



## Application for Licence Amendment

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

---

<b>Licence Number</b>	L8703/2012/1
<b>Licence Holder</b>	Water Corporation
<b>ACN</b>	28 033 434 917
<b>File Number</b>	2012/004368-1
<b>Premises</b>	Williams Wastewater Treatment Plant via Cemetery Road WILLIAMS WA 6391  As defined by the Premises maps attached to the Revised Licence
<b>Date of Report</b>	14/09/2020
<b>Proposed Decision</b>	Revised licence granted

**Abbie Crawford**  
**Senior Environmental Officer, Industry Regulation**

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

<b>1.</b>	<b>Table of Contents</b>	
<b>2.</b>	<b>Decision summary .....</b>	<b>1</b>
<b>3.</b>	<b>Scope of assessment .....</b>	<b>1</b>
3.1	Regulatory framework .....	1
3.2	Application summary .....	1
3.3	Consolidation of Licence.....	4
<b>4.</b>	<b>Risk assessment.....</b>	<b>4</b>
4.1	Source-pathways and receptors .....	5
4.1.1	Emissions and controls .....	5
4.1.2	Receptors.....	5
4.2	Risk ratings.....	8
<b>5.</b>	<b>Consultation .....</b>	<b>10</b>
<b>6.</b>	<b>Conclusion .....</b>	<b>10</b>
6.1	Summary of amendments.....	10
	<b>References.....</b>	<b>14</b>
	<b>Appendix 1: Application validation summary.....</b>	<b>15</b>

## 2. Decision summary

Licence L8703/2012/1 is held by the Water Corporation (Licence Holder) for the Williams Wastewater treatment Plant (the Premises), located off Cemetery Road in Williams.

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 L8703/2012/1 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.

## 3. Scope of assessment

### 3.1 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>.

### 3.2 Application summary

On 10 July 2020, the Licence Holder submitted an application to the department to amend Licence L8703/2012/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments were sought:

- Removal of requirement to undertake and submit the results of quarterly monitoring of point source emissions to land within 28 days of the end of the reporting period.

The original licence for the Premises was issued on 18 January 2013 (commenced 21 January 2013), and contained the discharge targets for the final effluent outlined in Table 1 below.

**Table 1: L8703/2012/1 - Condition 17, Table 4.**

Parameter	Discharge target
Biochemical oxygen demand (mg/L)	<30 (mg/L)
Total suspended solids (mg/L)	<80 (mg/L)
pH	6 - 9
Total nitrogen (mg/L)	<40 (mg/L)
Total phosphorus (mg/L)	<10 (mg/L)
E coli (cfu/100mL)	<10 <sup>3</sup> cfu/100mL

The Environmental Assessment Report (EAR) submitted by the Licence Holder identified that the irrigation of treated wastewater to the Shire oval as a potentially high emissions risk, given

that the projected loadings of nutrients to be irrigated was higher than the vulnerability category C defined in the former Department of Water's Water Quality Protection Note #22. The EAR therefore identified that nutrient limits/targets should be placed on the licence at the concentrations indicated in Table 1 above.

The licence was amended in 2016, and the targets on the final effluent parameters were removed. The amended licence included a new condition to report quarterly on the final effluent sample result, and the Decision Document states that Condition 5.2.3 also incorporates Condition 17 of the old licence that required reporting of exceedance of the specified discharge targets. The reporting requirement of Condition 5.2.3 was not noticed by the Licence Holder during the licence amendment process. Consequently, the required quarterly reporting did not occur, and this was not picked up by the Water Corporation's regional staff or Perth office, or the Department until 2020.

