



# Veolia (Darling Walk) Non-Potable Water Scheme

## **2020 Operational Audit**

#20003-10-001 Version 2.1

Independent Pricing and Regulatory Tribunal

July 2020



## Document History

### Veolia (Darling Walk) Non-Potable Water Scheme

2020 Operational Audit

### Independent Pricing and Regulatory Tribunal

This document has been issued and amended as follows:

Version	Date	Description	Created by	Checked by	Approved by
1.0	10 June 2020	Draft	Jim Sly	-	Jim Sly
2.0	12 June 2020	Final	Jim Sly	Dan Deere	Jim Sly
2.1	28 July 2020	Final – updated in response to IPART comments	Jim Sly	-	Jim Sly

**Cobbitty Consulting Pty Ltd**  
ABN: 45 164 692 488

PO Box 561, Bayswater VIC 3153  
Telephone: +61 (0) 423 326 693  
Email: [jim.sly@cobbittyconsulting.com.au](mailto:jim.sly@cobbittyconsulting.com.au)

Cobbitty Consulting has prepared this document for the Independent Pricing and Regulatory Tribunal under engagement by Veolia Water Solutions and Technologies (Australia) Pty Ltd for the sole and specific use of these two parties. Any other persons who use the information contained herein do so at their own risk.

© Cobbitty Consulting Pty Ltd, 2020



## Contents

<b>1. Executive Summary</b>	<b>1</b>
1.1 Auditor Declaration	1
1.2 Major Findings	1
1.3 Recommendations	2
<b>2. Introduction</b>	<b>3</b>
2.1 Objectives	3
2.2 Licensee's Infrastructure, Systems and Procedures	3
2.3 Audit Method	4
2.4 Regulatory Regime	5
2.5 Quality Assurance Process	6
2.6 Audit Findings	6
<b>3. Generic Obligations</b>	<b>7</b>
3.1 Summary of Findings	7
3.2 Review of Actions	7
3.3 Opportunities for Improvement	7
<b>4. General Obligations of a Network Operator</b>	<b>8</b>
4.1 Summary of Findings	8
4.2 Review of Actions	8
4.3 Opportunities for Improvement	8
<b>5. Water Supply Infrastructure</b>	<b>9</b>
5.1 Summary of Findings	9
5.2 Review of Actions	9
5.3 Opportunities for Improvement	9
<b>6. Non-Potable Water Supply Infrastructure</b>	<b>10</b>
6.1 Summary of Findings	10
6.2 Review of Actions	10
6.3 Opportunities for Improvement	10
<b>7. Schedule B to the Network Operator's Licence</b>	<b>11</b>
7.1 Summary of Findings	11
7.2 Review of Actions	11
7.3 Opportunities for Improvement	11

<b>Appendix A</b>	<b>Detailed Audit Findings – “Generic” Obligations</b>	<b>13</b>
Table A.1	“Generic” Obligations – WIC Reg Sched 1 cl.12	15
<b>Appendix B</b>	<b>Detailed Audit Findings – General Obligations of a Network Operator</b>	<b>19</b>
Table B.1	General Obligations – WIC Reg Sched 1 cl.1(2)(a), (b), (c) and (e)	21
Table B.2	General Obligations – WIC Reg Sched 1 cl.2(1) and 2(2)	27
Table B.3	General Obligations – WIC Reg Sched 1 cl.3(c)	29
<b>Appendix C</b>	<b>Detailed Audit Findings – Water Supply Infrastructure</b>	<b>35</b>
Table C.1	Water Supply Infrastructure – WIC Reg Sched 1 cl.6(2)(a)	37
Table C.2	Water Supply Infrastructure – WIC Reg Sched 1 cl.7(4)(a)	43
<b>Appendix D</b>	<b>Detailed Audit Findings – Non-Potable Water Supply Infrastructure</b>	<b>51</b>
Table D.1	Non-Potable Water Supply Infrastructure – WIC Reg Sched 1 cl.10(a)	53
<b>Appendix E</b>	<b>Detailed Audit Findings – Schedule B to the Network Operator’s Licence</b>	<b>55</b>
Table E.1	Schedule B to the Network Operator’s Licence – Clause B1	57
Table E.2	Schedule B to the Network Operator’s Licence – Clause B3.1	60
Table E.3	Schedule B to the Network Operator’s Licence – Clause B3.2	63
Table E.4	Schedule B to the Network Operator’s Licence – Clause B3.3	65
Table E.5	Schedule B to the Network Operator’s Licence – Clause B6	67
Table E.6	Schedule B to the Network Operator’s Licence – Clause B8	69
Table E.7	Schedule B to the Network Operator’s Licence – Clause B11	74
Table E.8	Schedule B to the Network Operator’s Licence – Clause B13	76

# 1. Executive Summary

## 1.1 Auditor Declaration

This report presents the findings of an Operational Audit of Veolia Water Solutions and Technologies (Australia) Pty Ltd's compliance with the requirements of its Network Operator's Licence (Licence No: 10\_008) and the relevant provisions of the *Water Industry Competition (General) Regulation 2008* as they relate to the non-potable (recycled) water scheme at the Darling Walk Development, Darling Harbour, Sydney.

The auditor confirms that:

- the auditor was provided with sufficient evidence on which to base the conclusions reached during the audit;
- the audit findings accurately reflect the professional opinion of the auditor;
- the auditor has conducted the audit, determined the audit findings and prepared this report in accordance with the requirements of the *WIC Act Audit Guidelines*<sup>1</sup> and the provisions of the Audit Deed; and
- the audit findings have not been unduly influenced by the Licensee and/or any of its associates and express the auditor's opinion as to whether the Licensee has met the Licence conditions and regulatory requirements as specified in the scope.

## 1.2 Major Findings

The Licensee, Veolia Water Solutions and Technologies (Australia) Pty Ltd, was found to be operating and maintaining the non-potable (recycled) water scheme at Darling Walk, Sydney in compliance with the assessed audit criteria (no design or construction activities were undertaken during the audit period), with the exception of the following:

- ***WIC Reg Sched 1 cl.12 – Non-compliant (non-material):***

Veolia maintains a website in respect of the Darling Walk Recycled Water Scheme; however, initial review for the purposes of the audit found that it did not have all required items available for inspection by members of the public. A plan (and associated information) that meets the requirements of paragraph a) is included in a brochure and a Licence Plan Audit Report that meets the requirements of paragraph e) were available at the time of initial review; however, Licence Plan Audit Report that meets the requirements of paragraph d) was not.

Veolia addressed this non-compliance immediately after it was identified by the auditor. Accordingly, full compliance with this obligation has now been demonstrated (albeit subsequent to the audit period) and no recommendation for further action is made.

---

<sup>1</sup> IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018.

- **WIC Reg Sched 1 cl.1(2) – Non-compliant (non-material):**

Veolia advised that no notifiable incidents had occurred during the audit period. Review of SCADA historian data, however, revealed some periods during which chlorine residual levels in the treated water storages (CCP4) were below the lower bound critical limit; Veolia was unable to demonstrate that water was not discharged into supply during these periods. As breach of a critical limit is deemed to constitute a notifiable incident, Veolia was assessed to be non-compliant with these obligations.

Further assessment by the auditor based on conditions at the time of the breaches indicates that adequate log reduction due to the chlorination process is likely to have been achieved. On this basis, the non-compliance is considered to be non-material.

- **Network Operator's Licence cl.B8.2 – Non-compliant (non-material):**

Veolia demonstrated that it had undertaken monitoring (sampling and testing) of water quality as required pursuant to requirements set out in the Licence and the *Water Quality Plan* during the audit period. The laboratory to which testing was subcontracted is accredited for the specified tests by the National Association of Testing Authorities (NATA). However, not all requisite information, specifically the date and time at which samples are collected, is being recorded in respect of samples taken for monitoring purposes.

Accordingly, Veolia was assessed to have demonstrated compliance in respect of clauses B8.1 and B8.3, but found not to be fully compliant in respect of clause B8.2.

Although no other non-compliances were identified were identified in respect of the audited clauses, assessment of compliance with WIC Reg Sched 1 cl.7(4)(a) has identified a shortcoming in respect of the adequacy of the *Water Quality Plan*. Whilst Veolia has complied with the arrangements detailed in the *Water Quality Plan*, the corrective action documented as the response to breaches of the chlorine residual (CCP4) critical limits is not considered effective in preventing the discharge of out-of-specification water into supply. A recommendation has been made (opportunity for improvement identified) in respect of this issue.

Notwithstanding and with the exception of the issues identified above, the infrastructure was found to be operating safely.

### 1.3 Recommendations

The following recommendations have been made as a result of this audit:

- **REC-DW-2020.01:** It is recommended that Veolia implements more robust processes to ensure that all water quality incidents are identified and notified to relevant stakeholders, as identified in WIC Reg Sched 1 cl.1(2), in accordance with its incident notification protocols.
- **REC-DW-2020.02:** It is recommended that Veolia takes action to ensure that all requisite records of water quality samples, and specifically the date and time at which samples are collected, are systematically recorded.

Seven (7) opportunities for improvement, which the Licensee may wish to consider, are identified in the body of the report.



## 2. Introduction

### 2.1 Objectives

This report presents the findings of an Operational Audit undertaken for the Independent Pricing and Regulatory Tribunal (IPART) under the provisions of the *Water Industry Competition Act 2006*.

The objective of the audit was to assess compliance of the Licensee, Veolia Water Solutions and Technologies (Australia) Pty Ltd (Veolia), in meeting the requirements of the relevant legislation (the *Water Industry Competition Act 2006* and *Water Industry Competition (General) Regulation 2008*) and its Network Operator's Licence (Licence No: 10\_008) for the non-potable (recycled) water scheme at the Darling Walk Development, Darling Harbour, Sydney.

### 2.2 Licensee's Infrastructure, Systems and Procedures

The infrastructure, systems and procedures subject to audit are those related to the non-potable (recycled) water scheme at the Darling Walk Development, through which Veolia provides recycled water services to the Darling Quarter community precinct at Darling Harbour, Sydney (refer [http://www.veoliawatertechnologies.com.au/media/case-studies/case\\_darling.htm](http://www.veoliawatertechnologies.com.au/media/case-studies/case_darling.htm)). The infrastructure comprises principally of a wastewater treatment plant, which is located in the building basement, together with connecting pipework.

Wastewater, which is sewer mined from a nearby Sydney Water sewer, is treated on-site using a multi-stage process to produce high standard recycled water that is safe for toilet flushing, garden irrigation and cooling towers. The treatment plant uses Moving Bed Biofilm Reactor (MBBR), Membrane Bioreactor (MBR), Ultraviolet (UV), Reverse Osmosis (RO) and Chlorination technologies. After treatment, the recycled water is stored for distribution throughout the development site.

Veolia Water Solutions and Technologies (Australia) Pty Ltd (ACN 055 254 003) is the Licensee, holding Network Operator's Licence No: 10\_008. As Licensee, Veolia is responsible for the ongoing operation and maintenance of the treatment facility in accordance with its Licence Plans including an *Infrastructure Operating Plan* and a *Water Quality Plan*, the following versions of which were in place during the audit period:

- *Infrastructure Operating Plan:*
  - Veolia, *Darling Quarter Development; Network Operator's Infrastructure Operating Plan* (DQ-IOP-001-4) (Revision 4), 10 February 2014; and
  - Veolia, *Darling Quarter Development; Network Operator's Infrastructure Operating Plan* (DQ-IOP-001-5) (Revision 5), 5 March 2020; and
- *Water Quality Plan:*
  - Veolia, *Darling Quarter; Network Operator's Water Quality Plan* (DQ-WQP-001-05) (Revision 5), 28 January 2014;
  - Veolia, *Darling Quarter; Network Operator's Water Quality Plan* (DQ-WQP-001-06) (Revision 6), 1 May 2019;
  - Veolia, *Darling Quarter; Network Operator's Water Quality Plan* (DQ-WQP-001-07) (Revision 7), 22 July 2019; and

- Veolia, *Darling Quarter; Network Operator's Water Quality Plan* (DQ-WQP-001-08) (Revision 8), 5 March 2020.

## 2.3 Audit Method

### 2.3.1 Audit Scope

The audit comprised an Operational Audit conducted pursuant to the *WIC Act Audit Guidelines*.<sup>2</sup> The specific scope of the audit was as defined in IPART's letter to Veolia (reference D20/6367) dated 26 March 2020. The nominated scope addresses selected requirements of:

- the *Water Industry Competition (General) Regulation 2008*; and
- Network Operator's Licence No: 10\_008.

The audit period (period during which compliance has been assessed) is 1 September 2018 to 31 March 2020.

### 2.3.2 Audit Standard

The audit has been undertaken in accordance with the principles/guidance presented in:

- ISO 19011:2011 *Guidelines for auditing management systems*; and
- IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018 (WIC Act Audit Guidelines).

### 2.3.3 Audit Steps

The audit has been undertaken generally in accordance with the procedure outlined in the *WIC Act Audit Guidelines*.

Following approval of an *Audit Proposal* by IPART, an *Information Request* was sent to both the Licensee and IPART approximately two weeks prior to the audit fieldwork being undertaken. The Licensee provided an information pack in response to the request several days prior to the audit fieldwork.

Audit fieldwork was undertaken remotely via online video conferencing on 14 May 2020. Pre-recorded video and photographs of the infrastructure were viewed and discussed; this was followed by review and discussion (audit) of relevant documentation/records. Some additional items of information and/or clarification were requested following the audit fieldwork and subsequently provided.

A draft audit report was prepared and submitted to the Licensee for review, before being finalised and issued to both the Licensee and IPART.

The audit process involved seeking objective evidence that the Licensee had complied with the obligations identified for audit by IPART. Evidence was obtained through interview, review of relevant documentation and records, and site inspection.

---

<sup>2</sup> IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018.

### 2.3.4 Audit Team





The audit was conducted by Jim Sly and the peer/quality assurance review was undertaken by Dr Dan Deere. Both auditors hold relevant Lead Auditor accreditation on IPART’s Technical Services and Water Licensing Panel.

Veolia was represented by Subrat Kar, Craig Hancock, Claudio Kohn and Pat Coulton. IPART representative Lil Cullen attended as an observer.

### 2.3.5 Audit Grades

Audit grades have been awarded in accordance with guidance presented in the *WIC Act Audit Guidelines*. The compliance grades applicable for the purposes of this audit were as identified in **Table 2.1**.

**Table 2.1 Audit Compliance Grades**

Compliance Grade	Description
 <b>Compliant</b>	Sufficient evidence is available to confirm that the requirements have been met.
 <b>Non-compliant (non-material)</b>	Sufficient evidence is not available to confirm that the requirements have been met and the deficiency does not adversely impact the ability of the Licensee to achieve defined objectives or assure controlled processes, products or outcomes.
 <b>Non-compliant (material)</b>	Sufficient evidence is not available to confirm that the requirements have been met and the deficiency does adversely impact the ability of the Licensee to achieve defined objectives or assure controlled processes, products or outcomes.
 <b>No Requirement</b>	There was no requirement for the Licensee to meet this criterion during the audit period.

## 2.4 Regulatory Regime

The non-potable (recycled) water scheme at Darling Walk operates in accordance with the provisions of a Network Operator’s Licence (Licence No: 10\_008) issued under the *Water Industry Competition Act 2006* (NSW). Other relevant regulatory instruments and standards/guidelines include:

- *Water Industry Competition (General) Regulation 2008 (NSW)*;
- IPART, *Audit Guideline; Water Industry Competition Act 2006*, September 2018;
- *Australian Guidelines for Water Recycling: Managing Health and Environmental Risks (Phase 1) 2006*;
- *Plumbing Code of Australia*;
- *Plumbing and Drainage Act 2011 (NSW)*; and
- NSW and national water industry and environmental regulations and codes of practice as applicable.

## 2.5 Quality Assurance Process

The quality of this audit report was assured through a professional review process. The report has been independently reviewed by a Lead Auditor who holds relevant accreditation on IPART's Technical Services and Water Licensing Panel.

## 2.6 Audit Findings

Audit findings are summarised in the following **Sections 3 to 7**, and are presented in full detail in **Appendices A to E**.

## 3. “Generic” Obligations

### 3.1 Summary of Findings

Veolia was found not to be fully compliant with the audited clause of the *Water Industry Competition (General) Regulation 2008* identified as a “Generic” Obligation (refer to **Appendix A** for detailed audit findings), as follows:

- **WIC Reg Sched 1 cl.12 – Non-compliant (non-material):**

Veolia maintains a website in respect of the Darling Walk Recycled Water Scheme; however, initial review for the purposes of the audit found that it did not have all required items available for inspection by members of the public. A plan (and associated information) that meets the requirements of paragraph a) is included in a brochure and a Licence Plan Audit Report that meets the requirements of paragraph e) were available at the time of initial review; however, Licence Plan Audit Report that meets the requirements of paragraph d) was not.

Veolia addressed this non-compliance immediately after it was identified by the auditor. Accordingly, full compliance with this obligation has now been demonstrated (albeit subsequent to the audit period) and no recommendation for further action is made.

### 3.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

### 3.3 Opportunities for Improvement

The following opportunities for improvement have been identified in respect of the audited *WIC Regulation* clause identified as a “Generic” Obligation:

- **OFI-DW-2020.01:** It is suggested that Veolia includes a link from the Veolia Water Australia website to the My Recycled Water website, or otherwise make access to the requisite information in respect of the Darling Walk Recycled Water Scheme more readily accessible by members of the public.
- **OFI-DW-2020.02:** It is suggested that Veolia considers making the same version of the *Darling Quarter Recycled Water Plant* brochure available on both the Veolia Water Australia and My Recycled Water websites.

## 4. General Obligations of a Network Operator

### 4.1 Summary of Findings

Veolia was found not to be fully compliant with the audited clause of the *Water Industry Competition (General) Regulation 2008* that address the *General Obligations of a Network Operator* (refer to **Appendix B** for detailed audit findings), as follows:

- **WIC Reg Sched 1 cl.1(2)** – *Non-compliant (non-material)*:

Veolia advised that no notifiable incidents had occurred during the audit period. Review of SCADA historian data, however, revealed some periods during which chlorine residual levels in the treated water storages (CCP4) were below the lower bound critical limit; Veolia was unable to demonstrate that water not discharged into supply during these periods. As breach of a critical limit is deemed to constitute a notifiable incident, Veolia was assessed to be non-compliant with these obligations.

Further assessment by the auditor based on conditions at the time of the breaches indicates that adequate log reduction due to the chlorination process is likely to have been achieved. On this basis, the non-compliance is considered to be non-material.

