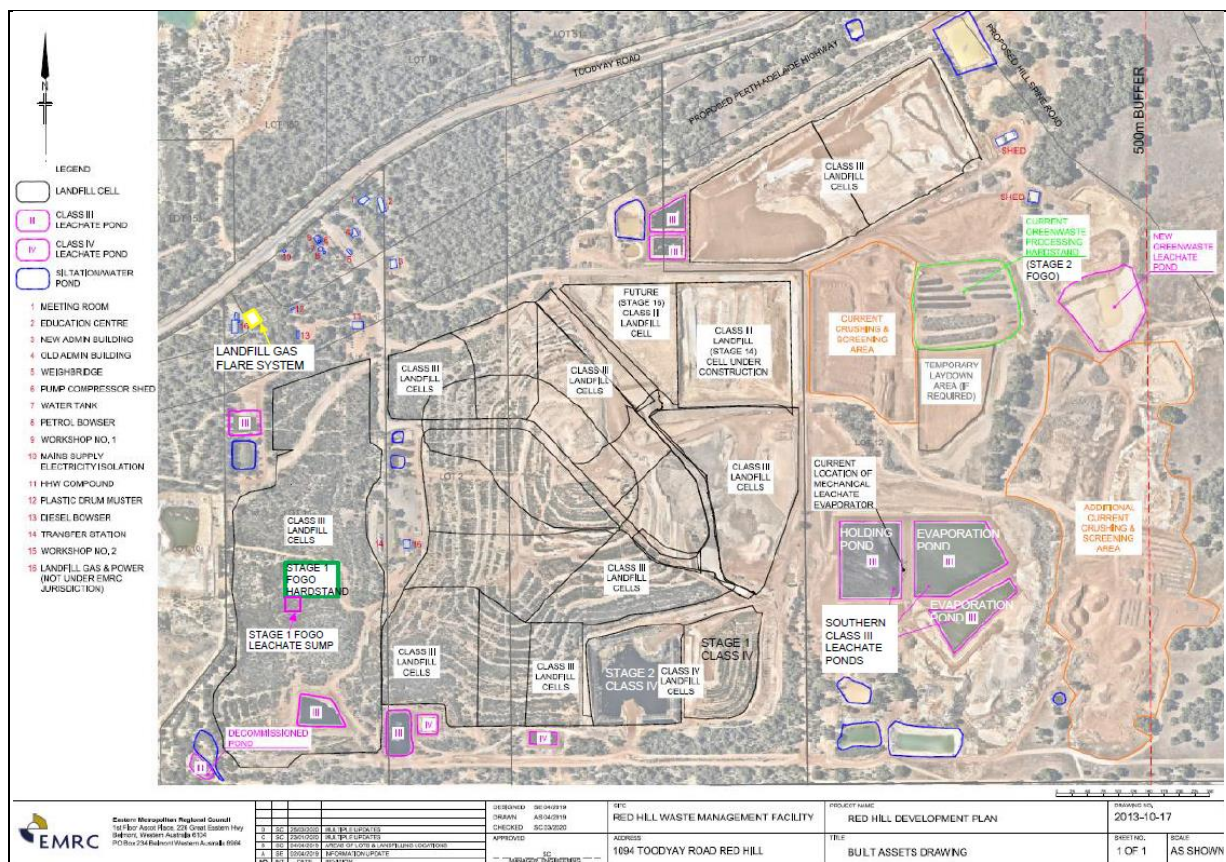
This appeal is against the licence amendment, which authorises the addition of:

- Category 61A (power pole waste): Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land.
- Shredding of power poles within a Class IV landfill cell.

Refer to Table 3 in Section 3 for a summary of the licence amendments.

Figure 1 (below) shows the premises layout. The site location and premises boundary are shown in Figure 2 in Section 3.

Figure 1 Premises layout



(Source: DWER, Licence L8889/2015/1, 4/11/20)

1.2 Grounds of appeal and appellant concerns

The appellant is Ms Denise Fernie, who submitted that the licence amendment should not have been made. The appellant contended that the risk of emissions and discharges from shredding power pole waste at the premises is unacceptable and will significantly impact the health and amenity of nearby residents and harm the environment.

The appellant submitted that power pole waste should be disposed and buried whole without shredding, within the Class IV landfill cell at the premises.

The appellant questioned the adequacy of licence conditions for controlling and monitoring dust emissions and discharges from shredding operations.

We summarise the appellant's main concerns in Table 1.

Table 1 Grounds of appeal

| Main concerns the appellant submitted | |
|---|--|
| 1. Dust emissions from shredding power pole waste | DWER did not properly consider emissions to air from shredding power pole waste. DWER's risk assessment of dust emissions was inadequate. The appellant questioned whether the conditions provide adequate regulatory control and monitoring of dust in relation to the shredding of power pole waste. |
| 2. Impacts to John Forrest National Park (JFNP) | DWER did not properly consider potential impacts to JFNP from shredding power pole waste. Contaminated dust emissions and polluted discharges from shredder operations could contaminate vegetation, and surface and groundwater in JFNP. |

1.3 Key issues and conclusions

From the appellant's concerns the key question for the appeal is whether the amendment should have been made. The 2 issues at the heart of the appeal relate to potential impacts to the health and amenity of nearby residents, and the environment and whether the controls are adequate. We summarise our conclusions for these issues below. Section 2 of this report then details our reasoning and Section 3 provides supporting information.

