



## Application for Licence Amendment

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

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<b>Licence Number</b>	L5952/1991/12
<b>Licence Holder</b>	Water Corporation
<b>File Number</b>	DEC10219/1~1
<b>Premises</b>	Busselton Water Resource Recovery Facility 348 Queen Elizabeth Avenue AMBERGATE WA 6280  Legal description – Lot 4680 on Deposited Plan 203019 Certificate of Crown Land Title Volume LR3069 Folio 272 As defined by the premises map in Schedule 1 of the revised licence
<b>Date of Report</b>	02 April 2024
<b>Decision</b>	Revised licence granted

**Grace Heydon**

**A/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 L5952/1991/12 is held by Water Corporation (licence holder) for the Busselton Water Resource Recovery Facility (the premises), located at 348 Queen Elizabeth Avenue, Ambergate Western Australia.

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 L5952/1991/12 has been granted.

The revised licence issued as a result of this amendment supersedes the existing licence previously granted in relation to the premises. The revised licence has been granted with existing conditions being renumbered, but not reassessed, unless related to this amendment.

## 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 Application summary

On 13 February, the licence holder submitted an application to the department to amend Licence L5952/1991/12 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- Acceptance of slurry dredged from the Lower Vasse Estuary; and
- temporary storage of sediment extracted from the Lower Vasse Estuary in existing sludge drying beds.

The facility is proposing to receive approximately 200 m<sup>3</sup> of odourous slurry (category 61: liquid waste), from the Lower Vasse Estuary (adjacent to Estuary View Drive, Busselton) via a vacuum tanker.

Sediment will be received by the Busselton Water Resource Recovery Facility (WRRF) and the slurry will be offloaded directly into the facility's existing sludge drying beds from the tanker, where it will be dewatered before being transported off-site to a licensed facility for disposal.

Sludge produced through the wastewater treatment process on-site is mechanically dewatered and use of the sludge drying beds is currently limited to contingency / emergency situations only. Additionally, the current licence does not allow acceptance of the Lower Vasse Estuary slurry.

Slurry will be dredged from the Lower Vasse Estuary as part of the State Government's Revitalising Geographe Waterways (RGW) program. The RGW program is aimed at improving Geographe Bay catchment water quality.

Representatives from the City of Busselton, the Department of Biodiversity, Conservation and Attractions (DBCA), the Department of Primary Industries and Regional Development (DPIRD), the Department of Water and Environmental Regulation (DWER) and the Water Corporation (the applicant) form the Vasse Wonnerup Wetlands Partnership (VWWP). The VWWP representatives are overseeing slurry removal and associated processes related to appropriate treatment and disposal of the Lower Vasse Estuary slurry.

### 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 operation which have been considered in this amendment report are detailed in Table 1 below. Table 1 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	<ul style="list-style-type: none"> <li>- Pumping of Lower Vasse Estuary slurry from tankers to sludge drying beds;</li> <li>- storage of Lower Vasse Estuary slurry in sludge drying beds; and</li> <li>- wastewater effluent discharge.</li> </ul>	Air / windborne pathway causing impacts to health and amenity.	<ul style="list-style-type: none"> <li>- Sediment dried and removed annually to an appropriate licensed facility; and</li> <li>- application of lime sand to manage odour emissions resulting from sludge drying beds as required.</li> </ul>
Noise	<ul style="list-style-type: none"> <li>- Pumping of Lower Vasse Estuary slurry from tankers to sludge drying beds; and</li> <li>- vehicle movements – delivery of Lower Vasse Estuary slurry via tankers.</li> </ul>	Air / windborne pathway.	<ul style="list-style-type: none"> <li>- None proposed.</li> </ul>
Leachate	<ul style="list-style-type: none"> <li>- Storage of Lower Vasse Estuary slurry in sludge drying beds.</li> </ul>	Seepage to soils and groundwater.	<ul style="list-style-type: none"> <li>- Laboratory analysis of Lower Vasse Estuary slurry for contaminants (nutrients, heavy metals, herbicides, pesticides, acid sulfate soils, semi-volatile organics and PFAS) to assess the level of contaminants expected to be present in the slurry;</li> <li>- monitoring to assess impacts to groundwater as per condition 9 of Licence L5952/1991/12; and</li> <li>- leachate from sludge drying beds returned to wastewater treatment process as per condition 1 of Licence L5952/1991/12.</li> </ul>

Emission	Sources	Potential pathways	Proposed controls
Dust	- Vehicle movements – delivery of Lower Vasse Estuary slurry via tankers.	Air / windborne pathway.	- None proposed.
Contaminated effluent discharge	- Lower Vasse sediment leachate.	Lower Vasse sediment leachate entering WRRF via sludge drying bed overflow outlet and contaminating effluent discharge.	- Monitoring to assess contaminants in final effluent and drain samples as per condition 9 of Licence L5952/1991/12.

### 3.1.2 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 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 receptors and distance from prescribed activity**

Human receptors	Distance from prescribed activity
Residential premises – Vasse (suburb)	The suburb of Vasse is located north, northwest and west of the premises. The closest residential property is approximately 640 m north of the prescribed premises, from the nearest prescribed premises boundary to the nearest property cadastral boundary and 772 m from the prescribed premises industry activity boundary (Figure 4) to the sensitive land use property boundary (method 1 in <i>Guideline: Odour Emissions</i> (DWER 2019) - relevant for odour emissions).
Residential premises – Ambergate (suburb)	The closest residential property is approximately 1.77 km south - measured from the southeastern corner of the prescribed premises boundary to the nearest property cadastral boundary.
Busselton Horse and Pony Club	Adjacent property 0 km north of the prescribed premises. 298 m north from the nearest industry activity boundary (Figure 4) to the nearest sensitive land use activity boundary (method 1 in <i>Guideline: Odour Emissions</i> (DWER 2019) - relevant for odour emissions).
Sharp’s Vintage Motor Museum	217 m west from the eastern prescribed premises boundary to the southwestern corner of the property cadastral boundary and 845 m from the industrial activity boundary (Figure 4) to the sensitive land use activity boundary (method 2 in <i>Guideline: Odour Emissions</i> (DWER 2019) - relevant for odour emissions).

