



Application for Works Approval

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

Works Approval Number	W6637/2022/1
Applicant	Bunbury Water Corporation T/A Aqwest
File number	DER2021/000595 and APP-0025970
Premises	<p>Bunbury Recycled Water Treatment Plant</p> <p>Minninup Road</p> <p>DALYELLUP WA 6230</p> <p>Part of Lot 5262 on Deposited Plan 183085</p> <p>As defined by the coordinates in Schedule 2 of the works approval</p>
Date of report	10 April 2025
Decision	Works approval granted

Abbie Crawford

MANAGER, WASTE INDUSTRIES

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 W6637/2022/1 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 20 October 2021, the Bunbury Water Corporation T/A Aqwest (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 for construction works relating to the development of a recycled water treatment plant (RWTP) at the premises. The RWTP plant will be located to the north of the existing Bunbury Water Resource Recovery Facility (WRRF) (regulated under L5972/1992/14) and will be operated under a separate works approval and licence.

The RWTP will operate by pumping treated wastewater from the Bunbury WRRF balancing ponds, passing it through filtration and treatment processes (i.e. pH balance, fine particle coagulation, chlorination and UV sterilisation) and pumping it to a header tank prior to reuse. Reject wastewater from the treatment process will be fed back to the Bunbury WRRF.

The applicant proposes to reuse the treated wastewater for irrigation of Hay Park, Hands Oval and Forrest Park within the City of Bunbury. A separate works approval application W6742/2022/1 was lodged on 9 August 2022 to construct a pipeline and irrigation scheme. This application is currently under assessment. Until the reuse application is approved, discharges from the RWTP will be returned to the Bunbury WRRF.

The applicant was granted a lease from the Water Corporation over the premises area commencing on 30 November 2024 for an initial 20 year term with options to renew for 20 years, and a further term of 10 years. A portion of the premises to the south-west falls outside the leased area, which will contain inlet and outlet pipes and a pump station. The applicant was granted access to this area by a letter of authority from the Water Corporation dated 4 March 2025.

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 W6637/2022/1 and Table 1 below. 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 W6637/2022/1.

Table 1: Prescribed premises category description

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed 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	5,940 m ³ per day

2.3 Part IV of the EP Act

The *Ocean outlet for treated wastewater, Bunbury wastewater treatment plant* (L5972/1992/14) is subject to Ministerial Statement 572 (MS 572). While not part of the assessed proposal, the EPA supported the reuse of treated recycled water as outlined in EPA Report 1021.

MS 572 relates to the construction and operation of an ocean outlet for treated wastewater. The construction aspects described in MS 572 relate to lining of existing storage lagoons (now called the balancing ponds) at the Bunbury WRRF, and a pipeline leading from the storage lagoons to the outlet pipeline, for the disposal of treated wastewater at the ocean outlet.

The proposal has been constructed with the conditions requiring the proponent to manage the discharge of effluent at the ocean outlet (not the storage lagoons or at the Bunbury WRRF).

The proposed RWTP is not subject to the requirements of MS 572.

MS 572 does not cover the treatment processes and existing pipe work at the Bunbury WRRF or from the plant to the storage lagoons. MS 572 is in relation to the discharge quality at the ocean outlet. The existing licence manages water quality at the Bunbury WRRF to be consistent with requirements for discharge at the ocean outlet. Noting that the recycling of wastewater was not part of, nor related to the proposal in MS 572; and based on the understanding that the quality of water discharged to the ocean will still be maintained as per requirements in MS 572, this application is not expected to constitute a change/amendment to the original proposal.

2.4 Part V of the EP Act, Native Vegetation Clearing Permit

On 29 June 2021 Aqwest applied to clear approximately 2.2 hectares of native vegetation within Lot 5262 on Deposited Plan 183085, Dalyellup, to allow for the construction of the RWTP. The assessment of the clearing permit application determined that the application area consisted of:

- Vegetation consistent with the Tuart (*Eucalyptus gomphocephala*) woodlands of the Swan Coastal Plain state listed Priority 3 ecological community and federally listed threatened ecological community (Tuart PEC/TEC).
- vegetation (described as peppermint on scrubland on dunes) that provides habitat for *Pseudocheirus occidentalis* (Western Ringtail Possum); and
- Vegetation associated with a Southwest Regional Ecological Linkage line.