The appellant also raised matters that do not relate to the licence amendment. These are noted under 'Other Matters' in Section 3.

Do the amended conditions provide adequate regulatory control and monitoring of dust emissions from shredding power pole waste?

In assessing dust emissions from shredding power pole waste, DWER considered a range of information, including safety data sheet information for preservative chemicals and laboratory results from chemical analysis of power poles. DWER also sought advice from the Department of Health (DoH) in relation to potential health impacts.

DWER considered previous experience regulating similar shredding activities, which used water jet suppression systems, wetting down of wastes and daily cover of landfilled wastes to control dust.

DWER assessed the risk posed by dust containing contaminants impacting on nearby residential receptors to be medium risk, subject to the licence holder's dust mitigation measures. These measures were incorporated into the licence amendment as regulatory

controls. The licence amendment includes infrastructure and waste processing requirements for the acceptance, handling, shredding and landfilling of power pole waste.

In response to the appeal, DWER sought the advice of air quality specialists in relation to dust emissions from shredding activities. As a result of that advice, DWER recommended further amendments to the conditions to strengthen dust control measures, monitor dust and validate dust control measures.

The recommended amendments are, that:

- power pole waste be wet down during and prior to shredding of power pole waste
- an operational dust monitoring program be undertaken over a representative period of time, to verify the adequacy of dust controls.

The licence holder agreed to both recommended changes to the conditions.

We agree that amending the licence conditions in this way is appropriate to strengthen and verify the adequacy of the controls specified in the amended licence.

Did DWER adequately assess potential impacts to John Forrest National Park from contaminated dust emissions and discharges?

DWER assessed the risk of contaminated discharge from dust suppression systems leaking into groundwater and impacting down gradient ecosystem health as low risk.

Condition 6 (Leachate and water management) requires that wastewater from Class IV waste areas must be contained and managed within the Class IV leachate collection system. The integrity of the Class IV landfill cell and the associated leachate management infrastructure is regulated through Ministerial conditions under Part IV of the EP Act.

In response to the appeal, DWER acknowledged that it did not assess the level of risk to Christmas Tree Creek within JFNP posed by dust emissions generated from shredding power pole waste. DWER undertook further risk assessment and advised that potential risks and impacts to Christmas Tree Creek are appropriately managed by licence conditions. DWER also advised that water quality within JFNP is adequately monitored through Ministerial conditions under Part IV of the EP Act.

Noting the above, and the recommendation from Ground 1 that an operational dust monitoring program be undertaken to verify the adequacy of dust controls, we accept DWER's position.

1.4 Recommendation to the Minister

We conclude that the amendment was appropriate, however we recommend that the appeal be allowed in part by amending the licence conditions as follows:

- amendment of Condition 5 (Table 3) to require that the waste be wet down during and prior to shredding of power poles, to mitigate the generation of dust particle emissions during the activity
- addition of requirements to carry-out an operational dust monitoring program over a representative period of time, to verify the adequacy of dust controls proposed by the licence holder.

The appeal is otherwise recommended to be dismissed.

2 Reasons for recommendation

2.1 Do the amended conditions provide adequate regulatory control and monitoring of dust emissions from shredding power pole waste?

Our conclusion is that DWER appropriately assessed dust emissions generated from shredding power pole waste. We agree that the conditions DWER applied to the amended licence were generally appropriate for the control of dust generated from shredding activities, based on the available evidence.

However, we agree with DWER that this ground of appeal should be allowed in part by changing the conditions to require that;

- power pole waste be wet down during and prior to shredding
- an operational dust monitoring program be undertaken over a representative period of time, to verify the adequacy of dust controls.

We explain our reasoning below.

Appellant's concerns

The appellant submitted:

- Power pole waste should be deposited whole into the Class IV landfill cell without shredding, thus avoiding contaminated dust being generated through the shredding process.
- Power pole waste is contaminated with copper chrome arsenate (CCA), hydrocarbons and PresChem rods. Shredding of treated wood will generate contaminated dust, which will impact on nearby residential homes and properties.
- DWER's risk assessment for dust emissions from shredding power pole waste was inadequate. In the Amendment Report, DWER states several times 'no information available'. This is unacceptable as the absence of information should not be used as proof that a potential impact is insignificant.
- Cumulative impacts of the suite of contaminants – including copper, chromium, arsenic, fluoride, boron and hydrocarbons – in treated wood were not appropriately considered by DWER in its assessment of the application to amend the licence.
- Contaminated dust has the potential to pollute rainwater tanks and food gardens at nearby residential homes. There is no recognition that all nearby residences rely on rooftop collection of water for drinking, gardens and other household uses.
- Questioning the adequacy of conditions to control and monitor contaminated dust. In particular, what dust particle size will the shedder produce? What particle size will the water jets of the dust suppression system suppress? Will dust from shredding PresChem rods, which are chalky, be controlled?

