Government of Western Australia
Department of Water and Environmental Regulation

Amendment Report

Application for Licence Amendment

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

Licence Number	L9377/2023/1
Licence Holder	Shire of Coolgardie
File Number	DER2022/000612
Premises	Coolgardie Waste Facility Coolgardie Tip Road COOLGARDIE WA 6492 Legal description - Crown Reserve 3497 Lot 501 on Deposited Plan 255090 As defined by the map and coordinates in Schedules 1 and 2 of the licence
Date of Report	18 September 2025
Decision	Revised licence granted

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1. Decision summary

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 L9377/2023/1 has been granted.

The Revised Licence issued as a result of this amendment consolidates and supersedes the existing Licence previously granted in relation to the Premises. The Revised Licence has been granted in a new format with existing conditions being transferred, but not reassessed, to the new format.

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 Background

The Shire of Coolgardie (the Licence Holder) currently owns and operates the Coolgardie Waste Facility (the premises), located approximately 2km west of the town of Coolgardie.

The following Prescribed activities are carried out as defined in Schedule 1 of the Environmental Protection Regulations 1987:

- Category 57: Used tyre storage (general) – No more than 500 tyres
- Category 61: Liquid waste facility – 2,000 tonnes per annual period
- Category 61A: Solid waste facility - 2,000 tonnes per annual period
- Category 62: Solid waste depot – 5,000 tonnes per annual period
- Category 63: Class I inert landfill site – 4,000 tonnes per annual period
- Category 64: Class III putrescible landfill site – 50,000 tonnes per annual period.

2.3 Amendment summary

On 21 March 2025, the Licence Holder submitted an application to the department to amend Licence L9377/2023/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act) for the premises, which is located at Coolgardie Tip Road, Coolgardie.

An amendment is being sought for the construction and operation of four class II landfill trenches within the existing landfill footprint.

To accommodate for reduced capacity within the existing Class III cell, and the anticipated waste volumes to be accepted from the Esperance region from 2027 onwards, the Licence Holder is proposing to construct multiple (four) small-scale trenches over a footprint of approximately 2 hectares. Assuming an annual intake of 26,134.11 tonnes of Class II waste and a post-settlement density of 1 tonne/m³, the estimated landfill lifespan for these trenches will approximately be 48 months. Therefore, the proposed work will ensure continuity of waste disposal services.

Additionally, the Licence Holder is also seeking regulatory approval to use recycled water for dust suppression at the Coolgardie Waste Facility as a sustainable and cost-effective resource management strategy. This initiative, according to Shire, reflects a commitment to circular economy practices, ensuring that by-products of wastewater treatment are put to beneficial use.

The Shire of Coolgardie (Shire) owns and operates the Coolgardie Wastewater Treatment Plant

(CWWTP). The CWWTP receives and treats sewage from the town of Coolgardie, as well as effluent from a nearby mining camp and septic waste transported from surrounding areas. The facility treats this wastewater to a secondary standard using a series of five clay-lined treatment ponds. Treated wastewater from the WWTP is reused to service irrigation demands at Coolgardie Oval and Park.

Following a review of the application and the supporting information, the Delegated Officer determined that to finalise the assessment of the application additional clarification was required in relation to the proposed use of treated effluent water. This was provided to DWER on 25 August 2025. The Delegated Officer considered that sufficient information had been provided to commence the risk assessment.

This amendment is limited only to Category 64 and Category 61 activities. No changes to the aspects of the existing Licence relating to Category 57, Category 61A, Category 62 or Category 63 have been requested by the Licence Holder. Table 1 below outlines the proposed changes to the existing Licence.

2.4 Department of Health (DoH)

The DoH regulates recycled water scheme through the Health Act 1911. The Shire of Coolgardie currently holds approval (Licence number C38/00000) from the Department of Health to use treated effluent from the Coolgardie Wastewater Treatment Plant (WWTP) for irrigating local parks and the sports oval. This scheme ensures that treated effluent is managed according to health and environmental standards.

The Shire undertakes regular sampling, testing, and reporting of treated water used for irrigation to ensure continuous compliance with regulatory requirements.