Given the significant environmental values identified in the clearing permit application area, a condition of the clearing permit will require Aqwest to undertake Western Ringtail Possum management actions and rehabilitate and revegetate cleared areas no longer required for the water resource recovery facility.

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 2 below. Table 2 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 2: Proposed applicant controls

Sources	Emission	Potential pathways	Proposed controls
Construction			
Construction of the treatment plant including ground disturbance and vehicle movements	Dust	Air/windborne pathway	<p>Implement a Dust Management Plan.</p> <p>Daily monitoring of weather conditions with associated changes to dust controls or activities if strong winds are likely to occur.</p> <p>Daily visual monitoring of open areas and activities with targeted dust suppression application.</p> <p>Application of water or chemical dust suppressant as required.</p> <p>Vehicles restricted to established tracks and 25 km/hr on unsealed areas.</p> <p>Water spray when clearing as required based on visual observations.</p> <p>Record, investigate and respond to any dust complaints.</p>
	Noise	Air/windborne pathway	<p>Construction will be carried out during the day and will be undertaken in accordance with the <i>Environmental Protection (Noise) Regulations 1997</i>.</p> <p>Record, investigate and respond to any noise complaints.</p> <p>Select quietest practical construction equipment.</p>
	Hydrocarbon or chemical spills	Seepage to soil and groundwater	<p>Spill kits will be available on the premises and will be accessible to all personnel.</p> <p>Any spills will be controlled, contained and removed.</p> <p>Contaminated soils and spill kit materials will be collected and removed offsite to an approved waste disposal facility.</p> <p>Mobile equipment will be regularly inspected, operated and maintained in accordance with manufacturer's specifications.</p>

Sources	Emission	Potential pathways	Proposed controls
			Hydrocarbons will be stored within low permeability bunded areas that hold 110% of the volume being stored.
Operation and commissioning			
Vehicle movement on unsealed tracks	Dust	Air/windborne pathway	As above
Treatment of wastewater	Noise	Air/windborne pathway	Distance to sensitive receptors.
	Odour	Air/windborne pathway	<p>Receival of wastewater that has completed treatment at the adjacent Bunbury WRRF.</p> <p>On-going treatment processes (i.e. filtration, pH adjustment, chlorination and UV sterilisation).</p> <p>Plant maintenance.</p> <p>Off-site sludge removal.</p>
	Hydrocarbon or chemicals	Seepage to soil and groundwater	<p>Spill kits will be available on the premises and will be accessible to all personnel.</p> <p>Any spills will be controlled, contained and removed.</p> <p>Contaminated soils and spill kit materials will be collected and removed offsite to an approved waste disposal facility.</p> <p>Mobile equipment will be regularly inspected, operated and maintained in accordance with manufacturer's specifications.</p> <p>Chemical storage areas will be regularly inspected and maintained</p> <p>Hydrocarbons/chemicals will be stored within low permeability bunded areas that hold 110% of the volume being stored.</p>
	Spills of treated wastewater from the RWTP	<p>Direct discharge to ground/soil</p> <p>Seepage to groundwater</p>	<p>Implement Spill Response Procedure.</p> <p>Stormwater drainage in the RWTP compound will be contained and infiltrated within the RWTP compound for up to a 1 in 10 year ARI rainfall event.</p>
	Spills of retuned waste from RWTP to the Bunbury WRRF	<p>Direct discharge to ground/soil</p> <p>Seepage to groundwater</p>	<p>Rainfall events stronger than a 1 in 10 year ARI will overflow from the infiltration basins and sumps via engineered overflow points. The eventual destination of these overflows would be in a local depression directly north of the balancing ponds.</p> <p>Wastewater or contaminated water generated in the RWTP will not be directed to infiltration basins and will be plumbed to the Waste Tank.</p>

