Government of Western Australia
Department of Environment Regulation

Works Approval

Environmental Protection Act 1986, Part V

Works Approval Holder: Ashlane Pty Ltd

Works Approval Number: W5904/2015/1

Registered office: 2/4 Jetty Road
BUNBURY WA 6230

ACN: 073 119 749

Premises address: Australind Tourist Park Sewage Treatment Plant
65 Old Coast Road
AUSTRALIND WA 6233
Being Part of Lot 9 on Diagram 73297 within co-ordinates (MGA Zone 50) E379336, N6314332; E379343, N6314332; E379343, N6314320; E379336, N314320 as depicted in Schedule 1.

Issue date: Thursday, 28 July 2016

Commencement date: Monday, 1 August 2016

Expiry date: Tuesday, 31 July 2018

The following category/s from the *Environmental Protection Regulations 1987* cause this Premises to be a prescribed premises for the purposes of the *Environmental Protection Act 1986*:

Category number	Category description	Category production or design capacity	Approved premises production or design capacity
85	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.	More than 20 but less than 100 m^3 per day	50 m^3 per day

Conditions
This Works Approval is subject to the conditions set out in the attached pages.

Date signed: 1 August 2016
.....
Ruth Dowd
Senior Manager – Waste Industries
Officer delegated under section 20
of the *Environmental Protection Act 1986*

Works Approval Conditions

1 General

1.1 Interpretation

1.1.1 In the Works Approval, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 In the Works Approval, unless the contrary intention appears:

'Act' means the *Environmental Protection Act 1986;*

'CEO' means Chief Executive Officer of the Department of Environment Regulation;

'CEO' for the purpose of correspondence means;

Chief Executive Officer
Department Administering the *Environmental Protection Act 1986*
Locked Bag 33
CLOISTERS SQUARE WA 6850
Email: info@der.wa.gov.au

'commissioning' means the process of operation and testing that verifies the works and all relevant systems, plant, machinery and equipment have been installed and are performing in accordance with the design specifications set out in the Conditions of this Works Approval;

'Condition' means a condition to which this Works Approval is subject under Section 62 of the Act and as set out in this Works Approval;

'HDPE' means high density polyethylene;

'Premises' means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Works Approval;

'Schedule 1' means Schedule 1 of this Works Approval unless otherwise stated;

'Works' means the construction of a sewage facility known as the Australind Tourist Park Sewage Treatment Plant as defined in the Sewage treatment system schematic in Schedule 1;

'Works Approval' means this Works Approval numbered W5904/2015/1 and issued under the Act; and

'Works Approval Holder' means the person or organisation named as the Works Approval Holder on page 1 of the Works Approval.

1.1.3 Any reference to an Australian or other standard in the Works Approval means the relevant parts of the standard in force from time to time during the term of this Works Approval.

1.2 General conditions

1.2.1 The Works Approval Holder must ensure that the proposed Works specified in Column 1 of Table 1.2.1 meets or exceeds the specifications in Column 2 of Table 1.2.1 for the infrastructure in each row of Table 1.2.1.

1.2.2 The Works Approval Holder must not depart from the specifications in Column 2 for the infrastructure in each row of Table 1.2.1 except:

(a) where such departure is minor in nature and does not materially change or affect the infrastructure; or

(b) where such departure improves the functionality of the infrastructure and does not increase risks to public health, public amenity or the environment;

and in accordance with all other Conditions in this Works Approval.

Table 1.2.1: Construction specifications

Column 1 Infrastructure	Column 2 Specifications (design and construction)
(1) All	(a) All sewage storage and treatment tanks, transfer pipelines and conveyance infrastructure must be impermeable and free of leaks or defects. (b) Stormwater must not be able to enter any sewage storage and treatment tanks, transfer pipelines and conveyance infrastructure.
(2) Sewage treatment system	The sewage treatment system must be designed and constructed to meet the following specifications: (a) Have all above ground infrastructure on a ≥100 mm concrete hardstand; (b) Have the capacity to determine if seepage or containment failure from any below ground infrastructure is occurring; (c) Have all sewage inflow pass through sewage inflow screening unit of 2 mm aperture. (d) Ensure that the handling and transfer of sludge out of the sewage treatment system occurs over a hardstand. (e) Be able to receive and treat a sewage inflow of 50 m^3/ day. (f) Have the capability to treat sewage to the following standards: (i) Biochemical oxygen demand <20 mg/L; (ii) *Escherichia coli* <1000 cfu/ 100 mL (iii) pH ≥6.5 - ≤8.5 (range) (iv) Total nitrogen ≤20 mg/ L; (v) Total phosphorus ≤5 mg/L; and (vi) Total suspended solids ≤30 mg/L. (g) Be an intermittently decanted extended aeration (IDEA) system with the following treatment phases: (i) ≥32,000 L polyethelene anoxic selector tank; (ii) ≥32,000 L HDPE lined aeration and decant steel tank with submerged aerators; (iii) ≥32,000 L polyethelene waste activated sludge tank; (iv) ≥32,000 L polyethelene treated effluent storage tank; (v) Waste activated sludge tank return line to the anoxic selector tank; (vi) Polyaluminium chloride dosing to the aeration and decant tank; and (vii) Hypochlorite dosing prior to the treated effluent storage tank. (h) Ensure that hypochlorite and polyaluminium chloride are stored separately within an above ground vessel/s located within a hardstand.
(3) Other treatments	Plant, machinery and vehicles involved in the construction of the Works must operate only between 7am to 7pm Monday to Saturday and 9am to 7pm on Sundays and public holidays.