<p>Commercial / residential rural properties</p> <p>Note: Rural properties surround the prescribed premises to the southeast, south, southwest and west of the premises; however, they are uninhabited. Habitable buildings are greater than 1 km away in these directions.</p>	<p><u>Closest east is 19 m</u> from the prescribed premises boundary to the property cadastral boundary and 390 m from the industry activity boundary (Figure 4) to the sensitive land use activity boundary (method 2 in <i>Guideline: Odour Emissions</i> (DWER 2019) - relevant for odour emissions).</p> <p><u>Closest north is 244 m</u> from the closest northern prescribed premises boundary to the southern property cadastral boundary and 517 m northeast from the nearest industry activity boundary (Figure 4) to the sensitive land use activity boundary (method 2 in <i>Guideline: Odour Emissions</i> (DWER 2019) - relevant for odour emissions).</p> <p><u>323 m north</u> from the nearest northern prescribed premises boundary to the southern property cadastral boundary and 544 m northeast from the nearest industry activity boundary (Figure 4) to the sensitive land use property boundary (method 1 in <i>Guideline: Odour Emissions</i> (DWER 2019) - relevant for odour emissions).</p> <p><u>430 m north</u> from the northern prescribed premises boundary to the southern property cadastral boundary and 611 m from the industrial activity boundary (Figure 4) to the sensitive land use activity boundary (method 2 in <i>Guideline: Odour Emissions</i> (DWER 2019) - relevant for odour emissions).</p> <p><u>485 m north</u> from the northeastern corner of the prescribed premises boundary to the southwestern corner of the property cadastral boundary and 753 m northeast from the nearest industry activity boundary (Figure 4) to the sensitive land use activity boundary (method 2 in <i>Guideline: Odour Emissions</i> (DWER 2019) - relevant for odour emissions).</p> <p><u>Closest northeast is 818 m</u> from the northeastern corner of the prescribed premises boundary to the southwestern corner of the property cadastral boundary and 1.36 km from the industrial activity boundary (Figure 4) to the sensitive land use activity boundary (method 2 in <i>Guideline: Odour Emissions</i> (DWER 2019) - relevant for odour emissions).</p> <p><u>Closest west is 1.04 km</u> - measured from the prescribed premises boundary to the property cadastral boundary, the <u>closest south is 1.07 km</u> – measured from the southern prescribed premises boundary to the property cadastral boundary, the <u>closest southeast is 1.40 km</u> - measured from the southeastern corner of the prescribed premises boundary to the northwestern corner of the property cadastral boundary and the <u>closest southwest is 1.9 m</u> measured from the southwestern corner of the prescribed premises boundary to the northeastern corner of the property cadastral boundary.</p>
<p>Cornerstone Christian College, West Busselton</p>	<p>1.6 km north - measured from southern cadastral boundary to the northern prescribed premises boundary.</p>
<p>Geographe Leisure Centre, West Busselton</p>	<p>1.98 km north - measured from the northeastern corner of the prescribed premises boundary to the southwestern corner of the cadastral boundary.</p>
<p>Geographe Primary School, Busselton</p>	<p>1.98 km north-northeast - measured from the northeastern corner of the prescribed premises boundary to the southwestern corner of the cadastral boundary.</p>
<p>Rendezvous Road Waste Transfer Station L7120/1997/12</p>	<p>Non-sensitive receptor. 0 km north at the closest point - measured from the northern prescribed premises boundary to the southernmost boundary of the Waste Transfer Station.</p>

<p>Aboriginal heritage</p> <ul style="list-style-type: none"> <li>- The New River registered site Place ID 16807 (historical, mythological, hunting place, water source, resources)</li> <li>- Busselton wetlands registered site Place ID 38904 (mythological)</li> </ul>	<p>The New River registered site is 2.12 km north-northwest at the closest point - measured from the northwestern corner of the prescribed premises boundary to the nearest registered site boundary. Located within DBCA nature reserves R27080, R41597 &amp; R42879 (listed below).</p> <p>The Busselton wetlands registered site is 2.17 km north-northwest - measured from the northwestern corner of the prescribed premises boundary to the nearest registered site boundary. The site is largely within the Vasse-Wonnerup wetland system.</p> <p>Note: Premises is within the Southwest Boojarah #2 Indigenous Land Use Agreement (ILUA registered).</p> <p>Numerous other registered and lodged sites are located to the north and to the east of the premises; however they are unlikely to be impacted as they are either artefact/scatter/burial sites or are screened out due to distance.</p>
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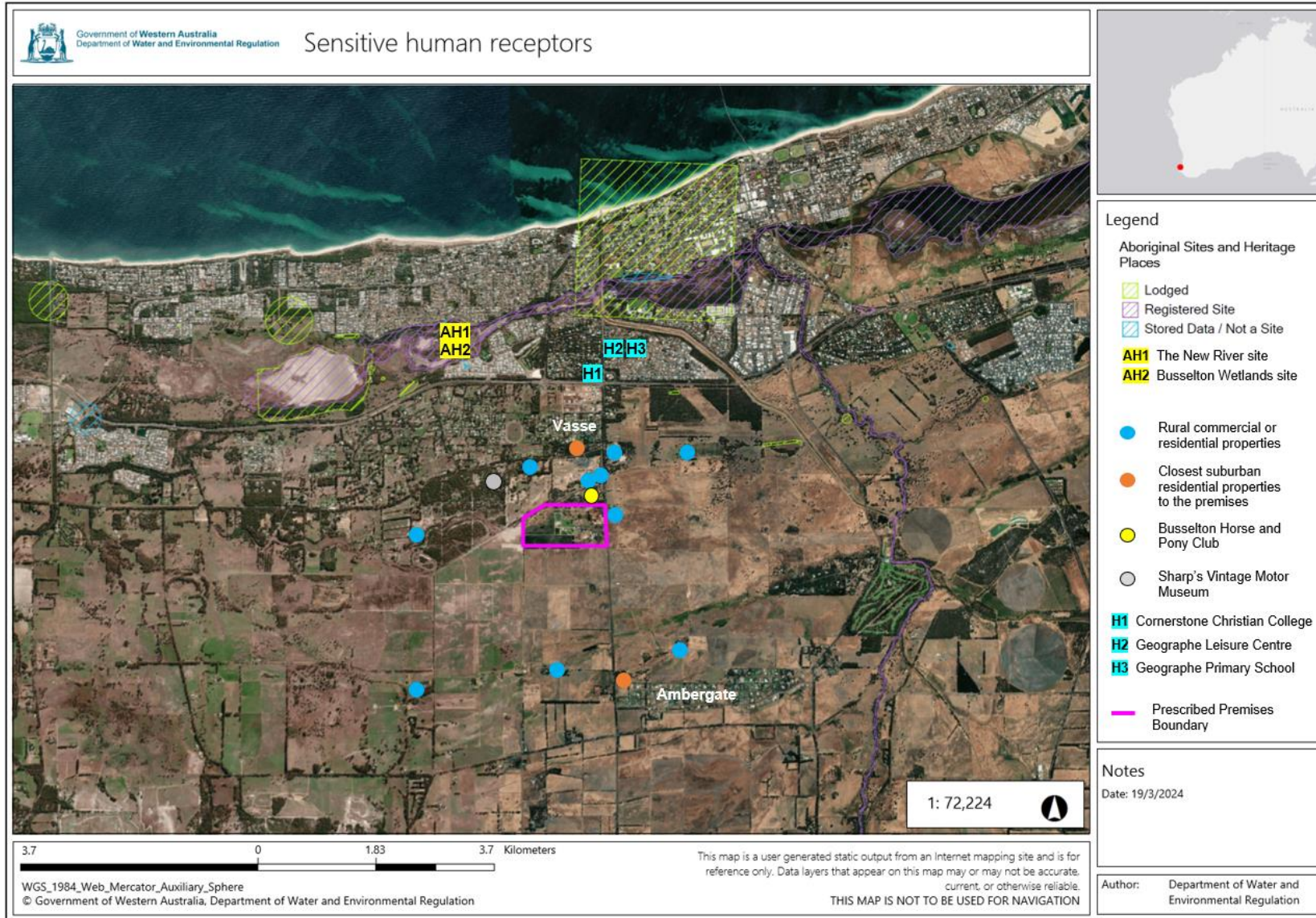
Table 3 below provides a summary of potential environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental siting* (DWER 2020)).