Sources	Emission	Potential pathways	Proposed controls
			<p>Grates, pipes, access chambers and other drainage structures will be suitable for heavy duty traffic loading and accessible for cleaning purposes.</p> <p>Diversion drains will be installed to prevent the site flooding during cyclonic events.</p> <p>All pipes shall be laid in accordance with the manufacturer's recommendations.</p> <p>The risk of spills of wastewater or contaminated water from pipelines will be managed in accordance with the operation manual for the facility, which will include regular inspections of the pipeline infrastructure to identify leaks and spills.</p>
Irrigation of treated wastewater sent to the public open space	Treated wastewater containing nutrients at concentrations not fit for purpose	Contamination of soil, impact to vegetation health, subsurface seepage	To be assessed under works approval W6742/2022/1.
	Treated wastewater containing pathogens at concentrations not fit for purpose	Direct contact or ingestion of pooling surface waters or irrigation mist	To be assessed under works approval W6742/2022/1.

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 3 and Figure 1 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental Siting* (DWER 2020)).

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

Human receptors	Distance from prescribed activity
Suburb of Dalyellup	Approximately 760 m south east of the Premises
Suburb of Usher	Approximately 960 m north east of the Premises
Environmental receptors	Distance from prescribed activity
Underlying groundwater (non-potable purposes)	Depth to groundwater is unknown, however it is expected to be shallow as the Premises is located on the coast line. Inferred regional groundwater flow is east to west, discharging to the Indian Ocean. Salinity of 1000-1500 mg/L which is considered Brackish, and useful for irrigation of certain crops only, useful for stock.
Indian Ocean	Approximately 200 m west of the Premises
Surface Water Areas proclaimed under the <i>Rights in Water and Irrigation Act 1914</i>	None within 10km of the Premises
Groundwater Areas proclaimed under the <i>Rights in Water and Irrigation Act 1914</i>	Premises located within the Bunbury Groundwater Area
Bunbury Water Reserve, Public Drinking Water Source Area (P3)	Premises located within designated area
Protection zones for Public Drinking Water Source Areas	Bunbury Water Reserve, wellhead protection zone located approximately 260 m east of the Prescribed Premises.
Threatened Ecological Communities	Tuart Woodlands and Forests of the Swan Coastal Plain mapped approximately 180 m east of the Prescribed Premises. Banksia Dominated Woodlands of the Swan Coastal Plain IBRA Region mapped approximately 320 m east of the Prescribed Premises.
Fauna	Multiple sightings of critically endangered fauna identified within 500 m of the premises boundary.