The issues raised under this ground of appeal have been summarised under the following headings:

- shredding of power pole waste
- adequacy of risk assessment
- regulatory control and monitoring of dust emissions.

Shredding of power pole waste

By the licence amendment, Table 1 under Condition 1 has been amended to include the acceptance of 13,000 tonnes per annual period of power pole waste. The pole waste

comprises CCA treated pine and hardwood poles, and pole butts treated with hydrocarbon-based treatments and Preschem Polesaver Rods.

CCA treated wood has been pressure treated with a preservative containing copper, chromium and arsenic. Hydrocarbon-based treatments applied to the base of poles included 'Pole mix' containing a mixture of aldrin (insecticide) and pentachlorophenol (fungicide) in a diesel-tar, and creosote. Preschem Polesaver Rods are chalk like rods [8 to 18 millimetres (mm) in diameter and 125 mm length] containing boron and fluoride.

The power pole waste will be shredded using a Hammel Shredder, located within the Stage 2 Class IV landfill cell at the premises. The shredded material will then be disposed of within that cell.

DWER advised that:

The Department considers that the proposal to shred waste is an acceptable practice to allow greater void space use within the landfill cell and for compaction and stability purposes.

As per the Licence Holder's Application, the reason for shredding the power poles was due to:

"the large area taken up by the poles and wasted air space between the poles. There is also no capacity to compact the area where the poles are landfilled. There is concern that the capacity of the Class IV Cell will not be able to accommodate the anticipated number of poles resulting from Western Power's annual works program in addition to the volumes of other Class IV waste requiring disposal. In order to address this situation, the EMRC is proposing to shred the CCA (pine and hardwood) treated poles together with the pole butts to consolidate and maximize the space being utilised by the poles."

Section 3.1 and Table 2 in the Amendment Report states that timber waste is to be shredded to a material size between 150 – 400 millimetres (mm) to reduce the potential for wind-blown emissions.¹

We note DWER's advice.

The focus of our investigation is on whether the conditions applied to the amended licence are appropriate and adequate for the purpose of "prevention, control, abatement or mitigation of pollution or environmental harm" associated with the shredding of power pole waste at the premises.

Adequacy of risk assessment

DWER advised that, in assessing the application to amend the licence, it considered the potential environmental and health impacts associated with dust emissions caused by the shredding of treated power pole waste. DWER noted that the levels of all preservative chemicals within the pole waste were characterised as Class IV contaminated material for purposes of waste acceptance, handling and landfilling.

DWER also advised:

The source of dust emissions from the proposed activity occur as a result of the shredding of whole waste timber power poles to a material size ranging from 150 to 400 mm. The targeted material fraction size would reduce the generation of finer particles from the shredding process. However, the Department acknowledges that

¹ DWER, Response to the appeal, 11 February 2021, pages 2-3.

finer dust particles may be produced from the shredding activities and that these particles may contain contaminants of potential concern.

For the purposes of the risk assessment, the source was characterised as shredded timber waste containing arsenic at levels that meet Class IV waste classification criteria, with other contaminants of concern including metals (Cr, Cu and B), organochlorine pesticides, polycyclic aromatic hydrocarbons, phenols, petroleum hydrocarbons, benzene, toluene, ethylbenzene. On the basis of the proposed shred size, the presence of finer particles is considered as a small fraction of the volume of shredded timber generated from the proposed activity.

During its assessment of the amendment application, DWER sought additional information from the licence holder on a number of issues, including in relation to the mitigation of dust emissions.

In response, the licence holder provided the following information to DWER:

... the Hammel shredder does not have a dust extraction system, however dust mitigation measures that are in place as per manufacturer's specifications consists of a water fed dust suppression system comprising of water jets. These are located:

- On top of the shredding shaft to capture dust exiting the feed hopper (infeed area).
- Underneath the shredding shaft to capture dust immediately after the shredding process.
- On the discharge (out feed) conveyor to capture any residual dust remaining.

A water cart will also be used before the operation of shredding the power poles takes place to control dust from general operations.

...The operation of shredding power poles with the Hammel shredder will be approximately 9 to 10 meters below existing land contours, which will reduce windblown material.²

DWER advised that it had considered previous experience regulating similar shredding activities, which used water jet suppression systems and wetting down of wastes. DWER noted that such measures were considered effective for prevention of dust generation, and that daily cover of landfilled wastes also assists in preventing dust emissions.

In assessing dust emissions, DWER considered safety data sheet information for preservative chemicals, and laboratory results from chemical analysis of power poles.