2 Information

2.1 Reporting

2.1.1 Subject to Condition 1.2.2, the Works Approval Holder must, at least 21 days prior to commencing construction of the Australind Tourist Park Sewage Treatment Plant, submit a construction plan to the CEO. The construction plan must include detailed construction drawings and plans that are certified by a suitably qualified professional engineer or builder that each item of infrastructure specified in Column 1 of Table 1.2.1 meets or exceeds the specifications in Column 2 of Table 1.2.1 for the infrastructure in each Row of Table 1.2.1.

2.1.2 If Condition 1.2.2 applies, then the Works Approval Holder must provide the CEO with a list of departures which are certified as complying with Condition 1.2.2 at the same times, and from the same professional, as the certifications submitted in accordance with Conditions 2.1.3 and 2.1.4.

2.1.3 The Works Approval Holder must submit a construction compliance document to the CEO, following the construction of the works and prior to commissioning of the same.

2.1.4 The construction compliance document must:

(a) certify that the works were constructed in accordance with the conditions of the Works Approval;

(b) be signed by a person authorised to represent the Works Approval Holder and contain the printed name and position of that person within the company.

Schedule 1: Maps

Premises map

The Premises is shown in the maps below. The red line depicts the Premises boundary. The yellow line depicts the boundary of the Australind Tourist Park.