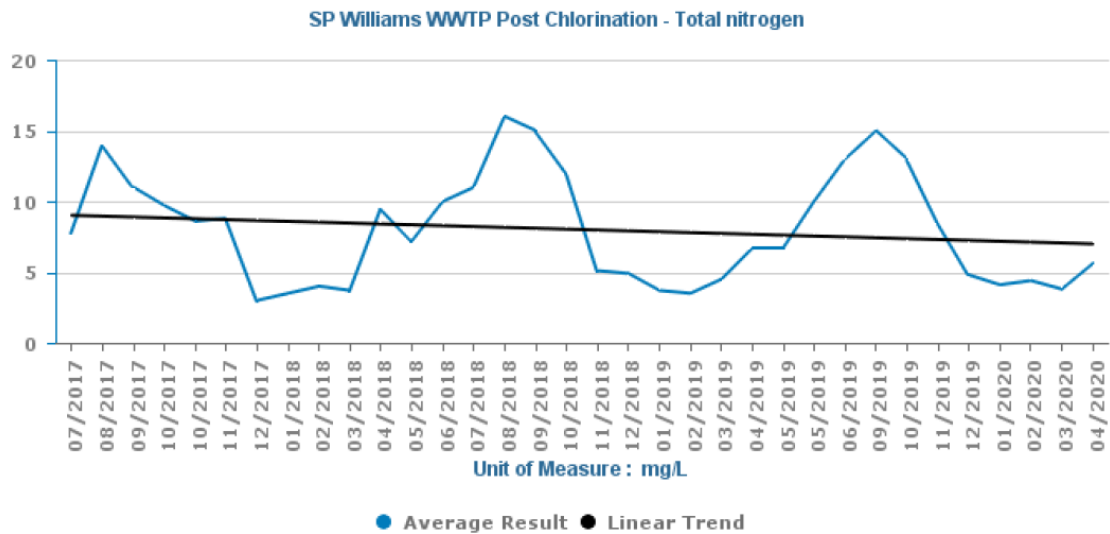
The discharge from the WWTP has been monitored and reported in the Annual Environmental Report's (AER) submitted since the commissioning of the plant. These reports have included parameter concentrations and nutrient loads.

The data for total nitrogen (TN) and total phosphorus (TP) since 2016 is summarised in Table 2 below:

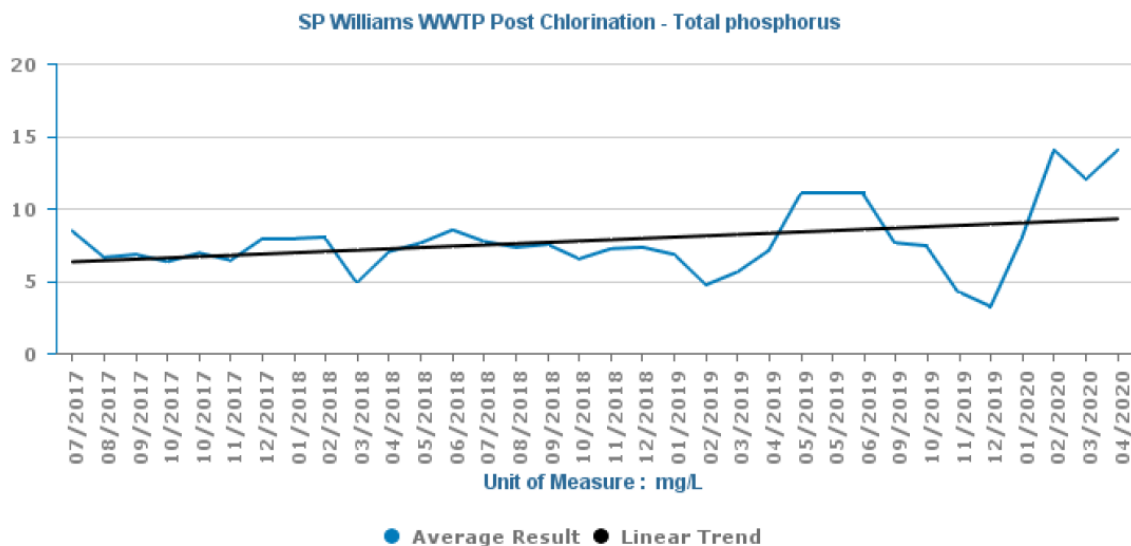
**Table 2: AER nitrogen and phosphorus reporting**

	Total nitrogen		Total phosphorus	
	Mg/l(av.)	Kg/ha/annum	Mg/l(av.)	Kg/ha/annum
WQPN #22 Category C		300		50
Targets from earlier licence	40		10	
WWTP discharge				
2015/16	7.8	44	9.02	51
2016/17	6.25	34.8	8.24	45.9
2017/18	7.64	37.6	7.22	47.2
2018/19	7.52	50	7.25	42

Figure 1 and Figure 2 below depict the records of TN and TP over the past three years.



**Figure 1: Total nitrogen**



**Figure 2: Total phosphorus**

TN has been largely stable with a moderate overall decrease in concentration; and TP has increased slightly, but the Licence Holder has advised that this is unlikely to increase any further.

The nutrient concentrations have averaged less than the projected concentrations and while the TP has occasionally exceeded the original target, this is intermittent and infrequent. The loading to the sportsgrounds has been below the (then) DoW WQPN #22 Category C specifications since 2016/17. with a recent additional irrigation area of 0.5ha, and average discharge concentrations below previous targets.

