



## Application for Works Approval

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

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<b>Works Approval Number</b>	W6682/2022/1
<b>Applicant</b>	T C Waste (WA) Pty Ltd
<b>ACN</b>	164 872 806
<b>File number</b>	DER2022/000106
<b>Premises</b>	D & M Waste Management 14 Butcher Street KWINANA BEACH WA 6167  Legal description Lot 106 on Deposited Plan 43593
<b>Date of report</b>	5 September 2022
<b>Decision</b>	Works approval granted

**SENIOR INDUSTRY REGULATION OFFICER**

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

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## 1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of the premises. As a result of this assessment, works approval W6682/2022/1 has been granted.

## 2. Scope of assessment

### 2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) 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 Application summary and overview of premises

On 10 March 2022, the applicant submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is to construct and undertake time limited operations of a HDPE and PET recycling plant at the premises. The premises is located within the Kwinana industrial area.

The premises relates to the category and assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W6682/2022/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W6682/2022/1.

## 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 *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.

### 3.1 Source-pathways and receptors

#### 3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this decision report are detailed in Table 1.

Table 1 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

**Table 1: Proposed applicant controls**

Emission	Sources	Potential pathways	Proposed controls
<b>Construction</b>			
Dust	Construction of recycling plant infrastructure	Air / windborne pathway	No specific dust or noise controls are proposed during construction. Construction is expected to occur over a two to three month period
Noise		Air / windborne pathway	
<b>Operation</b>			
Noise	Operation of recycling plant, including delivery of waste, processing and storage of waste and washwaters, and potential upset conditions or infrastructure malfunction.	Air / windborne pathway	<ul style="list-style-type: none"> <li>2.2m high acoustic wall on the southern boundary of the site</li> <li>Noise absorptive cladding on the inside of the roof and the south wall with a minimum Rw specification of 24</li> <li>Access doors will be closed while not in use</li> <li>Operations limited to 7am to 5pm Monday to Saturday.</li> <li>Shed doors will only be opened as required (expected to be approximately 5 mins per hour during operational hours)</li> </ul>
Washwater/ process water spills		Overland flow and seepage	<ul style="list-style-type: none"> <li>Wastes accepted are to be pre-treated and cleaned and are inspected prior to acceptance.</li> <li>Process equipment is fully automated and enclosed, with flow meters and valves to allow for isolation if required.</li> <li>Washwater will be filtered prior to returning to the 70,000L holding tank for re-use.</li> <li>All tanks located outside of the building will be constructed to AS/NZS 4766:2006 and constructed on concrete hardstands</li> <li>Washwaters will be tested regularly and replaced if levels make the water unsuitable for re-use as process water.</li> <li>The process shed is constructed on a concrete slab and contains bunding and service trenches to prevent the egress of any spills</li> </ul>
Contaminated stormwater including fire washwaters		Overland flow and seepage	<ul style="list-style-type: none"> <li>The majority of infrastructure will be located within an enclosed shed that will not allow for the ingress of stormwater</li> <li>External uncontaminated stormwater will be directed to soakwells to prevent flooding occurring</li> </ul>
Fire and smoke emissions		Air / windborne pathway	<ul style="list-style-type: none"> <li>Only plastic materials are accepted at the facility</li> <li>Smoke detectors</li> <li>Fire hose reel</li> <li>Firefighting water can be sourced from the</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
			70,000L holding tank <ul style="list-style-type: none"> <li>Building will be locked outside of operating hours</li> </ul>

### 3.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020), the Delegated Officer has excluded the applicant's employees, visitors, and contractors 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 and Figures 1 and 2 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
Industrial Premises	Immediately adjacent
Pines Cottage (ruins)	0.3 km north east
Aboriginal registered site DPLH ID 3698	0.65 km south west
Thomas Oval	1.2km east
Closest residential property and the suburb of Medina	1.43km east of the corner of the proposed building at the premises.
Environmental receptors	Distance from prescribed activity
Groundwater	Regional groundwater depth is identified as 6 mbgl, with on-site investigations identifying water as 1-3 mbgl Salinity of 500-1000 mg/L In-situ soils: Safety Bay Sand, Aeolian and beach lime sand
Wetland – resource enhancement management category	0.375km east (considered to be upgradient from groundwater flow)
Acid Sulfate Soils high to moderate risk area	0.38 km south east (considered to be upgradient from groundwater flow)
Bush Forever Site, which includes habitat for Threatened and/or priority fauna and flora	0.4km east (considered to be upgradient from groundwater flow)
Cockburn Sound	2km west (considered to be down gradient from groundwater flow)
Public Drinking Water Source Area (Jandakot)	8.4km east (considered to be upgradient from groundwater flow)