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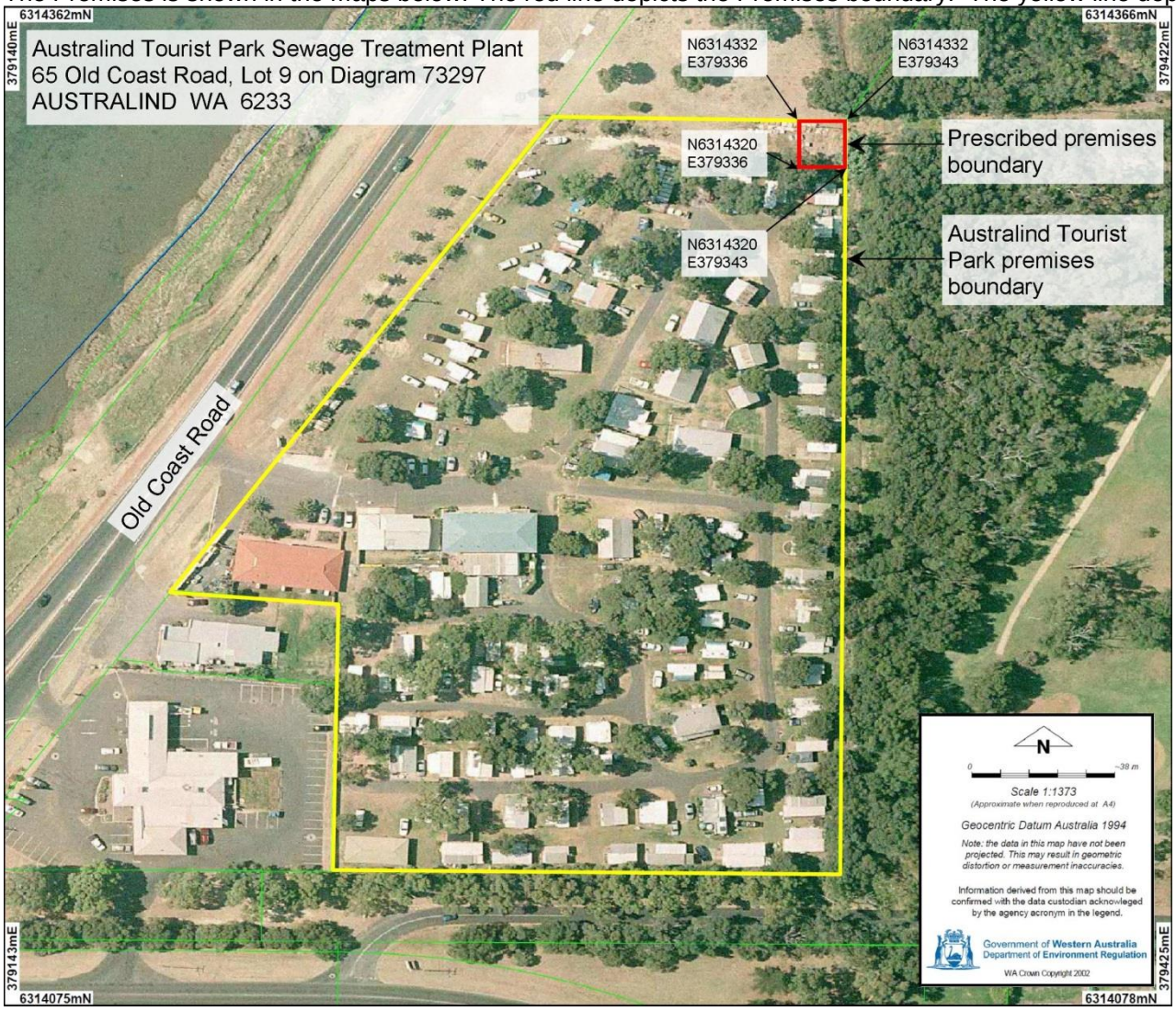
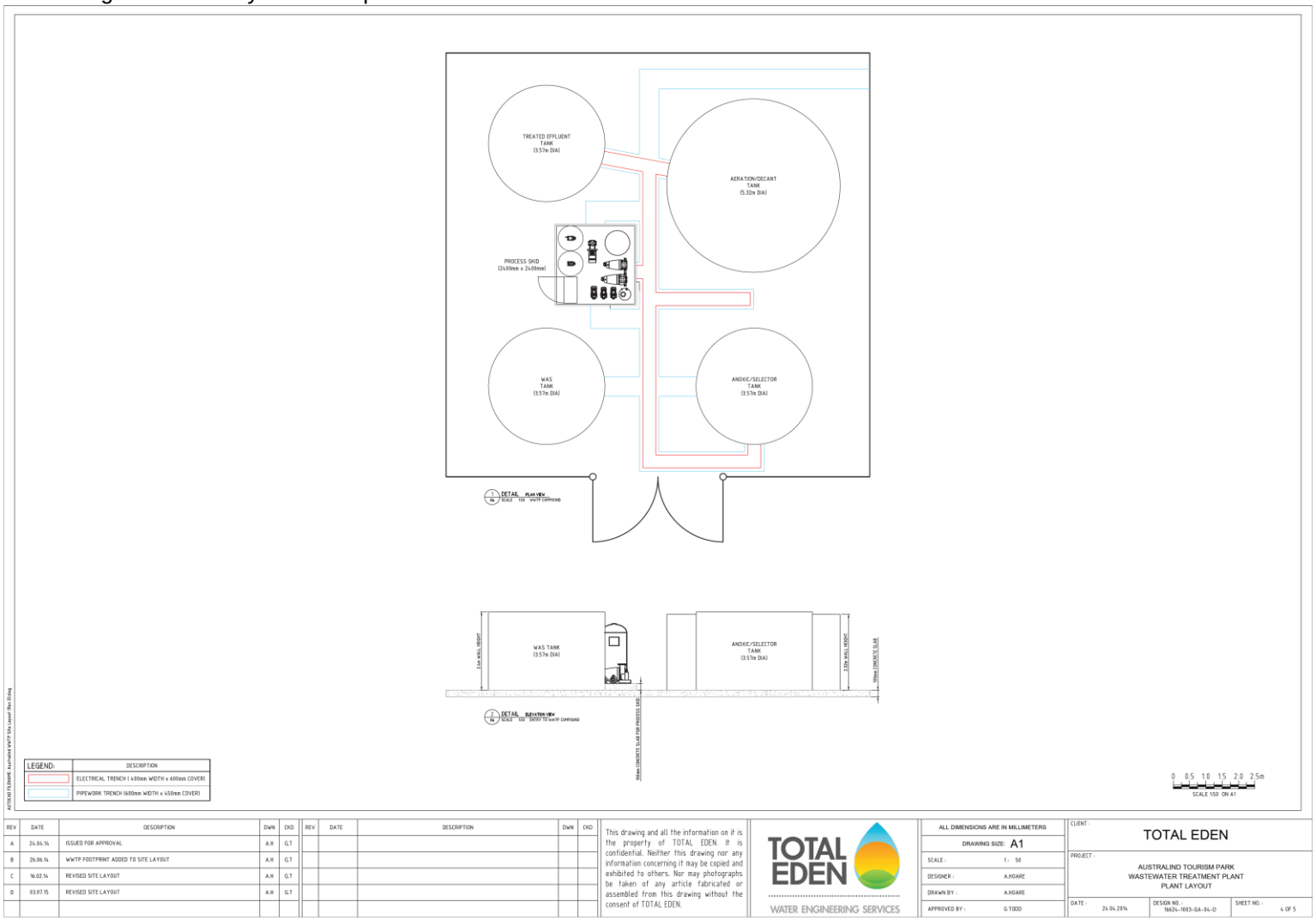


Sewage treatment system schematic

The sewage treatment system is depicted in the schematic below.