Based on these results, both the quality of the treated wastewater and the nutrient loading is within expected norms. It is the view of the Licence Holder that as reporting occurs annually, there is no perceived benefit from short term (quarterly) reporting.

The requirement in the previous iteration of the licence was to report by exception, where a parameter limit was exceeded. The Licence Holder has stated that the change in the current licence to report on all monitoring results for all parameters on a quarterly basis goes beyond the intent of the original license condition.

The Licence Holder now has longer term data for all parameters, and these will continue to be monitored and provided via AER's; along with the nutrient loadings to the irrigated sports grounds.

### 3.3 Consolidation of Licence

As part of this amendment package the department has consolidated the licence by incorporating changes made under the Amendment Notices as summarised in Table 3.

**Table 3: Licences consolidated in this amendment**

Instrument	Issued	Summary of approval
L8703/2012/1	18/01/2013	Licence granted
L8703/2012/1	26/05/2016	Amendment initiated by occupier – addition of liquid copper dosing unit and aerators to reduce algal loads and inhibit algal growth
L8703/2012/1	10/11/2016	Amendment initiated by occupier – removal of requirement for continuous Chlorine monitoring in preference to monthly total chlorine residual and free chlorine residual spot sampling.
L8703/2012/1	14/09/2020	This amendment and amalgamation of the Licence

The obligations of the Licence Holder have not changed in consolidating the licence. The department has not undertaken any additional risk assessment of the Premises related to previous Amendment Notices.

In consolidating the licence, the CEO has:

- updated the format and appearance of the Licence;
- deleted the redundant AACR form set out in schedule 2 of the previous licence and advises the License Holder to obtain the form from the department's website;
- revised licence condition's numbers, and removed any redundant conditions and realigned condition numbers for numerical consistency; and
- corrected clerical mistakes and unintentional errors.

The full consolidation of licence conditions as they relate to this Revised License are detailed in Section 6.1 below. Previously issued Amendment Notices will remain on the department's website for future reference and will act as a record of the department's decision making.

## 4. 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 *Guidance Statement: Risk Assessments* (DER 2017).

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.

## 4.1 Source-pathways and receptors

### 4.1.1 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 4 below. Table 4 also details the proposed control measures the Licence Holder has proposed to assist in controlling these emissions, where necessary.

**Table 4: Licence Holder controls**

Emission	Sources	Potential pathways	Proposed controls
Odour	Receipt and treatment of sewage	Air/windborne pathway	Separation distance between premises and sensitive receptors.
Dissolved nutrients and pathogens	Effluent irrigation	Application via overhead sprinklers, seepage to subsoil and groundwater	Effluent chlorination and the preparation and implementation of irrigation management plan by the Shire of Williams including; <ul style="list-style-type: none"><li>• irrigation of the Williams sports oval and municipal areas only;</li><li>• setting a 4-hour withholding period between application of recycled water and use of irrigation areas;</li><li>• irrigate during night to minimise risk of human contact;</li><li>• controlling public access during irrigation; and</li><li>• using signage and labelling to educate the community to minimise accidental exposure.</li></ul>

### 4.1.2 Receptors

In accordance with the *Guidance Statement: Risk Assessment* (DER 2017), 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 5 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 (*Guidance Statement: Environmental Siting* (DER 2016)).

**Table 5: Sensitive human and environmental receptors and distance from prescribed**

<b>Receptor number</b>	<b>Human receptors</b>	<b>Distance from prescribed activity</b>
H1	Shire of Williams Oval users and groundskeepers	Located at the intersection of the Pinjarra-Williams Road and the Albany Highway, southwest of the Williams Town Centre (2.6hectares) – 1.9 southwest of Premises
H2	Shire of Williams Hockey Ground users and groundskeepers	Located at the intersection of the Pinjarra-Williams Road and the Albany Highway, southwest of the William Town centre (0.6 hectares) – 2.07 km southwest of Premises
H3	Williams Lions Park visitors and groundskeepers	Located between the Town oval and the Albany highway (0.51 hectares) – 1.8km southwest of Premises
H4	Nearest residential property	Approximately 530m west of Premises Boundary
H5	Industrial premises	Approximately 500m west of Premises Boundary
H6	Williams Cemetery	Approximately 160m south of the Premises Boundary
	<b>Environmental receptors</b>	<b>Distance from prescribed activity</b>
E1	Native vegetation - Northern jarrah forest	Directly adjacent to Premises Boundary
E2	McDermott Brook (flows to Williams River)	340m southwest of premises boundary