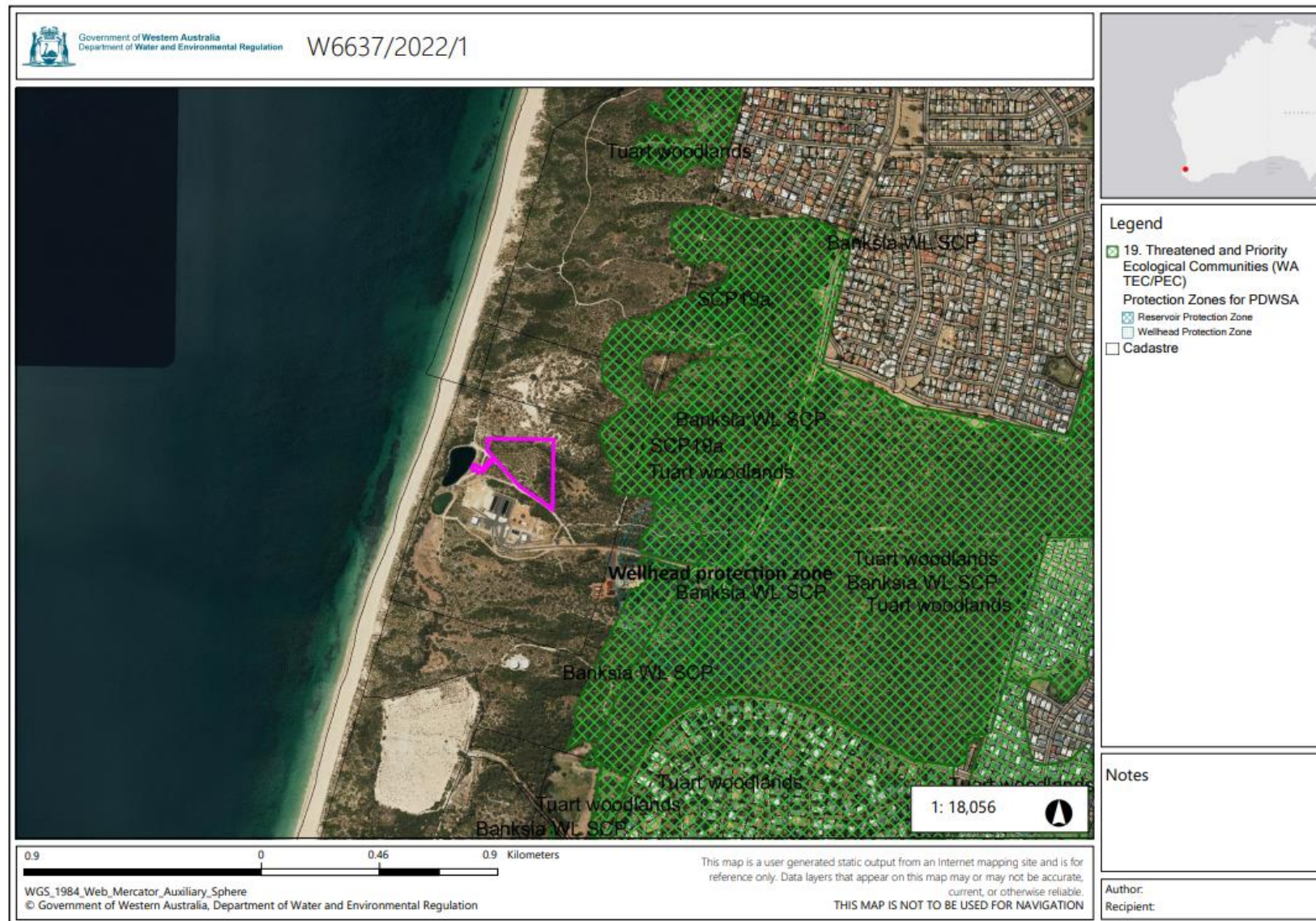


Figure 1: Sensitive receptors

Works approval: W6637/2022/1

IR-T13 Decision report template (short) v3.0 (May 2021)

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 4.

Works approval W6637/2022/1 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 4 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 4: Risk assessment of potential emissions and discharges from the premises during construction, commissioning and operation

Risk events					Risk rating ¹ C = consequence L = likelihood	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls				
Construction								
Construction of the treatment plant including ground disturbance and vehicle movements	Dust	Air/windborne pathway causing impacts to health and amenity	Residences surrounding the premises with the closest being 760 m south east.	Refer to Section 3.1	C = Minor L = Rare Low Risk	Yes	<u>Conditions 23, 24, 25</u>	The Delegated Officer considers dust emissions can be effectively regulated by the general provisions of the EP Act. A condition for the recording of complaints and any action taken to investigate and respond to the complaint.
	Noise			Refer to Section 3.1	C = Minor L = Rare Low Risk	Yes	<u>Conditions 23, 24, 25</u>	The delegated officer considers noise emissions can be effectively regulated by the <i>Environmental Protection (Noise) Regulations 1997</i> . A condition for the recording of complaints and any action taken to investigate and respond to the complaint.
	Hydrocarbon or chemical spills	Direct discharge to ground/soil Seepage to groundwater	Indian Ocean 200 m west On-site soils Shallow Groundwater Threatened Ecological Communities	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Yes	Conditions 15 and 16	Emission to be regulated under the general provisions of the EP Act and the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>
Operation (including commissioning and time-limited operations)								
Treatment of wastewater	Dust	Air/windborne pathway causing impacts to health and amenity	Residences surrounding the premises with the closest being 760 m south east.	Refer to Section 3.1	C = Minor L = Rare Low Risk	Yes	<u>Condition 23, 24, 25</u>	The Delegated Officer considers dust emissions can be effectively regulated by the general provisions of the EP Act. A condition for the recording of complaints and any action taken to investigate and respond to the complaint.
	Noise	Air/windborne pathway causing impacts to health and amenity		Refer to Section 3.1	C = Minor L = Rare Low Risk	Yes	<u>Condition 23, 24, 25</u>	The delegated officer considers noise emissions can be effectively regulated by the <i>Environmental Protection (Noise) Regulations 1997</i> . A condition for the recording of complaints and any action taken to investigate and respond to the complaint.
	Odour	Air/windborne pathway causing impacts to health and amenity		Refer to Section 3.1	C = Minor L = Rare Low Risk	Yes	Condition 1, 2, 3, 4, 5, 12 – 14 <u>Conditions 23, 24, 25</u>	The Delegated Officer considers dust emissions can be effectively regulated by the general provisions of the EP Act. A condition for the recording of complaints and any action taken to investigate and respond to the complaint.