Government of Western Australia
Department of Environment Regulation

Decision Document

Environmental Protection Act 1986, Part V

Proponent: Ashlane Pty Ltd

Works Approval: W5904/2015/1

Registered office:	2/4 Jetty Road BUNBURY WA 6230
ACN:	073 119 749
Premises address:	Australind Tourist Park Sewage Treatment Plant 65 Old Coast Road AUSTRALIND WA 6233 Being Part of Lot 9 on Diagram 73297 within co-ordinates (MGA Zone 50) E379336, N6314332; E379343, N6314332; E379343, N6314320; E379336, N314320 as depicted in Schedule 1.
Issue date:	Thursday, 28 July 2016
Commencement date:	Monday, 1 August 2016
Expiry date:	Tuesday, 31 July 2018

Decision

Based on the assessment detailed in this document the Chief Executive Officer's (CEO) Delegate has decided to issue a works approval. The CEO Delegate considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the Works Approval and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by:	Peter van Schoubroeck Licensing Officer
Decision Document authorised by:	Caron Goodbourn Delegated Officer

Contents

1 Purpose of this Document

This Decision Document explains how the Chief Executive Officer's (CEO) Delegate has assessed and determined the application and provides a record of the CEO Delegate's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this Decision Document is limited to CEO Delegate's assessment and decision making under Part V of the *Environmental Protection Act 1986.* Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.

2 Administrative summary

Administrative details		
Application type	Works Approval ☒ New Licence ☐ Licence amendment ☐ Works Approval amendment ☐	
Activities that cause the premises to become prescribed premises	**Category number(s)**	**Assessed design capacity**
	85	50 cubic metres per day
Application verified Application fee paid	Date: 23/09/2015 Date: 02/11/2015	
Works Approval has been complied with Compliance Certificate received	Yes☐ No☐ N/A☒ Yes☐ No☐ N/A☒	
Commercial-in-confidence claim	Yes☐ No☒	
Commercial-in-confidence claim outcome	Not applicable	
Is the proposal a Major Resource Project?	Yes☐ No☒	
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the *Environmental Protection Act 1986*?	Yes☐ No☒	Referral decision No: Managed under Part V ☐ Assessed under Part IV ☐
Is the proposal subject to Ministerial Conditions?	Yes☐ No☒	Ministerial statement No: EPA Report No:
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the *Environmental Protection Act 1986*)?	Yes☒ No☐ Department of Water consulted Yes☒ No ☐	
Is the Premises within an Environmental Protection Policy (EPP) Area Yes☐ No☒		
Is the Premises subject to any EPP requirements? Yes☐ No☒		

3 Executive summary of proposal and assessment

A works approval application has been submitted by Ashlane Pty Ltd (Applicant) for a proposed new prescribed premises situated within Lot 9 on Diagram 73297, 65 Old Coast Road, Australind, Western Australia (Australind Tourist Park). The Applicant is seeking approval to construct a new sewage treatment facility with a capacity to treat up to 50 cubic metres of sewage per day and service the existing Australind Tourist Park facilities (Works). The Australind Tourist Park is currently serviced by a system of septic tanks and leach drains, the Works should therefore result in an improved environmental outcome.

This Decision Document is based on an assessment of the Applicant's revised application for a Works Approval under Part V of the *Environmental Protection Act 1986*, dated July 2015 (Final Application) and supporting attachment submitted on 25 September 2015.

Associated works proposed at the Bunbury Golf Club with regards to the acceptance and irrigation of treated sewage are not assessed or authorised under this Works Approval. Correspondence was sent to the Bunbury Golf Club on 15 February 2016 to help explain the application of Part V of the *Environmental Protection Act 1986* with regards to any proposals that may be progressed as the site.

This Decision Document identifies the emission risks arising from the Works and operation of the Works. This Decision Document details the emission controls proposed by the Licensee and the regulatory controls considered necessary based on the potential emission risks. In Summary:

- The Works Approval will be granted subject to the regulatory controls and Conditions described in section 4 of this Decision Document;
- The acceptance of sewage and commissioning of the Works at the Premises is not authorised under the Works Approval; and
- The Applicant may apply for a registration or licence for the commissioning and operation of the Works.