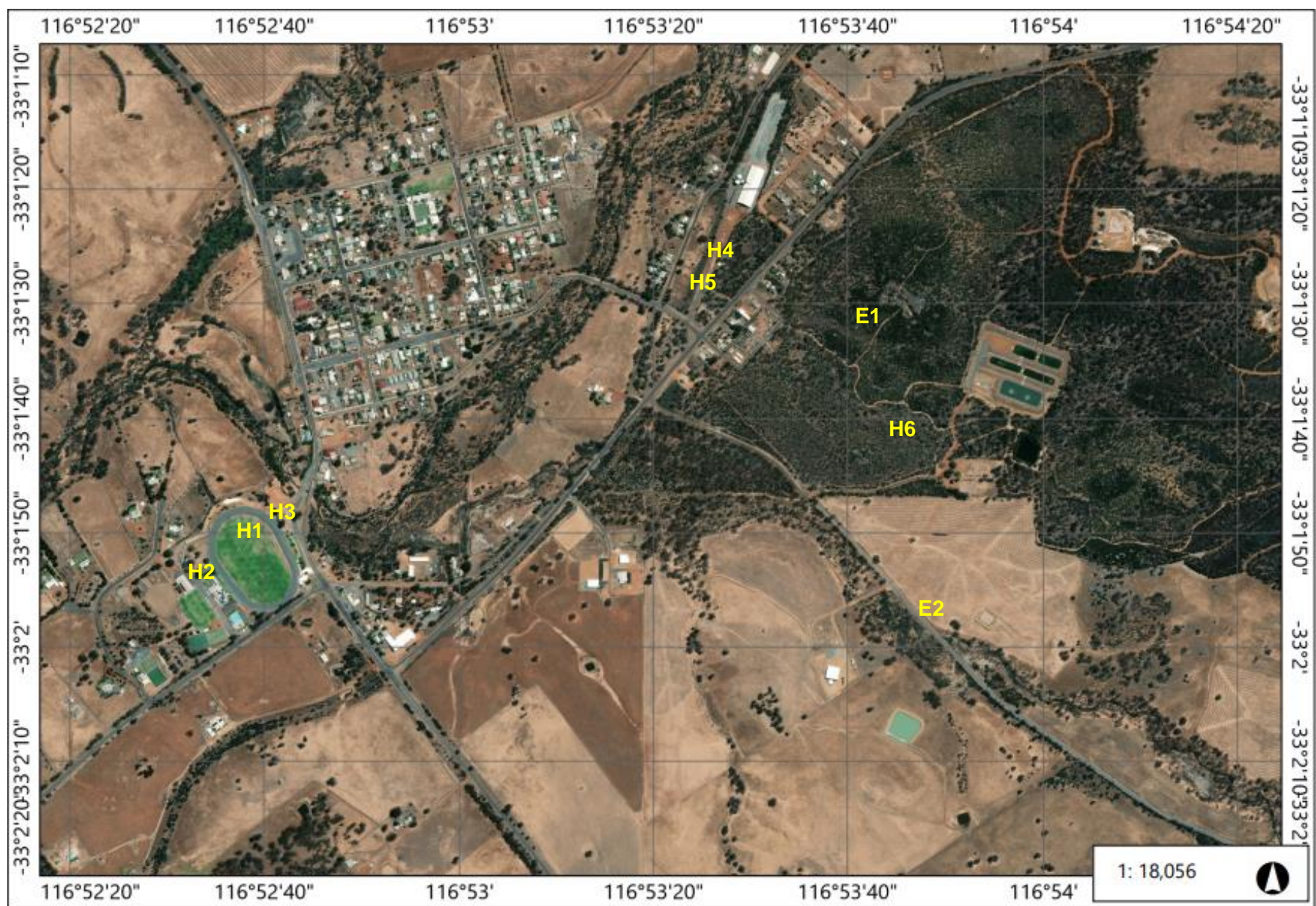


Figure 3: Distance to sensitive receptors

## 4.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guidance Statement: Risk Assessments* (DER 2017) for those emission sources which are proposed to change and takes into account potential source-pathway and receptor linkages as identified in Section 4.1. 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 4.1.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the Licence Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the licence as regulatory controls.

Additional regulatory controls may be imposed where the Licence Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 6.

The Revised Licence L8703/2012/1 that accompanies this Amendment Report authorises emissions associated with the operation of the Premises i.e. treatment of sewage via a pond system.

