



# Decision Document

## *Environmental Protection Act 1986, Part V*

---

**Proponent:** **Water Corporation**

**Licence:** **L6543/1991/11**

---

**Registered office:** 629 Newcastle Street  
LEEDERVILLE WA 6007

**Premises address:** Kwinana Wastewater Treatment Plant  
POSTANS WA 6167  
Being Lot 2128 (Crown Reserve 29335) and Lot 2129 on Plan 173137  
as depicted in Schedule 1.

**Issue date:** Monday, 22 September 2014

**Commencement date:** Wednesday, 24 September 2014

**Expiry date:** Monday, 23 September 2019

### **Decision**

Based on the assessment detailed in this document the Department of Environment Regulation (DER) has decided to issue a licence. DER considers that in reaching this decision, it has taken into account all relevant considerations and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by:

Josephine Tuohy  
Licensing Officer

Decision Document authorised by:

Rebecca Kelly  
Manager Licensing (Waste Sector)



## Contents

Decision Document	1
Contents	2
1 Purpose of this Document	2
2 Administrative summary	3
3 Executive summary of proposal and assessment	4
4 Decision table	6
5 Advertisement and consultation table	7
6 Risk Assessment	8

## 1 Purpose of this Document

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

### **Works approval and licence conditions**

DER has three types of conditions that may be imposed on works approvals and licences. They are as follows;

#### **Standard conditions (SC)**

DER has standard conditions that are imposed on all works approvals and licences regardless of the activities undertaken on the Premises and the information provided in the application. These are included as the following conditions on works approvals and licences:

Works approval conditions: 1.1.1-1.1.4, 1.2.1, 1.2.2, 5.1.1 and 5.1.2.

Licence conditions: 1.1.1-1.1.4, 1.2.1-1.2.4, 5.1.1-5.1.4 and 5.2.1.

For such conditions, justification within the Decision Document is not provided.

#### **Optional standard conditions (OSC)**

In the interests of regulatory consistency DER has a set of optional standard conditions that can be imposed on works approvals and licences. DER will include optional standard conditions as necessary, and are likely to constitute the majority of conditions in any licence. The inclusion of any optional standard conditions is justified in Section 4 of this document.

#### **Non standard conditions (NSC)**

Where the proposed activities require conditions outside the standard conditions suite DER will impose one or more non-standard conditions. These include both premises and sector specific conditions, and are likely to occur within few licences. Where used, justification for the application of these conditions will be included in Section 4.



## 2 Administrative summary

Administrative details									
Application type	Works Approval <input type="checkbox"/> New Licence <input checked="" type="checkbox"/> Licence amendment <input type="checkbox"/> Works Approval amendment <input type="checkbox"/>								
Activities that cause the premises to become prescribed premises	<table border="1"> <thead> <tr> <th>Category number(s)</th> <th>Assessed design capacity</th> </tr> </thead> <tbody> <tr> <td>54</td> <td>12,000 cubic metres per day</td> </tr> <tr> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> </tr> </tbody> </table>	Category number(s)	Assessed design capacity	54	12,000 cubic metres per day				
	Category number(s)	Assessed design capacity							
	54	12,000 cubic metres per day							
Application verified	Date: 19/06/2014								
Application fee paid	Date: 28/07/2014								
Works Approval has been complied with	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>								
Compliance Certificate received	Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/>								
Commercial-in-confidence claim	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
Commercial-in-confidence claim outcome									
Is the proposal a Major Resource Project?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Referral decision No: Managed under Part V <input checked="" type="checkbox"/> Assessed under Part IV <input type="checkbox"/>								
Is the proposal subject to Ministerial Conditions?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Ministerial statement No: EPA Report No:								
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i> )?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Department of Water consulted 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"/>								
If Yes include details of which EPP(s) here.									
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>								
If Yes, include details here, eg Site is subject to SO <sub>2</sub> requirements of Kwinana EPP.									



### 3 Executive summary of proposal and assessment

Water Corporation operates Kwinana Wastewater Treatment Plant (KWWTP) under environmental protection Licence L6543/1991/10. KWWTP is located in the Perth metropolitan area and on the Swan Coastal Plain at Lot 2128 and 2129 McLaughlan Road, Postans. The plant has been designed to treat 12,000 cubic metres per day.