Location and siting

The Australind Tourist Park is located about 2.5 kilometres southwest of the Australind town centre. The prescribed premises boundary (Premises) has been established within the Australind Tourist Park directly around the construction site for the Works and not including any temporary accommodation within the Australind Tourist Park. Australind is located about 9 kilometres northeast of the Bunbury town centre within the Leschenault Catchment. Features of the location are:

- Geology: Geological conditions at the Premises have not been investigated by the Applicant. Geology in the area has been described as typically undifferentiated sands.
- Hydrology: Hydrological conditions at the Premises have not been investigated by the Applicant. Groundwater has been estimated to vary throughout the year at less than three metres below ground level.
- Land use: The site is an existing tourist park.
- Topography: Topographic conditions have not been described by the Applicant. The available geographic information data set indicates the Premises is located within the 0-5 mAHD contour.
- Zoning: Under the Shire of Harvey local planning scheme Premises land is zoned tourist. Land to the west and south is zoned parks and recreation. A special use hotel is zoned adjacent southwest. Residential land is zoned southeast, east is zoned special use (golf course) and north is zoned general farming (currently vegetated).

The Premises is located within or adjacent to the following policy and planning areas relevant to the assessment of the application:

- The *Rights in Water Irrigation Act 1914* Leschenault Catchment proclaimed Bunbury Groundwater Area.
- The *Waterways Conservation Act 1976* Leshenault Management Area.

Potential sensitive receptors in the vicinity of the Premises are:

- Groundwater: Groundwater flows within the region tend in an east to west direction. Groundwater is likely to be less than three meters below ground level at the Premises.
- Surface water: The Leschenault Estuary is located directly west across Old Coast Road. The Collie River enters the estuary about 1000 meters west of the Premise, flowing from the north east between 480 and 1400 metres of the southern and western boundaries of the Premises respectively. Areas subject to inundation occur over 200 metres from the Premises boundary adjacent to the Collie River.
- Existing residences and landowners: The closest receptors are:
  - The Bunbury Golf Club, located adjacent west, closest structures about 160 metres from the Premises.
  - Private residences are located southeast about 220 metres from the Premises.
  - Commercial operations, located southwest about 170 metres from the Premises.
  - Australind Tourist Park operations, tourist accommodation is located onsite and directly adjacent to the west and south sides of the Premises.
- Future residences: Vacant (vegetated) general farming land is located adjacent to the north.

Proposed works

The Applicant proposes the following Works:

- A sewage treatment system that will meet the following treated wastewater treatment standards:
  - Wastewater inflow/ outflow ≤50 m^3/ day;
  - Biochemical oxygen demand ≤20 mg/L;
  - *Escherichia coli* <1000 cfu/ 100 mL;
  - pH ≥6.5 and ≤8.5
  - Total nitrogen ≤20 mg/ L;
  - Total phosphorus ≤5 mg/L; and
  - Total suspended solids ≤30 mg/L.
- A sewage treatment system that will be comprised of the following components:
  - An intermittently decanted extended aeration (IDEA) wastewater treatment system which will include:
    - Three 32,000 L poly tanks (anoxic/ selector, waste activated sludge and effluent storage):
    - One lined steel aeration/ decant tank; and
    - An inlet bar screen.
  - Chemical dosing with polyaluminium chloride and hypochlorite;
  - Waste activated sludge consolidation tank will allow for periodic removal of sludge by a controlled waste carrier; and
  - Treated wastewater conveyance infrastructure for taking treated wastewater off-Premises.

Potential emissions

Potential emissions as a result of the Works and operation of the Works are:

- Emissions to land: Potential emissions may arise as a result of the events detailed below. Due to the shallow groundwater present at the Premises and likely high permeability of the sandy soils present, any emission to land has the potential to impact groundwater. Potential causes of emissions to land are:
  - Containment failure: Potential emissions may arise from the failure of containment infrastructure within the sewage treatment system or conveyance pipelines.
  - Seepage: Potential emissions may arise from failures in the integrity of containment infrastructure within the sewage treatment system or conveyance pipelines.
- Dust: Potential emissions may arise from the construction of the Works; no dust emissions are expected during operation.
- Noise: Potential emissions may arise from the construction and operations of the Works.

- Odour: No odour emissions are expected during construction of the Works. Odour emissions may occur during commissioning and operation as a result of the receipt, conveyance, treatment, storage and disposal of sewage, sludge and/ or treated wastewater.

The potential emission risks posed by the discharge of sewage treated at the Premises are not assessed in this Decision Document. No discharge to the environment of treated sewage is authorised by this Works Approval. Further details of emission controls proposed by the Applicant and the regulatory controls are detailed within the Decision Table (section 4 of this Decision Document) and Appendixes A and B.

Occupation and planning approval
The Premises is currently occupied by the Applicant. Planning consent was granted by the Shire of Harvey on 5 July 2016 and documented through a Notice of Planning Permission dated 8 July 2016 for the Works.