DWER also sought advice from the Department of Health (DoH) in relation to potential health impacts of the proposal, who responded:

The DoH advised that the following measures should be considered in relation to potential public health impacts from the facility:

- visible and non-visible dust is managed to prevent off-site impacts;
- containment within the Class IV landfill cell is satisfactory for preventing loss of leachate;
- measures are taken to prevent fires given that inhalation of smoke is a major pathway for toxic health effects of CCA;
- odour and vermin control are managed on-site; and

² EMRC, Letter to DWER providing further information, 1 September 2020, page 3.

- noise is managed satisfactorily.³

DWER's published *Guidance Statement: Risk Assessments – Part V, Division 3, Environmental Protection Act 1986*⁴ (Risk Assessment Guideline) outlines how DWER will assess the risks of emissions from prescribed premises. The Guideline states that DWER will assess risk and apply regulatory controls in proportion to the level of risk (using consequence and likelihood criteria) that an activity poses to public health and the environment.

In the Amendment Report, DWER outlines its risk assessment. DWER assessed the consequence of dust containing contaminants impacting nearby residential receptors to be 'moderate' and the likelihood as 'possible'. Using the Risk Rating Matrix provided in the Guideline, a consequence of 'moderate' and likelihood of 'possible' equates to medium risk.

In response to the appeal, DWER advised that the risk assessment for dust emissions was based on the risk to public health through inhaling contaminated dust. DWER acknowledged the appellant's concerns that windborne contaminated wood dust may pollute nearby rainwater tanks and food gardens, noting that such risks were not explicitly considered during the risk assessment.

In response to this issue, DWER advised that:

The Department considers that dust deposition at nearby residential receptors and subsequent consumption of drinking water or food grown in gardens would have a minor contribution to the Consequence (health impacts) rating in addition to that determined for dust inhalation i.e. a minor Consequence.

... It is the Department's view that the consideration of the additional exposure pathways does not affect the risk assessment outcome or the suitability of the regulatory controls which were determined on the Amended Licence.⁵

The Risk Assessment Guideline states that an overall risk rating of 'medium' is likely to be subject to some regulatory control. In this case, DWER determined that the risk of dust from shredding activities would be acceptable subject to the licence holder's stated dust mitigation measures. These measures were incorporated into the licence amendment as regulatory controls.

We note DWER's position.

The adequacy of the conditions applied to the licence amendment to address the identified level of risk is considered below.

Regulatory control and monitoring of dust emissions

The licence amendment includes infrastructure and waste processing requirements for the acceptance, handling, shredding and landfilling of power pole waste.

In summary, Condition 4 (Infrastructure and equipment) requires:

- the Hammel type shredder be stationed within the Stage 2 Class IV cell at a specified location below the existing ground surface
- the shredder be fitted with fine misting water jets and/or sprays at the following locations to capture dust:
 - in feed area
 - out feed area

³ DWER, Response to the appeal, 11 February 2021, pages 6-7.

⁴ DWER, Guideline: Risk assessments, Part V, Division 3, *Environmental Protection Act 1986*, February 2017.

⁵ DWER, Response to the appeal, 11 February 2021, pages 5-6.

- underneath the shredding shaft
- the shredder only be operated to shred power pole waste that meets acceptance specifications for contaminated solid waste in accordance with Condition 1.

Condition 5 (Waste processing requirements) requires:

- no visible dust generated during the use of the shredder to cross the premises boundary
- power poles are sufficiently wetted down during shredding to minimise dust emissions by water jets/sprays fitted to the shredder, and/or wetting down of power poles by a water cart immediately prior to shredding
- shredding limit of 13,000 tonnes per annual period of power pole waste
- disposal of shredded waste only permitted within the Stage 2 Class IV landfill cell
- operating hours limited to 7:00 am to 6:00 pm Monday to Saturday
- only one excavator, one loader and one water cart to operate within the Stage 2 Class IV cell during shredding activities
- mitigating dust emissions from associated operational areas using on-site water carts
- individual stockpiles of power poles stored only within the Stage 2 Class IV cell prior to shredding, and not to exceed 50 m in length, 4 m in height, 20 m in width, and must be separated by at least 6 m of clear ground.

Condition 13 (Deposition of waste) includes a requirement that all shredded power pole waste disposed to the Class IV cell be covered with cover material at the end of each day.

In response to the appeal, DWER sought the advice of air quality specialists in relation to dust emissions, who advised the following:

- the use of water sprinklers in the shredder would mitigate dust generation if operated in accordance with manufacturer specifications;
- sprinklers should be used during shredding of power poles in addition to wetting prior to shredding, due to the potential for metals in particle emissions;
- monitoring of dust emissions using monitoring equipment would provide information to validate dust control measures and would support an assessment of any related potential impacts. Analysis of the monitoring data should include the consideration of wind data and times when the shredder was operational;
- a High Volume Sampler configured for sampling total suspended particulates and particulate matter 10 micrometres or less in diameter (PM10) would be required to determine the concentration of PM10 and metals.; and
- monitors are generally placed at the nearest receptor or between dust sources and receptor areas with reference to predominant wind patterns.⁶

Noting the above, DWER advised:

The Department considers that the dust controls proposed by the Licence Holder and imposed on the Amended Licence are likely to be adequate to prevent visible and non-visible dust emissions crossing the premises boundary. While dust monitoring conditions were not determined on the Amended Licence, it is acknowledged that an operational dust monitoring program, conducted over a representative period of time on initiating of power pole shredding activities, would

⁶ DWER, Response to the appeal, 11 February 2021, page 7.

provide an empirical means of verifying the adequacy of the controls specified in the Amended Licence.⁷

Given this, DWER recommended the following changes to the conditions:

- amendment of Condition 5 (Table 3) to require that the waste be wet down during and prior to shredding of power poles, to mitigate the generation of dust particle emissions during the activity; and
- addition of requirements to carry-out an operational dust monitoring program over a representative period of time, to verify the adequacy of dust controls proposed by the licence holder.