**Table 3: Sensitive environmental receptors and distance from prescribed activity**

Environmental receptors	Distance from prescribed activity
Multiple use wetlands: Geomorphic wetlands of the Swan Coastal Plain	<p>The premises is surrounded by multiple use wetlands within the premises and immediately surrounding the premises to the west, southwest, south, southeast, and east:</p> <ul style="list-style-type: none"> <li>- Sumpland 142 m north-northwest</li> <li>- Palusplain 315 m northeast</li> <li>- Dampland basin - closest 670 m north</li> </ul>
Conservation category wetlands: Geomorphic wetlands of the Swan Coastal Plain	<ul style="list-style-type: none"> <li>- Sumpland basin - closest is 230 m northwest</li> <li>- Floodplain - closest is 230 m west</li> <li>- Palusplain 625 m east</li> <li>- Palusplain 2.24 km east</li> <li>- Estuary 2.5 km north</li> </ul>
DBCA legislated waters - Vasse-Wonnerup Wetland System (P1 coastal saltmarsh)	<p>2.59 km north - measured from the northeastern corner of the prescribed premises boundary to the southwestern corner of the wetland.</p> <ul style="list-style-type: none"> <li>- Directory of Important Wetlands in Australia (DIWA)</li> <li>- RAMSAR wetland</li> <li>- Habitat for specially protected migratory birds</li> </ul>
Threatened Ecological Communities (TEC's)	<p>Priority 3 (P3) / endangered TEC's located within and adjacent to the premises. Priority 1 TEC located within 800 m of the premises boundary and within 1.2 km radius of the sludge drying beds.</p>
Threatened and Priority Flora	<p>Declared rare flora - closest within 800 m of the premises boundary and within 1.2 km radius of the sludge drying beds.</p>
Threatened and Priority Fauna	<p>Closest within 800 m of the prescribed premises and within 1.2 km radius of the sludge drying beds:</p> <ul style="list-style-type: none"> <li>- Vulnerable and endangered birds (un-named)</li> <li>- Critically endangered / Priority 4 (P4) mammals (un-named).</li> </ul> <p>Note: Priority 2 (P2) invertebrates within 2.5 km of premises boundary.</p>

<p>DBCA Legislated Lands – Nature Reserves</p>	<p>Closest is Broadwater Nature Reserve R41597 (Class C Reserve - conservation of flora and fauna and IUCN Category 1a: strict nature reserve) - 2.1 km north-northwest, measured from the northern prescribed premises boundary to the southernmost reserve boundary.</p> <p>DBCA Broadwater Nature Reserve R27080 - IUCN Category 1a: strict nature reserve - 2.59 km northwest, measured from the northwestern corner of the prescribed premises boundary to the southeastern corner of the reserve boundary.</p> <p>DBCA Nature Reserves (R26620, R42879 and R25836) – conservation of flora and fauna and IUCN Category 1a: strict nature reserve - closest is 2.44 km north, measured from the northern prescribed premises boundary to the southernmost reserve boundary.</p>
<p>Indian Ocean, Geographe Bay - Ngari Capes Marine Park – DBCA legislated waters</p>	<p>3.7 km north - measured from the northern prescribed premises boundary to the southern boundary of the marine park.</p>
<p>Busselton Water Reserve P1 and P3 (CAWS Act)</p>	<p>Closest is 1.24 km north - measured from the northeastern corner of the prescribed premises boundary to the southern border of the reserve.</p>
<p>Groundwater bores</p>	<p>10 current groundwater licences exist within 1 km of the premises border on surrounding rural properties. The nearest bores are 60 m east, 141 m north, 350 m northeast and 680 m northwest, measured from the closest prescribed premises boundary,</p> <p>Note: Bores within the prescribed premises are excluded.</p>