Consultation
DER referred the Final Application to the following:

- Department of Health on 12/10/2015;
- Department of Water on 12/10/2015; and
- Shire of Harvey on 12/10/2015.

Referral outcomes are summarised in the Works approval duration section of the Decision Table and section 5 of this Decision Document.

Approval of Works
Approval of the Works will be granted subject to the Conditions set out within Works Approval W5904/2015/1 and justified within this Decision Document.

4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987* and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Interpretation	W1.1.1 – 1.1.3	**Construction** Conditions 1.1.1 – 1.1.3 require that terminology used within the Works Approval is referenced to the appropriate definitions where applicable and that any reference to a standard is to the most current version of that standard. **Operation** Operation is subject to the general provisions of the *Environmental Protection Act 1986*. Category 85 activities fall under Schedule 1 Part 2 of the *Environmental Protection Regulation 1987* and may be subject to registration. An application for a registration under Regulation 5B of the *Environmental Protection Regulations 1987* or licence under Section 57 of the *Environmental Protection Act 1986* has not been received.	Application supporting documentation *Environmental Protection (Unauthorised Discharges) Regulations 2004* General provisions of the *Environmental Protection Act 1986* *Guidance Statement: Regulatory Principles* *Guidance Statement: Setting Conditions*
General conditions	W1.2.1 – W1.2.2	**Construction and Operation** The risk assessments informing the regulatory requirements under general conditions during construction and operation are contained in Appendix A and B. In summary the following condition framework has been specified: • Conditions 1.2.1 and 1.2.2 specify minimum specifications for the design and construction of the Works while allowing minor deviation from the specifications where that deviation does not result in material change or an increase in emission risk. Any deviation is subject to the certification specified in condition 3.1.2.	

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Fugitive emissions	N/A	**Construction** Emission description: *Emission:* Dust arising from construction equipment operations and vehicle movements during the construction of the works. *Impact:* Reduced local air quality from airborne particulates is possible. The closest receptors will be short-term accommodation users at the Australind Tourist Park directly adjacent to the Works. Additional receptors adjacent and nearby the Premises include commercial, residential and public spaces. *Controls:* Dust suppression via water sprays when required are proposed for the construction works. Risk assessment: *Consequence:* Insignificant *Likelihood:* Possible *Risk Rating:* Low Regulatory controls: It is considered that the provisions of Section 49 of the *Environmental Protection Act 1986* are sufficient to regulate dust emissions during construction. Residual risk: *Consequence:* Insignificant *Likelihood:* Possible *Risk Rating:* Low **Operation** No fugitive dust emissions are expected to arise during the operation of the sewage treatment plant. Operation will be subject to the general provisions of the *Environmental Protection Act 1986*.	Section 49 of the *Environmental Protection Act 1986*

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Odour	N/A	**Construction** No odour emissions are expected to arise during the construction of the sewage treatment plant. **Operation** The risk assessment informing the regulatory requirements for potential odour emissions during commissioning and operation is contained in Appendix B.	General provisions of the *Environmental Protection Act 1986*
Noise	N/A	**Construction** Emission description: *Emission:* Noise arising from construction activities, machinery movement and earthworks. *Impact:* Interference with the health, welfare, convenience, comfort or amenity of sensitive residential receptors, the closest temporary accommodation is located directly adjacent the Works. *Controls:* The specifications of the Works are not fully defined; the Applicant has committed to only undertaking works during normal business hours. Risk assessment: *Consequence:* Insignificant *Likelihood:* Likely *Risk Rating:* Moderate Regulatory controls: It is considered that the provisions of *Environmental Protection (Noise) Regulations 1997* will be sufficient to regulate noise emissions during construction. The commitment to only undertake works during normal business hours has been specified under Condition 1.2.1, Table 1.2.1, Row 3. Residual risk: *Consequence:* Insignificant *Likelihood:* Likely *Risk Rating:* Moderate	*Environmental Protection (Noise) Regulations 1997*

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Noise (cont.)		**Operation** Emission description: *Emission:* Noise arising from the operation of the sewage treatment system. *Impact:* Interference with the health, welfare, convenience, comfort or amenity of sensitive residential receptors, the closest temporary accommodation is located directly adjacent the Works. *Controls:* The specifications of the operations of the Works are not fully defined; the Applicant has committed to submerged aerators resulting in minimal noise emissions. Risk assessment: *Consequence:* Insignificant *Likelihood:* Possible *Risk Rating:* Low Regulatory controls: It is considered that the provisions of *Environmental Protection (Noise) Regulations 1997* will be sufficient to regulate noise emissions during operation. The requirement for aerators being submerged has been specified under Condition 1.2.1, Table 1.2.1, Row 2, item (c)(ii). Residual risk: *Consequence:* Insignificant *Likelihood:* Possible *Risk Rating:* Low	