To achieve full compliance, Veolia should:

- **REC-DW-2020.01:** implement more robust processes to ensure that all water quality incidents are identified and notified to relevant stakeholders, as identified in WIC Reg Sched 1 cl.1(2), in accordance with its incident notification protocols.

### 4.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

### 4.3 Opportunities for Improvement

The following opportunity for improvement has been identified in respect of the audited *WIC Regulation* clauses that address the *General Obligations of a Network Operator*:

- **OFI-DW-2020.03:** It is suggested that Veolia should clearly document the specific water quality incidents or conditions that would trigger notification to the nominated stakeholders pursuant to the Regulation (specifically the requirements of WIC Reg Sched 1, cl.1(2)).

## 5. Water Supply Infrastructure

### 5.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to *Water Supply Infrastructure* (refer to **Appendix C** for detailed audit findings).

Notwithstanding, assessment of compliance with WIC Reg Sched 1 cl.7(4)(a) has identified a shortcoming in respect of the adequacy of the *Water Quality Plan*. Whilst Veolia has complied with the arrangements detailed in the *Water Quality Plan*, the corrective action documented as the response to breaches of the chlorine residual (CCP4) critical limits is not considered effective in preventing the discharge of out-of-specification water into supply. A recommendation has been made (opportunity for improvement identified) in respect of this issue.

### 5.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

### 5.3 Opportunities for Improvement

The following opportunities for improvement have been identified in respect of the audited *WIC Regulation* clauses related to the *Water Supply Infrastructure*:

- **OFI-DW-2020.04:** It is strongly recommended that Veolia reviews the plant control arrangements, and specifically the corrective action response to breaches of chlorine residual critical limits, to ensure that arrangements are in place to ensure that out-of-specification water is not discharged into supply and that records are maintained to demonstrate accordingly.
- **OFI-DW-2020.05:** It is recommended that Veolia and the Darling Walk development property/building manager (Jones Lang LaSalle) together take action to inspect and clarify the current treated water storage outlet and supply connectivity arrangements, thereby ensuring that they are fully understood by all parties and enabling effective review of the corrective action response as recommended under OFI-DW-2020.04.

## 6. Non-Potable Water Supply Infrastructure

### 6.1 Summary of Findings

There were no identified non-compliances in respect of the audited clauses of the *Water Industry Competition (General) Regulation 2008* related to *Non-Potable Water Supply Infrastructure* (refer to **Appendix D** for detailed audit findings).

### 6.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

### 6.3 Opportunities for Improvement

No opportunities for improvement have been identified in respect of the audited *WIC Regulation* clauses related to the *Non-Potable Water Supply Infrastructure*.



## 7. Schedule B to the Network Operator's Licence

### 7.1 Summary of Findings

Veolia was assessed as being compliant, or there was no requirement for compliance, with the audited clauses of *Schedule B to the Network Operator's Licence* (refer to **Appendix E** for detailed audit findings), with the exception of the following:

- **Network Operator's Licence cl.B8.2 – Non-compliant (non-material):**

Veolia demonstrated that it had undertaken monitoring (sampling and testing) of water quality as required pursuant to requirements set out in the Licence and the *Water Quality Plan* during the audit period. The laboratory to which testing was subcontracted is accredited for the specified tests by the National Association of Testing Authorities (NATA). However, not all requisite information, specifically the date and time at which samples are collected, is being recorded in respect of samples taken for monitoring purposes.

Accordingly, Veolia was assessed to have demonstrated compliance in respect of clauses B8.1 and B8.3, but found not to be fully compliant in respect of clause B8.2.

To achieve full compliance, Veolia should:

- **REC-DW-2020.03:** ensure that all requisite records of water quality samples, and specifically the date and time at which samples are collected, are systematically recorded.

Detailed discussion in respect of this obligation is presented in **Table E.6**.

### 7.2 Review of Actions

The Licensee has not made any suggestions for corrections or clarifications following issue of the draft report and prior to the final report being issued.

### 7.3 Opportunities for Improvement

The following opportunities for improvement have been identified in respect of the audited clauses of *Schedule B to the Network Operator's Licence*:

- **OFI-DW-2020.06:** It is suggested that Veolia reviews the terminology used when recording verification monitoring test results in its *Maintenance Records* workbook to ensure that it is consistent with actual practice.
- **OFI-DW-2020.07:** It is suggested that Veolia consistently completes all relevant fields on the Chain of Custody records.




## **Appendix A Detailed Audit Findings – “Generic” Obligations**

Detailed audit findings in respect of the audited “*Generic*” *Obligations* are presented in this Appendix.



Table A.1 “Generic” Obligations – WIC Reg Sched 1 cl.12

Clause	Requirement	Compliance Grade
<b>WIC Reg Sched 1 cl.12</b>	<p>The licensee must have an internet website on which the following matters are available for inspection by members of the public:</p> <p>(a) a plan showing the nature and general location of the infrastructure;</p> <p>(b), (c) (Repealed);</p> <p>(d) the most recent auditor’s report under clause 6 that applies to the licensee;</p> <p>(e) the most recent auditor’s report under clause 7 that applies to the licensee.</p>	 <b>Non-compliant (non-material)</b>
<b>Risk</b>	<p>Non-compliance with the requirements of this clause presents low (if any) risk. The availability the requisite information for inspection by members of the public does, however, ensure transparency in respect of any potential risks to public health and/or the environment.</p>	<b>Target for Full Compliance</b>
		<p>Evidence that the Licensee has maintained an internet website on which the requisite information is available for inspection by members of the public.</p>
<b>Evidence sighted</b>		
<ul style="list-style-type: none"> <li>▪ Interviews with Veolia personnel on 14 May 2020.</li> <li>▪ <i>Darling Quarter Recycled Water Treatment Plant</i> brochure, available on the Veolia Water Technologies website at: <a href="http://www.veoliawatertechnologies.com.au/vwst-australia/ressources/files/1/49541-Veolia-Water-Tech_Darling-Quarter-.pdf">http://www.veoliawatertechnologies.com.au/vwst-australia/ressources/files/1/49541-Veolia-Water-Tech_Darling-Quarter-.pdf</a>.</li> <li>▪ The “Darling Quarter Recycled Water Treatment Plant, NSW” case study webpage, available on the Veolia Water Technologies website at: <a href="http://www.veoliawatertechnologies.com.au/media/case-studies/case_darling.htm">http://www.veoliawatertechnologies.com.au/media/case-studies/case_darling.htm</a>.</li> <li>▪ “The Darling Quarter Recycled Water Treatment Plant” webpage, available on the My Recycled Water webpage at: <a href="http://www.myrecycledwater.com.au/darling-quarter-rwtp">http://www.myrecycledwater.com.au/darling-quarter-rwtp</a>.</li> </ul>		
<b>Summary of reasons for grade</b>		
<p>Veolia maintains a website in respect of the Darling Walk Recycled Water Scheme; however, initial review for the purposes of the audit found that it did not have all required items available for inspection by members of the public. A plan (and associated information) that meets the requirements of paragraph a) is included in a brochure and a Licence Plan Audit Report that meets the requirements of paragraph e) were available at the time of initial review, however, Licence Plan Audit Report that meets the requirements of paragraph d) was not.</p> <p>Accordingly, Veolia is assessed not to have been fully compliant with this obligation; however, given that the risk associated with the non-compliance is considered minimal (if any), and the non-compliance was addressed immediately once identified by the auditor, the non-compliance is not considered to be material.</p> <p>Whilst a website is maintained, it is not considered to be readily accessible to the public. An opportunity for improvement has been identified accordingly.</p>		

---

## Discussion and notes

A ‘Google’ search for “Darling Walk Recycled Water Plant”, undertaken on 13 May 2020 (day prior to the audit) led to the following brochure: [http://www.veoliawatertechnologies.com.au/vwst-australia/ressources/files/1/49541-Veolia-Water-Tech\\_Darling-Quarter-.pdf](http://www.veoliawatertechnologies.com.au/vwst-australia/ressources/files/1/49541-Veolia-Water-Tech_Darling-Quarter-.pdf).

This brochure provides an overview of the scheme, including a written description of the scheme and its location, and plans showing the location of the treatment plant in Building 2 of the Darling Quarter development.

The search also led to the following webpage: [http://www.veoliawatertechnologies.com.au/media/case-studies/case\\_darling.htm](http://www.veoliawatertechnologies.com.au/media/case-studies/case_darling.htm).

This webpage presents an overview “case study” of the scheme. The above mentioned brochure can be found by following a link to “Publications”.

Veolia advised that the information required pursuant to this obligation can be found at: <http://www.myrecycledwater.com.au/darling-quarter-rwtp>.

Information available on this page includes:

- A link to a brochure, which provides similar information but is different to the above mentioned brochure (which appears to be more recent based on Veolia’s address);
- A “Project Information” dropdown menu, which leads to:
  - An “Important Information” page, which identifies uses of recycled water at Darling Quarter and together with general precautionary measures; and
  - A “Downloads” page from which relevant documents including the following can be obtained. For the purposes of assessing compliance with this obligation, available information includes:
    - Plan of Infrastructure;
    - the most recent Licence Plan Audit report in respect of the *Water Quality Plan*.

The following information was also available:

- the most recent Operational Audit report;
- copies of the *Infrastructure Operating Plan* and *Retail Supply Management Plan*;
- *Water Quality Policy*;
- *Code of Practice for Complaint Handling*;
- *Code of Practice for Financial Complaints-Debts*; and
- a document identifying relevant Government policies.

Whilst the Plan of Infrastructure shows the location of the plant within the relevant building, is it not clear from the information shown where the plant (infrastructure) is located from a broader perspective. The information provided in either of the above mentioned brochures is, however, considered more informative and sufficient to meet the requirements of the obligation.

It is noted that the most recent Licence Plan Audit report in respect of the *Infrastructure Operating Plan*, required pursuant to Schedule 1, clause 6 of the Regulation, was not available on the website. When questioned during the audit interviews, Veolia referenced the most recent Operational Audit report; it appeared that there may have been a misunderstanding of the requirement of clause 6, which refers to an audit report as to the adequacy of the *Infrastructure Operating Plan* (i.e. a Licence Plan Audit Report).

In response, Veolia took immediate action to make a copy of the most recent Licence Plan Audit report in respect of the *Infrastructure Operating Plan* available on the website. Availability was subsequently confirmed by the auditor.

Whilst the unavailability of the most recent Licence Plan Audit report in respect of the *Infrastructure Operating Plan* constitutes a non-compliance with this obligation, such shortcoming is not considered material due to the low (if any) associated risk. Furthermore, no recommendation is made as the

---

---

shortcoming was fully addressed prior to reporting.

It is further noted that, whilst Veolia does have an internet website on which the requisite information is available (except as reported), this website is not readily identified by a simple 'Google' search, thereby limiting accessibility by members of the public. It is therefore suggested, as an opportunity for improvement (**OFI-DW-2020.01**), that Veolia includes a link from the Veolia Water Australia website to the My Recycled Water website, or otherwise make access to the requisite information in respect of the Darling Walk Recycled Water Scheme more readily accessible by members of the public.

As noted above, there are minor differences in the information presented in the *Darling Quarter Recycled Water Plant* brochures available on the Veolia Water Australia and My Recycled Water websites. As a further opportunity for improvement (**OFI-DW-2020.02**), it is also suggested that Veolia considers making the same version of the brochure available in both locations.

---

### Recommendations

There are no recommendations in respect of this obligation; the identified non-compliance had already been addressed prior to reporting.

---

### Opportunities for improvement

The following opportunities for improvement have been identified in respect of this obligation:

- **OFI-DW-2020.01:** It is suggested that Veolia includes a link from the Veolia Water Australia website to the My Recycled Water website, or otherwise make access to the requisite information in respect of the Darling Walk Recycled Water Scheme more readily accessible by members of the public.
  - **OFI-DW-2020.02:** It is suggested that Veolia considers making the same version of the *Darling Quarter Recycled Water Plant* brochure available on both the Veolia Water Australia and My Recycled Water websites.
-






## **Appendix B** Detailed Audit Findings – General Obligations of a Network Operator

Detailed audit findings in respect of the *General Obligations of a Network Operator* are presented in this Appendix.



Table B.1 General Obligations – WIC Reg Sched 1 cl.1(2)(a), (b), (c) and (e)

Clause	Requirement	Compliance Grade
<b>WIC Reg Sched 1 cl.1(2)(a), (b), (c) and (e)</b>	<p>[1(2)(a)] A network operator must immediately notify IPART of any incident in the conduct of its activities that threatens, or could threaten, water quality, public health or safety.</p> <p>[1(2)(b)] A network operator must immediately notify the Minister administering the <i>Public Health Act 2010 (NSW)</i> and the <i>Public Health Regulation 2012 (NSW)</i> of any incident in the conduct of its activities that threatens, or could threaten, water quality, public health or safety.</p> <p>[1(2)(c)] A network operator must immediately notify the Minister administering Part 2 of the <i>Water Industry Competition Act 2006 (NSW)</i> of any incident in the conduct of its activities that threatens, or could threaten, water quality, public health or safety.</p> <p>[1(2)(e)] A network operator must immediately notify any licensed network operator or public water utility whose infrastructure is connected to the licensed network operator's infrastructure of any incident in the conduct of its activities that threatens, or could threaten, water quality, public health or safety.</p>	 <b>Non-compliant (non-material)</b>
<b>Risk</b>	<b>Target for Full Compliance</b>	
This requirement reflects a high operational risk. It is essential that relevant stakeholders are made aware of incidents that threaten, or could threaten, water quality, public health or safety.	In the event that a notifiable incident has occurred, evidence that the Licensee provided the required notifications.	
<b>Evidence sighted</b>		
<ul style="list-style-type: none"> <li>▪ Interviews with Veolia personnel on 14 May 2020.</li> <li>▪ Virtual site inspection of infrastructure at Darling Walk on 14 May 2020.</li> <li>▪ Veolia, <i>Darling Quarter; Network Operator's Water Quality Plan</i> (DQ-WQP-001-08) (Revision 8), 5 March 2020.<sup>3</sup></li> <li>▪ Monthly SCADA historian (data) records covering the whole of the audit period (e.g. MS Excel workbook: <i>050719_070819.xlsx</i> covers the period 5 July 2019 to 7 August 2020).</li> <li>▪ ALS Environmental <i>Certificate of Analysis</i> for laboratory testing undertaken during the audit period.</li> <li>▪ MS Excel workbook: <i>PRWP EffluentclodR2_0505_2020.xlsx</i> (last modified 10 May 2020) [<i>Maintenance Records</i> workbook].</li> <li>▪ Cobbitty Consulting, <i>Veolia (Darling Walk) Non-Potable Water Scheme; 2018 Operational Audit</i> (Version 4.1), 12 March 2019.</li> <li>▪ Veolia, <i>Darling Quarters; Recycled Water Treatment Plant; Chlorination Validation Report</i>, 18 July 2019.</li> </ul>		

<sup>3</sup> As reported in **Section 2.2**, previous revisions of the *Water Quality Plan* were also in place during parts of the audit period. General reference is made unless reference to a specific version of the Plan is appropriate.

- 
- NSW DPI Office of Water, *Recycled Water Information Sheet 10; Recycled Water – Public Health Incident Notification and Response*, April 2015.
- 

### Summary of reasons for grade

Veolia advised that no notifiable incidents had occurred during the audit period. Review of SCADA historian data, however, revealed some periods during which chlorine residual levels in the treated water storages (CCP4) were below the lower bound critical limit; Veolia was unable to demonstrate that water was not discharged into supply during these periods.

Breach of a critical limit constitutes a notifiable incident as it indicates that water quality was compromised and public health or safety may have threatened. Accordingly, Veolia was assessed to be non-compliant with these obligations.

Further assessment by the auditor based on conditions at the time of the breaches indicates that adequate log reduction due to the chlorination process is likely to have been achieved. On this basis, the non-compliance is considered to be non-material.

---

### Discussion and notes

#### **Overview:**

The auditor questioned whether there had been any incidents arising from the conduct of the network operator's activities during the audit period that threatened, or could have threatened, water quality, public health or safety and, if so, whether IPART, the Minister administering the *Public Health Act 2010 (NSW)* and the *Public Health Regulation 2012 (NSW)*, the Minister administering Part 2 of the *Water Industry Competition Act 2006 (NSW)* and any connected network operator, retail supplier or public water utility had been notified as required.

Veolia advised that there had been no such incidents during the audit period.

#### **Review of Water Quality Data:**

##### Critical Control Point SCADA Records:

A review of a sample of SCADA data for operational monitoring parameters associated with critical control points (CCPs) across the audit period was undertaken to confirm Veolia's advice. Veolia provided SCADA historian records (data extracts) covering the whole of the audit period for this purpose. These data extracts also include flow records, which enables assessment regarding discharge from the treatment plant during any periods that CCP critical limits were exceeded. Flow monitoring records were enhanced from mid-May 2019, with flow at final discharge from the plant now being monitored (refer Table C.2 for further discussion). Flow recorded by the RO (reverse osmosis) permeate flow meter (FIT3201) was previously deemed by Veolia to be reflective of plant discharge flows.

The following observations are made in respect of the sample of data reviewed:

- November 2018 (7 November 2018 to 16 December 2018)<sup>4</sup> – post MBR turbidity exceeded the critical limit (<0.3 NTU) for periods totalling approximately 8 days. Records indicate that flow downstream of the RO unit continued for much of that time; however, Veolia indicated that out-of-specification water would have been returned to the MBR permeate tank via the automatic closure/opening of valves VLV-3202 (“good permeate”)/VLV-3203 (“bad permeate”) located downstream of the RO and UV units. As reported in respect of the 2017 and (more specifically) 2018 Operational Audits,<sup>5</sup> Veolia was unable to provide evidence that this had occurred; however, arrangements to address this issue have subsequently been implemented.
- 

<sup>4</sup> MS Excel workbook: 071118\_061218.xlsx (SCADA data extract).

<sup>5</sup> Cobbitty Consulting, *Veolia (Darling Walk) Non-Potable Water Scheme; 2018 Operational Audit* (Version 4.1), 12 March 2019, table C.2.

- 
- June 2019 (5 June 2019 to 6 July 2019)<sup>6</sup> – additional records were being retained by this time, including flow downstream of the chlorinator (i.e. on the supply line to the storage tanks) and valve status at the inlet to both storage tanks. The data extract also shows analysis of water quality parameters, flow and valve status to assess/demonstrate that water being discharged to the storage tanks is compliant with the critical limits for CCP parameters.