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

**Table 6: Risk assessment of potential emissions and discharges from the Premises during operation**

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
Operation								
Receipt and treatment of sewage via pond system	Odour	Air/windborne pathway causing impacts to health and amenity	Nearest residential property, nearby industrial premises, and visitors to the Williams Cemetery	Refer to Section 4.1.1	C = Minor L = Possible <b>Medium Risk</b>	Y	Conditions 3, 5 and 23	N/A

Risk Event					Risk rating <sup>1</sup> C = consequence L = likelihood	Licence Holder's controls sufficient?	Conditions of licence	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Licence Holder's controls				
Irrigation of public open spaces using treated effluent from WWTP	Nutrient rich treated effluent	Overhead spraying of effluent on turf and landscaped areas, with infiltration through soil profile and/or overland runoff potentially causing adverse impacts on vegetation and or impacting ground water quality	Turf, remnant native and exotic vegetation.	Refer to Section 4.1.1	C = Moderate L = Possible <b>Medium Risk</b>	Y	Condition 10 -16	N/A
Irrigation of public open spaces using treated effluent from WWTP	Pathogens	Overhead spraying of effluent on turf and landscaped areas, coming into direct contact with human receptors.	Public open space users, visitors, and groundskeepers	Refer to Section 4.1.1	C = Moderate L = Possible <b>Medium Risk</b>	Y	Condition 10 -16	N/A

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guidance Statement: Risk Assessments* (DER 2017).



## 5. Consultation

Table 7 provides a summary of the consultation undertaken by the department.

**Table 7: Consultation**

Consultation method	Comments received	Department response
Local Government Authority advised of proposal (18/08/2020)	<i>"I act on behalf of the Shire of Williams and after considering the amendment to the reporting requirements and its history, we can see no reason for the amendment not to proceed given the parameters noted in the TN and TP returns"</i>	Noted
Draft doc referred to Licence Holder (19/08/2020)	<i>"Water Corporation advises that it does not intend to make any representations regarding this amendment."</i>	Noted

## 6. 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. Changes to condition numbers required as part of licence consolidation are detailed in Table 9.

### 6.1 Summary of amendments

Table 8 and 9 provide 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 8: Summary of licence amendments**

Condition no.	Proposed amendments
15, Table 5	Addition of requirement to monitor Total residual Chlorine in accordance with Amendment Notice 1
22, Table 5	Deletion of requirement for quarterly Monitoring of point source emissions to land

**Table 9: Consolidation of licence conditions in this amendment**

Existing condition	Condition summary	Revised licence condition	Conversion notes
1.2.1	Operate and maintain all pollution control and monitoring equipment to specifications	1	Licensee to Licence Holder

Existing condition	Condition summary	Revised licence condition	Conversion notes
1.2.2	Immediately recover, or remove and dispose of any spills outside of an engineered containment system	2	Licensee to Licence Holder
1.2.3	Approved works	N/A	Deleted - works have been completed
Table 1.2.1	Construction requirements	N/A	Deleted – construction works have been completed
1.2.4	Works to meet or exceed specifications	N/A	Deleted - works have been completed
1.2.5	Licensee must not depart from works specifications	N/A	Deleted - works have been completed
Table 1.2.2	Infrastructure construction and design	N/A	Deleted – construction works have been completed
1.2.6	Provision of list of deviations to the CEO	N/A	Deleted - works have been completed
1.2.7	Submission of construction compliance document to the CEO prior to commencement of operations.	N/A	Deleted - works have been completed
1.2.8	Specifications of construction compliance document to be submitted	N/A	Deleted - works have been completed
1.3.1	Waste acceptance	3	Licensee to Licence Holder
1.3.2	Removal of non-conforming waste	4	Licensee to Licence Holder
1.3.3	Waste processing	5	Licensee to Licence Holder
1.3.4	Containment Infrastructure	6	Licensee to Licence Holder
1.3.5	Wastewater treatment vessel management	7	Licensee to Licence Holder
1.3.6	Site security measures	8	Licensee to Licence Holder, Site to Premises
2.1.1	Record and investigate the exceedance of any descriptive or numerical specified limit	9	Change from “specified in any part of section 2 of this Licence to “specified in any part of this License”
2.2.1	Emissions to land to be in accordance with licence	10	Licensee to Licence Holder
3.1.1	Sampling and testing specifications	11	Licensee to Licence Holder
3.1.2	Monthly and annual monitoring specifications	12	Licensee to Licence Holder