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Information	W2.1.1 – W2.1.3	**Construction** The risk assessment informing the information regulatory requirements are contained in Appendix A and B. Condition 2.1.1 requires that the construction specifications for infrastructure are confirmed as compliant in writing by the Applicant prior to the commencement of construction. Condition 2.1.2 requires that any departures from the construction specifications for infrastructure in Condition 1.2.1, Table 1.2.1 are confirmed as not resulting in material change or an increase in the risk posed by possible emissions. Conditions 2.1.3 and 2.1.4 require that the construction specifications for infrastructure are confirmed as compliant in writing by the Applicant following the completion of construction. **Operation** No information regulatory requirements are expected for the operation of the sewage treatment plant.	General provisions of the *Environmental Protection Act 1986*

DECISION TABLE			
Works Approval / Licence section	**Condition number W = Works Approval L= Licence**	**Justification (including risk description & decision methodology where relevant)**	**Reference documents**
Works approval duration	N/A	The Works Approval will be granted for two years, being until July 2018 The document *Guidance statement: licence duration* does not prescribe duration periods for works approvals. Other statutory approvals that have been identified as limiting the proposed Works are: • Department of Health: the Applicant was granted a two year '*approval in principle*' subject to specified conditions on 26 May 2016 for the WWTP and proposed Bunbury Golf Club recycling scheme. • Department of Water: the Applicant has an exemption under the *Water Services Act 2012* to provide the Bunbury Golf Club with water for irrigation. The Applicant and the Bunbury Gold Club both hold separate licences to irrigate lawn under the *Rights to Water and Irrigation Act 1914*. • Shire of Harvey: planning consent has been granted for a period of two years (being until July 2018). Operation of the Works is subject to the general provisions of the *Environmental Protection Act 1986*. Category 85 activities fall under Schedule 1 Part 2 of the *Environmental Protection Regulation 1987* and may be subject to registration. Registrations are not subject to an expiry date. An application for a registration under Regulation 5B of the *Environmental Protection Regulations 1987* or licence under Section 57 of the *Environmental Protection Act 1986* has not been received.	Department of Environment Regulation 2015, *Guidance statement: Licence duration* General provisions of the *Environmental Protection Act 1986*

5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
09/11/2015	Application advertised in West Australian (or other relevant newspaper)	Department of Water: (a) evaluates that the risk to water resources (groundwater and surface water) is moderate (b) recommend the following guidelines are considered to ensure best management practice occurs: (i) Guideline for the approval of non-drinking water systems in Western Australia, Urban developments (ii) WQPN 70 'Wastewater treatment and disposal: domestic systems'. (iii) WQPN 51 'Industrial wastewater management and disposal'. (iv) WQPN 22 'Irrigation with nutrient rich waste water'. (v) WQPN 33 'Nutrient and irrigation management plans'. (vi) WQPN 26 'Liners for containing pollutants using synthetic membranes'. (vii) WQPN 39 'Ponds for stabilising organic matter'.	The irrigation of treated wastewater does not occur at the Premises and is not assessed or approved under the Works Approval. Conditions have been imposed to control the risks to surface and groundwater through the construction specification contained in conditions 1.2.1 and 1.2.2.
11/12/2015	Proponent sent a copy of draft instrument	A copy of the planning consent from the Shire of Harvey was provided on 8 July 2016.	Noted.
12/07/2016	Proponent sent a copy of amended draft instrument	Clarification was provided regarding the construction specifications for the chemical storage area.	The following text was deleted from Condition 1.2.1, Table 1.2.1 item (2)(h): *'… enclosed by bunds with a holding capacity of 100% of the total vessel/s contents …'*.
01/08/2016	Granting of Works Approval was advertised in West Australian		

Note: WQPN means Water Quality Protection Note

6 Risk Assessment

Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management

Table 1: Emissions Risk Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High

Appendix A

General conditions – Stormwater (construction)

Emission: The quality of stormwater discharged from the Premises may deteriorate where stormwater is not appropriately managed or comes into contact with contaminants (e.g. hydrocarbons or cement) or becomes loaded with sediment.
Impact: Stormwater and contaminants leaving the Premises and entering adjacent properties may potentially impact the health, welfare, convenience, comfort or amenity of those residences, accommodation users or increase contaminant loads in surface water and/ or groundwater. A drain directly north of the Premises boundary may act as a surface water conduit to Leschenault Inlet. Some contaminants may have the potential migrate through soils into the groundwater.
Controls: The specifications of the Works are not fully defined; the Applicant has not commented on stormwater management during construction.

Risk assessment:
Consequence: Insignificant
Likelihood: Possible
Risk Rating: Low

Regulatory controls:
Condition 1.2.1, Table 1.2.1, Row 1, item (b) requires the sewage treatment system to be constructed in a manner that ensures stormwater does not enter the sewage treatment system. This will facilitate the operation of the sewage treatment plant within design specifications.
It is considered that the provisions of Section 49 of the *Environmental Protection Act 1986* and the provisions of the *Environmental Protection (Unauthorised Discharge) Regulations 2004* are sufficient to regulate the emissions of stormwater during construction.