Risk events					Risk rating ¹	Applicant controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Sources / activities	Potential emission	Potential pathways and impact	Receptors	Applicant controls	C = consequence L = likelihood			
	Hydrocarbon or chemical spills	Direct discharge to ground/soil Seepage to groundwater	Indian Ocean 200 m west On-site soils Shallow Groundwater Threatened Ecological Communities	Refer to Section 3.1	C = Moderate L = Unlikely Medium Risk	Yes	Conditions 15 and 16	Emission to be regulated under the general provisions of the EP Act and the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>
	Spills of treated wastewater from the RWTP	Direct discharge to ground/soil Seepage to groundwater		Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Yes	Conditions 1, 2, 3, 4, 5, 10, 11, 12 – 14, 21, 22, 24, 25 <u>Conditions 6 – 9, 17 – 20</u>	Licence conditions for the monitoring of the treatment process have been applied to determine the level of treatment obtained. This will inform the assessment of discharges from the RWTP for irrigation of public open spaces under works approval W6742/2022/1.
	Spills of retuned waste from RWTP to the Bunbury WRRF	Direct discharge to ground/soil Seepage to groundwater		Refer to Section 3.1	C = Minor L = Unlikely Medium Risk	Yes	Conditions 1, 2, 3, 4, 5, 10, 11, 12 – 14, 21, 22, 24, 25 <u>Conditions 6 – 9, 17 – 20</u>	Licence conditions for monitoring of the treatment process have been applied to determine the level of treatment obtained. This will inform the assessment of discharges from the RWTP for irrigation of public open spaces under works approval W6742/2022/1.
Irrigation of treated wastewater to public open spaces	Treated wastewater containing pathogens at concentrations not fit for purpose	To be assessed under works approval W6742/2022/1						This Decision Report assesses impacts from the construction, commissioning and time limited operation of infrastructure only. Irrigation of treated wastewater to public open spaces will be assessed under works approval W6742/2022/1.
	Treated wastewater containing nutrients at concentrations not fit for purpose	To be assessed under works approval W6742/2022/1						