The licence holder was provided the opportunity to comment on DWER's advice and agreed to both recommended changes to the conditions. Specific details of the proposed operational dust monitoring program are provided in Section 3.3.

Conclusion

Having identified a medium risk, and consistent with the Risk Assessment Guideline, DWER has applied conditions to the licence amendment to control and manage the risks and potential impacts from dust emissions it has identified during assessment of the application. In addition, in response to concerns raised under appeal, DWER has recommended further amendments to the conditions to strengthen dust control measures, monitor dust and validate dust control measures.

We agree with DWER's recommendation. This ground of appeal should be allowed in part by amending the licence conditions in the manner recommended above by DWER.

2.2 Did DWER adequately assess potential impacts to John Forrest National Park from contaminated dust emissions and discharges?

Our conclusion is that DWER did not fully assess the level of risk to Christmas Tree Creek within JFNP posed by dust emissions generated from shredding power pole waste. However, in response to the appeal, DWER undertook further risk assessment and advised that potential risks and impacts are appropriately managed by licence conditions. Given the recommendation from Ground 1, that an operational dust monitoring program be undertaken to verify the adequacy of dust controls, we agree with DWER's position.

We explain our reasoning below.

Appellant's concerns

The appellant submitted DWER did not properly consider potential impacts to JFNP from dust emissions generated by shredding power pole waste. The appellant was concerned that contaminated dust and polluted discharges from dust suppression systems using water could contaminate vegetation, and surface and groundwater in JFNP. The appellant contended that there is a contaminated plume from the premises which impacts groundwater within JFNP, and that appropriate monitoring is required.

Background

In response to this ground of appeal, DWER advised:

Contaminated sites investigations at the Premises have previously identified a groundwater contaminant plume on Lot 11 in the south-west of the Premises and

⁷ DWER, Response to the appeal, 11 February 2021, page 7.

extending across the boundary into JFNP. The source of this plume was identified as historical operation of unlined landfill cells with potential contribution from a former leachate pond overlying the landfill. This contaminant plume has been, and continues to be, investigated under the *Contaminated Sites Act 2003* and the Licence Holder has ongoing management and monitoring requirements to address the contamination under this legislation. The source of the existing contamination plume is not relevant to the assessment of emissions for this amendment.⁸

Risk assessment and regulatory controls

DWER's risk assessment for shredding activities included consideration of run-off and discharge of potentially contaminated water from dust suppression water sprays and water carts. DWER assessed the risk of contaminated sub-surface seepage causing impacts to groundwater and down gradient ecosystem health as low risk.

In the Amendment Report, DWER stated:

While the existing Stage 2 Class IV cell containment and leachate management system will contain and manage excess contaminated water, the quantity of excess contaminated water entering the system will be minimised to reduce the burden on the containment system. The application rates of fine misting water sprays within the shredder for dust suppression will minimise the potential for the pooling of water.

The Delegated Officer considers the Licence Holder's controls sufficient to mitigate the generation of potentially contaminated water during operation.⁹

Condition 6 (Leachate and water management) requires, among other things, that wastewater emanating from, or water that has come into contact with, Class IV waste areas must be contained and managed within the Class IV leachate collection system.

In response to this ground of appeal, DWER advised that the volumes of water generated by this activity are not considered to be significant in relation to the overall capacity of the leachate management system for the Stage 2 Class IV cell. DWER also advised that the infrastructure design and integrity of the Stage 2 Class IV cell, and the associated leachate management infrastructure, was previously assessed under Part IV of the EP Act by the Environmental Protection Authority (EPA) and is regulated through Ministerial Statement No. 462.

In response to the appellant's concerns that the Stage 2 Class IV cell may leak and discharge contaminated water to the environment, the licence holder advised:

The Class IV landfill cells are constructed with a Class IV double HDPE lining system which is a requirement for Class IV waste as opposed to a single composite lining system which is a requirement for Class III landfill cells. The Class IV cell is comprised of several layers as shown below, starting from the top:

- 300 mm of sand
- Drainage layer
- Geotextile protection layer
- 2mm HDPE (fully welded and tested and impermeable)
- Geosynthetic clay layer

⁸ DWER, Response to the appeal, 11 February 2021, page 10.

⁹ DWER, Amendment Report Licence L8889/2015/1, 4 November 2020, page 11.