The application was referred by DWER to DoH (dated 21 August 2025). The applicant is required to ensure compliance against the DoH recommendations, which includes confirmation of compliance against the Health Regulations 1974 for construction and installation of the premises, and obtaining DoH approval as per the ‘Guidelines for the Non-potable Uses of Recycled Water in WA (2011)’.

DoH Approval (C38/00000) to use treated wastewater from the Coolgardie Wastewater Treatment Plant for dust suppression at the waste facility was issued on 5 September 2025, which is subject to conditions as outlined in Appendix 1.

2.5 Compliance against licence specified actions

On 28 August 2024 Talis Consultants submitted a Licence Compliance Audit Report (Talis, 2024) on behalf of the Licence Holder as per the requirements of licence L9377/2023/1 condition 21. This report included compliance information for Class III cell sidewall protection layer and tyre storage bay. A compliance assessment report issued by the Department on 12 November 2024 had determined that the Licence Holder had complied with the requirements of condition 21.

Key Finding:

1. As the Licence Holder has been found to be compliant with the construction requirements of condition 21, table 8, item 1 for the Class III cell sidewall protection layer and item 4 tyre storage bay, the Delegated Officer shall remove item 1 and 4 from table 8 of condition 21.
2. The Delegated Officer notes the construction audit report remains outstanding for the, asbestos monocell and the tyre monocell. As such, these items will be retained in condition 21, table 8.

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 11 below. Table 11 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

Table 1: Licence Holder controls

Sources	Emission	Potential pathways	Proposed controls
Construction			
Dust	Landfill trench construction, vehicle movements, lift-off from soils and earthworks etc.	Air / windborne pathway	Reducing speeds Wetting down all unsealed roads Dust generating activities will be limited by weather conditions Maintain water supply for dust suppression. The Delegated Officer is aware that the provisions of section 49 of the EP Act is sufficient to regulate dust emission.
Noise			Works will be conducted in accordance with the *Environmental Protection (Noise) Regulations 1997.* Vehicles and equipment will be fitted with appropriate noise controls. All plant, equipment and vehicles will be regularly inspected and maintained. Construction work is not expected to occur at night. The Delegated Officer is aware that the activities at the Premises will need to comply with the Environmental Protection (Noise) Regulations 1997.
Operation			
Acceptance, handling, processing and disposal	Dust	Air / wind dispersion	No new controls proposed, operating under licence L9377/2023/1.
	Noise	Air / wind	No new controls proposed, operating under

Sources	Emission	Potential pathways	Proposed controls
of Class II waste		dispersion	licence L9377/2023/1.
	Odour	Air / wind dispersion	No new controls proposed, operating under licence L9377/2023/1.
	Leachate	Overland flow Subsurface seepage	No new controls proposed, operating under licence L9377/2023/1.
	Contaminated stormwater	Overland flow Subsurface seepage	No new controls proposed, operating under licence L9377/2023/1.
	Unauthorised fires – smoke and fire spread	Air / wind dispersion	No new controls proposed, operating under licence L9377/2023/1.
	Landfill gas	Air / wind dispersion	No new controls proposed, operating under licence L9377/2023/1.
	Vermin, pests pathogens	Air / wind dispersion	No new controls proposed, operating under licence L9377/2023/1.
	Windblown wastes	Air / wind dispersion	No new controls proposed, operating under licence L9377/2023/1.
Discharge to land	Treated effluent discharged for dust suppression containing elevated Nitrogen and Phosphorous	Direct Discharge-contamination of disposal area and groundwater	The treated effluent will be sampled and tested. Samples are analysed at a NATA accredited laboratory. The following parameters will be monitored as required: • pH • Total Phosphorous • Total Nitrogen • Biological Oxygen Demand; • Total Suspended Solids; • E.coli. Effluent discharged will be managed to allow for sufficient time to infiltrate or evaporate and prevent surface ponding or runoff from the irrigation area. Disposal of treated effluent will only commence before and after tip operation hours. Weather conditions will be closely monitored, and dust suppression activities will not be undertaken during rainfall events or when wind conditions are unsuitable.