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

Table 5: Consultation

Consultation method	Comments received	Department response
<p>Application advertised on the department's website (21/01/2022)</p> <p>Application advertised in the West Australian (24/01/2022)</p>	<p>Submission received on 14 February 2022 opposing the application.</p> <p>The submission opposed the application on the grounds that the odour buffer for the Bunbury WRRF is not appropriate. It is not believed to be appropriate because it contravenes the State Industrial Buffer Policy and did not follow the EPA Guidance Statement No. 3 Separation Distances between Industrial and Sensitive Land Uses 2005.</p> <p>The submission stated that the residents of the Dalyellup Greenpatch Development will be heavily impacted by the WRRF odour emissions.</p> <p>The submission asked that the works approval be referred to the EPA as a significant proposal and that the works be denied until an appropriate odour modelling study is conducted and approved by the EPA.</p>	<p>Aqwest's RWTP will be taking treated water from Water Corporation's balancing ponds and treating it further before it is discharged through irrigation to public open space in the City of Bunbury. This process will not increase odour emissions from Water Corporation's WRRF.</p> <p>The Bunbury WRRF is subject to the requirements of Ministerial Statement 572. Due to the area being subject to a Ministerial Statement Industry Regulation sought advice from the EPA. In its response the EPA advised that based on the information provided in the application, it does not appear to be a 'significant proposal' and furthermore it appears that any potential impacts can be mitigated through Part V of the EP Act.</p> <p>A review of the Department's Incidents and Complaints Management System notes that to date no odour complaints have been received in relation to the Bunbury WRRF.</p> <p>Due to the above the department considers the risk of odour emissions resulting from this Works Approval to be low.</p>
Local Government Authority advised of proposal (21/03/2022)	No comments received	N/A
Department of Health advised of proposal (21/03/2022)	<p>A letter was received from the Department of Health advising:</p> <ul style="list-style-type: none"> Aqwest are required to submit an application to the DOH for approval of the proposed recycled water scheme; The recycled water quality which is to be produced from the Bunbury RWTP is to meet the water quality objectives for a 'high' exposure risk level end use as per the <i>Guidelines for Non-</i> 	<p>The Delegated Officer notes this advice and has added the advice here so that Aqwest is made aware of its obligations. The department will ensure that DOH have the opportunity to comment on future application made by Aqwest regarding the proposed recycled water scheme.</p>

Consultation method	Comments received	Department response
	<p><i>potable Uses of Recycled Water in Western Australia.</i></p> <ul style="list-style-type: none"> DoH would like the opportunity to comment on future works approval application relating to this project; DoH questioned the location of the sampling point for the wastewater to be fed into the RWTP; Consideration should be given to a failsafe mechanism on the RWTPs backwash tank to prevent uncontrolled release of wastewater; The proposal should be referred to the Economic Regulatory Authority as Aqwest may require an amendment to their Water Services Licence. 	
Applicant requested addition to application (28/02/2022)	Applicant requested Time Limited Operations (TLO) under the works approval to allow for continued operation for a limited period after the commissioning period.	The Delegated Officer agreed to inclusion of TLO.
Applicant provided with draft documents (02/05/2022)	Applicant provided the signed lease agreement on 20 December 2024.	Noted and included in the assessment.
Applicant provided with 2 nd draft documents (24/02/2025)	Response received on 20 March 2025. See Appendix 1 for details.	See Appendix 1 for department response.

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.

The works approval allows for the commissioning of the RWTP, however no emissions to the environment are authorised. A separate works approval application has to be sought for the supply network and for the irrigation to public open space.

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: Summary of applicant's comments on risk assessment and draft conditions

Condition	Summary of applicant's comment	Department's response
N/A	Update to registered business address	Changed
Condition 5 Table 2	<p>Environmental commissioning requirements</p> <p>Reject wastewater is to be returned to the Bunbury WRRF inlet:</p> <p>(a) The water which is going to be collected and stored in the wastewater tank and returned to the WRRF is not considered reject water, it will primarily consist of water used for completing backwashes on the ultrafiltration membranes.</p> <p>(b) While it does not currently form part of the existing design, Aqwest and Water Corporation are exploring alternative locations in the WRRF treatment process to return the backwash water to improve the efficiency of both plants. The backwash water generated from the RWTP will not benefit from the energy intensive wastewater treatment processes. Perhaps through commissioning sampling, enough evidence can be compiled to support the disposal of the backwash water back to the balancing ponds or even the ocean outfall, as is the case with the Beenypup Wastewater Treatment Plant.</p>	<p>Response to (a): DWER considers any water that is unsuitable to send to the Reuse Scheme to be reject water. That includes backwash water. The applicant committed to returning all reject water to the Bunbury WRRF. Licence condition to be modified to include backwash water. For consistency, the requirements for licence condition 14 during time limited operations will also be amended with this same change.</p> <p>Response to (b): In consideration of the uncertainty on the location within the Bunbury WRRF where in the process reject water will be returned to, the condition will be reworded to remove the phrase 'inlet' to provide flexibility. For consistency, the requirements for licence condition 14 during time limited operations will also be amended with this same change.</p> <p>The limited time frame for commissioning will not provide adequate data on the reject or backwash water, however conducting the same sampling during time limited operations will expand the suite of data available.</p>
Condition 9 Table 3	Monitoring during environmental commissioning and time limited operations:	Response to (a): After discussion with the applicant it has been clarified that three flow meters will be installed at the