- Geonet Leak Detection Layer
- 2mm HDPE (fully welded and tested and impermeable)
- Geosynthetic layer
- 500mm Engineered clay layer

Christmas Tree Creek within JFNP

In its advice, DWER noted that Christmas Tree Creek within JFNP is the predominant surface water feature to the south of the premises. DWER acknowledged that the creek was omitted from the risk assessment, and provided the following advice:

Acknowledging that there is a pathway for contaminated dust to deposit within this surface water body, the Department considers that the potential impacts to Christmas Tree Creek would be **‘medium’**. The determination is based on the Consequence of the impact being **‘moderate’** with offsite impacts being low-level at the local s[c]ale and minimal at the wider scale. The Likelihood of impacts occurring is considered to be **‘unlikely’** as the risk event would probably not occur in most circumstances. The Department considered that the controls determined in the Amended Licence are sufficient to mitigate impacts associated with this risk event.¹⁰

DWER advised that Ministerial Statement Nos. 274 and 1140, which apply to the premises, require the licence holder to implement the *Surface Water and Groundwater Environmental Management Plan: Red Hill Waste Management Facility* (SWGWEMP). DWER noted that the SWGWEMP sets out quarterly monitoring requirements for surface water, leachate and groundwater monitoring across the premises. The SWGWEMP also includes some surface water and groundwater monitoring locations to the west and south of the premises, including six locations within JFNP.

In this regard, DWER advised:

Monitoring requirements for water quality at two locations in Christmas Tree Creek and multiple groundwater monitoring bores include a wide range of inorganic and organic compounds and heavy metals. These analytes include parameters that are considered to be appropriate indicators for seepage associated with contaminants of concern that may leach from, or be contained in dust generated from power poles wastes. The parameters include arsenic, chromium, total recoverable hydrocarbons, polycyclic aromatic hydrocarbons and organochlorine and organophosphate pesticides.¹¹

Noting the above, DWER considered that water quality within JFNP was already adequately monitored through Ministerial conditions under Part IV of the EP Act, and that no further monitoring is required. We agree with DWER’s advice.

Conclusion

Taking into account the foregoing, and noting the recommendation from Ground 1 of this report that an operational dust monitoring program be undertaken to verify the adequacy of dust controls, it is considered the matters raised under this ground of appeal have been appropriately addressed.

¹⁰ DWER, Response to the appeal, 11 February 2021, page 9.

¹¹ Ibid.

3 Supporting information

3.1 Premises categories and licence amendments

Table 2 Licence L8889/2015/1 prescribed premises categories

| Category | Description | Production or design capacity |
|----------|---|----------------------------------|
| 12 | Screening, etc of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated. | 200,000 tonnes per annual period |
| 61A | Solid waste facility: premises (other than premises within category 67A) on which solid waste produced on other premises is stored, reprocessed, treated, or discharged onto land. | 13,000 tonnes per annual period |
| 62 | Solid waste depot: premises on which waste is stored, or sorted, pending final disposal or re-use. | 10,000 tonnes per annual period |
| 64 | Class II or III putrescible landfill site: premises (other than clean fill premises) on which waste of a type permitted for disposal for this category of prescribed premises, in accordance with the <i>Landfill Waste Classification and Waste Definitions 1996</i> , is accepted for burial. | 350,000 tonnes per annual period |
| 65 | Class IV secure landfill site: premises (other than clean fill premises) on which waste of a type permitted for disposal for this category of prescribed premises, in accordance with the <i>Landfill Waste Classification and Waste Definitions 1996</i> , is accepted for burial. | Not applicable |
| 67A | Compost manufacturing and soil blending: premises on which organic material (excluding silage) or waste is stored pending processing, mixing, drying or composting to produce commercial quantities of compost of blended soils. | 50,000 tonnes per annual period |

(DWER, L8889/2015/1, 4 November 2020)