The records indicate that there were some 5 minute intervals during which water that was technically out-of-specification had been discharged to storage; however, review shows that these instances were reflective of:

- negligible flow rate being recorded (e.g. 0.00125 L/sec), which is considered to be the result of either a weep past a valve or minor error in the flow meter;
- pH level being recorded as very marginally below the critical limit (e.g. 5.9937 compared to lower bound critical limit of pH = 6);
- 5 minute time delay prior to shut down/diversion on turbidity; single interval exceedances were recorded on several occasions; or
- Plant restart, which again resulted in some single interval exceedances.

These instances do not warrant notification.

- September 2019 (3 September 2019 to 2 October 2019)<sup>7</sup> – records demonstrated that flow discharged to storage complied with the CCP critical limits throughout this period, with the exception of five 5 minute intervals which were reflective of plant restart, negligible discharge or time delay (as described above).
- December 2019 (2 December 2019 to 31 December 2019)<sup>8</sup> – the records indicate that there were two periods during which chlorine levels less than the lower bound critical limit of 0.2 mg/L were recorded in one or other of the treated water storages. During these periods (Tank 1 – 19:15 on 12 December to 20:15 on 13 December; Tank 2 – 18:45 to 22:15 on 31 December), discharge into the respective storage was stopped. The cause of the low chlorine levels was recorded “*air in Chlorine system*”.
- March 2020 (1 March 2020 to 30 March 2020)<sup>9</sup> – there were again periods during which chlorine levels in one of the storage tanks were less than the lower bound critical limit of 0.2 mg/L. Levels in Tank 1 were low for the periods 12:30 on 2 March to 03:45 on 3 March and 09:00 on 3 March to 08:30 on 4 March, during which time discharge into the storage was stopped. The cause of the low chlorine levels during these periods was “*air in Chlorine system*”.

Chlorine levels in Tank 1 were again low for the majority of the period 15:45 to 22:30 on 5 March; however, on this occasion discharge into the storage was not stopped. The cause of the low chlorine levels on this occasion was identified as “*chlorine system fault*”.

Review of the *Maintenance Records* workbook<sup>10</sup> confirms that maintenance was carried out to remove air from the chlorination system on 3, 4 and 6 March. Veolia advised (confirmed in *Maintenance Records* workbook) that its SCADA service provider attended to address the fact that the inlet valve to the storage tank did not close in response to the low chlorine levels on 6 March.

When questioned in respect of the low chlorine residual levels in the storage tanks (i.e. at critical control point CCP4) during December 2019 and March 2020, Veolia advised that it had not deemed these to be notifiable incidents on that basis that they did not pose a threat to public health and safety. It had made this assessment on the basis that:

---

<sup>6</sup> MS Excel workbook: *050619\_060719.xlsx* (SCADA data extract).

<sup>7</sup> MS Excel workbook: *030919\_021019.xlsx* (SCADA data extract).

<sup>8</sup> MS Excel workbook: *021219\_311219.xlsx* (SCADA data extract).

<sup>9</sup> MS Excel workbook: *010320\_300320.xlsx* (SCADA data extract).

<sup>10</sup> MS Excel workbook: *PRWP EffluentClodR2\_0505\_2020.xlsx* (last modified 10 May 2020).

- 
- Laboratory verification testing prior to and following these incidents did not detect the presence of *E. coli* (test result were recorded as <1 mg/L); and
  - There were no cross-connection risks in the downstream supply system (customer's distribution network); this was confirmed by a water services hydraulic audit conducted on 2 May 2020 (however; this was subsequent to the audit period and the times at which the low chlorine incidents were recorded).

The auditor is, however, concerned that Veolia is unable to demonstrate that water having residual chlorine less than the critical limit was not discharged into the distribution/reticulation network. The following observations are made (based on detailed assessment and discussions with Veolia):

- Chlorine residual (CCP4) is monitored at the storage tanks; analysers are located on recirculation pipes through which water is pumped from and back into the respective tank via the inlet pipe.
- There is provision for 'top up' dosing of chlorine into each tank; this is again located on the recirculation pipe, downstream of the chlorine analyser.
- The recirculation pipe (and therefore the analyser and 'top up' dosing point) are located downstream on the storage inlet valve (VLV4000.05 and VLV4000.07 respectively for the two tanks), which is (normally) automatically closed in response to a low chlorine reading.
- Closure of the storage inlet valve does not prevent discharge from that storage into supply.
- If the storage is drawn down to the low level trigger point, it will be topped up using potable water; however, given that the two storages are interlinked,<sup>11</sup> balancing between the storages will occur and the need for potable top-up is considered unlikely. In any case, potable water inflow is unlikely to have any measurable impact on chlorine residual (typical residual for potable water is consistent with the CCP4 critical limits, albeit complicated in this case by the combined chlorine (monochloramine) residual used in the Sydney Water network).
- During each low chlorine event, levels in the other storage remain well above the lower bound limit and within the acceptable range. This suggests that the cause may not be due to failure of the primary chlorinator, but failure of the relevant 'top up' chlorinator (analysers were reportedly operating properly); however, Veolia was unable to clarify.
- The principal concern in respect of low residual chlorine levels is that the required log reduction of viruses/bacteria may not have been achieved. Such reduction is dependent upon appropriate residual chlorine concentration levels (C), coupled with adequate detention time (t), or 'Ct'. Review of the *Chlorine Validation Report*<sup>12</sup> for the plant indicates that detention time in the storage tanks is required in addition to the DN400 chlorination contact pipe to achieve the required Ct.

In summary, review of SCADA historian records reveals that residual chlorine levels in one or other of the treated water storage tanks (i.e. at CCP4) were less than the lower bound critical limit of 0.2 mg/L on several occasions during the audit period. Veolia is unable to demonstrate that water was not discharged into the supply network during these periods.

The auditor considers that these events, during which a critical limit was breached, constituted notifiable incidents for the purposes of this obligation (WIC Reg Sched 1 cl.1(2)); the breach indicates that water quality had been compromised and may have threatened public health or safety. This assessment is supported by reference to the *Recycled Water – Public Health Incident Notification and Response*<sup>13</sup> guidance published by the NSW Office of Water, which indicates that recycled water incidents may include: "Recycled Water delivered to customers below the specified quality (Critical Control Point breaches)".

---

<sup>11</sup> Refer Veolia, Piping and Instrumentation Drawing (P&ID); Drg No: QM1B3008, included in appendix 3 to the *Water Quality Plan*.

<sup>12</sup> Veolia, *Darling Quarters; Recycled Water Treatment Plant; Chlorination Validation Report*, 18 July 2019.

<sup>13</sup> NSW DPI Office of Water, *Recycled Water Information Sheet 10; Recycled Water – Public Health Incident Notification and Response*, April 2015.

---

Accordingly, it is recommended (**REC-DW-2020.01**) that Veolia implements more robust processes to ensure that all water quality incidents are identified and notified to relevant stakeholders, as identified in WIC Reg Sched 1 cl.1(2), in accordance with its incident notification protocols.

It is noted that, whilst failure to notify the relevant stakeholders in the event that a critical limit had been breached constitutes a non-compliance, calculation by the auditor based on the flow and pH conditions at the times the breaches occurred indicate that adequate log reduction due to chlorination process is likely to have been achieved.

#### Microbiological Monitoring Results:

In addition to the review of SCADA (online monitoring) data trends, the results of treated water verification testing undertaken by ALS Environmental during the audit period were reviewed. These results are recorded in the *Maintenance Records* workbook.<sup>14</sup> Cross check against a sample of *Certificates of Analysis*, in which laboratory test results are reported, confirms that the results have been correctly complied. A sample of *Certificates of Analysis* and the results presented are further discussed in Table E.6).

Review of the verification test results revealed that:

- *E. coli* (which is considered the critical parameter) levels were recorded as <1 CFU/100 mL (i.e. none detected) for all treated water samples tested during the audit period; this is compliant with the documented requirement;<sup>15</sup>
- Biochemical Oxygen Demand, BOD<sub>5</sub> (which is monitored for system performance purposes) levels were recorded as <5 mg/L (in most cases <2 mg/L) throughout the audit period; this is again compliant with the documented limit of <5 mg/L;
- Total Suspended Solids, SS (which is also monitored for system performance purposes) levels marginally exceeded the documented limit of <5 mg/L on three occasions during the audit period; and
- Total Dissolved Solids, TDS (which is also monitored for system performance purposes) levels were recorded at levels less than the documented limit of 100 mg/L for most of the audit period, although did exceed this limit on several occasions in the first 6 months. A maximum reading of 339 mg/L was recorded for a treated water sample taken on 2 October 2019; other exceedances were only marginally above the limit.

Whilst a small number of test results for SS (total suspended solids) and TDS (total dissolved solids) exceeded the target limits, these are not considered a concern from a public health perspective. As noted, these parameters are monitored for operational purposes. It is, however, noted that excessive levels of TDS (for example) may have a longer term impact on cooling tower operation due to scaling.

Accordingly, the results of verification monitoring indicate that there had not been any reportable incidents based on the results of biological monitoring during the audit period.

#### ***Notification Arrangements:***

Arrangements in respect of incident management are documented in the *Water Quality Plan*.<sup>16</sup> Contact details are also documented in the *Water Quality Plan*;<sup>17</sup> these were updated in the most recent (March 2020) revision of the Plan.

Further discussion in respect of incident and emergency management, including notification requirements, are discussed in the report on a Follow-up Licence Plan Audit in respect of the Water Quality Plan, which was undertaken in conjunction with this audit.<sup>18</sup>

---

<sup>14</sup> MS Excel workbook: *PRWP EffluentClodR2\_0505\_2020.xlsx* (last modified 10 May 2020).

<sup>15</sup> Target limits for these parameters are as documented in the *Water Quality Plan*, section 12.5.1 in Revision 5; section 11.5.1 in Revisions 6, 7 and 8.

<sup>16</sup> *Water Quality Plan*, section 12.6 and appendix 1 in Revision 5; section 11.6 and appendix 1 in Revisions 6, 7 and 8.

<sup>17</sup> *Water Quality Plan*, appendix 2 (all Revisions).

---

Notwithstanding, as an opportunity for improvement (**OFI-DW-2020.03**), it is suggested that Veolia should clearly document the specific water quality incidents or conditions that would trigger notification to the nominated stakeholders pursuant to the Regulation (specifically the requirements of WIC Reg Sched 1, cl.1(2)).

---

### Recommendations

The following recommendation is made in respect of these obligations:

- **REC-DW-2020.01:** It is recommended that Veolia implements more robust processes to ensure that all water quality incidents are identified and notified to relevant stakeholders, as identified in WIC Reg Sched 1 cl.1(2), in accordance with its incident notification protocols.
- 

### Opportunities for improvement

The following opportunity for improvement has been identified in respect of these obligations:



- **OFI-DW-2020.03:** It is suggested that Veolia should clearly document the specific water quality incidents or conditions that would trigger notification to the nominated stakeholders pursuant to the Regulation (specifically the requirements of WIC Reg Sched 1, cl.1(2)).
- 

---

<sup>18</sup> Cobbitty Consulting/Water Futures, *Veolia (Darling Walk) Non-Potable Water Scheme; Follow-up Licence Plan Audit – Water Quality Plan* (Version 2.0), 19 June 2020, table A.4.



Table B.2 General Obligations – WIC Reg Sched 1 cl.2(1) and 2(2)

Clause	Requirement	Compliance Grade
WIC Reg Sched 1 cl.2(1) and 2(2)	[2(1)] A network operator must not bring any new water or sewerage infrastructure into commercial operation without the written approval of the Minister.	Clause 2(1):  <b>Compliant</b>
	[2(2)] The network operator must provide to the Minister a report, prepared by an approved auditor in such manner and form as the Minister may direct, that indicates that the infrastructure:  (a) complies with the requirements of the Regulation and any licence conditions; and  (b) is capable of operating safely and in accordance with its infrastructure operating plan and its water quality or sewerage management plan, as the case requires.	Clauses 2(2)(a) and 2(2)(b):  <b>No Requirement</b>
<b>Risk</b>	<b>Target for Full Compliance</b>	
This requirement reflects a high operational risk. The Minister’s written approval is only provided when the Licensee has demonstrated that the infrastructure complies and can be operated in accordance with the relevant requirements. Accordingly, the absence of the Minister’s written approval may mean that the infrastructure has not been so assessed.	Evidence that the written approval of the Minister was obtained prior to bringing new water or sewerage infrastructure into service.	
<b>Evidence sighted</b>		
<ul style="list-style-type: none"> <li>▪ Interviews with Veolia personnel on 14 May 2020.</li> <li>▪ Virtual site inspection of infrastructure at Darling Walk on 14 May 2020.</li> <li>▪ Veolia, <i>Darling Quarter Development; Network Operator’s Infrastructure Operating Plan</i> (DQ-IOP-001-5) (Revision 5), 5 March 2020.<sup>19</sup></li> <li>▪ Veolia, <i>Darling Quarter; Network Operator’s Water Quality Plan</i> (DQ-WQP-001-08) (Revision 8), 5 March 2020.<sup>19</sup></li> <li>▪ New South Wales Government, <i>Network Operator’s Licence 10_008</i>, issued to Veolia Water Solutions and Technologies (Australia) Pty Ltd (as issued on 24 June 2010).</li> <li>▪ New South Wales Government, <i>Network Operator’s Licence 10_008</i>, issued to Veolia Water Solutions and Technologies (Australia) Pty Ltd (as varied on 18 December 2016).</li> <li>▪ Minister for Finance and Services, <i>Notice of approval to bring new infrastructure into commercial operation</i>, 22 September 2011.</li> </ul>		

<sup>19</sup> As reported in **Section 2.2**, previous revisions of both the *Infrastructure Operating Plan* and *Water Quality Plan* were also in place during parts of the audit period. General reference is made unless reference to a specific version of the Plan is appropriate.

---

### Summary of reasons for grade

No new water or sewerage infrastructure was brought into commercial operation during the audit period; accordingly, Veolia was assessed as being compliant with the provisions of clause 2(1). Furthermore, as no new infrastructure had been brought into operation, there was “No Requirement” for compliance with the provisions of clauses 2(2)(a) or 2(2)(b) during the audit period.

---

### Discussion and notes

Veolia advised that no new water or sewerage infrastructure had been brought into commercial operation during the audit period.

Observations made during a virtual inspection of the infrastructure at Darling Walk revealed no evidence to the contrary. Furthermore, the infrastructure in service at the time of the audit remained consistent with that identified in the *Network Operator’s Licence*<sup>20</sup> and referenced in the *Notice of approval to bring new infrastructure into commercial operation*<sup>21</sup> (which references infrastructure as described in the original *Network Operator’s Licence*<sup>22</sup>).

Accordingly, it was evident that Veolia had not brought any new infrastructure into commercial operation without the approval of the Minister and was therefore compliant with clause 2(1). Furthermore, there was no requirement for any action under the provisions of clause 2(2).

---

### Recommendations

There are no recommendations in respect of these obligations.

---

### Opportunities for improvement

No opportunities for improvement have been identified in respect of these obligations.

---


---

<sup>20</sup> *Network Operator’s Licence No: 10\_008* (as varied on 18 December 2016), Schedule A, Table 1.2.

<sup>21</sup> Minister for Finance and Services, *Notice of approval to bring new infrastructure into commercial operation*, 22 September 2011.

<sup>22</sup> *Network Operator’s Licence No: 10\_008* (as issued on 24 June 2010), Schedule A, Table 2.

Table B.3 General Obligations – WIC Reg Sched 1 cl.3(c)

Clause	Requirement	Compliance Grade
<b>WIC Reg Sched 1 cl.3(c)</b>	The water or sewerage infrastructure is properly designed and constructed, operated in a safe and reliable manner and maintained in a proper condition, having regard to any publicly available standards or codes relating to its design, construction, operation and maintenance.	 <b>Compliant</b>

#### Risk

This requirement reflects a high operational risk. Proper design and construction, safe and reliable operation, and maintenance of infrastructure in proper condition is essential to the effective (safe and reliable) delivery of agreed levels of service.

#### Target for Full Compliance

Evidence that the infrastructure has been properly designed and constructed, and is operated in a safe and reliable manner and is properly maintained, having regard for any publicly available standards or codes. Evidence that the Licensee has procedures in place for ensuring that practices are kept up to date with changes to such standards or codes.

#### Evidence sighted

- Interviews with Veolia personnel on 14 May 2020.
- Virtual site inspection of infrastructure at Darling Walk on 14 May 2020.
- Veolia, *Darling Quarter Development; Network Operator's Infrastructure Operating Plan* (DQ-IOP-001-5) (Revision 5), 5 March 2020.<sup>23</sup>
- Veolia, *Darling Quarter; Network Operator's Water Quality Plan* (DQ-WQP-001-08) (Revision 8), 5 March 2020.<sup>19</sup>
- Minister for Finance and Services, *Notice of approval to bring new infrastructure into commercial operation*, 22 September 2011.
- ABV Inspections, *Certificate of Inspection – Pressure Equipment*, Certificate No: ABVC 51908 in respect of Vessel ID No: 373-U-1937.
- Letter dated 7 May 2020 from Wagner Group Services to the Darling Quarter Property Services Manager.

#### Summary of reasons for grade

Although no new infrastructure was designed or constructed during the audit period, Veolia demonstrated that the infrastructure had continued to be operated in a safe and reliable manner and maintained in proper condition having regard for publicly available standards and codes during the audit period.

Certification of Veolia's Integrated Management System to relevant management system guidelines is taken to indicate that Veolia has arrangements in place for ensuring that codes and standards it references are current.

Accordingly, Veolia was assessed as having demonstrated full compliance with this obligation.

<sup>23</sup> As reported in **Section 2.2**, previous revisions of both the *Infrastructure Operating Plan* and *Water Quality Plan* were also in place during parts of the audit period. General reference is made unless reference to a specific version of the Plan is appropriate.

---

## Discussion and notes

### ***Design and Construction of Infrastructure:***

As noted in Table B.2, no new infrastructure was brought into commercial operation during the audit period; nor was any new infrastructure designed or constructed.

The infrastructure that was in operation during the audit period would have been assessed as having been properly designed and constructed, having regard for publicly available standards and codes, prior to approval to commence commercial operation being given in September 2011.<sup>24</sup>

### ***Operation and Maintenance of Infrastructure:***

Operation and maintenance of the infrastructure is undertaken in accordance with the general principles /strategy outlined in the *Infrastructure Operating Plan*, which further indicates that Veolia is solely responsible for operation and maintenance activities. More specific guidance is provided in the *Operation and Maintenance Manual*<sup>25</sup> and documented procedures (refer Table C.1 for examples).