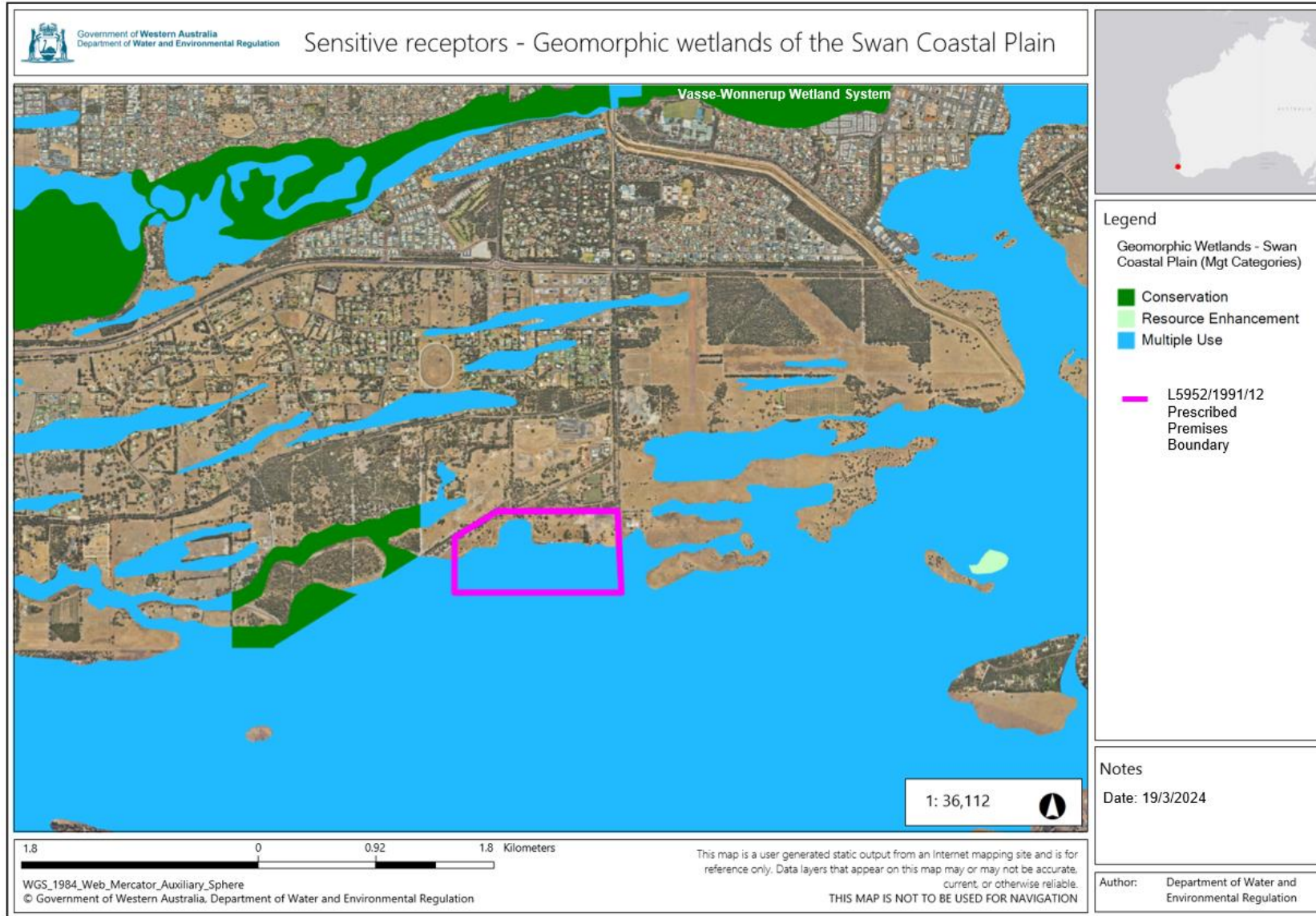




**Figure 1: Distance to sensitive human receptors**

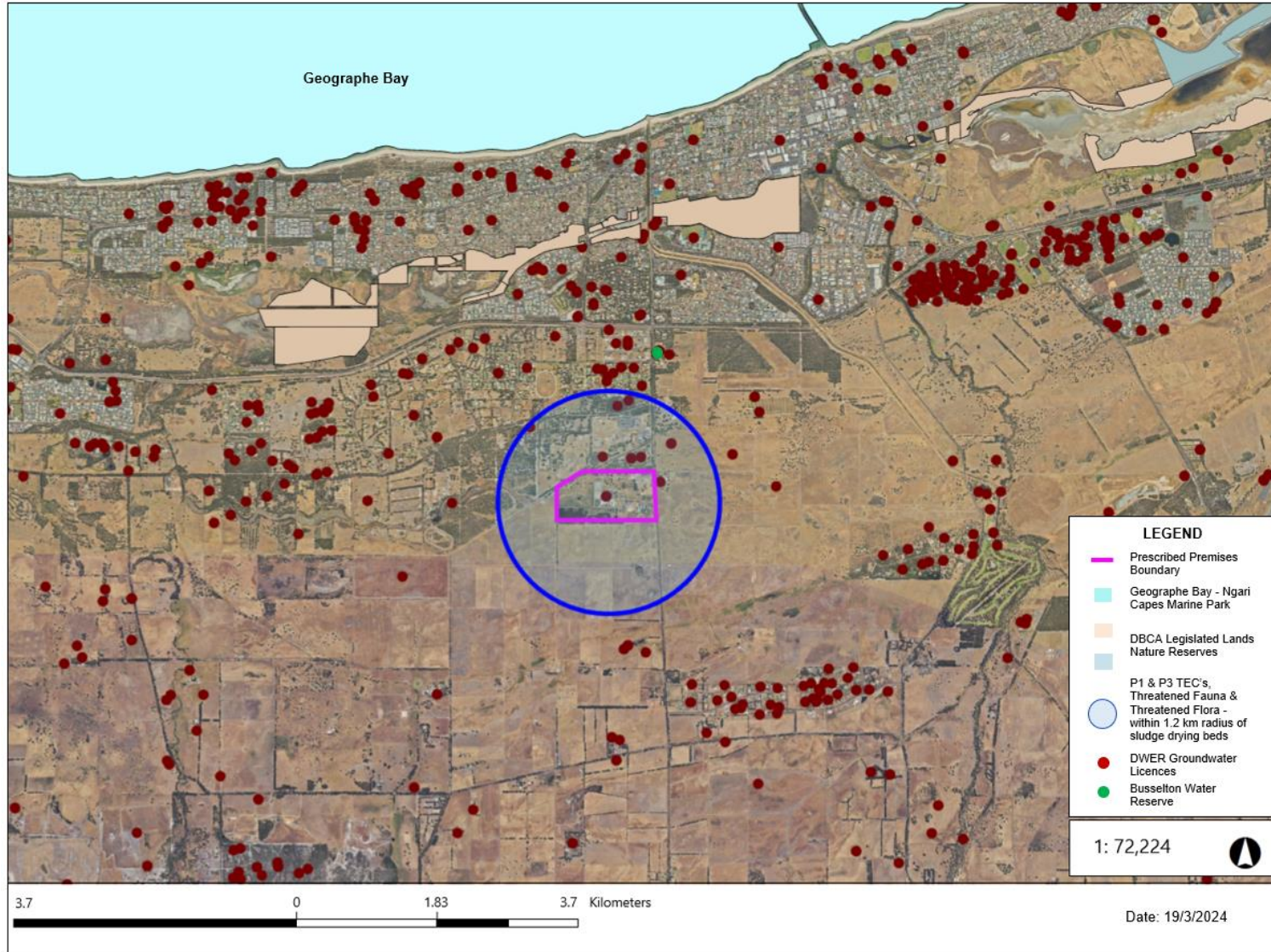
Licence: L5952/1991/12

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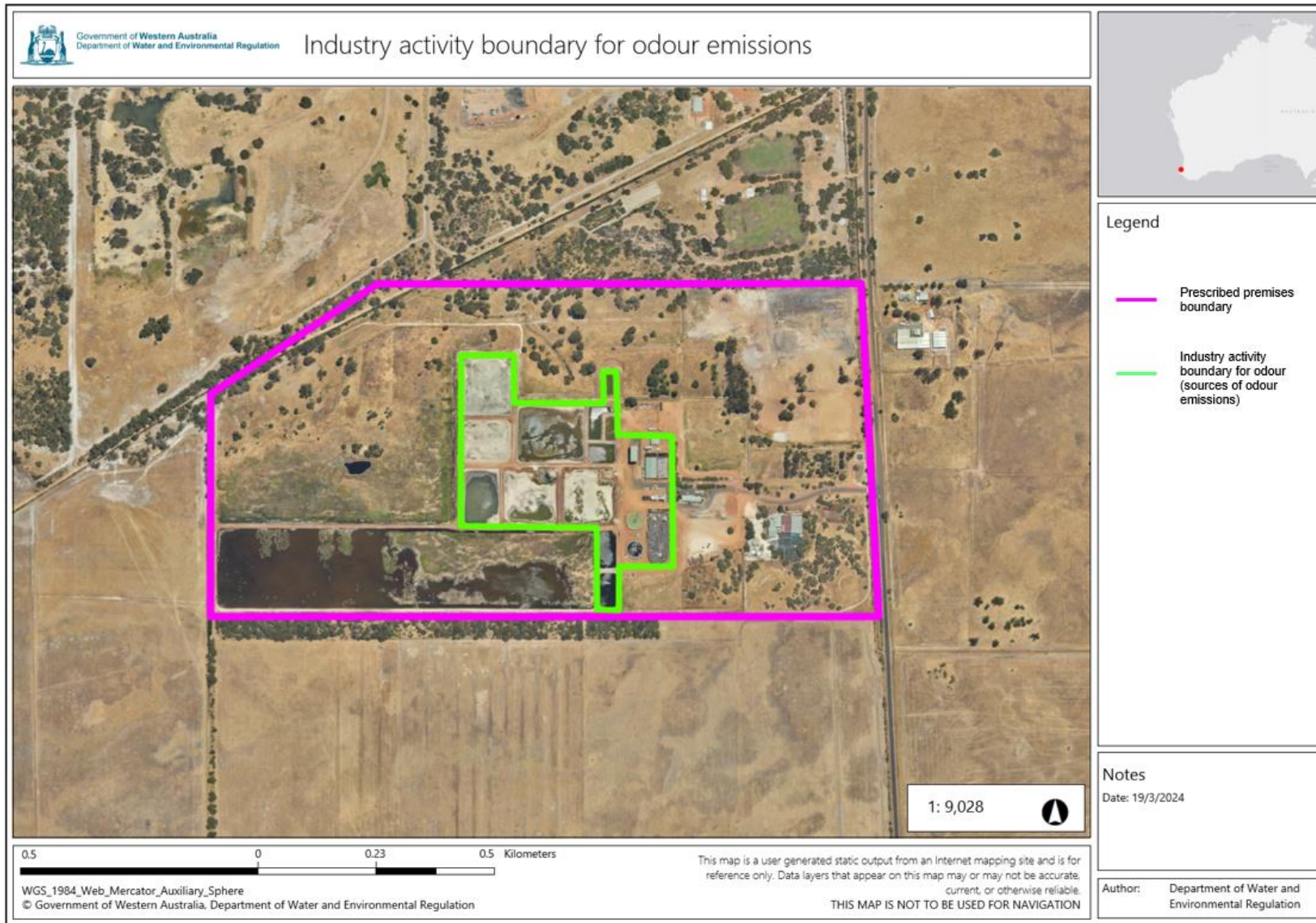
**Figure 2: Distance to sensitive environmental receptors - Geomorphic wetlands of the Swan Coastal Plain**

Licence: L5952/1991/12



**Figure 3: Distance to sensitive environmental receptors – DBCA legislated land and waters, TEC's, threatened fauna and flora, water reserves and groundwater bores**

Licence: L5952/1991/12



**Figure 4: Industry activity boundary encompassing sources of odour emissions**

Licence: L5952/1991/12

## 3.2 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 3.1. 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 3.1.1), 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 4.