Residual risk:
Consequence: Insignificant
Likelihood: Unlikely
Risk Rating: Low

General conditions – Stormwater (operation)

Emission: The quality of stormwater discharged from the Premises may deteriorate where stormwater is not appropriately managed or comes into contact with contaminants (e.g. sewage, sludge or chemicals) or becomes loaded with sediment.

Impact: Stormwater and contaminants leaving the Premises and entering adjacent properties may potentially impact the health, welfare, convenience, comfort or amenity of those residences, accommodation users or increase contaminant loads in surface water and/ or groundwater. A drain directly north of the Premises boundary may act as a conduit for surface waters to enter Leschenault Inlet. Some contaminants may have the potential migrate through soils into the groundwater.

Controls: The specifications of the Works are not fully defined; the Applicant has not commented on stormwater management during operation. The Applicant has committed to construction the chemical storage area in accordance with Section 2 'Minor storage' of the Australian Standard AS 3780-2008 *The storage and handling of corrosive substances*.

Risk assessment:

Consequence: Insignificant
Likelihood: Unlikely
Risk Rating: Low

Regulatory controls:

It is considered that the provisions of Section 49 of the *Environmental Protection Act 1986* and the provisions of the *Environmental Protection (Unauthorised Discharge) Regulations 2004* are sufficient to regulate the emissions of stormwater during operation. Regulatory controls under the Works Approval are expected to assist in minimising the risk of stormwater leading to contamination or impact.

Residual risk:

Consequence: Insignificant
Likelihood: Unlikely
Risk Rating: Low

General conditions – containment failure and seepage

Emission description:

Emission: Raw sewage and/ or treated sewage may be discharged to land as a result of catastrophic or integrity failures of containment, processing and transfer infrastructure within the sewage treatment system or conveyance pipelines. Raw, partially treated and treated wastewater could contain elevated concentrations of pathogens (including *Escherichia coli)*, nitrogen, phosphorus and other contaminants.

Impact: Transient localised impacts through increases in the shallow groundwater nutrient levels and potential significant human health effects to anyone exposed. The closest receptors would be persons using the temporary accommodation at the Australind Tourist Park. Receptors adjacent and nearby the Premises includes commercial, residential and public spaces.

Controls: The specifications of the Works are not fully defined; the Applicant has committed to the receipt, treatment and export off-Premises of treated sewage.

Risk assessment:

Consequence: Major
Likelihood: Unlikely
Risk Rating: Moderate

Regulatory controls:

Minimum design specifications and construction standards from the Application and beyond that specified in the Application have been specified within the conditions of the Works Approval to help ensure that containment failure and seepage do not occur as a result of construction, commissioning or operation of the Works.

Condition 1.2.1 requires minimum infrastructure specifications during construction to be met.

Condition 1.2.2 allows deviation from the minimum infrastructure specifications where those changes do not materially change the infrastructure and do not increase the risk from potential emissions.

Reporting conditions 2.1.1, 2.1.2, 2.1.3 and 2.1.4 are addressed under the Information section of the Decision Table in section 4 of this Decision Document and facilitate determination of compliance against conditions 1.2.1 and 1.2.2.

Residual risk:

Consequence: Major
Likelihood: Rare
Risk Rating: Moderate

Appendix B

Odour

Emission description:

Emission: Odour arising from the treatment and disposal of sewage and sludge wastes. Sewage within the system servicing the Australind Tourist Park should have a low residence time and therefore a lower likelihood of generating odour.

Impact: Interfere with the health, welfare, convenience, comfort or amenity of sensitive receptors is possible. The closest receptors will be short-term accommodation users at the tourist park, potentially directly adjacent the sewage treatment system. Receptors adjacent and nearby the Premises includes commercial, residential and public space.

Controls: The specifications of the Works are not fully defined; the Applicant has committed to the maintenance of the sewage treatment system and biological processes within design specification to largely mitigate odour emissions.

Risk assessment:

Consequence: Minor
Likelihood: Possible
Risk Rating: Moderate

Regulatory controls:

It is considered that the provisions of Section 49 of the *Environmental Protection Act 1986* are sufficient to regulate potential fugitive (odour) emissions from the Premises.

Additional consideration was given to the close proximity of accommodation users at the Australind Tourist Park. Should odour emissions arise and be found to interfere with health, welfare, convenience, comfort or amenity the occupier may need to consider retrofitting odour management infrastructure to the sewage treatment plant.

Residual risk:

Consequence: Minor
Likelihood: Possible
Risk Rating: Moderate