On the basis of observations made during the audit site inspection,<sup>26</sup> it was apparent that the infrastructure had been/was being operated in a safe and reliable manner and maintained in a proper condition. Furthermore, on the basis of the auditor's experience, it appeared that such operation and maintenance had been/was generally being undertaken having regard to relevant publicly available standards and/or codes.

The following specific observations, which demonstrate compliance with relevant standards and codes, were made:

- Material Safety Data Sheets were available at a clearly identified Hazard Communication Station, together with inspection checklist and permit to work forms (refer Figure 3.1);
- Eye wash stations were appropriately located on both the upper and lower levels, including adjacent to chemical storage areas.
- Spill response kit was available on the lower level, which is where chemicals are stored (refer Figure B.3.2);
- Bunding was in place at chemical storage areas (refer Figures B.3.3 and B.3.4 for example), and bunds were free of any obstructions (including water or chemical solution), as best as could be observed.
- Chemical storages were clearly labelled.
- Pipework within the treatment plant room was generally clearly and appropriately labelled and/or coloured (refer Figures B.3.5 and B.3.6).

As further evidence of compliance with relevant standards and codes, Veolia provided the following:

- A certificate of inspection in respect of the pressure equipment located at the treatment plant. An annual inspection of a horizontal air receiver was undertaken on 15 April 2020 (just outside the audit period) in accordance with the requirements of AS 3738. The certificate noted that such inspection is required pursuant to the *Work Health and Safety Regulation 2011* (NSW).<sup>27</sup>
- A letter from Wagner Group Services (Plumbing Contractor) confirming that it had undertaken a water services hydraulic audit on 2 May 2020 (which is subsequent to the audit period). The letter indicated that:<sup>28</sup>

---

<sup>24</sup> Minister for Finance and Services, *Notice of approval to bring new infrastructure into commercial operation*, 22 September 2011.

<sup>25</sup> The Operation and Maintenance Manual, a hard copy of which was sighted at the treatment plant, comprises a collection of manufacturers' guidance documentation/manuals for equipment and instruments incorporated as part of the plant.

<sup>26</sup> As reported in Section 2.3.3, the site inspection was undertaken virtually, i.e. pre-recorded video and photographs of the infrastructure were viewed and discussed remotely using online video conferencing.

<sup>27</sup> ABV Inspections, *Certificate of Inspection – Pressure Equipment*, Certificate No: ABVC 51908 in respect of Vessel ID No: 373-U-1937.

<sup>28</sup> Letter dated 7 May 2020 from Wagner Group Services to the Darling Quarter Property Services Manager.

---

*“The recycled water pipe system is polypropylene (PP-R) and lilac on colour, the potable/ drinking supply system is copper and after completion of inspecting all risers and locations we can confirm that no inter-connections have been made into the recycled water and potable water supplies.”*

This is taken to indicate that the customer’s installations remain compliant with the Plumbing Code of Australia.

On the basis of the above observations and maintenance records, it is apparent that operation and maintenance of the infrastructure has continued to be undertaken having regard to any publicly available standards or codes and industry practice.

Veolia’s approach to operation and maintenance of the infrastructure is further discussed in Table C.1.

***Currency of Standards and Codes:***

Although Veolia’s arrangements for assessing the currency of standards and codes it refers to in relation to the design, construction, operation and maintenance of the infrastructure were not specifically addressed as part of this audit, it is noted that Veolia’s Integrated Management System is certified, including AS/NZS 4801:2001 *OHS Management Systems*; BS OHAS 18001:2007 *OHS Management Systems*; AS/NZS ISO 14001:2004 *Environmental Management Systems* and AS/NZS ISO 9001:2008 *Quality Management Systems*.<sup>29</sup> Compliance with these management system guidelines requires the implementation of document management systems that include procedures for ensuring the currency of all documentation, including referenced standards and codes.

---

**Recommendations**

There are no recommendations in respect of this obligation.

---

**Opportunities for improvement**

No opportunities for improvement have been identified in respect of this obligation.

---

---

<sup>29</sup> *Infrastructure Operating Plan*, section 11.1.

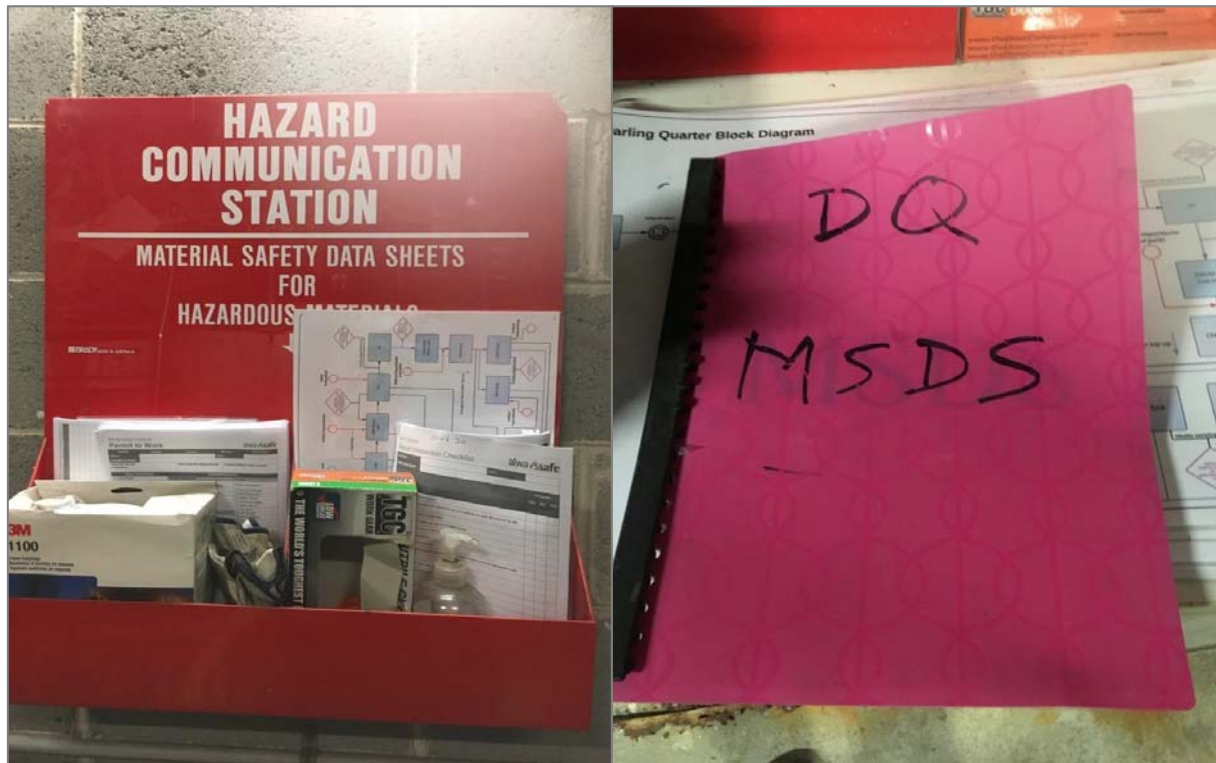


Figure B.3.1 Hazard Communication Station (with inspection checklist and permit to work forms) and MSDS folder.



Figure B.3.2 Chemical Spill Response Kit.



Figure B.3.3 Self-bunded chemical storage (inner storage tank contained within an outer tank).  
Note clear chemical signage.



Figure B.3.4 Chemical container stored within an empty tub (bundling).



Figure B.3.5 Pipework appropriately labelled and coloured.

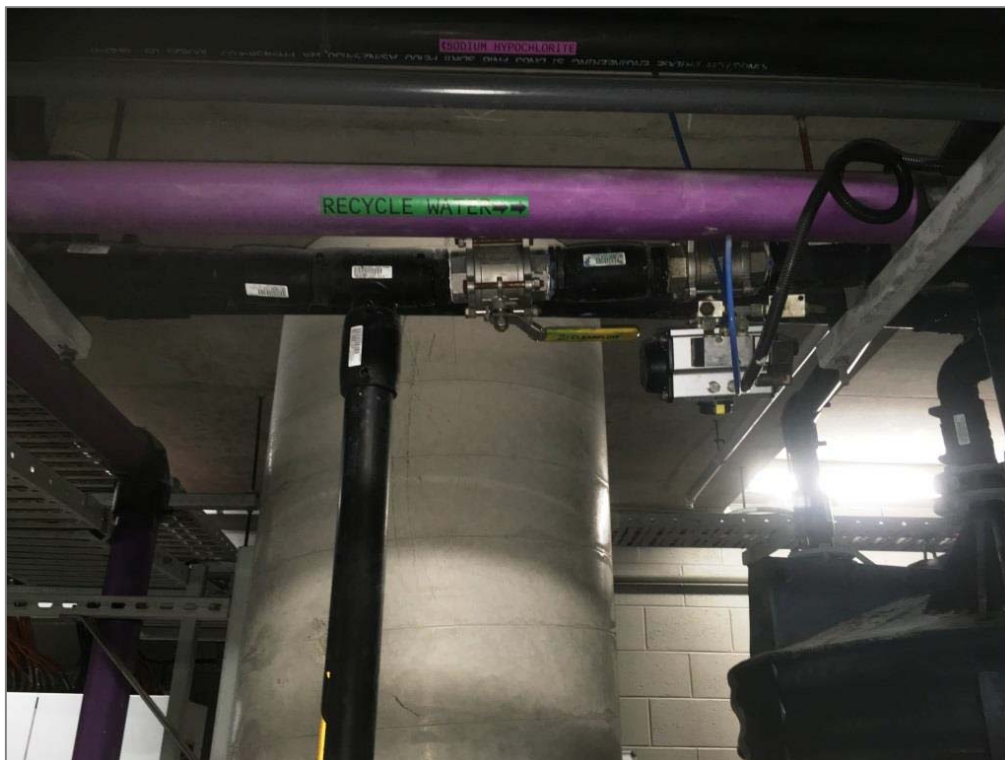


Figure B.3.6 Recycled water pipework clearly labelled and coloured lilac.




## **Appendix C Detailed Audit Findings – Water Supply Infrastructure**

Detailed audit findings in respect of the obligations related to *Water Supply Infrastructure* are presented in this Appendix.



Table C.1 Water Supply Infrastructure – WIC Reg Sched 1 cl.6(2)(a)

Clause	Requirement	Compliance Grade
<b>WIC Reg Sched 1 cl.6(2)(a)</b>	The network operator must ensure that the infrastructure operating plan is fully implemented and kept under regular review and all of the network operator's activities are carried out in accordance with that plan.	 <b>Compliant</b>
<b>Risk</b>	<b>Target for Full Compliance</b>	
This requirement reflects a high operational risk. Implementation of the <i>Infrastructure Operating Plan</i> ensures the effective (safe and reliable) delivery of agreed levels of service.	Evidence that the <i>Infrastructure Operating Plan</i> is fully implemented and the Licensee's activities are carried out in accordance with that <i>Plan</i> ; evidence that the <i>Plan</i> is kept under regular review.	
<b>Evidence sighted</b>		
<ul style="list-style-type: none"> <li>▪ Interviews with Veolia personnel on 14 May 2020.</li> <li>▪ Virtual site inspection of infrastructure at Darling Walk on 14 May 2020.</li> <li>▪ Veolia, <i>Darling Quarter Development; Network Operator's Infrastructure Operating Plan</i> (DQ-IOP-001-5) (Revision 5), 5 March 2020.<sup>30</sup></li> <li>▪ Veolia, <i>Darling Quarter; Network Operator's Water Quality Plan</i> (DQ-WQP-001-08) (Revision 8), 5 March 2020.<sup>30</sup></li> <li>▪ Minister for Finance and Services, <i>Notice of approval to bring new infrastructure into commercial operation</i>, 22 September 2011.</li> <li>▪ <i>Standard Service Support Agreement for Darling Quarter Recycled Water Project</i> dated 20 October 2011 between Jones Lang LaSalle and Veolia Water Solutions &amp; Technologies (Australia) Pty Ltd.</li> <li>▪ Letter dated 24 June 2019 from Lendlease/Darling Quarter to Veolia (re: <i>Darling Quarter – RWTP Services Contract FY2019-2020</i>).</li> <li>▪ Veolia, <i>Installation and Operation Manual; BIOSEP-1C-5 VWS Australia; Serial Number 001272</i> (Revision 0), undated.</li> <li>▪ Veolia, <i>Multipure Plus; Installation, Operation and Maintenance Manual</i>, undated.</li> <li>▪ MS Excel workbook: <i>PRWP EffluentclodR2_0505_2020.xlsx</i> (last modified 10 May 2020) [<i>Maintenance Records</i> workbook].</li> <li>▪ Endress+Hauser, <i>Service Report</i> for work undertaken on 20 June 2020 (Customer No: 63101789).</li> <li>▪ Endress+Hauser, <i>Service Report</i> for work undertaken on 15 April 2020 (Customer No: 63101789).</li> <li>▪ Endress+Hauser, <i>Calibration Certificate AIT2013</i> (Certificate No: CAL-0000009613), 15 April 2020.</li> <li>▪ MS Excel workbook: <i>BR14-TOOL01 Annual Audit Program (1).xlsx</i>.</li> <li>▪ Veolia, <i>Internal Audit Plan – 2020 – Darling Quarter</i> (Form: BR14-Tool02), dated 10 March 2020.</li> <li>▪ Veolia, <i>Internal Audit Report – Darling Quarter – 2020</i> (Form: BR14-Tool03), 10 March 2020.</li> <li>▪ Veolia, <i>Darling Quarter – Recycled Water Treatment Plant; Monthly Report</i>, October 2019.</li> </ul>		

<sup>30</sup> As reported in **Section 2.2**, previous revisions of both the *Infrastructure Operating Plan* and *Water Quality Plan* were also in place during parts of the audit period. General reference is made unless reference to a specific version of the Plan is appropriate.

- 
- Veolia, *Darling Quarter – Recycled Water Treatment Plant; Monthly Report*, March 2020.
  - Veolia, *BR12 Document Control Procedure* (Version No: 2), January 2018.
- 

### Summary of reasons for grade

Veolia demonstrated that it is fully implementing, and is carrying out its infrastructure management activities in accordance with principles documented in, the *Infrastructure Operating Plan*. This was evident from the effective operation of the infrastructure and the implementation of maintenance practices; furthermore it demonstrated that it maintains the capability and resources to do so.

The *Infrastructure Operating Plan* was reviewed and updated during the audit period, which was the first detailed review since February 2014. A review frequency of at least once every three years is planned.

Accordingly, Veolia was assessed to have demonstrated compliance with this obligation.

---

### Discussion and notes

The auditor checked for evidence that the *Infrastructure Operating Plan* was being fully implemented and kept under regular review and that all of the Network Operator's activities are carried out in accordance with that *Plan*.

#### ***Design and Construction:***

The infrastructure at Darling Walk has been operational since September 2011, following issue of a *Notice of approval to bring new infrastructure into commercial operation*.<sup>31</sup> No design or construction activity was undertaken during the audit period.

#### ***Operation and Maintenance:***

It is noted that Veolia operates and maintains the Darling Walk Recycled Water Plant under the terms of a *Service Support Agreement*<sup>32</sup> with Jones Lang LaSalle (property/building manager for the Darling Walk development). The original *Service Support Agreement* was for a period of five (5) years. It has been incrementally extended and currently expires on 30 June 2020.<sup>33</sup> It is understood that a new contract is currently being negotiated; this was referenced in the most recent letter of extension.

Operation and maintenance of the infrastructure is undertaken in accordance with the general principles/strategy outlined in the *Infrastructure Operating Plan*. More specific guidance is provided in the *Operation and Maintenance Manual*<sup>34</sup> and documented procedures. Veolia provided a sample of procedural documents, including (for example):

- Installation and Operation Manual<sup>35</sup> for the BIOSEP-1C-5 biological treatment process equipment which is the basis of the Darling Walk treatment plant; and
- Installation, Operation and Maintenance Manual<sup>36</sup> for the Multipure Plus reverse osmosis filtration equipment which forms part of the treatment process.

The adopted operation and maintenance strategy comprises daily remote monitoring of plant operation via SCADA, weekly inspections and minor maintenance, periodic maintenance (generally in accordance with equipment manufacturer recommendations), and reactive maintenance in response to alarm conditions. It is specifically noted that, given the availability of potable water for top-up purposes and the contractual arrangements with the end user, the treatment plant is not considered as being critical to the

---

<sup>31</sup> Minister for Finance and Services, *Notice of approval to bring new infrastructure into commercial operation*, 22 September 2011.

<sup>32</sup> *Standard Service Support Agreement for Darling Quarter Recycled Water Project* dated 20 October 2011 between Jones Lang LaSalle and Veolia Water Solutions & Technologies (Australia) Pty Ltd.

<sup>33</sup> Letter dated 24 June 2019 from Lendlease/Darling Quarter to Veolia (re: *Darling Quarter – RWTP Services Contract FY2019-2020*).

<sup>34</sup> The *Operation and Maintenance Manual*, a hard copy of which has previously been sighted at the treatment plant, comprises a collection of manufacturers' guidance documentation/manuals for equipment and instruments incorporated as part of the plant.

<sup>35</sup> Veolia, *Installation and Operation Manual; BIOSEP-1C-5 VWS Australia; Serial Number 001272* (Revision 0), undated.

<sup>36</sup> Veolia, *Multipure Plus; Installation, Operation and Maintenance Manual*, undated.

---

ongoing operation of the Darling Quarter Development. Accordingly, the design of the treatment plant does not include any device or equipment redundancy (standby capacity).<sup>37</sup>

Operation and maintenance activity is documented in a *Maintenance Records* workbook,<sup>38</sup> which was provided to the auditor. This MS Excel workbook includes:

- a Diary in which operation and maintenance activities are recorded, for example:
  - 18 September 2018 – “Compressor faulty; sampling; CIP MBR and RO; calibrate chlorination probes; plant restart.”
  - 12 December 2018 – “micron filter replace; fill chemical; CIP MBR; sample taken; change hose for town water.”
  - 30 April 2019 – “Cleaned roto-sieve; Download data; installing conductivity meter; calibration chlorine, sample taken; break down valve 2020.04; Matt from Dexa come number [of items], cleaning Scada- check working of valve 3203 working on turbidity, high set point working at set point 0.3 after 5 minutes of water the valve open, and when the turbidity is back ok the valve close after 2 minutes; Backwash reset the timers. valve 4000.07 close when Chlorine in the tank is out range, need to check code, code corrupted, (deleted, timers, factors).” DEXA Service Report No: 1643 is referenced.
  - 8 August 2017 – “CAPS [service provider] on site for Blower service. Belts on compressor tightened, noise gone. Cleaned Roto sieve. Weekly sample taken.”
  - 6 March 2020 – “Claudio drain tank fix Chlorine tube.”
- a record of Maintenance activities, as planned and completed. Review of a sample of activities indicates that planned activities are generally consistent with the requirements set out in the *Service Support Agreement* between Veolia and its client.<sup>39</sup>
- a record of Online and Onsite CCP reading checks – online readings of CCP parameters are checked against readings taken using hand-held instruments on a nominally weekly basis. Readings were generally consistent throughout the audit period with only minor variances which are considered in most cases to be within instrument accuracy. Readings for post MBR turbidity presented the greatest consistent variation; however, calibration service reports from June 2019 and April 2020 indicate that the online instrument complied with calibration requirements on both occasions. The may indicate that the hand-held instrument requires calibration; calibration records were not sighted.