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 22 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 2: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	**Distance from prescribed activity**
Residential premises	• 420 m south of the premises boundary; • 1,000 m southwest of the premises boundary; • 1,200 m southwest of the premises boundary.
Environmental receptors	**Distance from prescribed activity**
Surface water	Minor, non-perennial creek located 240 m south of the premises boundary.
Groundwater	Located within the Goldfields Groundwater Area. Depth to groundwater is generally 25 - 30 m below ground level.

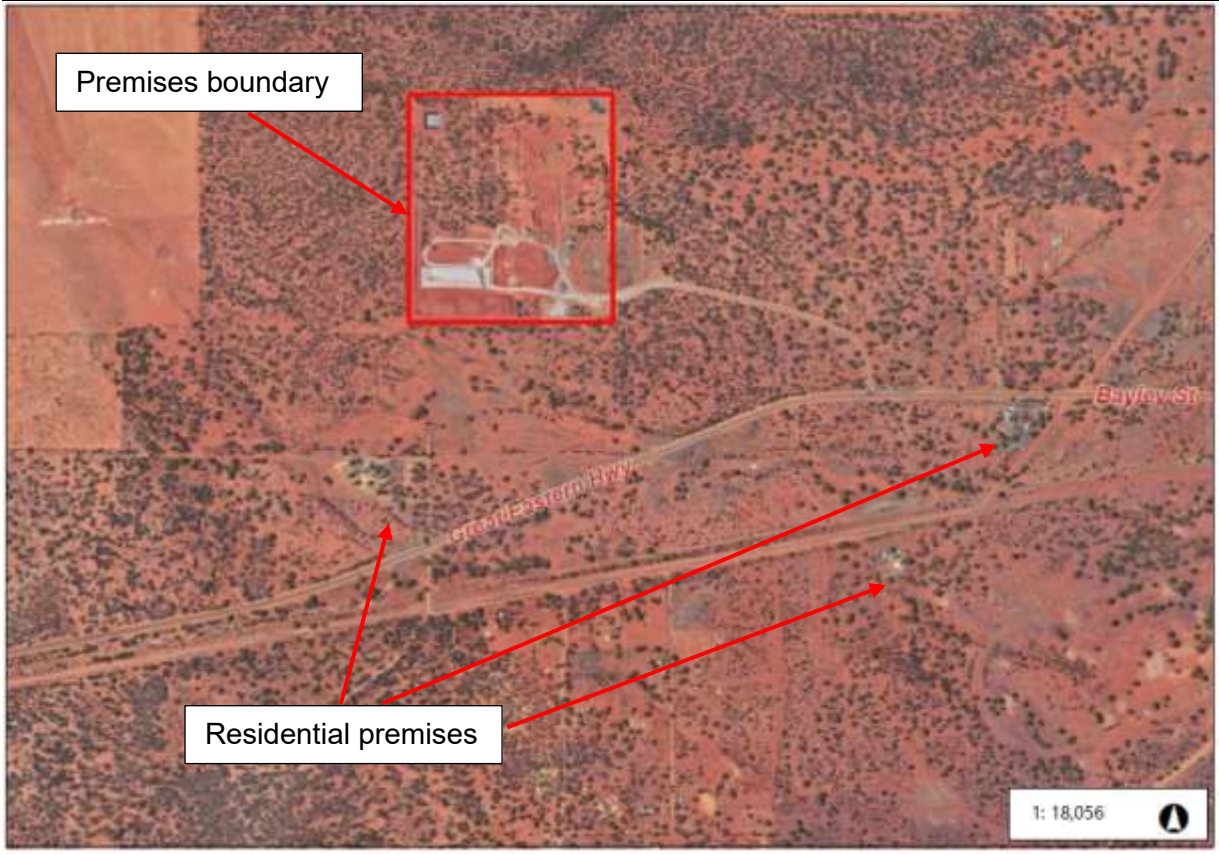

Figure 1: Distance to sensitive receptors

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 in-complete 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), 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 33.

The Revised Licence L9377/2023/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises.