Existing condition	Condition summary	Revised licence condition	Conversion notes
3.1.3	Calibration of monitoring equipment	13	"The Licensee shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications" to "The Licence Holder shall ensure that all monitoring equipment used at the Premises complies with the conditions of this Licence, and is calibrated in accordance with manufacturer's specifications"
3.1.4	Reporting of any discrepancies with calibration requirements to the CEO.	14	Licensee to Licence Holder
3.2.1	Monitoring of emission to land	15	Licensee to Licence Holder
Table 3.2.1	Specifications for monitoring of emission to land	Table 5	Addition of requirement to monitor Total residual Chlorine
3.3.1	Monitoring of inputs and outputs	16	Licensee to Licence Holder
Table 3.3.1	Monitoring of inputs and outputs specifications	Table 6	Deletion of requirement for continuous Chlorination facility monitoring
4.1.1	Premises improvements	N/A	Deleted, improvements have been undertaken
Table 4.1.1	Improvement program	N/A	Deleted, improvements have been undertaken
5.1.1	Record keeping requirements	17	Correction of sub condition reference
5.1.2	Annual Audit Compliance Reporting	18	Licensee to Licence Holder
5.1.3	Implementation of a complaints management system	19	Licensee to Licence Holder
5.2.1	Submission of an Annual Environmental Report to the CEO	20	Licensee to Licence Holder
5.2.2	Addition AER requirements	21	Licensee to Licence Holder
5.2.3	Non-annual reporting requirements submission	22	Licensee to Licence Holder
Table 5.2.2	Non-annual reporting requirements	Table 5	Deletion of requirement for quarterly Monitoring of point source emissions to land
5.3.1	Notification of additional parameters	23	Licensee to Licence Holder

Existing condition	Condition summary	Revised licence condition	Conversion notes
Table 5.3.1	Notification requirements	Table 9	N/A

## References

1. Department of Environment Regulation (DER) 2016, *Guidance Statement: Environmental Siting*, Perth, Western Australia.
2. DER 2017, *Guidance Statement: Risk Assessments*, Perth, Western Australia.
3. DER 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.



## Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY (as updated from validation checklist)					
<b>Application type</b>					
<del>Works approval</del>	<input type="checkbox"/>				
Licence	<input type="checkbox"/>	Relevant works approval number:		None	<input type="checkbox"/>
		Has the works approval been complied with?			Yes <input type="checkbox"/> No <input type="checkbox"/>
		Has time limited operations under the works approval demonstrated acceptable operations?			Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>
		Environmental Compliance Report / Critical Containment Infrastructure Report submitted?			Yes <input type="checkbox"/> No <input type="checkbox"/>
		Date Report received:			
Renewal	<input type="checkbox"/>	Current licence number:			
Amendment to works approval	<input type="checkbox"/>	Current works approval number:			
Amendment to licence	<input checked="" type="checkbox"/>	Current licence number:	L8703/2012/1		
		Relevant works approval number:		N/A	<input checked="" type="checkbox"/>
<del>Registration</del>	<input type="checkbox"/>	Current works approval number:		None	<input type="checkbox"/>
Date application received		10/07/2020			
<b>Applicant and Premises details</b>					
Applicant name/s (full legal name/s)		Water Corporation			
Premises name		Williams Wastewater Treatment Plant			
Premises location		Lot 501 on Plan 66270, Cemetery Road, Williams WA 6391			
Local Government Authority		Shire of Williams			
<b>Application documents</b>					
HPCM file reference number:		2012/004368-1			
Key application documents (additional to application form):		Covering letter; and Application Form and Additional information			
<b>Scope of application/assessment</b>					

Summary of proposed activities or changes to existing operations.	Licence amendment. Removal of Condition Row 3, Table 5.2.2 Condition 5.2.3 that requires quarterly reporting of parameters listed in Condition 3.2.1 to be submitted within 28 calendar days from the end of the reporting period.	
Category number/s (activities that cause the premises to become prescribed premises)		
Table 1: Prescribed premises categories		
Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity (amendments only)
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	100 cubic metres per more per day	No change proposed
<b>Legislative context and other approvals</b>		
Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Existing premises, documentation on file
Has the applicant obtained all relevant planning approvals?	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	Existing premises
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No clearing is proposed.

Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Licence / permit not required.
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises situated in a Public Drinking Water Source Area (PDWSA)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i> )	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	

<p>Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i>?</p>	<p>Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></p>	
---	--	--