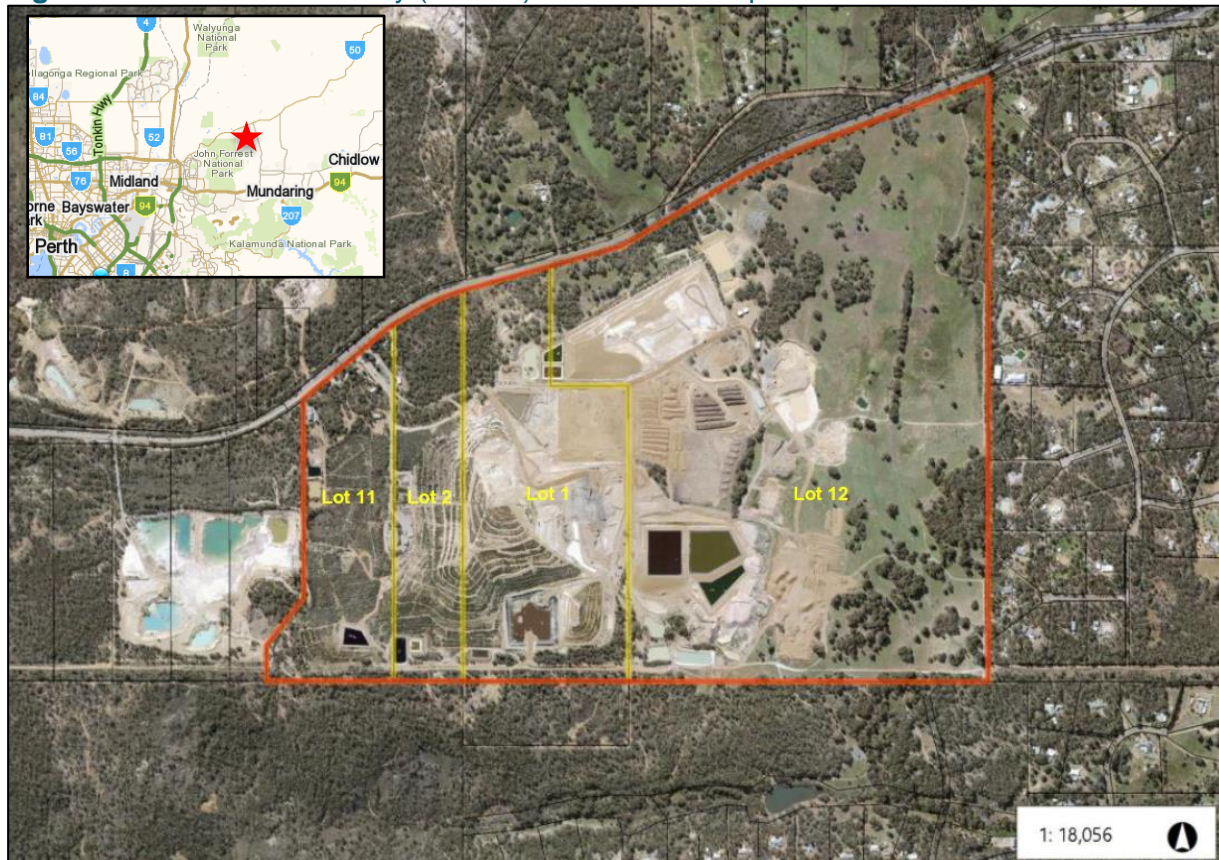
Table 3 Summary of licence amendments

| Condition no. | Proposed amendments |
|----------------------|---|
| 4, Table 2 | Inclusion of infrastructure requirements to mitigate dust emissions from shredding operations. |
| 5, Table 3 | Inclusion of processing requirements to mitigate dust, noise and fire associated emissions from shredding operations. |
| 13 | Inclusion of landfill cover requirements for waste disposed of to the Class IV cell. |
| Table 17, Schedule 2 | Updated to include groundwater monitoring bore SP47D |
| Figure 7, Schedule 2 | Updated to include groundwater monitoring bore SP47D |

(DWER, Amendment Report, L8889/2015/1, 4 November 2020)

3.2 Maps

Figure 2 Premises boundary (red line) and location map



(Source: DWER, Licence L8889/2015/1, 4/11/20 and Whereis.com)

3.3 Proposed operational dust monitoring program

In agreeing to DWER's recommendation that the conditions be amended to require an operational dust monitoring program, the licence holder advised:

A dust deposition gauge (DDG) is a simple piece of monitoring equipment which can be used to assist with determining the composition compounds within the dust. The DDG comprises of a glass funnel supported in the neck of a large glass bottle usually by a rubber stopper.

DDGs will be placed and installed under AS/NZS 3580.1.1:2007: Methods for sampling and analysis of ambient air – Part 1.1: Guide to siting air monitoring equipment. AS/NZS 3580.10.1:2016. DDG's will be elevated 2 m above the ground and will be left for one month (30 days \pm 2 days) so that a measurable quantity of dust can be collected before being returned to a laboratory for analysis. The dust sample will be collected when the DDGs are uninstalled from site. Two DDGs will be required for the one month. One DDG will be for collecting and analysing CCAs from the dust only. The other DDG will be to collect samples OCPs, TRH and PAHs, which require to be mixed with water to analyse. DDGs are proposed to be placed on the southern boundary of the site, downwind of the shredding to the sensitive receptors located south of the site (Figure 1 [below]).



Figure 1 Location of shredding (shown in red boundary) and potential locations for the DDGs

GHD will use the data collected by the DDGs and will include:

Total soluble and insoluble dust

Description of the monitoring method

Laboratory results for CCA, OCP, TRH and PAHs

Interpretive summary of results, with supporting data analysis necessary to aid the dataset's interpretation.¹²

We note the licence holder's advice.

3.4 Other matters

The appellant raised matters in their appeal that are not related to the licence amendment. The appellant's concerns in respect to these matters are noted below together with DWER's advice, however as these matters do not relate to the licence amendment they are not considered further in the context of this report.

Public consultation

The appellant submitted that public consultation on the licence amendment was inadequate.