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

Table 3. Risk assessment of potential emissions and discharges from the Premises during operation

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source / Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
Construction								
	Dust	Air / wind dispersion causing impacts to health and amenity	Residential premises	Refer to Section 3.1	C = Minor L = Possible **Medium Risk**	Yes	NA	The Delegated Officer considers that dust emissions can be adequately regulated by section 49 of the EP Act during construction.
	Noise		Residential premises	Refer to Section 3.1	C = Minor L = Possible **Medium Risk**	Yes	NA	The provisions of the *Environmental Protection (Noise) Regulations 1997* apply.
Operation								
Acceptance, handling, processing and disposal of waste and green waste / mulch	Dust	Air / wind dispersion causing impacts to health and amenity	Residential premises	Refer to Section 3.1	C = Minor L = Possible **Medium Risk**	Yes	**Condition 4 & Condition 21** Conditions 6, 7 and 8 - controls within the existing licence apply	Specifications for the class II landfill trench construction, location, maintenance, and operation have been set to mitigate risks associated with emissions and discharges to the receiving environment. The addition of the landfill trenches does not further alter the risk of emissions.

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source / Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
	Noise		Residential premises	Refer to Section 3.1	C = Minor L = Possible **Medium Risk**	Yes	None	The provisions of the *Environmental Protection (Noise) Regulations 1997* apply.
	Odour		Residential premises	Refer to Section 3.1	C = Minor L = Possible **Medium Risk**	Yes	Condition 5	The Delegated Officer considers that existing licence conditions are sufficient to mitigate odour emissions from acceptance of Class II wastes.
	Leachate	Overland flow Subsurface seepage	Groundwater Surface water	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Yes	Conditions **1**, 2, 3, 4, 11, 12, 13 and 14 - controls within the existing licence apply	Operational and waste acceptance requirements for the class II landfill trench have been added to mitigate risks associated with emissions and discharges to the receiving environment.
Acceptance, handling, processing and disposal of Class II waste	Contaminated stormwater	Overland flow Subsurface seepage	Groundwater Surface water	Refer to Section 3.1	C = Moderate L = Unlikely **Medium Risk**	Yes	Conditions 1, 12, 13 and 14- controls within the existing licence apply	The Delegated Officer considers that existing licence conditions are sufficient to mitigate emissions of contaminated stormwater from acceptance of Class II wastes.

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source / Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
	Unauthorised fires – smoke and fire spread	Air / wind dispersion	Residential premises	Refer to Section 3.1	C = Severe L = Unlikely **High Risk**	Yes	Condition 10	The Delegated Officer considers existing licence conditions are sufficient to mitigate the risk of fire from acceptance of Class II wastes.
	Landfill gas	Air / wind dispersion	Residential premises	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Yes	Conditions 1, 2, 3, **4** and **21**	Specifications for the Class II landfill trench construction, location, maintenance, and operation have been set to mitigate risks associated with emissions and discharges to the receiving environment.
Acceptance, handling, processing and disposal of class II waste	Vermin, pests pathogens	Air / wind dispersion	Residential premises	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Yes	Condition 5	The Delegated Officer considers existing licence conditions are sufficient to mitigate emissions of vermin from increased acceptance of Class II wastes.
	Windblown wastes	Air / wind dispersion	Residential premises	Refer to Section 3.1	C = Slight L = Possible **Low Risk**	Yes	Conditions 5 and 9	The Delegated Officer considers existing licence conditions sufficient to mitigate emissions of windblown wastes from increased acceptance of Class II.
Treated effluent	Release of	Direct contact	Product	Refer to	C = Moderate	No	Conditions	Additional regulatory control

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source / Activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Licence Holder's controls**				
quality	physical, chemical and/or biological contaminants	of product by consumers and the receiving environment Impacts to amenity, environmental and human health	users and the environment receiving the product	Section 3.1	L = Possible **Medium Risk**		2, 3 and **4**	has been added to the Licence by the Delegated Officer to ensure that the treated effluent does not contain contaminants at a level that could cause pollution or environmental Condition 4 has been amended requiring - the licence holder to install a sign communicating this information to the users of the landfill. - to only accept treated effluent onsite from Coolgardie WWTP. - that treated effluent accepted onsite must be of the expected quality, therefore limits have been imposed. - Only 30,000 litres of treated effluent to be discharged for dust suppression each day, weather permitting. - spills or leaks that didn't meet the expected quality to be immediately

Risk Event					Risk rating[1] C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions[2] of licence	Justification for additional regulatory controls
Source / Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
								contained and cleaned.