The revised Licence L5952/1991/12 that accompanies this amendment report authorises emissions associated with the operation of the premises i.e. category 52 and category 61 activities.

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

**Table 4. Risk assessment of potential emissions and discharges from premises operation**

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	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				
<b>Operation</b>								
Pumping of slurry from tankers to sludge drying beds	Noise	Air/windborne pathway causing impacts to health and amenity	Busselton Pony Club (adjacent north) Rural residential / commercial properties (closest 19 m east and 244 m north) Sharp's Vintage Motor Museum (217 m west) Vasse Residents (closest 640 m north)	Refer to Section 3.1.1	C = Slight L = Unlikely <b>Low Risk</b>	Y	N/A	Noise due to pumping of slurry from the tanker will only occur on days when slurry is delivered to the premises and will be short lived. The project will be a one-off event for a period of several weeks; therefore, the provisions of the <i>Environmental Protection (Noise) Regulations 1997</i> are deemed sufficient to manage emissions.
	Odour		Busselton Pony Club (298 m north) <sup>3</sup> Sharp's Vintage Motor Museum (845 m northwest) <sup>3</sup> Rural residential / commercial properties (closest 390 m east and 517 m north) <sup>3</sup> Vasse Residents (closest 772 m north) <sup>3</sup>	Refer to Section 3.1.1	C = Slight L = Possible <b>Low Risk</b>	Y	N/A	Lower Vasse Estuary slurry is likely to be odourous and offensive / unpleasant upon receipt; however, the source of odour is limited to days when the tanker is delivering waste to the premises and the duration of pumping will be short. Additionally, the project will be a one-off project for a period of several weeks.
			Cornerstone Christian College (1.6 km north) Ambergate residents (closest 1.77 km south) Geographe Leisure Centre (1.98 km north) Geographe Primary School (1.98 km north-northeast) Aboriginal heritage sites 16807 & 38904 (2.12 km and 2.16 km north-northwest respectively)	Refer to Section 3.1.1	C = Slight L = Unlikely <b>Low Risk</b>			

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			
Pumping of slurry from tankers to sludge drying beds	Unintentional spillage outside sludge drying bed containment infrastructure	Seepage to soil impacting vegetation and seepage to groundwater impacting groundwater bore quality and / or drinking water quality	TEC's within and adjacent to the premises Groundwater bores (closest 60 m east) Conservation category wetlands (closest 230 m west) and multiple use wetlands (closest is 142 m north-northwest) Threatened flora and fauna (within 800m of the premises) Busselton Water Reserve P1 and P3 (1.24 km north) - impacts on resource users	Refer to Section 3.1.1	C = Minor L = Rare <b>Low Risk</b>	Y	Condition 1 Condition 10 Condition 11	N/A
		Migration to surface water bodies via overland flow or via groundwater migration impacting water quality and causing ecosystem disturbance	Conservation category wetlands (closest 230 m west) and multiple use wetlands (closest is 142 m north-northwest)	Refer to Section 3.1.1	C = Minor L = Rare <b>Low Risk</b>	Y	Condition 1 Condition 10 Condition 11	N/A
			Class C Nature Reserve (2.1 km north-northwest) Aboriginal heritage sites 16807 & 38904 (2.12 km and 2.16 km north-northwest respectively) Strict Nature Reserves (closest 2.44 km northwest) Vasse-Wonnerup Wetland System (2.59 km north)	Refer to Section 3.1.1	C = Minor L = Rare <b>Low Risk</b>	Y	Condition 1 Condition 10 Condition 11	N/A
Vehicle movements	Dust	Air/windborne pathway causing impacts to health and amenity	Busselton Pony Club (adjacent north) Rural residential / commercial properties (closest 19 m east and 244 m north) Sharp's Vintage Motor Museum (217 m west) Vasse Residents (closest 640 m north)	Refer to Section 3.1.1	C = Slight L = Rare <b>Low Risk</b>	Y	N/A	The Delegated Officer considers dust emissions associated with vehicle movements to be minimal and adequately regulated by the general provisions of the EP Act, given the limited duration of the project.

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			
	Noise	Air/windborne pathway causing impacts to health and amenity		Refer to Section 3.1.1	C = Slight L = Rare <b>Low Risk</b>	Y	N/A	Due to the limited duration of the project and low risk of emissions impacting sensitive receptors, the <i>Environmental Protection (Noise) Regulations 1997</i> are deemed sufficient to manage noise emissions.
Storage of slurry in sludge drying beds	Leachate containing contaminants and excess nutrients	Seepage to soil impacting vegetation and seepage to groundwater impacting groundwater bore quality and / or drinking water quality	TEC's within and adjacent to the premises Groundwater bores (closest 60 m east) Threatened flora and fauna (within 800m of the premises) Busselton Water Reserve P1 and P3 (1.24 km north) - impacts on resource users	Refer to Section 3.1.1	C = Minor L = Rare <b>Medium Risk</b>	Y	Condition 1 Condition 10 Condition 11	N/A
		Migration to surface water bodies via overland flow or via groundwater migration impacting water quality and causing ecosystem disturbance	Conservation category wetlands (closest 230 m west) and multiple use wetlands (closest is 142 m north-northwest)		C = Moderate L = Rare <b>Medium Risk</b>	Y	Condition 1 Condition 10 Condition 11	N/A
			Class C Nature Reserve (2.1 km north-northwest) Strict Nature Reserves (closest 2.44 km northwest) Aboriginal heritage sites 16807 & 38904 (2.12 km and 2.16 km north-northwest respectively) Vasse-Wonnerup Wetland System (2.59 km north)		C = Minor L = Rare <b>Low Risk</b>			