As evidence that maintenance and calibration of monitoring instruments had been undertaken, Veolia provided an Endress+Hauser *Service Reports* for instrument maintenance undertaken in June 2019<sup>40</sup> and April 2020<sup>41</sup> (just after the end of the audit period). In summary:

- The June 2019 report indicated that:
  - There was no error indications (for the instrument as found) and that calibration had been carried out for instruments DOIT1022 and DOIT1023 (Dissolved oxygen probes), AIT2017 and AIT4000 (pH probes), AIT3101 and AIT3201 (Conductivity meters), FIT1042 and FIT1016 (Flow meters), and AIT2023 (Turbidity meter); and
  - Instruments AE/AIT8040, AE/AIT8030 and AIT4001 (free chlorine/pH analysers) were also calibrated, and that the pH probe for AE/AIT8040 needed replacement.
- The April 2020 report indicated that:
  - There was no error indications (for the instrument as found) and that calibration had been carried out for instruments FIT1016, FIT1042 and FIT4002 (Flow meters), AIT4000 and AIT2017, AIT8040, AIT8030 and AIT4001 (pH probes), AIT2023 (Turbidity meter), AIT3101 and AIT3201 (Conductivity meters), DOIT1022 and DOIT1023 (Dissolved oxygen probes),

---

<sup>37</sup> *Infrastructure Operating Plan*, section 11.3.3.

<sup>38</sup> MS Excel workbook: *PRWP EffluentClodR2\_0505\_2020.xlsx* (last modified 10 May 2020).

<sup>39</sup> Jones Lang LaSalle and Veolia, *Standard Service Support Agreement for Darling Quarter Recycled Water Project*, 20 October 2011.

<sup>40</sup> Endress+Hauser, *Service Report* for work undertaken on 20 June 2020 (Customer No: 63101789).

<sup>41</sup> Endress+Hauser, *Service Report* for work undertaken on 15 April 2020 (Customer No: 63101789).

---

and AE8030 and AE8040 (free chlorine analysers);

- Instruments AIT4000 (pH probe) was reported to be “reading very low zero point” and replacement of the probe was recommended; and
- DOIT1023 (Dissolved oxygen probe) required replacement of cap and O-ring.

Calibration certificates were also provided in respect of each instrument, including for (for example) the MBR permeate turbidity meter AE/AIT2023.<sup>42</sup>

Based on the photographic evidence provided, the treatment plant room was found to be clean and tidy. Instruments (refer Figure C.1.1), pipework and other plant equipment was generally well labelled and chemical bunding remained in place (refer also to Table B.3). Current calibration stickers were affixed to all instruments.

On the basis of observations made during the audit site inspection,<sup>43</sup> it was apparent that the infrastructure had been/was being operated in a safe and reliable manner and maintained in a proper condition.

### ***Capability and Training:***

Effective operation and maintenance of the infrastructure requires personnel with relevant capabilities and experience. The skills and capability of the Veolia personnel engaged in operation and maintenance of the infrastructure is discussed in Table E.1.

Veolia engages external service providers when specialist skills are required, such as for instrument servicing and calibration (Endress+Hauser), mechanical equipment maintenance (CAPS Australia) and DEXA Solutions (SCADA services), for example.

### ***Internal Audit:***

As part of its approach for ensuring that operational risks are minimised through the effectiveness implementation of its business management and operational procedures, Veolia conducts internal audits.<sup>44</sup> The *Corporate Audit Plan*<sup>45</sup> indicates that an internal audit of the Darling Walk scheme operations was scheduled for audit in March 2020.

Veolia provided a copy of both the *Internal Audit Plan*<sup>46</sup> for the audit, which detailed the objectives, criteria, scope and timing for the audit, and the resultant audit report. Review of the *Internal Audit Report*<sup>47</sup> revealed that the audit had included matters including (for example):

- Incident management; laboratory test results showing high TSS were noted;
- Workplace hazardous chemicals; availability and currency of MSDSs for all chemicals on site was confirmed;
- Compliance with requirements of the individual clauses of both the Network Operator’s and Retail Supplier’s Licences were checked.

### ***Performance Monitoring and Review:***

Pursuant to the requirements of the *Infrastructure Operating Plan*<sup>48</sup> (and *Water Quality Plan*),<sup>49</sup> Veolia provides monthly reports to its client, Jones Lang LaSalle. Review of a sample *Monthly Reports* for October 2019<sup>50</sup> and March 2020<sup>51</sup> revealed that these reports are presented in a standardised format and include details in

---

<sup>42</sup> Endress+Hauser, *Calibration Certificate AIT2013* (Certificate No: CAL-0000009613), 15 April 2020.

<sup>43</sup> As reported in Section 2.3.3, the site inspection was undertaken virtually, i.e. pre-recorded video and photographs of the infrastructure were viewed and discussed remotely using online video conferencing.

<sup>44</sup> *Infrastructure Operating Plan*, section 13.2.

<sup>45</sup> MS Excel workbook: BR14-TOOL01 *Annual Audit Program (1)*.xlsx.

<sup>46</sup> Veolia, *Internal Audit Plan – 2020 – Darling Quarter* (Form: BR14-Tool02), dated 10 March 2020.

<sup>47</sup> Veolia, *Internal Audit Report – Darling Quarter – 2020* (Form: BR14-Tool03), 10 March 2020.

<sup>48</sup> *Infrastructure Operating Plan*, section 11.3.2.

<sup>49</sup> *Water Quality Plan*, sections 12.5.5 and 12.10.2 in Revision 5; sections 11.5.5 and 11.10.2 in Revisions 6, 7 and 8.

<sup>50</sup> Veolia, *Darling Quarter – Recycled Water Treatment Plant; Monthly Report*, October 2019.

<sup>51</sup> Veolia, *Darling Quarter – Recycled Water Treatment Plant; Monthly Report*, March 2020.

---

relation to safety performance, reclaimed water quality targets, key performance indicators, asset management (including downtime, upcoming major/critical maintenance or repair work) and third party/contractor management.

On the basis of the samples reviewed it is apparent that Veolia is monitoring and recording its performance, including asset management activities, and reporting to the client as required.

***Regular Review of Infrastructure Operating Plan:***

The *Infrastructure Operating Plan* was reviewed and updated during the audit period; the previous update had been undertaken in February 2014. It is noted that, whilst the *Infrastructure Operating Plan* indicates in several sections that it is to be kept under regular review, it does not identify timelines or other conditions that would trigger a review.

Veolia's *Document Control Procedure*<sup>52</sup> does, however, detail the requirements for review and amendment of Business Management System (BMS) documents, which are assumed to include the management system documents associated with the Darling Walk scheme (i.e. the *Infrastructure Operating Plan*, *Water Quality Plan* and *Retail Supply Management Plan*). This document requires (in part) that:

*“All BMS documentation will be reviewed every three years or if there is an identified change to the contents that will impact on the document accuracy.*

*If no changes are required upon advice of the Document Custodian, the document version & date must be updated to reflect the review.”*

On this basis, the *Infrastructure Operating Plan* should be reviewed at least every 3 years, with the next review scheduled to be no later than March 2023.

---

**Recommendations**

There are no recommendations in respect of this obligation.

---

**Opportunities for improvement**

No opportunities for improvement have been identified in respect of this obligation.

---

---


<sup>52</sup> Veolia, *BR12 Document Control Procedure* (Version No: 2), January 2018.



Figure C.1.1 pH and residual free chlorine analyser – Tank No: 2.



Table C.2 Water Supply Infrastructure – WIC Reg Sched 1 cl.7(4)(a)

Clause	Requirement	Compliance Grade
<b>WIC Reg Sched 1 cl.7(4)(a)</b>	The network operator must ensure that its water quality plan is fully implemented and kept under regular review and the network operator’s activities are carried out in accordance with that plan.	 <b>Compliant</b>
<b>Risk</b>	<b>Target for Full Compliance</b>	
This requirement reflects a high operational risk. Implementation of the <i>Water Quality Plan</i> ensures that the water supplied complies with the specified quality requirement.	Evidence that the <i>Water Quality Plan</i> is fully implemented and the Licensee’s activities are carried out in accordance with that <i>Plan</i> ; evidence that the <i>Plan</i> is kept under regular review.	
<b>Evidence sighted</b>		
<ul style="list-style-type: none"> <li>▪ Interviews with Veolia personnel on 14 May 2020.</li> <li>▪ Virtual site inspection of infrastructure at Darling Walk on 14 May 2020.</li> <li>▪ Veolia, <i>Darling Quarter Development; Network Operator’s Infrastructure Operating Plan</i> (DQ-IOP-001-5) (Revision 5), 5 March 2020.<sup>53</sup></li> <li>▪ Veolia, <i>Darling Quarter; Network Operator’s Water Quality Plan</i> (DQ-WQP-001-08) (Revision 8), 5 March 2020.<sup>53</sup></li> <li>▪ SCADA Screen Shots – images of six (6) SCADA screens that show the entire process flow through the recycled water plant (included in portfolio of photographs provided by Veolia).</li> <li>▪ Monthly SCADA historian (data) records covering the whole of the audit period (e.g. MS Excel workbook: <i>050719_070819.xlsx</i> covers the period 5 July 2019 to 7 August 2020).</li> <li>▪ Cobbitty Consulting, <i>Veolia (Darling Walk) Non-Potable Water Scheme; 2018 Operational Audit</i> (Version 4.1), 12 March 2019.</li> <li>▪ Warren Smith &amp; Partners Drg No: HD152200, <i>Darling Walk; Bovis Lend Lease; Pe&amp;ID Recycled Water and Sewage System</i> (Revision E), 9 April 2010.</li> <li>▪ Veolia, <i>Darling Quarters; Recycled Water Treatment Plant; Chlorination Validation Report</i>, 18 July 2019.</li> <li>▪ ALS Environmental <i>Certificate of Analysis</i> for laboratory testing undertaken during the audit period.</li> <li>▪ Letter (reference D19/8808) dated 10 April 2019 from IPART to Veolia (re: <i>Order under section 16 of Water Industry Competition Act 2006 (WICA): Requirement to revise and audit for adequacy the Water Quality Plan for the Darling Walk scheme</i>).</li> <li>▪ Veolia, <i>BR12 Document Control Procedure</i> (Version No: 2), January 2018.</li> <li>▪ Water Futures, <i>WICA Audit Report to IPART; Licence No. 10_008: Veolia (Darling Walk) Non Potable Water Scheme; Licence Plan Audit (Recycled Water Quality Plan)</i> (Version 5), 28 July 2019.</li> </ul>		

<sup>53</sup> As reported in **Section 2.2**, previous revisions of both the *Infrastructure Operating Plan* and *Water Quality Plan* were also in place during parts of the audit period. General reference is made unless reference to a specific version of the Plan is appropriate.

---

## Summary of reasons for grade

Veolia demonstrated that during the audit period it had implemented, and had carried out its water quality management activities in accordance with principles documented in, the *Water Quality Plan*. This was evident from the effective monitoring and testing processes that are being implemented.

On this basis Veolia is assessed to have demonstrated compliance with this obligation.

However, whilst Veolia has complied with the arrangements detailed in the *Water Quality Plan*, the corrective action documented as the response to breaches of its chlorine residual (CCP4) critical limits is not considered effective in preventing the discharge of out-of-specification water into supply. A recommendation has been made in respect of this issue.

---

## Discussion and notes

The auditor checked for evidence that the *Water Quality Plan* was being fully implemented and kept under regular review and that all of the Network Operator's activities are carried out in accordance with the *Plan*.

### **Operational Monitoring:**

As identified in the *Water Quality Plan*,<sup>54</sup> operational monitoring at four Critical Control Points (CCPs) is used to monitor and control operation of the plant, as follows:

- CCP1 – MBR monitored using Filtrate Turbidity;
- CCP2 – Reverse osmosis (RO) monitored using Permeate Electrical Conductivity (EC);
- CCP3 – Ultra Violet (UV) monitored using Ultraviolet Intensity (UVI); and
- CCP4 – Chlorination monitored using treated water chlorine residual and pH.

Chlorine residual, as well as pH, are monitored in each of two treated water storage tanks.

These parameters are continually monitored via the SCADA system. Any breaches of the critical limits are alarmed and water is diverted from supply.

To confirm consistency with the requirements of the *Water Quality Plan*, a number of checks were made, as follows:

- Observed instrument readings were recorded and checked for consistency with those reported in the SCADA system (as displayed on photographs of SCADA screens within a short timeframe).<sup>55</sup>
- Current parameter settings for CCPs were checked for consistency with the critical limits documented in the *Water Quality Plan*.
- Observed readings were checked for compliance with the critical limits.

A summary of these checks is presented in the table below. The following observations are made:

- All observed instrument readings were within the relevant critical limits at the time of the inspection. UV lamp age of 2,726 hours was also well within the target age of 8,477 hours.
  - All critical limits have been set consistent with the values documented in the *Water Quality Plan*. Allowances between the adopted alarm settings and critical (shutdown) limits are considered appropriate; inappropriate settings identified during the 2018 Operational Audit<sup>56</sup> have been adjusted.
  - SCADA display parameter readings were consistent with instrument readings.
- 

<sup>54</sup> *Water Quality Plan*, section 12.5.1 in Revision 5, section 11.5.1 in Revisions 6, 7 and 8.

<sup>55</sup> SCADA historian data records were sought for time that instrument readings were recorded (photographed); however, it appeared that records provided were for the wrong day.

<sup>56</sup> Cobbitty Consulting, *Veolia (Darling Walk) Non-Potable Water Scheme; 2018 Operational Audit* (Version 4.1), 12 March 2019, table C.2.

CCP	Operational Monitoring Parameter (Units) /Instrument	Observed Instrument Reading	SCADA Reading	SCADA Alarm Setting	SCADA Critical Limit (Shutdown)	Within Critical Limit	Critical Limit Compliance with <i>Water Quality Plan</i>
CCP1	MBR Turbidity (NTU) /AIT2023	0.085	0.09	>0.2	>0.3	✓	Critical limit setting consistent with requirement
CCP2	Electrical Conductivity (µS/cm) /AIT3201	n/a	27.1	>45	>50	✓	Critical limit setting consistent with requirement
CCP3	Ultraviolet Intensity (W/m <sup>2</sup> )	139	141.9	<80	<40	✓	Critical limit setting consistent with requirement
CCP4	Tank 1 chlorine residual (mg/L) /AIT8030	1.03	1.0	<0.3 and >1.8	<0.2 and >2.0	✓	Critical limit settings consistent with requirement
	Tank 1 pH /AIT8031	7.04	7.0	<6.2 and >8.8	<6.0 and >9.0	✓	Critical limit settings consistent with requirement
	Tank 2 chlorine residual (mg/L) /AIT8040	0.89	0.9	<0.3 and >1.8	<0.2 and >2.0	✓	Critical limit settings consistent with requirement
	Tank 2 pH /AIT8041	7.06	7.1	<6.2 and >8.8	<6.0 and >9.0	✓	Critical limit settings consistent with requirement

### ***Operational Control Arrangements:***

As reported in Table B.1, review of SCADA data revealed that residual chlorine levels in one or other of the treated water storage tanks (i.e. at CCP4) were less than the lower bound critical limit of 0.2 mg/L on several occasions during the audit period. Veolia is unable to demonstrate that water was not discharged into the supply network during these periods.

The *Water Quality Plan*<sup>57</sup> indicates that the corrective action to be taken in response to a breach of the chlorine critical limits is to:

*“Automatically shut down supply to treated water tank outside limits”*.<sup>58</sup>

Review of the SCADA data reveals that, apart from one occasion during which there was an explained control system failure, this corrective action was implemented in response to the identified incidents.

However, as discussed in Table B.1, this response does not prevent the discharge of out-of-specification water into supply. The principal concern in respect of the recorded low residual chlorine levels is that the required log reduction of viruses/bacteria may not have been achieved.

Furthermore:

- Monitoring in respect of the chlorination critical control point (CCP4) is undertaken at the treated water storage tanks.
- Reference to the relevant P&ID indicates that there is no isolation on the outlet from either storage that could be used to prevent the discharge of out-of-specification water.<sup>59</sup> This is, however, contrary to the arrangement shown on Drg No: HD152200 (Potable Water P&ID),<sup>60</sup> which shows that there is a manually operated valve on each outlet.

<sup>57</sup> *Water Quality Plan*, section 11.5.1 in Revisions 6, 7 and 8.

<sup>58</sup> *Water Quality Plan*, section 12.5.1 in Revision 5 indicates: “Automatically shut down supply to treated water tank at upper limit and divert treated water to sewer”.

<sup>59</sup> Veolia, Piping and Instrumentation Drawing (P&ID); Drg No: QM1B3008, included in appendix 3 to the *Water Quality Plan*.

<sup>60</sup> Warren Smith & Partners Drg No: HD152200, *Darling Walk; Bovis Lend Lease; P&ID Recycled Water and Sewage System* (Revision E), 9 April 2010.

- Drg No: HD152200 also shows that there is a cross connection between each outlet downstream of the individual storage outlet valves, which has a “Manual change over valve to allow for isolation of each tank for servicing”. The inference is taken that this valve is normally closed; however, this is not confirmed.
- The auditor had initially anticipated that monitoring of chlorine residual for the purposes of CCP4 could be undertaken at the analyser (AIT4001) located downstream of the chlorinator (chlorine contact pipe) and upstream of the treated water storages; however, review of the *Chlorine Validation Report*<sup>61</sup> for the plant indicates that detention time in the storage tanks is required in addition to the DN400 chlorination contact pipe to achieve the required Ct. Therefore monitoring for the purposes of CCP4 must occur at the storage tanks; however, upstream points of diversion do not enable an effective response in the event of a chlorine critical limit breach under this arrangement.