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.

4. Consultation

Table 44 provides a summary of the consultation undertaken by the department.

Table 4: Consultation

Consultation method	Comments received	Department response
Department of Health (DoH) advised of proposal on 21 August 2025	No comments received	Noted
Licence Holder was provided with draft amendment on 15 September	The Licence holder provided the following comments on 16 September 2025: i. The Shire accepts the licence and attaches the Department of Health (DOH) approval for your reference; ii. the Shire formally requests that the daily treated effluent disposal limits be increased from 30,000 litres per day to 60,000 litres per day	Noted. Department of Health approval has been included in the Decision Report as Appendix 1. The Delegated Officer has determined that a separate amendment application will be required specifying the new discharge volume, how the quality and discharge requirements will be met and any additional risk mitigation measures to be implemented. The application should include all relevant supporting information including a revised management plan for increased volume, to allow DWER to assess the potential environmental and operational impacts associated with the increased volume. The Licence holder will be required to provide a site specific risk assessment comparing the use of 30,000 litres versus the requested increase volume (60,000 litres).

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 55 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 5: Summary of licence amendments

Condition no.	Proposed amendments
Condition 1 Table 1	Addition of conditions to clearly define the operational requirements for the landfill trench, specifying how the site must be managed, what kinds of waste are allowed, cover materials to be made available and other controls after compliance reports described in Condition 21 and 22 have been submitted to the department.
Condition 2	Addition of conditions relating to the acceptance and disposal specifications for

Table 2	Class II waste within the proposed landfill trenches.
Condition 4 Table 3	Waste processing - addition of conditions to permit the receipt, handling, and disposal of treated effluent. Associated processing limits, specifications and operational controls have been added to ensure the management of this waste stream is undertaken in a manner that prevents any risk of environmental harm. In addition, the licence holder will be required to install appropriate signage to warn landfill users. Waste processing - addition of conditions to permit the disposal of Class II waste within the constructed landfill trench after compliance reports described in Condition 21 and 22 have been submitted to the department.
Condition 12	Edited to include the word 'treated effluent'. The licence holder will be required to monitor treated effluent for concentrations of the identified parameters.
Condition 19 Table 6	Addition of condition that requires the licence holder to include in the annual report treated effluent monitoring data. The licence holder must also provide an interpretation of the monitoring results together with nutrient loading calculation to demonstrate effective management of effluent disposal and potential environmental impacts.
Condition 21 Table 8	In accordance with DWER construction audit review finding construction is complete, deletion of Item 1 "Class III cell Sidewall protection layer".
	In accordance with DWER construction audit review finding construction is complete, deletion of Item 4 "Tyre storage bay".
	Asbestos monocell construction is now amended as item 1
	Tyre monocell construction is now amended as item 2
	In accordance with the applicant's amendment request for addition of condition that allows the licence holder to construct four landfill trenches according to the specifications provided.
Table 9	Definitions table updated
Schedule 1 Figure 2	Replacement premises layout map to depict the proposed Class II landfill trenches.
Schedule 4 Table 14	Addition of the requirement to monitor Treated effluent quality.
Schedule 6 Figure 13	Addition of the Class II landfill trench design specifications to ensure the construction and operation of the landfill trenches comply with the required standards and provide adequate environmental protection.

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: Department of Health Approval

Government of **Western Australia**
Department of **Health**

Recycled Water Scheme Approval

APPROVAL NUMBER: C38/00000 **FILE NUMBER:** F-AA-54884

COMMENCEMENT DATE OF APPROVAL: 22 August 1989

AMENDMENT OF APPROVAL HISTORY

Revision	Date of Revision	Comments
0	22 August 1989	Original approval conditions
1	30 May 1997	Extended approval
2	19 July 2012	Amended to the approval
3	5 September 2025	Change to the file number from old file number EHB-02963 to new file number Extension to the usage – use for dust suppression

NAME AND ADDRESS OF RECYCLED WATER SCHEME
Coolgardie Recycling Scheme
Bayley Street
COOLGARDIE WA 6429