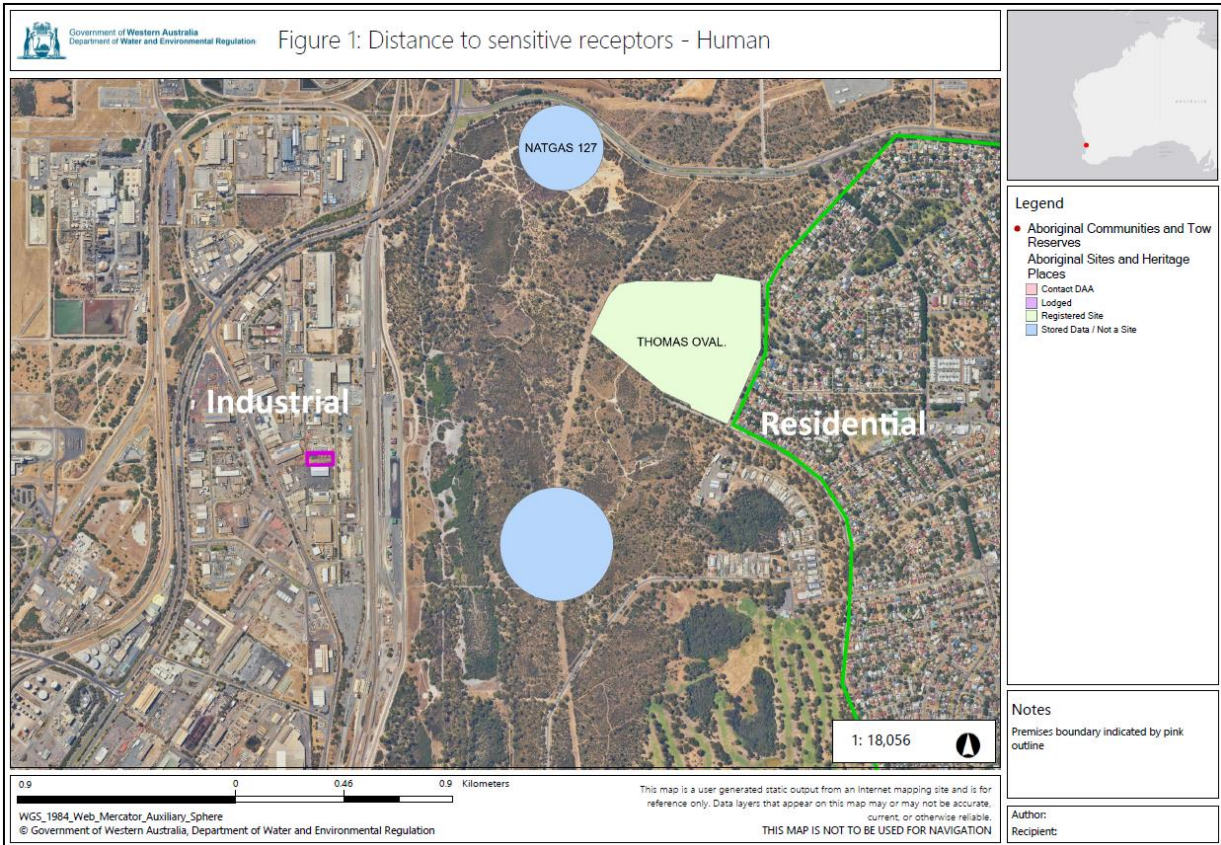


Figure 1: Distance to sensitive receptors – Human

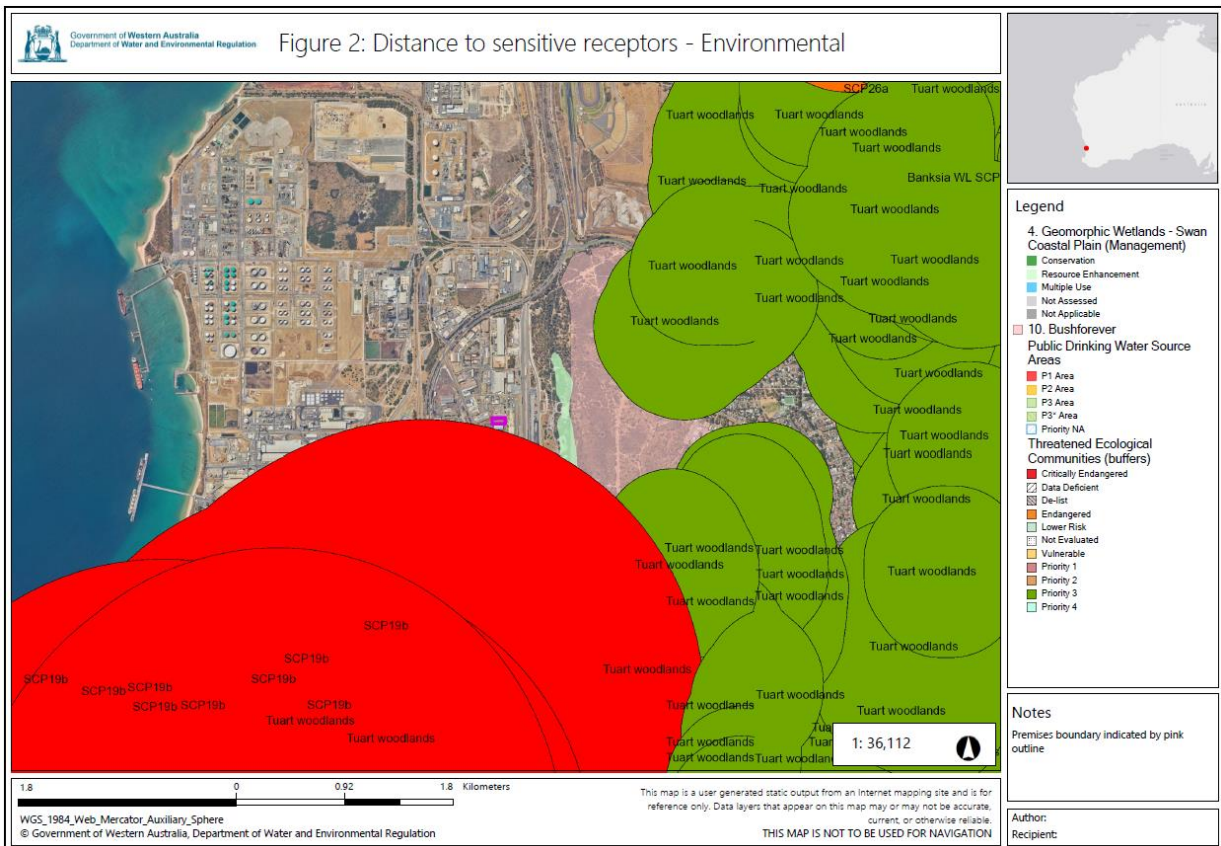


Figure 2: Distance to sensitive receptors – Environmental

## 3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the delegated officer considers the applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

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

Works approval W6682/2022/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 3 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the premises. A risk assessment for the operational phase has been included in this decision report, however licence conditions will not be finalised until the department assesses the licence application.

**Table 3: Risk assessment of potential emissions and discharges from the premises during construction and operation**

Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
<b>Construction</b>								
Construction of recycling plant	Dust	Air/windborne pathway causing impacts to health and amenity	Immediately adjacent industrial premises	Refer to Section 3.1	C = Slight L = Possible <b>Low Risk</b>	Y	N/A	N/A
	Noise		Visitors to Pine Cottage (0.3km east) Aboriginal registered site (0.65km south west) Thomas Oval (1.2km east) Residential properties 1.4km east	Refer to Section 3.1	C = Slight L = Possible <b>Low Risk</b>	Y	N/A	The Delegated Officer considers that the provisions of the <i>Environmental Protection (Noise) Regulations 1997</i> are sufficient to regulate noise emissions from construction activities.
<b>Operation (including time-limited-operations operations)</b>								
Operation of recycling plant, including delivery of waste, processing and storage of waste and washwater.	Noise	Air/windborne pathway causing impacts to health and amenity	Immediately adjacent industrial premises Visitors to Pine Cottage (0.3km east) Aboriginal registered site (0.65km south west) Thomas Oval (1.2km east) Residential properties	Refer to Section 3.1	C = Moderate L = Unlikely <b>Medium Risk</b>	Y	Condition 1, Table 1 Condition 6, Table 2 <b>Conditions 11 - 14</b>	The Delegated Officer considers that noise verification monitoring is required to verify that the proposed noise barriers have assisted in complying with the EP Noise Regulations.



Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
			1.4km east					
	Washwater/ process water spills	Overland flow and seepage	Groundwater 6m below ground level Cockburn sound 2km west	Refer to Section 3.1	C = Moderate L = Rare <b>Medium Risk</b>	Y	Condition 1 Condition 6 Condition 8 Condition 9 <b><u>Conditions 2 and 3</u></b> <b><u>Condition 16(b)</u></b>	The Delegated Officer considers the applicant's controls to be sufficient to mitigate washwater emissions during time limited operations.  Conditions 2 and 3 require the submission of an Environmental Compliance Report to verify the infrastructure has been installed in accordance with the relevant requirements.
	Contaminated stormwater including fire washwaters	Overland flow and seepage	Groundwater 6m below ground level Cockburn sound 2km west	Refer to Section 3.1	C = Moderate L = Rare <b>Medium Risk</b>	Y	Condition 1 Condition 6 Condition 8 Condition 9 <b><u>Conditions 2 and 3</u></b> <b><u>Condition 16(b)</u></b>	The Delegated Officer considers the applicant's controls to be sufficient to mitigate contaminated stormwater emissions during time limited operations.  Conditions 2 and 3 require the submission of an Environmental Compliance Report to verify the infrastructure has been installed in accordance with the relevant requirements.
	Fire and smoke emissions	Air/windborne pathway causing impacts to health and amenity  Direct impacts	Immediately adjacent industrial premises  Visitors to Pine Cottage (0.3km east)  Aboriginal	Refer to Section 3.1	C = Moderate L = Rare <b>Medium Risk</b>	Y	Condition 6, Table 2	The Delegated Officer considers the applicant's controls to be sufficient to mitigate the risk of fire events.

Risk events					Risk rating <sup>1</sup> C = consequence L = likelihood	Applicant controls sufficient?	Conditions <sup>2</sup> of works	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
			registered site (0.65km south west) Thomas Oval (1.2km east) Residential properties 1.4km east					

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

Note 2: Proposed applicant controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

## 4. Consultation

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

**Table 4: Consultation**

Consultation method	Comments received	Department response
Application advertised on the department's website on 10 June 2022	None received	N/A
Applicant was provided with draft documents on 15 August 2022	Comments received on 2 September 2022 indicating no changes required and waiving remaining commenting period.	N/A

## 5. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that a works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

## 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.

## Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)						
Application type						
Works approval	<input checked="" type="checkbox"/>					
Licence	<input type="checkbox"/>	Relevant works approval number:	Licence	<input type="checkbox"/>	Relevant works approval number:	
		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 / Critical Containment Infrastructure Report submitted?			Yes <input type="checkbox"/> No <input type="checkbox"/>	
		Date Report received:				
Renewal	<input type="checkbox"/>	Current licence number:	Renewal			
Amendment to works approval	<input type="checkbox"/>	Current works approval number:	Amendment to works approval			
Amendment to licence	<input type="checkbox"/>	Current licence number:	Amendment to licence			
		Relevant works approval number:		N/A	Relevant works approval number:	
Registration	<input type="checkbox"/>	Current works approval number:	Registration	<input type="checkbox"/>	Current works approval number:	
Date application received		10/03/2022				
Applicant and Premises details						
Applicant name/s (full legal name/s)		T C Waste (WA) Pty Ltd				
Premises name		D & M Waste Management				
Premises location		14 Butcher Street, Kwinana Beach WA 6167				
Local Government Authority		City of Kwinana				
Application documents						
HPCM file reference number:		DER2022/000106				
Key application documents (additional to application form):		Application form and attachments				

**SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)**

**Scope of application/assessment**

Summary of proposed activities or changes to existing operations.	Works approval for construction and time limited operations for a HDPE and PET recycling plant.  The HDPE and PET will undergo shredding. Washing, pelletising, extruding, corrugating and cutting.
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**Category number/s (activities that cause the premises to become prescribed premises)**

**Table 1: Prescribed premises categories**

Prescribed premises category and description	Proposed production or design capacity
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.	Maximum of 7,000 tonnes per annum but expected capacity is 2,500 tonnes per annum.

**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"/>	Certificate of title <input type="checkbox"/> General lease <input type="checkbox"/> Expiry: Mining lease / tenement <input type="checkbox"/> Expiry: Other evidence <input type="checkbox"/> Expiry:
Has the applicant obtained all relevant planning approvals?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Approval not provided – need to confirm with the LGA
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"/>	CPS No: N/A No clearing is proposed.

**SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)**

<p>Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Application reference No: N/A Licence/permit No: N/A No clearing is proposed.</p>
<p>Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>Licence / permit not required.</p>
<p>Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Name: N/A</p>
<p>Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?</p>	<p>Yes <input type="checkbox"/> No <input type="checkbox"/></p>	<p>Name: N/A</p>
<p>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>)</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Kwinana atmospheric, Noise Regs UDRs</p>
<p>Is the Premises within an Environmental Protection Policy (EPP) Area?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Kwinana Atmospheric</p>
<p>Is the Premises subject to any EPP requirements?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>No emissions to air relevant to the Kwinana Atmospheric policy</p>

**SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)**

Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Date of classification: N/A
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