Whilst, for the purposes of assessing compliance with this obligation (WIC Reg Sched 1 cl.7(4)(a)), Veolia has demonstrated that it has implemented the corrective action documented in its *Water Quality Plan* in response to breaches of its chlorine residual (CCP4) critical limits, such response is not considered effective in preventing the discharge of out-of-specification water into supply.

Therefore, as an opportunity for improvement (**OFI-DW-2020.04**), it is strongly recommended that Veolia reviews the plant control arrangements, and specifically the corrective action response to breaches of chlorine residual critical limits, to ensure that arrangements are in place to ensure that out-of-specification water is not discharged into supply and that records are maintained to demonstrate accordingly. Having now been identified, this issue could be elevated to non-compliance status if not effectively addressed prior to the next Operational Audit.

It is further noted that there appears to be inconsistent information in respect of the treated water storage outlet and supply connectivity arrangements. As a further opportunity for improvement (**OFI-DW-2020.05**) in support of the above recommendation, it is further suggested that Veolia and JLL together take action to clarify the current arrangements, thereby ensuring that they are fully understood by all parties.

#### ***Water Quality Verification Monitoring:***

Water quality verification monitoring is being undertaken in accordance with the *Water Quality Plan*.<sup>62</sup> As reported in Table B.1, review of a sample of test results revealed that all results were within the documented limits except a small number of SS (total suspended solids) and TDS (total dissolved solids). These are not considered a concern from a public health perspective; these parameters are monitored for operational purposes. It is, however, again noted that excessive levels of TDS (for example) may have a longer term impact on cooling tower operation due to scaling.

#### ***Permitted Uses:***

The *Water Quality Plan*<sup>63</sup> identifies the purposes for which recycled water will be used as Cooling tower water and makeup, Toilet flushing and Garden irrigation. There was no evidence to indicate that the recycled water was being used for any other purposes.

Identification of the presence of recycled water is a key barrier to inadvertent cross connections, as is effective communication. As reported in Table B.3, appropriate colour coding and labelling of pipework was observed within the treatment plant. Colour coded pipework has also been observed in the basement of the building in which the treatment plant is located and labelling in relation to the use of recycled water has been observed in an accessible building toilet facility during previous Operational Audits (2017 and 2018); these installations are unlikely to have changed.

#### ***Reporting:***

As reported in Table C.1, Veolia provides monthly reports to its client, Jones Lang LaSalle. Based on review of a sample of *Monthly Reports* (October 2019 and March 2020), it appears that these reports include

<sup>61</sup> Veolia, *Darling Quarters; Recycled Water Treatment Plant; Chlorination Validation Report*, 18 July 2019.

<sup>62</sup> *Water Quality Plan*, section 12.5.1 in Revision 5; section 11.5.1 in Revisions 6, 7 and 8.

<sup>63</sup> *Water Quality Plan*, section 12.2.1 in Revision 5; section 11.2.1 in Revisions 6, 7 and 8.

---

details in relation to water quality targets, but not actual performance. It is noted that compliance is reported on a key performance indicator (KPI) basis, which is presumably adequate for the client's requirements.

***Regular Review of Water Quality Plan:***

The *Water Quality Plan* was reviewed and updated several times during the audit period, principally in response to a WICA Section 16 order issued by IPART<sup>64</sup> subsequent to the 2018 Operational Audit (although at the time of the 2018 Operational Audit, Veolia advised that a full review was planned for completion in early 2019). The *Water Quality Plan* was updated in May 2019, July 2019 and March 2020; the previous update had been undertaken in January 2014.

It is noted that, whilst the *Water Quality Plan* indicates in several sections that it is to be kept under regular review, it does not identify timelines or other conditions that would trigger a review.

Veolia's *Document Control Procedure*<sup>65</sup> does, however, detail the requirements for review and amendment of Business Management System (BMS) documents, which are assumed to include the management system documents associated with the Darling Walk scheme (i.e. the *Infrastructure Operating Plan*, *Water Quality Plan* and *Retail Supply Management Plan*). This document requires (in part) that:

*“All BMS documentation will be reviewed every three years or if there is an identified change to the contents that will impact on the document accuracy.*

*If no changes are required upon advice of the Document Custodian, the document version & date must be updated to reflect the review.”*

On this basis, the *Water Quality Plan* should be reviewed at least every 3 years, with the next review scheduled to be no later than March 2023.

***Previous Recommendations:***

As noted above, IPART issued a WICA Section 16 order to Veolia subsequent to the 2018 Operational Audit, primarily to address the following recommendations:

- ***REC-DW-2018.01:*** *It is recommended that that Veolia reviews and updates the Water Quality Plan to ensure that it fully reflects the treatment plant operating arrangements that are currently in place. Such review and update should reflect any action taken in response to the opportunity for improvement (OFI-DW-2018.05) identified in respect of the plant process control arrangements.*
- ***REC-DW-2018.02:*** *It is recommended that Veolia implements measures to ensure that historical flow data for treated water discharged from the treatment plant, or similar alternative information, is retained as evidence to demonstrate that out-of-specification water has not been delivered into supply.*

As also reported above, Veolia reviewed and updated its *Water Quality Plan* during the audit period. Adequacy of the updated Plan was assessed by conduct of a Licence Plan Audit,<sup>66</sup> which was finalised in July 2019, and is being further reviewed by a Follow-up Licence Plan Audit conducted in conjunction with this audit.<sup>67</sup>

SCADA historian data provided for the purposes of this audit demonstrates that additional records are now being retained in respect of flow through the treatment plant. In particular, this includes:

- Valve status for VLV3203, through which out-of-specification water is diverted back to the MBR filtrate tank from downstream of the UV disinfection unit (CCP3); by default, this also provides status of VLV3202 through which flow progresses further through the plant as an interlock prevents both valves being open at once;

---

<sup>64</sup> Letter (reference D19/8808) dated 10 April 2019 from IPART to Veolia (re: *Order under section 16 of Water Industry Competition Act 2006 (WICA): Requirement to revise and audit for adequacy the Water Quality Plan for the Darling Walk scheme*).

<sup>65</sup> Veolia, BR12 *Document Control Procedure* (Version No: 2), January 2018.

<sup>66</sup> Water Futures, *WICA Audit Report to IPART; Licence No. 10\_008: Veolia (Darling Walk) Non Potable Water Scheme; Licence Plan Audit (Recycled Water Quality Plan)* (Version 5), 28 July 2019.

<sup>67</sup> Cobbitty Consulting/Water Futures, *Veolia (Darling Walk) Non-Potable Water Scheme; Follow-up Licence Plan Audit – Water Quality Plan* (Version 2.0), 19 June 2020.

- 
- Valve status for the storage tank inlet valves, VLV4000.05 and VLV4000.07; and
  - Flow at FIT4002, which is located downstream of the primary chlorination unit; this valve has been installed subsequent to the previous audit.

The SCADA data records (MS Excel workbooks) also demonstrate that a 'true/false' analysis is being undertaken in respect of both water quality parameters and flow (valve status) to determine whether water being delivered into supply is of 'good quality'. This updated approach is commended.

Notwithstanding, as reported above, there remains an opportunity (more specifically a need) for review and improvement of the corrective actions to be taken in response to a breach of the chlorine residual (CCP4) critical limits, which are monitored at the treated water storages.

---

## Recommendations

There are no recommendations in respect of this obligation.

---

## Opportunities for improvement

The following opportunities for improvement have been identified in respect of this obligation:

- **OFI-DW-2020.04:** It is strongly recommended that Veolia reviews the plant control arrangements, and specifically the corrective action response to breaches of chlorine residual critical limits, to ensure that arrangements are in place to ensure that out-of-specification water is not discharged into supply and that records are maintained to demonstrate accordingly.
  - **OFI-DW-2020.05:** It is recommended that Veolia and the Darling Walk development property/building manager (Jones Lang LaSalle) together take action to inspect and clarify the current treated water storage outlet and supply connectivity arrangements, thereby ensuring that they are fully understood by all parties and enabling effective review of the corrective action response as recommended under OFI-DW-2020.04.
-



Figure C.2.1 Recycled pipework in basement near the recycled water plant. Note the colour coding and labelling.



Figure C.2.2 Recycled water labelling in toilet facility.






## **Appendix D Detailed Audit Findings – Non-Potable Water Supply Infrastructure**

Detailed audit findings in respect of the obligations related to *Non-Potable Water Supply Infrastructure* are presented in this Appendix.



**Table D.1 Non-Potable Water Supply Infrastructure – WIC Reg Sched 1 cl.10(a)**

Clause	Requirement	Compliance Grade
<b>WIC Reg Sched 1 cl.10(a)</b>	The network operator under a Licence for water infrastructure to supply non-potable water for a particular purpose must ensure that the water supplied is fit for that purpose.	 <b>Compliant</b>
<b>Risk</b> This requirement reflects a high operational risk. It is essential from a safety viewpoint that water supplied for a particular purpose is fit for that purpose.		<b>Target for Full Compliance</b> Evidence that the water supplied is fit for purpose.
<b>Evidence sighted</b>		
<ul style="list-style-type: none"> <li>▪ Interviews with Veolia personnel on 14 May 2020.</li> <li>▪ Virtual site inspection of infrastructure at Darling Walk on 14 May 2020.</li> <li>▪ Veolia, <i>Darling Quarter; Network Operator’s Water Quality Plan (DQ-WQP-001-08) (Revision 8)</i>, 5 March 2020.<sup>68</sup></li> <li>▪ New South Wales Government, <i>Network Operator’s Licence 10_008</i>, issued to Veolia Water Solutions and Technologies (Australia) Pty Ltd (as varied on 18 December 2016).</li> </ul>		
<b>Summary of reasons for grade</b>		
Review of operational monitoring data and water quality verification test results, in conjunction with calculation undertaken by the auditor, indicated that recycled water supplied during the audit period was fit for the nominated purposes. Accordingly, Veolia was assessed as having demonstrated compliance with this obligation.		
<b>Discussion and notes</b>		
The purposes for which the recycled water is being supplied are identified in the <i>Water Quality Plan</i> . <sup>69</sup> These purposes, which include Cooling tower water and makeup, Toilet flushing and Garden irrigation, are consistent with the “Authorised purposes” nominated in the Network Operator’s Licence. <sup>70</sup> The <i>Water Quality Plan</i> also nominates critical limits for operational monitoring parameters at Critical Control Points (CCPs), <sup>71</sup> and characteristics to be monitored for the purpose of recycled water quality verification. <sup>72</sup>		
Performance against CCP targets and verification parameters is discussed in Table C.2 and although, as reported in Table B.1, there were some incidents (CCP breaches) that were considered reportable during the audit period, calculation undertaken by the auditor indicate that the specified water quality is unlikely to have been compromised.		

<sup>68</sup> As reported in **Section 2.2**, previous revisions of the *Water Quality Plan* were also in place during parts of the audit period. General reference is made unless reference to a specific version of the Plan is appropriate.

<sup>69</sup> *Water Quality Plan*, section 12.2.1 in Revision 5; section 11.2.1 in Revisions 6, 7 and 8.

<sup>70</sup> *Network Operator’s Licence No: 10\_008* (as varied on 18 December 2016), Table 1.3.

<sup>71</sup> *Water Quality Plan*, section 12.5.1 in Revision 5; section 11.5.1 in Revisions 6, 7 and 8.

<sup>72</sup> *Water Quality Plan*, section 12.5.1 in Revision 5; section 11.5.1 in Revisions 6, 7 and 8.

---

### **Recommendations**

There are no recommendations in respect of this obligation.

---

### **Opportunities for improvement**

No opportunities for improvement have been identified in respect of this obligation.


---

## **Appendix E** Detailed Audit Findings – Schedule B to the Network Operator’s Licence

Detailed audit findings in respect of the obligations under *Schedule B to the Network Operator’s Licence* are presented in this Appendix.



Table E.1 Schedule B to the Network Operator's Licence – Clause B1

Clause	Requirement	Compliance Grade
<b>Network Operator's Licence cl.B1</b>	The Licensee must have the <b>technical</b> , financial and <b>organisational</b> capacity to carry out the activities authorised by this Licence. If the Licensee ceases to have this capacity, it must report this to IPART immediately in accordance with the Reporting Manual.	 <b>Compliant</b>
<b>Risk</b>	This requirement reflects a high operational risk. Without the technical, financial and organisational capacity to carry out the activities authorised by the Licence, the Licensee may be unable to meet its obligations under the Licence, specifically the safe and effective delivery of agreed levels of service.	<b>Target for Full Compliance</b> Evidence that the Licensee has the technical, financial and organisational capacity to carry out the activities authorised by the Licence. If the Licensee has ceased to have this capacity, evidence that it has reported this to IPART immediately in accordance with the Reporting Manual.
<b>Evidence sighted</b>		
<ul style="list-style-type: none"> <li>▪ Interviews with Veolia personnel on 14 May 2020.</li> <li>▪ Virtual site inspection of infrastructure at Darling Walk on 14 May 2020.</li> <li>▪ Veolia, <i>Position Description; Service Engineer</i>, December 2016.</li> <li>▪ Curriculum vitae for Claudio Kohn, undated.</li> <li>▪ Veolia, <i>Oracle HCM Cloud – User Manual; Learn Management?</i>, June 2019.</li> <li>▪ MS Excel workbook: <i>BR04-TOOL04 Training Needs Analysis Matrix.xlsx</i>.</li> <li>▪ Document: <i>HRMS Screenshot - Claudio Kohn.png</i> (information also provided in MS Excel and pdf formats).</li> <li>▪ Veolia, <i>Organisation Chart</i>, May 2020 (and previous versions dated February 2020, July 2019 and October 2018).</li> <li>▪ Veolia, <i>VWT Australia Business Continuity Plan (BR03-TOOL03) (Version 1.1)</i>, March 2020.</li> <li>▪ IPART, <i>Network Operators' Reporting Manual under the Water Industry Competition Act 2006 (NSW) (Issue No: 10)</i>, 13 November 2019.</li> </ul>		
<b>Summary of reasons for grade</b>		
<p>Veolia demonstrated that it maintained the technical and organisational capacity to carry out the activities authorised by the Licence during the audit period (and subsequently). Technical capacity was assessed on the basis of a sample of curricula vitae, training records and discussion with personnel involved in operation of the scheme, whilst organisational capacity was assessed on the basis of company resources and the available of operational procedures and guidance. Given that it maintained the required technical and organisational capacity, there was no requirement to report the contrary to IPART.</p> <p>Accordingly, it was assessed that Veolia was compliant with this obligation.</p>		

---

## Discussion and notes

*[It is noted that, consistent with the audit scope defined by IPART, the auditor has not assessed the financial capacity of the Licensee as part of this audit.]*

### **Technical Capacity:**

During the audit period, operation of the treatment plant was undertaken principally by Service Engineer, Claudio Kohn, under the direction of the Service Manager, Inshan Sheriff and more recently Water Service Manager, Craig Hancock. Additional support is also available from Senior Service Engineer, Jeremy Arnold, Service Engineer, Wayne Johnson and the operations team at Bingara Gorge, which comprises Plant Manager, Pat Coulton and two Plant Operators.

The *Position Description*<sup>73</sup> for the Service Engineer role (Claudio Kohn) identifies specific responsibilities in relation to operation and maintenance of water/wastewater treatment plants, and sewerage and recycled water networks. It identifies the Primary Objectives/Job Purposes; Key Tasks/Responsibilities; Key Performance Indicators and Person Specification. The Person Specification includes requirements in respect of qualifications, experience, technical skills, personal attributes, and other relevant information. The requirements of the *Position Description* are considered appropriate for the role of operating and maintaining the treatment facility at Darling Walk.

Review of curriculum vitae<sup>74</sup> for Claudio Kohn (for example) reveals that he is well qualified for the Service Engineer role, having extensive experience in treatment plant operations and associated activities.

Veolia manages its staff training using “Learn Management”, an Oracle cloud based human resources management platform; a copy of the *User Manual*<sup>75</sup> was provided as evidence. The outcomes of a training needs analysis<sup>76</sup> for the Services - Operations Division identifies training needs by functional role (e.g. Service Engineer) in respect of External Safety Training, Internal Safety and Environmental Training and Core Business Training.

As an example, an extract of Claudio Kohn’s training records were provided.<sup>77</sup> This showed that training in respect of First Aid, Working at Heights, and Hazardous Chemicals (amongst other modules) has been completed within the last twelve months.

Discussions with the abovementioned personnel (Claudio Kohn, Craig Hancock, Pat Coulton, Jeremy Arnold and Wayne Johnson), either for the purposes of this audit or during previous Veolia audits, has led to an assessment that they individually and collectively provide appropriate technical capacity, qualifications and experience for the purposes of operating and maintaining the infrastructure.

### **Organisational Capacity:**

Review of the *Organisation Chart*<sup>78,79,80,81</sup> for Veolia Water Technologies, which incorporates Veolia Water Solutions and Technologies (the Licensee), reveals that Veolia has resource capacity in respect of services (which includes the operations function), projects and corporate support. The Services – Operations Division has maintained a compliment of approximately thirteen operational staff based in NSW, and approximately thirty staff Australia wide, throughout the audit period. The Projects and Corporate Divisions, also appear to be appropriately staffed.

As advised during previous audits, in addition to locally based technical support, Veolia it can also draw operational support from its resources across Australia, and internationally, if required.

---

<sup>73</sup> Veolia, *Position Description; Service Engineer*, December 2016.

<sup>74</sup> Curriculum vitae for Claudio Kohn, undated.

<sup>75</sup> Veolia, *Oracle HCM Cloud – User Manual; Learn Management?*, June 2019.

<sup>76</sup> MS Excel workbook: *BR04-TOOL04 Training Needs Analysis Matrix.xlsx*.

<sup>77</sup> Document: *HRMS Screenshot - Claudio Kohn.png* (information also provided in MS Excel and pdf formats).

<sup>78</sup> Veolia, *Organisation Chart*, October 2018.

<sup>79</sup> Veolia, *Organisation Chart*, July 2019.

<sup>80</sup> Veolia, *Organisation Chart*, February 2020.

<sup>81</sup> Veolia, *Organisation Chart*, May 2020.



---

Veolia has a *Business Continuity Plan*,<sup>82</sup> which references detailed procedures and assigns responsibilities for ensuring operational continuity following a severe event in respect of its corporate IT systems, office and warehouse infrastructure and financial loss arising from a contract termination due to Force Majeure.