LOCAL GOVERNMENT: Shire of Coolgardie

NAME AND ADDRESS OF WASTEWATER TREATMENT PLANT
Coolgardie Wastewater Treatment Plant
Coordinates: (30°57'21.94"S, 121° 9'5.47"E)

NAME AND ADDRESS OF ALL RECYCLED WATER SITES

Coordinates Oval irrigation: (30°57'22.24"S, 121° 9'24.51"E)
Coordinates Colgardie park irrigation: (30°57'13.86"S, 121° 9'44.64"E)
Dust suppression: Coolgardie North Road, Coolgardie waste facility

NAME OF OWNER: Coolgardie Shire

ADDRESS OF OWNER:
Bayley Street
COOLGARDIE WA 6429

MANAGER: (Matthew Scott, CEO – Coolgardie Shire)

General Conditions of Approval

1. The wastewater treatment process and recycled water scheme is to be operated in accordance with your submission and undertakings other than where they may differ from the conditions below.

2. The Department of Health are to be notified of the date on which the disinfection system is to be commissioned.

3. These conditions of approval may be varied or withdrawn at the discretion of the Executive Director, Public Health.

4. Any future changes or extensions to the reuse scheme to include additional recycled water sources, additional reuse sites or additional end-uses will require a separate approval from the Executive Director of Public Health.

Monitoring and Reporting Conditions of Approval

5. The quality of recycled water used must comply with the limits in the Table below

Table 1 – Monitoring parameters for irrigation

Parameter	Compliance Value	Monitoring Frequency
E.coli	< 1000 cfu/100mL	Monthly
pH	6.5 – 8.5	Daily or continuous online
Disinfection	Total chlorine: 0.2 – 2 mg/L	Daily or continuous online

Table 2 – Monitoring parameters for dust suppression

Parameter	Compliance Value	Monitoring Frequency
E.coli	< 10 cfu/100mL	Monthly
pH	6.5 – 8.5	Daily or continuous online
Disinfection	Total chlorine: 0.2 – 2 mg/L	Daily or continuous online

6. Approval is subject to one monthly sample of the recycled wastewater being submitted for bacteriological examination. The minimum standard for the recycled water is an *E.coli* count which does not exceed a value of above tables. Copies of all results are to be forwarded to the Department of Heath.

7. Samples must be collected from a location that is representative of the effluent stream. Sampling should be conducted in accordance with the DOH – "Standard Recycled Water Sampling Technique" pamphlet.

8. The sample codes to be used are:

Sample code	Description	Sampling schedule
C38/0001A	WWTP Treated effluent after chlorination	Table 1
C38/0001E	Oval storage tank outlet	Table 1
C38/0002E	Park storage tank	Table 1 – for irrigation
C38/0001E	Oval storage tank outlet	Table 2 – for dust suppression

9. All recycled water samples must be analysed in a NATA registered laboratory for the analysis of wastewater in accordance with the current "Standard Method for Examination of Water and Wastewater – APHA-AWWA-WEF" or in a laboratory and by a method approved by the DOH.

10. The DOH must be notified of any cessation of supply and other non-compliant results. If the recycled water microbiological quality is exceeded, immediate re-sampling should be undertaken. If it is exceeded on two consecutive occasions, supply should cease, an investigation undertaken and corrective action taken. Supply may resume when the problem has been rectified. The action/s taken to rectify the problem should be documented and included in the annual report.

11. Chlorinated systems must be tested for the chlorine level and record that information.

12. The scheme manager shall notify DOH after becoming aware of any Sewage spill to the Department (in the nominated time period and by email) to ssalert@health.wa.gov.au as outlined in the Wastewater Overflow Notification and Response Procedures (2021).