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			
Storage of slurry in sludge drying beds	Odour	Air/windborne pathway causing impacts to health and amenity	Busselton Pony Club (298 m north) <sup>3</sup> Sharp's Vintage Motor Museum (845 m northwest) <sup>3</sup> Rural residential / commercial properties (closest 390 m east and 517 m north) <sup>3</sup> Vasse Residents (closest 772 m north) <sup>3</sup>	Refer to Section 3.1.1	C = Minor L = Possible <b>Medium Risk</b>	Y	<b>Condition 3</b>	Lime sand application is currently utilised by the licence holder to mitigate odour generated by sludge stored within the existing sludge drying beds.  The Lower Vasse Estuary slurry is odourous and receptors are within 1 km of the source of odour; therefore, condition 3 is deemed necessary to mitigate impacts to nearby receptors.  Management of odour emissions with lime sand application is required to prevent odour leaving the premises boundary.  There is no record of odour complaints relating to the premises, indicating that odour generated by sludge currently stored in sludge drying beds is well managed using lime sand application.
			Cornerstone Christian College (1.6 km north) Ambergate residents (closest 1.77 km south) Geographe Leisure Centre (1.98 km north) Geographe Primary School (1.98 km north-northeast) Aboriginal heritage sites 16807 & 38904 (2.12 km and 2.16 km north-northwest respectively)		C = Moderate L = Rare <b>Medium Risk</b>			
Effluent discharge to the environment via outlet drains	Pollutants in final effluent	Sediment leachate directed to WRRF ponds leading to contaminated final effluent and ecosystem disturbance	Marine flora and fauna within Ngari Capes Marine Park 3.7 km north	Refer to Section 3.1.1	C = Minor L = Rare <b>Low Risk</b>	Y	Condition 4 Condition 7 Condition 8 Condition 9	N/A

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.

Note 3: Distances less than 1 km measured from the industry activity boundary (Figure 4) to sensitive land use activity boundary or property boundary as detailed in the *Guideline: Odour emissions* (DWER 2019).

## 4. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

**Table 5: Consultation**

Consultation method	Comments received	Department response
Local Government Authority advised of proposal on 13/03/24	No comments on the proposal were received from the Shire of Busselton.	N/A
Department of Biodiversity, Conservation and Attractions (DBCA) advised of proposal on 13/03/24	The Department of Biodiversity, Conservation and Attractions (DBCA) replied on 18/03/2024 with no comments and no objection to the proposal.	N/A
Department of Primary Industries and Regional Development (DPIRD) advised of proposal on 13/03/24	The Department of Primary Industries and Regional Development (DPIRD) replied on 28/3/24 stating there were no comments on the proposal.	N/A
Licence holder was provided with draft amendment on (21/03/24)  Comments received on 27/3/24	Refer to Appendix 1.	Refer to Appendix 1.

## 5. 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.

## 5.1 Summary of amendments

Table 6 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 6: Summary of licence amendments**

Condition no.	Proposed amendments
N/A Cover page	Removal of ABN number. ABN number not required. Water Corporation does not have an ACN number. Registered business address updated to include 'John Tonkin Water Centre'. Date of amendment added. Legal description updated. Category descriptions updated to include the full category description as per <i>Environmental Protection Regulations 1987</i> .
N/A Licence history table	Updated to include this amendment.
Condition 1 Table 1	Bullet points in Table 1 reformatted to improve readability. Row 13 of Table 1 'Sludge drying beds' updated to authorise temporary storage of Lower Vasse Estuary slurry reference to Figure 1 updated to Figure 2 in Row 10 of Table 1.
Condition 2 Table 2	Table 2 updated to authorise acceptance of slurry dredged from the Lower Vasse Estuary as category 61 liquid waste. Note 2 added beneath Table 2 to clarify the annual quantity limit for total liquid waste per annual period.
Condition 3	Odour condition added.
Condition 4 (previously condition 3)	New numbering.
Condition 5 (previously condition 4)	Amended to clarify that sludge stored in the sludge drying beds is not required to be processed through the hopper prior to disposal to a licensed landfill facility.
Condition 6 (previously condition 5)	Amended to include disposal of dewatered Lower Vasse Estuary slurry.
Condition 7 (previously condition 6) Table 3	Row 2 'Liquid wastes', column 3 'Parameter' of Table 3 amended to include the volume of each load of Lower Vasse Estuary slurry received at the premises. Reference to Figure 1 in row 4, column 1 of Table 3 amended to Figure 2.
Condition 8 (previously condition 7) Table 4	Reference to Figure 1 in row 2, column 1 of Table 4 amended to Figure 3.

Condition 9 (previously condition 8) Table 5	Reference to Figure 1 in row 2, column 1 of Table 5 amended to Figure 2. Condition 7 reference renumbered to condition 8. Semicolons removed from column 2 for consistency.
Condition 10 (previously condition 9) Table 6	Reference to Figure 1 in row 1, column 1 of Table 6 amended to Figure 2.
Condition 11 (previously condition 10)	New numbering. Conditions 7 and 9 references renumbered to conditions 8 and 10. 'Shall be' amended to 'are' to improve readability.
Condition 12 (previously condition 11)	New numbering.
Condition 13 (previously condition 12)	New numbering.
Condition 14 (previously condition 13) Table 4	'Annual' removed from 'Annual Environmental Report' in condition 13 and Table 4 heading, as per revised licensing wording. Condition references in Table 7 renumbered.
Condition 15 (previously condition 14)	New numbering. Conditions 6, 7, 9 and 11 references renumbered to conditions 7, 8, 10 and 12.
Condition 16 (previously condition 15)	New numbering. Condition 14 reference renumbered to condition 15.
Table 8: Definitions	Definitions added: 'Lower Vasse Estuary slurry'. Definitions amended: 'Final Effluent Sample Point' – Figure 1 reference updated to Figure 2. 'Wastewater treatment vessels' - amended to update reference to the revised Schedule 1 maps.
Schedule 1: Maps Premises map	Premises map added (Figure 1) to reflect current imagery and revised licensing format. Previous premises map relabeled as 'Infrastructure and groundwater bore map' and relabeled as Figure 2. Figure 2 labels updated to reflect revised licensing format and wording. Figure 3 (previously Figure 2) relabeled to 'Water Quality Monitoring Map' to reflect both drain and Indian Ocean monitoring points. Figure 3 labels updated to reflect revised licensing format and wording and to clarify monitoring point locations.
Schedule 2: Premises boundary Table 9	Addition of prescribed premises boundary co-ordinates, as per revised licensing format.

## References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2019, *Guideline: Odour Emissions*, Perth, Western Australia.
3. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
4. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.