Capacity can also be assessed from the perspective of organisational preparedness to undertake the authorised activities. As discussed in Table C.1, Veolia has operational procedures in place (principally an *Operation and Maintenance Manual*) that provides the required guidance to operate the infrastructure at Darling Walk. Furthermore, it has demonstrated its ability to operate the infrastructure in accordance with the arrangements set out in the *Infrastructure Operating Plan* and *Water Quality Plan*.

**Notification to IPART:**

This obligation requires that, in the event that the Licensee ceases to have the technical, financial and organisational capacity to carry out the activities authorised by the Licence, it must report this to IPART immediately in accordance with the *Reporting Manual*. The *Reporting Manual*<sup>83</sup> reiterates the requirement for immediate notification.

On the basis of observations made during the audit, Veolia has maintained the capacity to carry out the activities authorised by the Licence and there has been no requirement to report the contrary to IPART.

---

**Recommendations**

There are no recommendations in respect of this obligation.

---

**Opportunities for improvement**

No opportunities for improvement have been identified in respect of this obligation.


---

---

<sup>82</sup> Veolia, *VWT Australia Business Continuity Plan (BR03-TOOL03) (Version 1.1)*, March 2020.

<sup>83</sup> IPART, *Network Operators' Reporting Manual under the Water Industry Competition Act 2006 (NSW)* (Issue No: 10), 13 November 2019, appendix A, table A.1.

Table E.2 Schedule B to the Network Operator's Licence – Clause B3.1

Clause	Requirement	Compliance Grade
<b>Network Operator's Licence cl.B3.1</b>	The Licensee must maintain insurance that is appropriate for the size and nature of the activities authorised under this Licence.	 <b>Compliant</b>
<b>Risk</b>	<b>Target for Full Compliance</b>	
Inadequate insurance presents no significant risk to the operational safety of the scheme, however, may present commercial risk to the Licensee or anyone affected if there adverse impacts from the scheme.	Evidence that the Licensee has maintained insurance that is appropriate for the size and nature of the activities authorised under this Licence.	
<b>Evidence sighted</b>		
<ul style="list-style-type: none"> <li>▪ Interviews with Veolia personnel on 14 May 2020.</li> <li>▪ Marsh, <i>Existing Network Operator's and Retail Supplier's Licences 10_008 and 10_009R for Darling Walk Scheme; Insurance Expert's Report</i>, 1 August 2018.</li> <li>▪ Letter dated 25 December 2018 from Veolia to IPART (re: <i>Bingara Gorge Scheme, NSW; License 10_012 and 10_013R; Darling Walk Development, NSW; License 10_008 and 10_009R; Insurance CoCs for CY 2019</i>).</li> <li>▪ Letter dated 20 December 2019 from Veolia to IPART (re: <i>Bingara Gorge Scheme, NSW; License 10_012 and 10_013R; Darling Walk Development, NSW; License 10_008 and 10_009R; Insurance CoCs for CY 2020</i>).</li> <li>▪ Email dated 24 June 2019 from Veolia to IPART (re: <i>Veolia Water Solutions &amp; Technologies – Renewed Work Comp Certs</i>).</li> </ul>		
<b>Summary of reasons for grade</b>		
<p>Veolia provided insurance certificates of currency, review of which confirmed that insurance consistent with that identified in the Insurance Expert's Report had been maintained during the audit period. The Insurance Expert's Report certified that the insurance held by Veolia was appropriate for the size and nature of the activities authorised under the Licence.</p> <p>Accordingly, Veolia was assessed to have demonstrated compliance with this obligation.</p>		
<b>Discussion and notes</b>		
<p>The auditor sought evidence that the Licensee had maintained insurance that is appropriate for the size and nature of the activities authorised under the Licence during the audit period.</p> <p>Veolia provided a copy of an Insurance Expert's Report dated 1 August 2018 (i.e. one month prior to the commencement of the audit period) which certified (in part) that:<sup>84</sup></p> <p style="padding-left: 40px;"><i>“Marsh certifies to IPART that in its opinion, the Licensee's Insurance Arrangements are appropriate for the size and nature of the activities authorised under the Licence.”</i></p> <p>The report detailed the basis upon which the insurance expert (Marsh representative) had reached this opinion.</p>		

<sup>84</sup> Marsh, *Existing Network Operator's and Retail Supplier's Licences 10\_008 and 10\_009R for Darling Walk Scheme; Insurance Expert's Report*, 1 August 2018, page 3.

---

To demonstrate that appropriate insurance had been maintained, Veolia provided copies of insurance certificates of currency for each insurance renewal during the audit period.<sup>85,86,87</sup> Details of the insurance cover held at the time at the time of the above referenced Insurance Expert's Report, at the time of interim renewal during the audit period and currently (based on the certificates of currency provided), are presented in Table E.2.1. Analysis of these details reveals that there were no material changes.

It is noted that the limit of cover in respect of Environmental Impairment Liability increased marginally from \$7,592,750 to \$8,080,416 per occurrence and in the aggregate during the audit period. Veolia advised that this variance is due to changes in the prevailing exchange rate, and that a consistent cover equivalent of EUR5,000,000 had been maintained. On this basis, it is deemed that the change was not material (in fact the amount of cover increased in local value).

It is therefore assessed that insurance appropriate for the size and nature of the activities authorised under this Licence was maintained throughout the audit period.

---

### Recommendations

There are no recommendations in respect of this obligation.

---

### Opportunities for improvement

No opportunities for improvement have been identified in respect of this obligation.

---

---

<sup>85</sup> Letter dated 25 December 2018 from Veolia to IPART (re: *Bingara Gorge Scheme, NSW; License 10\_012 and 10\_013R; Darling Walk Development, NSW; License 10\_008 and 10\_009R; Insurance CoCs for CY 2019*).

<sup>86</sup> Letter dated 20 December 2019 from Veolia to IPART (re: *Bingara Gorge Scheme, NSW; License 10\_012 and 10\_013R; Darling Walk Development, NSW; License 10\_008 and 10\_009R; Insurance CoCs for CY 2020*).

<sup>87</sup> Email dated 24 June 2019 from Veolia to IPART (re: *Veolia Water Solutions & Technologies – Renewed Work Comp Certs*).


**Table E.3.1 Comparison of Insurance Cover – August 2018 Insurance Expert’s Report to Current based on Certificates of Currency**

Cover Type	Details at time of August 2018 Insurance Expert’s Report				Interim Cover Details				Current Details			
	Insurer	Policy Number	Amount <sup>1</sup>	Period of Cover <sup>2</sup>	Insurer	Policy Number	Amount <sup>1</sup>	Period of Cover <sup>2</sup>	Insurer	Policy Number	Amount <sup>1</sup>	Period of Cover <sup>2</sup>
Public and Products Liability	Allianz Australia Insurance Limited	99-0007164-LCP	\$20,000,000 any one occurrence and in the aggregate with respect to Products Liability	1/01/2018 to 1/01/2019 (00:00hrs)	Allianz Australia Insurance Limited	99-0007164-LCP	\$20,000,000 any one occurrence and in the aggregate with respect to Products Liability	1/01/2019 to 1/01/2020 (00:00hrs)	Allianz Australia Insurance Limited	99-0007164-LCP	\$20,000,000 any one occurrence without annual aggregate with respect to Public Liability \$20,000,000 for all damages combined and in an annual aggregate with respect to Product Liability	1/01/2020 to 1/01/2021 (00:00hrs)
Professional Indemnity	Allianz Australia Insurance Limited	99-0007164-LCP	\$10,000,000 per claim and \$20,000,000 in the annual aggregate	1/01/2018 to 1/01/2019 (00:00hrs)	Allianz Australia Insurance Limited	99-0007164-LCP	\$10,000,000 per claim and \$20,000,000 in the annual aggregate	1/01/2019 to 1/01/2020 (00:00hrs)	Allianz Australia Insurance Limited	99-0007164-LCP	\$10,000,000 any one occurrence and \$20,000,000 in the aggregate	1/01/2020 to 1/01/2021 (00:00hrs)
Environmental Impairment Liability	Allianz Australia Insurance Limited	99-0007182-LCP	\$7,592,750 per occurrence and in the aggregate	1/01/2018 to 1/01/2019 (00:00hrs)	Allianz Global Corporate & Speciality <sup>3</sup>	99-0007182-LCP	\$7,592,750 per occurrence and in the aggregate	1/01/2019 to 1/01/2020 (00:00hrs)	Allianz Global Corporate & Speciality <sup>3</sup>	99-0007182-LCP	\$8,080,416 per occurrence and in the aggregate <sup>4</sup>	1/01/2020 to 1/01/2021 (00:00hrs)
Workers Compensation	icare Workers Insurance	108679201	Statutory cover <sup>5</sup>	30/06/2018 to 30/06/2019					icare Workers Insurance	108679201	Statutory cover <sup>5</sup>	30/06/2019 to 30/06/2020

**Notes:**

- 1 Amounts are Australian dollars (AUD\$) unless specifically noted.
- 2 In most cases, time on start and end dates is nominated; these are such that continuity of insurance is maintained.
- 3 Certificate of Currency identifies Allianz Global Corporate & Speciality as the insurer; Veolia advises that this is a subsidiary of Allianz Australia Insurance Limited.
- 4 The variation in the Limit of Liability for Environmental Impairment for 2020 is due to a variation in the prevailing exchange rate. Consistent cover equivalent of EUR5,000,000 is provided at each renewal.
- 5 The full amount of the employer’s liability under the Workers Compensation Act 1987 (NSW).

Table E.3 Schedule B to the Network Operator's Licence – Clause B3.2

Clause	Requirement	Compliance Grade
<b>Network Operator's Licence cl.B3.2</b>	The Licensee must provide a copy of each certificate of currency of the insurance maintained by the Licensee to IPART in accordance with the Reporting Manual.	 <b>No Requirement</b>
<b>Risk</b>	<b>Target for Full Compliance</b>	
Inadequate insurance presents no significant risk to the operational safety of the scheme, however, may present commercial risk to the Licensee or anyone affected if there adverse impacts from the scheme.	Evidence that the Licensee has provided copies of insurance certificates of currency to IPART in accordance with the <i>Reporting Manual</i> .	
<b>Evidence sighted</b>		
<ul style="list-style-type: none"> <li>▪ Interviews with Veolia personnel on 14 May 2020.</li> <li>▪ IPART, <i>Network Operators' Reporting Manual under the Water Industry Competition Act 2006 (NSW)</i> (Issue No: 10), 13 November 2019.</li> <li>▪ Marsh, <i>Existing Network Operator's and Retail Supplier's Licences 10_008 and 10_009R for Darling Walk Scheme; Insurance Expert's Report</i>, 1 August 2018.</li> <li>▪ Letter dated 25 December 2018 from Veolia to IPART (re: <i>Bingara Gorge Scheme, NSW; License 10_012 and 10_013R; Darling Walk Development, NSW; License 10_008 and 10_009R; Insurance CoCs for CY 2019</i>).</li> <li>▪ Letter dated 20 December 2019 from Veolia to IPART (re: <i>Bingara Gorge Scheme, NSW; License 10_012 and 10_013R; Darling Walk Development, NSW; License 10_008 and 10_009R; Insurance CoCs for CY 2020</i>).</li> <li>▪ Email dated 24 June 2019 from Veolia to IPART (re: <i>Veolia Water Solutions &amp; Technologies – Renewed Work Comp Certs</i>).</li> </ul>		
<b>Summary of reasons for grade</b>		
<p>The <i>Reporting Manual</i> requires that insurance certificates of currency are provided to IPART in support of an Insurance Expert's Report or in the event of any change in insurance coverage. The provision of an Insurance Expert's Report was not required during the audit period; nor were there any material changes in insurance coverage during that period. Accordingly, there was "No Requirement" in respect of this obligation.</p> <p>Notwithstanding, Veolia demonstrated that it had provided copies of insurance certificates of currency to IPART, which demonstrated that it had maintained its insurance cover.</p>		
<b>Discussion and notes</b>		
<p>The <i>Reporting Manual</i> requires that insurance certificates of currency are provided to IPART:</p> <ul style="list-style-type: none"> <li>▪ as evidence of policy in support of an Insurance Expert's Report, where required;<sup>88</sup> and</li> <li>▪ as evidence in the event of any change in insurance coverage.<sup>89</sup></li> </ul>		

<sup>88</sup> *Reporting Manual*, section 3.2 and appendix G.

<sup>89</sup> *Reporting Manual*, section 3.2.1 (table 3.1).

---

The *Reporting Manual*<sup>90</sup> also requires “immediate” reporting in respect of the requirement to maintain appropriate insurance (which may include the requirement to provide certificates of currency), although this appears to be in conflict with the requirements in respect of a change in insurance coverage which requires that a revised certificate of currency should be provided within ten days of receiving it from the insurer.<sup>91</sup>

As there was no requirement during the audit period to provide an Insurance Expert’s Report either:

- to demonstrate compliance with the provisions of clause B3.1 of the Licence; or
- in response to a request from IPART pursuant to clause B3.4 of the Licence,

there has been no requirement to submit insurance certificates of currency to IPART on that basis.

Furthermore, as assessed in detail in Table E.4, there were no changes in insurance coverage during the audit period, and therefore no requirement to submit insurance certificates of currency to IPART on that basis.

Although not required to be submitted in support of an Insurance Expert’s Report or in relation to identified changes in insurance coverage, Veolia provided evidence that it had submitted copies of insurance certificates of currency to IPART upon each annual renewal of policies during the audit period.<sup>92,93,94</sup> It is noted that each submission to IPART (other than for statutory workers compensation insurance cover) included a detailed comparison between the expiring and renewed insurance cover (which as reported in Table E.2 and Table E.4, was not considered to be material).

---

## Recommendations

There are no recommendations in respect of this obligation.

---

## Opportunities for improvement

No opportunities for improvement are identified in respect of this obligation.

---

---

<sup>90</sup> *Reporting Manual*, appendix A (table A.1).


<sup>91</sup> *Reporting Manual*, table 2.1.

<sup>92</sup> Letter dated 25 December 2018 from Veolia to IPART (re: *Bingara Gorge Scheme, NSW; License 10\_012 and 10\_013R; Darling Walk Development, NSW; License 10\_008 and 10\_009R; Insurance CoCs for CY 2019*).

<sup>93</sup> Letter dated 20 December 2019 from Veolia to IPART (re: *Bingara Gorge Scheme, NSW; License 10\_012 and 10\_013R; Darling Walk Development, NSW; License 10\_008 and 10\_009R; Insurance CoCs for CY 2020*).

<sup>94</sup> Email dated 24 June 2019 from Veolia to IPART (re: *Veolia Water Solutions & Technologies – Renewed Work Comp Certs*).

**Table E.4** Schedule B to the Network Operator’s Licence – Clause B3.3

Clause	Requirement	Compliance Grade
<b>Network Operator’s Licence cl.B3.3</b>	If there is to be a change in: <ol style="list-style-type: none"> <li>a) the insurer or underwriting panel in respect of an insurance policy held by the Licensee; or</li> <li>b) the type, scope or limit on the amount of insurance held by the Licensee</li> </ol> in relation to the activities authorised under this Licence, the Licensee must provide a report to IPART in accordance with the Reporting Manual.	 <b>No Requirement</b>
<b>Risk</b>	Non-compliance with this requirement presents no significant risk to the operational safety of the scheme.	<b>Target for Full Compliance</b>
		Evidence that, in the event that there has been a change in the insurance arrangements, the Licensee has provided a report to IPART in accordance with the <i>Reporting Manual</i> .
<b>Evidence sighted</b>		
<ul style="list-style-type: none"> <li>▪ Interviews with Veolia personnel on 14 May 2020.</li> <li>▪ IPART, <i>Network Operators’ Reporting Manual under the Water Industry Competition Act 2006 (NSW)</i> (Issue No: 10), 13 November 2019.</li> <li>▪ Marsh, <i>Existing Network Operator’s and Retail Supplier’s Licences 10_008 and 10_009R for Darling Walk Scheme; Insurance Expert’s Report</i>, 1 August 2018.</li> <li>▪ Letter dated 25 December 2018 from Veolia to IPART (re: <i>Bingara Gorge Scheme, NSW; License 10_012 and 10_013R; Darling Walk Development, NSW; License 10_008 and 10_009R; Insurance CoCs for CY 2019</i>).</li> <li>▪ Letter dated 20 December 2019 from Veolia to IPART (re: <i>Bingara Gorge Scheme, NSW; License 10_012 and 10_013R; Darling Walk Development, NSW; License 10_008 and 10_009R; Insurance CoCs for CY 2020</i>).</li> <li>▪ Email dated 24 June 2019 from Veolia to IPART (re: <i>Veolia Water Solutions &amp; Technologies – Renewed Work Comp Certs</i>).</li> </ul>		
<b>Summary of reasons for grade</b>		
Comparison of certificates of currency for insurance cover held at the start, interim and end of the audit period confirmed that there had been no material changes to Veolia’s insurance cover, as it relates to the activities authorised under the Licence, during the audit period. Accordingly, there was “No Requirement” to provide a report to IPART pursuant to this obligation.		
Notwithstanding, Veolia demonstrated that it had provided copies of insurance certificates of currency together with a detailed comparison between the expiring and renewed insurance cover to IPART upon each annual renewal of policies during the audit period (albeit in this case that any changes are deemed to have been immaterial).		
<b>Discussion and notes</b>		
As reported in Table E.2, comparison of certificates of currency for insurance cover held by Veolia during the audit period revealed that there had been no material change in the insurer or underwriting panel, nor the type, scope or limit on the amount of insurance held during the audit period.		

---

Details of insurance in place at the start (2018 cover), interim (2019 cover) and end of the audit period (2020 cover), based on the certificates of currency provided, are presented in Table E.3.1. Review of those details reveals that there were no changes in the insurer/underwriting panel or the type, scope or limit on the amount of insurance held by Veolia as it relates to the activities authorised under the Licence.

A marginal variation in the limit of liability in respect of Environmental Impairment due to changes in the prevailing exchange rate was not deemed material; a consistent cover equivalent of EUR5,000,000 was maintained. Furthermore, the insurer in respect of Environmental Impairment was identified as Allianz Australia Insurance Limited on the 2018 certificate of currency and Allianz Global Corporate & Speciality on the subsequent (2019 and 2020) certificates, however, Veolia advised that the latter is a subsidiary of the former so the change was again not deemed material; it is noted that the policy number remained unchanged.

Accordingly, there was “No Requirement” to provide a report to IPART pursuant to this obligation.