13. The scheme manager shall notify DOH within 24 hours (by phone and follow up email to doh.water@health.wa.gov.au) after becoming aware of any major level public health impact with potential to require public notification (Level 1 event) as defined by the Department's Recycled Water Incident Reporting Protocol including:

    a. Allegation of illness from public associated with a recycled water scheme made to the Scheme Manager.
    b. Closure of the recycled water scheme resulting in the supplying wastewater treatment plant needing to utilise an emergency and unauthorised treated wastewater disposal method.
    c. If the *E.coli* water quality objective is exceeded immediate re-sampling should be undertaken and an investigation will be required to determine the cause of the failure. If *E.coli* is exceeded on two consecutive occasions, supply should cease, DOH notified an investigation undertaken and corrective action taken within 24 hours. Supply may resume when the problem has been rectified. The action/s taken to rectify the problem should be documented and submitted in the annual report (High Risk Schemes Only, delete for others))
    d. Identified cross connection of a recycled water scheme with a drinking water supply
    e. Any other major hazardous event that the Scheme Manager considers could represent a public health risk

Operation and Maintenance Conditions of Approval

14. Areas using the recycled water should be clearly designated with signs in accordance with AS1319 – 1994 *Safety Signs for the Occupational Environment*. These signs must a minimum size of 20cm x 30cm on a white background with BLACK lettering of at least 20mm in height and worded as follows: 'Recycled Wastewater – Do not Drink / Avoid Contact'. The sign should also contain the recommended International Public Information – Drinking Water Symbol with the Prohibition Overlay in RED.

15. All above-ground recycled water fittings (pipework, valves, meters, backflow prevention devices, pit covers, solenoid covers etc) must be readily identifiable and distinguishable from potable water piping on the same site. The pipes should be clearly identifiable and coloured lilac in accordance with AS 2700S:1996(P23). Outlets should be labelled, coloured lilac and fitted with locked, keyed or bayonet type locks.

16. Recycled water must not run-off the application site, therefore visual inspections will be needed to ensure ponding or runoff does not occur.

17. Wetted area must not be accessible to the public for four hours after irrigation or until the surface is dry. This is achieved via fencing or by using in locations or at times when public access is unlikely

18. All wastewater ponds at the WWTP and the filtration and disinfection facilities shall be surrounded by a 1.8 metre wire mesh fence, with a lockable access gate and posted with warning signs. All ponds and dams are to be maintained on a regular basis to ensure banks are kept free of weed growth at all times.

19. Access to recycled water from the standpipe shall be automated to ensure only approved tankers/end users can access the recycled water.

20. Trucks carrying recycled water shall not be used to cart drinking water for human consumption.

21. Storage of recycled water from the water carrier to a dam, storage tank, reticulation system or other form of storage/use different to direct application from a water carrier is not allowed.

Recycled Water Management Plans

22. The Recycled Water Quality Management Plan (RWQMP) is to be regularly reviewed and updated with all amendments forwarded to the DOH. The plan is to be in accordance with the Department of Health's the Recycled Water Quality Management Plan Template.

    a) **Operation and Maintenance of the Chlorination Unit.** The manual is to include clear procedure of maintenance and operation of the chlorination unit. A separate log book is to be kept at the chlorine storage unit to detail all actions and inspections that have been carried out. It must be remembered that proper training must be given to anyone handling chlorine and this advice should be included in the safety and health section of the manual.
    b) **Guidelines for Sampling the Recycled Water Scheme**. The manual shall include a procedure for the collection of samples, where to send them and what to do if results are elevated. In addition, the operator of the system is to request the PathWest to notify them when results are above the approved standard. This is to be written on the sample request form.
    c) Plumbing maintenance and alteration audits required once every five years, including backflow and cross-connection auditing if required.
    d) **Annual Reports.** Annual reports are required to be sent to the Department of Health as per the *Guidelines for the Non Potable Uses of Recycled Water in Western Australia 2011*

e) Audit processes shall be conducted to ensure that the management system is functioning satisfactorily. It also provides a basis for review and continuous improvement.

1. **Internal Audit**. An internal Audit of the recycled water supply system and Recycled Water Quality Management Plan (RWQMP) must be conducted every three years from the date of approval. The report shall be submitted to the DoH. The internal audit should be in accordance with the Department's low risk recycled water schemes audit tool.
2. **External Audit.** An external audit of the recycled water supply system and the RWQMP should be conducted every five years from the date of approval. The report shall be submitted to the DoH. The external audit should also include plumbing maintenance and alteration audits, including backflow and cross-connection auditing if required. The audit shall be conducted by a qualified person or company authorised by the DoH and shall be in accordance with the National Water Quality Management Strategy Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) 2006.