The nearest residence is approximately 1.2 km to the south of the facility and land-uses between the KWWTP and the nearest odour sensitive premises include:

- approximately 550m to the north of the plant is Alcoa mud lakes and tailings stockpiles;
- approximately 664m to the east of the plant is the Spectacles wetlands;
- approximately 580m to the southwest of the plant is the Department of Agriculture; and
- approximately 100 m to the west of the plant is Alcoa's cooling ponds.

No wetlands exist on the property but "The Spectacles", which is a conservation category wetland and part of the Bush Forever Site 269, Beeliar Regional Park, is located approximately 1 kilometre east of the KWWTP. A local water table mound exists on the western side of the Spectacles. The mound is centred under the KWWTP's infiltration lagoons, and is maintained by the treated wastewater infiltration. Under the current conditions, it is likely that some infiltrated treated wastewater is flowing eastward through the unconfined aquifer into the Spectacles. The KWWTP is within an industrial area and is away from any drinking water supply field. The chief soil type identified by DER geographical information software is brown sands with associated siliceous sands and leached sands. The water table is approximately 7-13m from the surface.

The treatment plant site is part of a regionally significant contiguous bushland and wetland linkage. However, there are no declared rare or priority flora species as listed/defined by the former Department of Parks and Wildlife (DPAW). The site does contain mainly Banksia low Woodland species, however, none of these vegetation communities are threatened ecological communities as defined by the *Environmental Protection Biodiversity Conservation Act (1999)* or DPAW (2004).

The operations of the KWWTP include the treatment of sewage to a secondary standard and the on-site infiltration of treated wastewater. There are also provisions for discharge of this treated wastewater to the Sepia Depression Ocean Outfall Landline (SDOOL) and a planned reuse scheme with Alcoa for use within its industrial processes. The plant infrastructure consists of:

- two band screens and a grit tank;
- bioselector;
- two oxidation ditches;
- two secondary clarifiers; and
- two infiltration ponds.

Sludge thickening occurs via a dissolved air floatation tank, thickened sludge storage tank and two dewatering centrifuges. Thickened sludge is transported to a licensed premises for further processing or composting.

The main potential emissions from the site are discharges of treated wastewater via infiltration to land (and potentially to groundwater), via SDOOL to ocean and fugitive emissions in the form of odour. BP Refinery (Kwinana), CSBP Limited and Edison Mission Energy also discharge wastewater via SDOOL. All SDOOL users are bound by the Ministerial Statement No. 665 and any amendments to the Statement.

Discharges of treated wastewater to land and ocean are managed by treating wastewater to a defined water quality level and undertaking compliance monitoring prior to discharge.

Given the separation distance of 1.2 km of the site from the nearest residence, odour emissions are considered low risk however, odour emissions are managed by the ongoing operation,



maintenance and desludging of the ponds. The plant is not fitted with any odour control equipment.

This licence has been issued as an amendment that was requested by the proponent for minor administrative changes. During the amendment process, DER has not reassessed the acceptability or impacts of emissions and discharges from the premises or re-visited any existing emission control levels.

	occur either as monthly, this was missed in the last licence re issue due to an administrative error.	supporting documentation  General provisions of the <i>Environmental Protection Act 1986</i>
OSC	Table 3.5.1 has been updated to include spot or composite sampling for Effluent Monitoring to be consistent with Table 3.3.1 monitoring requirements.	Application supporting documentation  General provisions of the <i>Environmental Protection Act 1986</i>
OSC	Table 5.2.1 has been amended to remove references to WR1, LR1 and AGWQ1 and Table 5.2.2 reference to ET1 for consistency across Water Corporation Licences.	General provisions of the <i>Environmental Protection Act 1986</i>
N/A	The Licence duration has not be reassessed as part of this Amendment.	