Condition	Summary of applicant's comment	Department's response
Condition 20 Table 5	<p>(a) The monitoring location referred to as "Flow Meter" does not specify what flow is intended to be measured.</p> <p>(b) The waste tank is not designed to be equipped with continuous pH or residual chlorine analyser. Suggest these be noted as monthly samples.</p> <p>(c) The header tank will not be equipped with a pH or residual chlorine analyser. For commissioning purposes, this continuous data can be provided by the final product water analyser located on the outlet of the RWTP.</p> <p>(d) While it is noted that the sampling program is only mandated for the commissioning period, it would not be appropriate to continue the wastewater (backwash water) sampling program into the operations phase as the water will be discharged directly into the WRRF and the downstream WRRF discharge point will be monitored for similar parameters.</p> <p>(e) Does DWER have a list of pesticides which are required to be monitored under this program or is it incumbent on Aqwest to complete a wastewater catchment risk assessment?</p>	<p>plant: on the incoming feed water to the reaction tank, after the header tank overflow to the Bunbury WRRF storage ponds and, once the Reuse Scheme is operational on the outlet to the Reuse Scheme. Condition 9 and 20 to be updated to include monitoring flow of the incoming feed water and the outgoing disposal to the balancing ponds. In consideration of the uncertainty on where in the process reject water will be returned to Bunbury WRRF, conditions 9 and 20 will be reworded to refer to the WRRF in general.</p> <p>Once discharges to the Reuse Scheme are approved, the requirement to monitor flow at this location will be incorporated on the instrument as the third flow meter.</p> <p>Response to (b): Licence conditions 9 and 20 to be modified to monthly sampling for pH and residual chlorine.</p> <p>Response to (c): Licence conditions 9 and 20 to be modified to represent the correct location for continuous data.</p> <p>Response to (d): The current monitoring location for sampling of treated wastewater at the Bunbury WRRF occurs prior to discharging to the balancing ponds. As such, any addition of reject or backwash waters to the balancing ponds will occur after the point of sampling for water quality. The data obtained from the sampling program regulated by this works approval during time limited operations will be required to determine the EP Regulations Schedule 4 Part 3 discharge fee component applicable to the Bunbury WRRF. If the decision is made for discharges from the RWTP to be returned to an alternative location within the Bunbury WRRF which is up-system of the current monitoring location, the RWTP discharges will be combined with the Bunbury WRRF discharges and therefore adequately monitored by the current monitoring location. The RWTP data will, however, inform the Water Corporation on suitability of addition of</p>

Condition	Summary of applicant's comment	Department's response
		<p>discharges to the treatment process and compliance with licence and ministerial conditions.</p> <p>The commissioning period is limited to 90 calendar days, which would not be sufficient for a sampling program. Sampling will be required during time limited operations to provide sufficient data. The applicability of the sampling program can be reassessed during the licence application process.</p> <p>Response to (e): DWER is interested in a presence-absence review of pesticides. This would include organochlorine pesticides, aldrin, dieldrin, DDT+DDD+DDE. The Australian Drinking Water Guidelines (2011 as updated) and the default guideline values for toxicants as specified in Australian and New Zealand Guidelines for Fresh and Marine Water Quality (2018 and as updated) may detail other pesticides of interest.</p> <p>The completion of a comprehensive sampling program during commissioning and time limited operations will provide an informed dataset for further assessment during the licence application process to determine the need for ongoing monitoring of water quality parameters. This sampling program may also inform assessment of the works approval application W6742/2022/1 or subsequent licence to determine suitability of the recycled water for irrigation of the Reuse Scheme.</p>