## Appendix 1: Summary of licence holder's comments on risk assessment and draft conditions

Condition	Summary of licence holder's comments	Department's response
Condition 2 Table 2: Waste acceptance	Due to uncertainty surrounding the amount of liquid that will be removed with the sediment during dredging of the Lower Vasse Estuary slurry, the licence holder requests to increase the quantity of Lower Vasse Estuary liquid waste to be accepted onto the premises to 500 m <sup>3</sup> (previously 350 m <sup>3</sup> ).	The Delegated Officer accepts the request to increase the Lower Vasse Estuary slurry acceptance limit to 500 m <sup>3</sup> as it will not alter the risk profile. Table 2 has been amended accordingly.
Cover page Prescribed premises category description table	The licence holder noted that the assessed design capacity is 300,000 tonnes per year and suspects that this is a typographical error and should read 30,000 tonnes per year as per Table 2 of the licence.	The Delegated Officer confirms that this is a typographical error. The figure in the table has been amended to 30,000 tonnes per year.

## Appendix 2: Application validation summary

SECTION 1: APPLICATION SUMMARY				
<b>Application type</b>				
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L5952/1991/12	
		Relevant works approval number:		N/A
Date application received		13 February 2024		
<b>Applicant and Premises details</b>				
Applicant name/s (full legal name/s)		Water Corporation		
Premises name		Busselton Water Resource Recovery Facility		
Premises location		348 Queen Elizabeth Avenue Ambergate 6280 Legal description – Lot 4680 on Deposited Plan 203019 Certificate of Crown Land Title Volume LR3069 Folio 272 Reserve 35766 (reserve under management order)		
Local Government Authority		Shire of Busselton		
<b>Application documents</b>				
HPCM file reference number:		DEC10219/1~1		
Key application documents (additional to application form):		<ul style="list-style-type: none"> <li>– Cover Letter</li> <li>– Attachment 1A (within application form PDF) – Record of Qualified Certificate of Crown Land Title (Copy dated 21/9/2021)</li> <li>– Attachment 2 (within application form PDF) – Premises Map (from current licence)</li> <li>– Attachment 3B (within application form PDF) – Supporting Information (includes Attachment A – Sediment Laboratory Analysis Results)</li> </ul>		
<b>Scope of application/assessment</b>				

<p>Summary of proposed activities or changes to existing operations.</p>	<p>The applicant is proposing an amendment to the current Licence L5952/1991/12 to approve the acceptance and temporary storage of sediment / slurry extracted from the Lower Vasse Estuary (adjacent to Estuary View Drive, Busselton). The facility is expecting to receive approximately 51 dry tonnes of odourous slurry (liquid waste), to be removed from the estuary via a vacuum tanker.</p> <p>Sediment / slurry will be received by the Busselton Water Resource Recovery Facility (WRRF) and the slurry will be offloaded directly into the facility's existing sludge drying beds from the tanker, where it will be dewatered before being transported off-site to a licensed facility for disposal.</p> <p>Sludge produced through the wastewater treatment process on-site is mechanically dewatered and use of the sludge drying beds is currently limited to contingency / emergency situations only. Additionally, the current licence does not allow acceptance of the Lower Vasse Sediment.</p> <p>Sediment / slurry will be extracted from the Lower Vasse Estuary as part of the State Government's Revitalising Geographe Waterways (RGW) program. The RGW program is aimed at improving Geographe Bay catchment water quality.</p> <p>Representatives from the City of Busselton, the Department of Biodiversity, Conservation and Attractions (DBCA), the Department of Primary Industries and Regional Development (DPIRD), the Department of Water and Environmental Regulation (DWER) and the Water Corporation (the applicant) form the Vasse Wonnerup Wetlands Partnership (VWWP). The VWWP representatives are overseeing sediment removal and associated processes related to appropriate treatment and disposal of the Lower Vasse Estuary sediment / slurry.</p>
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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	Assessed design capacity	Proposed changes to the design capacity
Category 54: Sewage facility: premises – (a) on which sewage is treated (excluding septic tanks); or (b) from which treated sewage is discharged onto land or into waters.	6,750 m <sup>3</sup> per day (annual average)	No change proposed.
Category 61: Liquid waste facility: premises on which liquid waste produced on other premises (other than sewerage waste) is stored, reprocessed, treated or irrigated.	30,000 tonnes per year	No change proposed – 51 tonnes of Lower Vasse Estuary sediment will be accepted under this category.

**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	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Referral decision No: N/A
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EP Act as a significant proposal?		Managed under Part V <input checked="" 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: N/A EPA Report No: N/A
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Reference No: N/A
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Certificate of title <input checked="" type="checkbox"/> Certificate of Crown Title Landgate copy is dated 2021. For this parcel of land (LR3069/272) Landgate lists Water Corporation as the 'Responsible Agency', under 'Reserve Details' the purpose of the reserve is listed as 'Wastewater treatment works site' and the 'Land Use' is sewage treatment, demonstrating occupancy. 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 type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>	Approval: N/A Expiry date: N/A If N/A explain why? No works or construction are proposed in this application.
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.
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"/>	Application reference No: N/A Licence/permit No: N/A 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"/>	Application reference No: N/A Licence/permit No: N/A Licence / permit not required.

<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                  Type: Proclaimed Groundwater Area/Surface Water Area                  Has Regulatory Services (Water) been consulted?                  Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>                  Regional office: South West                  Note: The premises is within the Busselton-Capel Groundwater Area (under review).</p>
<p>Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	<p>Name: N/A                  Priority: P1 / P2 / P3 / N/A                  Are the proposed activities/ landuse compatible with the PDWSA (refer to <u>WQPN 25</u>)?                  Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/></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><i>Environmental Protection (Noise) Regulations 1997</i>  <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>  <i>Environmental Protection (Controlled Waste) Regulations 2004</i></p>
<p>Is the Premises within an Environmental Protection Policy (EPP) Area?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
<p>Is the Premises subject to any EPP requirements?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input checked="" type="checkbox"/> No <input type="checkbox"/></p>	<p>Classification: Report not substantiated; therefore, the site has not been given a classification.                  Site ID: 12334                  Date of classification: 12/8/2022</p>