## 5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
13/02/2015	Proponent sent a copy of draft instrument for 21 day comment	21 day waiver form recieved	Licence issued as soon as possible



## 6. Risk Assessment

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

**Table 1: Emissions Risk Matrix**

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

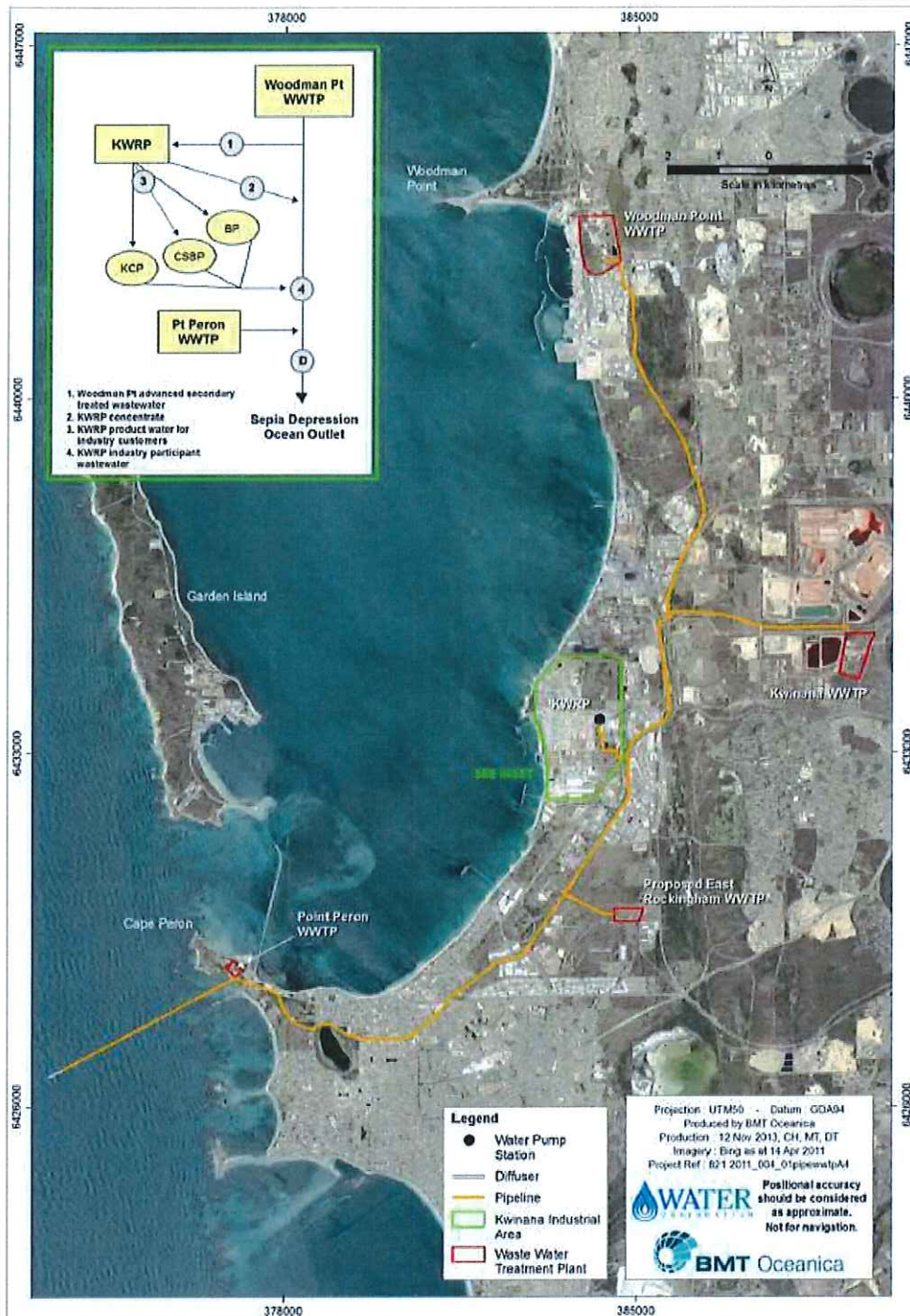


Figure 1: Sepia Depression Ocean outlet Landline (SDOOL)