In its advice, DWER advised that:

The Department acknowledges the Appellants' concerns regarding the opportunity to comment on the amendment to the Licence that incorporated the shredding activity.

The EP Act does not require the Department to advertise licence amendment applications, and in general, only those that include substantial works or high community interest are publicly advertised.

The Department used its discretionary powers to advertise the previous amendment application for the Premises for the processing of Food Organics and Garden Organics waste in May 2020. This decision was informed by a history of odour complaints associated with the Premises, the substantial works and range of proposed activities with a high odour risk potential included in the application.

As there were no public comments or appeals when advertising and granting that amendment to the licence on 26 June 2020, the Department did not consider that there would be community interest in the Premises to warrant advertising the current amendment involving limited works and relatively few potential risk events.

¹² EMRC representative's email, 1 June 2021.

The Department notes the level of public interest in the amendment of the Licence for future processes, but considers that consultation in relation to the Premises since the original application was submitted has been conducted in accordance with the requirements of the EP Act.¹³

Climate change

The appellant raised concerns that water will be used for dust suppression and questioned if this is the best practice. The appellant noted the effects of climate change, causing declining rainfall and scarcity of water supplies in the local area.

In its advice, DWER advised:

The Delegated Officer determined that the proposed controls, as specified in Table 4 of the Amendment Report, at the sources where dust is generated would decrease the likelihood of dust-related risk events. Specialist air quality advice ... confirmed that the use of water sprinklers prior to and during shredding would suppress dust generation if operated in accordance with manufacturer specifications.

...

The Department is conscious of our drying climate and the need to conserve water. It is noted that the Licence Holder minimises the use of potable water on the premises, by capturing and storing stormwater within the Premises in ponds with a combined capacity of up to 130 kilolitres. The water used for dust suppression within shredding activities is primarily drawn from these stormwater ponds. The use of captured clean stormwater for dust suppression is promoted to take pressure off local water resources.¹⁴

In response to this issue, the licence holder advised:

The water used for dust suppression is kept to a minimum. All water used for this purpose is collected on site for dust suppression at the WMF.¹⁵

Offsite amenity impacts

The appellant submitted that:

We regularly suffer the impacts of odour from the tip in the summer, when the wind direction is more commonly from a South to Southwesterly direction. At other times we find lots of plastics in our top paddock, closest to the facility, and when we see plastic bags and the likes circling above the facility ...¹⁶

In its response, the licence holder advised:

The EMRC has not previously been made aware of this issue. The EMRC has litter fences around the active face of the landfill cell and employ two Litter Controller Officers to ensure that waste is removed from the WMF's litter fences and surrounding areas to ensure it does not escape the site boundary. The EMRC is of the opinion that any litter along Toodyay Road is not coming from the WMF [windblown litter] but from a number of sources including from vehicles with unsecured loads, people throwing waste out of the window and waste trucks heading up to the Opal Vale Landfill in Toodyay.¹⁷

¹³ DWER, Response to the appeal, 11 February 2021, page 10.

¹⁴ DWER, Response to the appeal, 11 February 2021, page 8.

¹⁵ EMRC, Response to the appeal, 11 December 2020, page 2.

¹⁶ Appeal 055/20, 16 November 2020, page 1.

¹⁷ EMRC, Response to the appeal, 11 December 2020, page 2.

Appendix 1 Appeal process

The Minister assesses the merits of a decision

Environmental appeals follow a merits-based process. This means the Minister can consider all the relevant facts, legislation and policy aspects of the decision and decide whether it was correct and preferable.

For appeals relating to a licence amendment, the Minister can only consider matters directly linked to the amendment. Appeal rights do not extend to parts of the licence that were not amended. The Appeals Convenor normally considers consistency with any conditions set under Part IV of the EP Act and previous Ministerial appeal determinations, as well as new information or evidence being presented that was not previously considered.

A merits review cannot overturn the original decision to grant a licence. But if the appeal is upheld, the licence conditions might change or an amendment might not go ahead.

We report to the Minister, as does the decision-making authority

To decide an appeal's outcome, the Minister for Environment must have a report from both:

- the Appeals Convenor [see section 109(3) of the EP Act], and
- the authority that originally made the decision under appeal [see section 106(1)].

This document is the Appeals Convenor's report to the Minister. The Appeals Convenor's investigation of the appeal included:

- a review of the appeal, DWER's Amendment Report, and the licence holder's application information
- a review of the response to the appeal provided by the licence holder
- a review of the section 106 report from DWER
- telephone meeting with the appellant and a video conference with the licence holder
- reviewing other information, policy and guidance as needed.

Table 4 Documents we reviewed in the appeal investigation

| Document | Date |
|---|------------------|
| DWER, Amendment Report Licence L8889/2015/1 | 4 November 2020 |
| DWER, Guideline: Risk assessments, Part V, Division 3, <i>Environmental Protection Act 1986</i> | February 2017 |
| DWER, Response to the appeal | 11 February 2021 |
| EMRC, Letter to DWER providing further information | 1 September 2020 |
| EMRC, Response to the appeal | 11 December 2020 |