Although not required, as reported in Table E.3, Veolia provided evidence that it had provided copies of insurance certificates of currency to IPART upon each annual renewal of policies during the audit period,<sup>95,96,97</sup> and that each submission (other than for statutory workers compensation insurance cover) included a detailed comparison between the expiring and renewed insurance cover, thereby identifying any differences (albeit in this case that they are deemed to have been immaterial).

---

## Recommendations

There are no recommendations in respect of this obligation.

---

## Opportunities for improvement

No opportunities for improvement have been identified in respect of this obligation.

---

---


<sup>95</sup> Letter dated 25 December 2018 from Veolia to IPART (re: *Bingara Gorge Scheme, NSW; License 10\_012 and 10\_013R; Darling Walk Development, NSW; License 10\_008 and 10\_009R; Insurance CoCs for CY 2019*).

<sup>96</sup> Letter dated 20 December 2019 from Veolia to IPART (re: *Bingara Gorge Scheme, NSW; License 10\_012 and 10\_013R; Darling Walk Development, NSW; License 10\_008 and 10\_009R; Insurance CoCs for CY 2020*).

<sup>97</sup> Email dated 24 June 2019 from Veolia to IPART (re: *Veolia Water Solutions & Technologies – Renewed Work Comp Certs*).



Table E.5 Schedule B to the Network Operator's Licence – Clause B6

Clause	Requirement	Compliance Grade
<b>Network Operator's Licence cl.B6</b>	The Licensee must prepare and submit reports in accordance with the Reporting Manual.	 <b>Compliant</b>
<b>Risk</b>	<b>Target for Full Compliance</b>	
Non-compliance with this requirement presents no significant risk to the operational safety of the scheme.	Evidence that the Licensee has prepared and submitted the requisite reports to IPART in accordance with the <i>Reporting Manual</i> .	
<b>Evidence sighted</b>		
<ul style="list-style-type: none"> <li>▪ Interviews with Veolia personnel on 14 May 2020.</li> <li>▪ IPART, <i>Network Operators' Reporting Manual under the Water Industry Competition Act 2006 (NSW)</i> (Issue No: 10), 13 November 2019.</li> <li>▪ Veolia, <i>Annual Compliance Report for 2019; For 2018-2019; Darling Walk Development; Network Operators Licence No 10_008</i> (letter format), dated 23 August 2019.</li> <li>▪ IPART, <i>Licence compliance under the Water Industry Competition Act 2006 (NSW); Report to the Minister (Annual Compliance Report – Water)</i>, October 2019.</li> </ul>		
<b>Summary of reasons for grade</b>		
<p>Veolia demonstrated that it had prepared and submitted its <i>Annual Compliance Report</i> in accordance with the <i>Reporting Manual</i>. Audit of a number of obligations in respect of which immediate reporting may potentially have been required revealed that the need to submit any such reports had not been triggered during the audit period.</p> <p>Accordingly, Veolia was assessed as being compliant with this obligation.</p>		
<b>Discussion and notes</b>		
<p>The auditor sought evidence that the Licensee had prepared and submitted reports in accordance with the <i>Reporting Manual</i>.<sup>98</sup> The <i>Reporting Manual</i> requires the submission of an <i>Annual Compliance Report</i> comprising of an Annual Compliance Report Certification, a Non Compliance Schedule (Schedule A) and a report in relation to Performance Indicators (Schedule B); the report is to be submitted to IPART no later than 31 August each year. Accordingly, submission of an <i>Annual Compliance Report</i> in respect of the 2018/19 financial year was required during the audit period.</p> <p>The <i>Annual Compliance Report</i><sup>99</sup> for the 2018/19 financial year was sighted; the report was signed by a Director/General Manager – Projects) and Company Secretary on 23 August 2019. A brief review confirmed that the report contained the requisite information.</p> <p>Apart from the report itself, there was no specific evidence (such as covering email correspondence or IPART acknowledgement) that the <i>Annual Compliance Report</i> was submitted to IPART. However, it is</p>		

<sup>98</sup> IPART, *Network Operators' Reporting Manual under the Water Industry Competition Act 2006 (NSW)* (Issue 10), 13 November 2019.

<sup>99</sup> Veolia, *Annual Compliance Report for 2019; For 2018-2019; Darling Walk Development; Network Operators Licence No 10\_008* (letter format), dated 23 August 2019.

---

noted that assessment of Veolia's performance, which is in part based on information presented in the *Annual Compliance Report*, was included in IPART's 2018/2019 *Annual Compliance Report* to the Minister.<sup>100</sup>

The *Reporting Manual* also requires immediate reporting in the event that such requirement is triggered; obligations in respect of which immediate reporting may be required are identified in the *Reporting Manual*.<sup>101</sup> A review indicates that there was no requirement to report in respect of any of the obligations during the audit period (refer Tables B.1, E.4, E.7 and E.8 for obligations specifically addressed as part of the audit).

---

### **Recommendations**

There are no recommendations in respect of this obligation.

---

### **Opportunities for improvement**

No opportunities for improvement have been identified in respect of this obligation.




---

---

<sup>100</sup> IPART, *Licence compliance under the Water Industry Competition Act 2006 (NSW): Report to the Minister (Annual Compliance Report – Water)*, October 2019.

<sup>101</sup> IPART, *Network Operators' Reporting Manual under the Water Industry Competition Act 2006 (NSW)* (Issue 10), 13 November 2019, Appendix A.

Table E.6 Schedule B to the Network Operator's Licence – Clause B8

Clause	Requirement	Compliance Grade
<b>Network Operator's Licence cl.B8</b>	[B8.1] The Licensee must undertake any monitoring that is required for the purposes of this Licence, any Plan, the Act or the Regulation in accordance to the requirements of this clause.	Clause B8.1:  <b>Compliant</b>
	[B8.2] The Licensee must keep the following records of any samples taken for monitoring purposes specified in the Water Quality Plan: a) the date on which the sample was taken; b) the time at which the sample was collected; c) the point or location at which the sample was taken; and d) the chain of custody of the sample (if applicable).	Clause B8.2:  <b>Non-compliant (non-material)</b>
	[B8.3] The Licensee must ensure that analyses of all samples taken for the purposes of Verification Monitoring are carried out by a laboratory accredited for the specified tests by an independent body acceptable to NSW Health, such as the National Association of Testing Authorities or equivalent body.	Clause B8.3:  <b>Compliant</b>

Risk	Target for Full Compliance
This requirement reflects a high operational risk. It is essential that: <ul style="list-style-type: none"> <li>detailed sample records are maintained to ensure traceability in the event of a non-compliance; and</li> <li>testing is undertaken by an accredited laboratory to ensure credibility of results.</li> </ul>	Evidence that: <ul style="list-style-type: none"> <li>the required records have been kept in respect of collected samples; and</li> <li>sample analysis has been undertaken by a laboratory accredited by NATA for the specific testing that has been carried out (or equivalent).</li> </ul>

**Evidence sighted**

- Interviews with Veolia personnel on 14 May 2020.
- Virtual site inspection of infrastructure at Darling Walk on 14 May 2020.
- Veolia, *Darling Quarter Development; Network Operator's Infrastructure Operating Plan* (DQ-IOP-001-5) (Revision 5), 5 March 2020.<sup>102</sup>
- Veolia, *Darling Quarter; Network Operator's Water Quality Plan* (DQ-WQP-001-08) (Revision 8), 5 March 2020.<sup>19</sup>
- Monthly SCADA historian (data) records covering the whole of the audit period (e.g. MS Excel workbook: *050719\_070819.xlsx* covers the period 5 July 2019 to 7 August 2020).
- ALS Environmental *Certificate of Analysis* for laboratory testing undertaken during the audit period.

<sup>102</sup> As reported in **Section 2.2**, previous revisions of both the *Infrastructure Operating Plan* and *Water Quality Plan* were also in place during parts of the audit period. General reference is made unless reference to a specific version of the Plan is appropriate.

- 
- ALS Environmental *Chain of Custody* form for samples received on 2 October 2018, 1 February 2019, 19 August 2019 and 20 March 2020.
  - MS Excel workbook: *PRWP EffluentclodR2\_0505\_2020.xlsx* (last modified 10 May 2020) [*Maintenance Records* workbook].
  - NATA website, including webpages: <https://www.nata.com.au/accredited-facility?q1=emm&str=&&AccNo=825>,  
[https://www.nata.com.au/entity\\_scope/?AccNo=825&q1=8f3&str=&&AccNo=825](https://www.nata.com.au/entity_scope/?AccNo=825&q1=8f3&str=&&AccNo=825)  
and [https://www.nata.com.au/entity\\_scope/?AccNo=825&q1=emm&str=&&AccNo=825](https://www.nata.com.au/entity_scope/?AccNo=825&q1=emm&str=&&AccNo=825).
- 

### Summary of reasons for grade

Veolia demonstrated that it had undertaken monitoring (sampling and testing) of water quality as required pursuant to requirements set out in the Licence and the *Water Quality Plan* during the audit period. The laboratory to which testing was subcontracted is accredited for the specified tests by the National Association of Testing Authorities (NATA). However, not all requisite information, specifically the date and time at which samples are collected, is being recorded in respect of samples taken for monitoring purposes.

Accordingly, Veolia was assessed to have demonstrated compliance in respect of clauses B8.1 and B8.3, but found not to be fully compliant in respect of clause B8.2. However, as the date and time at which samples were taken can be approximated by the date and time at which the sample is received (at the treatment plant site) on behalf of the laboratory, the non-compliance is not considered material.

---

### Discussion and notes

#### ***Clause B8.1 – Water Quality Monitoring:***

The auditor sought evidence that monitoring had been undertaken pursuant to requirements set out in the Licence, any Plan or otherwise.

Veolia undertakes ongoing operational monitoring comprising of online monitoring of parameters associated with each of the critical control points (CCPs). Monitored parameters include Turbidity (post MBR), Conductivity (post RO), UV Intensity, Chlorine Residual (final water) and pH (final water), consistent with the arrangements detailed in the *Water Quality Plan*.<sup>103</sup>

As evidence, Veolia provided SCADA historian records (data extracts) covering the whole of the audit period. These data extracts also include flow records, which enables assessment regarding discharge from the treatment plant during any periods that CCP critical limits were exceeded. Flow monitoring records were enhanced from mid-May 2019, with flow at final discharge from the plant being monitored (refer Table C.2 for further discussion).

Veolia undertakes ongoing monitoring of water quality for verification purposes; the requirements changed during the audit period. Prior to issue of Revision 7 (dated 22 July 2019) of the *Water Quality Plan*, required verification monitoring included weekly testing of grab samples for *E. coli*, coliphage and *Clostridia* and monthly testing of grab samples for BOD<sub>5</sub>, Suspended Solids (SS) and Total Dissolved Solids (TDS); the requirement for weekly testing for coliphage and *Clostridia* was subsequently no longer required.<sup>104</sup> Veolia advised that samples are taken by Veolia personnel and testing is undertaken by ALS Environmental.

As evidence that verification monitoring had been undertaken during the audit period, Veolia provided copies of Certificates of Analysis and associated Chain of Custody documents for sampling and testing undertaken throughout the audit period. The following sample of Certificates of Analysis were reviewed (all samples treated water unless noted otherwise):

---

<sup>103</sup> *Water Quality Plan*, section 12.5.1 in Revision 5; section 11.5.1 in Revisions 6, 7 and 8.

<sup>104</sup> *Water Quality Plan*, section 12.5.1 in Revision 5; section 11.5.1 in Revisions 6, 7 and 8.

- 
- ALS Environmental *Certificate of Analysis* for Work Order No: ES1828999 – sample (ALS No: ES1828999-001) received at 14:00 on 2 October 2018 and testing commenced on 2 October 2018; results reported on 9 October 2018 indicate as follows:
    - TDS 339 mg/L (note this exceeds the documented limit of <100 mg/L);
    - SS <5 mg/L;
    - BOD<sub>5</sub> <2 mg/L; and
    - *E. coli* <1 CFU/100 mL (i.e. none detected).
  - ALS Environmental *Certificate of Analysis* for Work Order No: ES1903156 – sample (ALS No: ES1903156-001) received at 15:30 on 1 February 2019 and testing commenced on 2 February 2019; results reported on 7 February 2019 indicate an *E. coli* value of less than one (<1) per 100 mL (i.e. none detected).
  - ALS Environmental *Certificate of Analysis* for Work Order No: ES1926259 – sample (ALS No: ES1926259-001) received at 14:00 on 19 August 2019 and testing commenced on 20 August 2019; results reported 26 August 2019 indicate as follows:
    - TDS <10 mg/L (note this exceeds the documented limit);
    - SS <5 mg/L;
    - BOD<sub>5</sub> <2 mg/L; and
    - *E. coli* <1 CFU/100 mL (i.e. none detected).
  - ALS Environmental *Certificate of Analysis* for Work Order No: ES2009910 – sample (ALS No: ES2009910-001) received at 18:00 on 20 March 2020 and testing commenced on 21 March 2020; results reported on 27 March 2020 indicate an *E. coli* value of less than one (<1) per 100 mL (i.e. none detected). Pre-RO and post-RO samples (ALS No: ES2009910-002 and ES2009910-003) taken at the same time revealed *E. coli* test results of 110 mg/L and less than one (<1) per 100 mL (i.e. none detected) respectively.

Veolia also provided a copy of its *Maintenance Records* workbook,<sup>105</sup> which presents the results of verification testing throughout the audit period. This showed the sample dates for which testing had been undertaken together with the test results.

The following observations are made in respect of the verification monitoring:

- Monitoring of BOD<sub>5</sub>, Suspended Solids (SS) and Total Dissolved Solids (TDS) was undertaken at least monthly throughout the audit period, in accordance with the documented requirement.
- Whilst required during the first half (approximately) of the audit period, monitoring of coliphage and *Clostridia* had not been undertaken at the required frequency. The *Water Quality Plan*<sup>106</sup> indicates that grab samples should be taken at least monthly; tabulation indicates that weekly grab samples should be tested for these parameters.

Review of Certificates of Analysis for the audit period revealed the following limited testing for these parameters:

- ALS Environmental *Certificate of Analysis* for Work Order No: ES1833329 indicates that treated water (ALS Sample No: 1833329-001) received at 15:00 on 8 November 2018 was tested for *Clostridium perfringens*, sulphite reducing *Clostridia* spores and somatic coliphage as well as *E. coli*; and
- ALS Environmental *Certificate of Analysis* for Work Order No: ES1912057 indicates that “After MBR” water (ALS Sample No: 1912057-002) received at 17:00 on 17 April 2019 was tested for sulphite reducing *Clostridia* spores amongst other standard monthly test parameters.

---

<sup>105</sup> MS Excel workbook: *PRWP EffluentclodR2\_0505\_2020.xlsx* (last modified 10 May 2020).

<sup>106</sup> *Water Quality Plan*, section 12.5.1 (page 32) in Revision 5; section 11.5.1 (page 35) in Revision 6.

This level of monitoring does not meet the frequency required during the period that monitoring of these parameters was required. It is considered that removal of this monitoring requirement was not only reflective of actual practice at Darling Walk, but also of verification monitoring undertaken in respect of other recycled water schemes. Accordingly, this shortfall is not identified as a non-compliance on this occasion.

- It is noted, based on documentation of results in the *Maintenance Records* workbook, that TDS samples were taken “post RO” until 16 May 2019, after which they were taken “after chlorination”; they continue to be identified in all except one case as being for treated water. The *Water Quality Plan* indicates that: “Unless stated otherwise the sampling point [for verification monitoring] is post chlorination (i.e. treated effluent)”.

It appears that there is an inconsistency in respect of the recording of TDS test results in the *Maintenance Records* workbook. A treated water (treated effluent) sample should be taken “after chlorination”. As TDS is monitored (amongst other parameters): “... as a system performance check”, this is not taken to be reflective of a non-compliance; however, it is important that the context of a test result is clearly understood. Therefore, as an opportunity for improvement (**OFI-DW-2020.06**), it is suggested that Veolia reviews the terminology used when recording verification monitoring test results in its *Maintenance Records* workbook to ensure that it is consistent with actual practice.

- Total Dissolved Solids exceeded the documented limit on several occasions. Explanation as to what action was taken in response to these exceedances was not sought; as noted above, this parameter is monitored “... as a system performance check”.

On the basis of the above, it is assessed that Veolia undertook water quality monitoring as required pursuant to requirements set out in the Licence and the *Water Quality Plan* during the audit period.

#### **Clause B8.2 – Records of Water Quality Samples:**

A sample of Chain of Custody records corresponding to the above referenced Certificates of Analysis were reviewed to ensure that the requisite information was recorded. Specifically, review of records for samples received by ALS Environmental on 2 October 2018 (Work Order No: ES1828999), 1 February 2019 (Work Order No: ES1903156), 19 August 2019 (Work Order No: ES1926259) and 20 March 2020 (Work Order No: ES2009910) revealed the following:

- the date on which the sample was taken* – none of the sample records specifically identified the date on which the sample was taken.<sup>107</sup> The date on which the sample was received by ALS is recorded; it is understood that the sample is typically received by ALS on the date that it was taken;
- the time at which the sample was collected* – none of the sample records identified the time at which the sample was collected.<sup>108</sup> The time at which the sample was received by ALS is recorded;
- the point or location at which the sample was taken* – the point or location at which the sample is identified by sample location; for example “treated water”. Review of an additional record (Chain of Custody for samples taken on 17 April 2019 (work order No: ES1912057) shows sample locations including “treated water”, “after MBR”, “raw WW” and “after RO”; and
- the chain of custody of the sample (if applicable)* – the records reviewed for the purposes of this assessment were in fact Chain of Custody records. Apart from the above observations, there are some fields on the form that could be more effectively completed (e.g. name of sampler).

As not all requisite information, specifically the date and time at which samples are collected, is being recorded, it is assessed that Veolia has not demonstrated full compliance with this obligation. Accordingly, it is recommended (**REC-DW-2020.03**) that Veolia takes action to ensure that all requisite records of water quality samples, and specifically the date and time at which samples are collected, are systematically recorded.

<sup>107</sup> A further check revealed that of 74 Chain of Custody records, only 14 included that date on which the sample was taken.

<sup>108</sup> A further check revealed that of 74 Chain of Custody records, only 3 included that time at which the sample was taken.

---

Furthermore, as an opportunity for improvement (**OFI-DW-2020.07**), it is suggested that Veolia consistently completes all relevant fields on the Chain of Custody records.

***Clause B8.3 – Testing for the purposes of Verification Monitoring:***

As noted above, Veolia has engaged ALS Environmental to undertake testing for the purposes of verification monitoring in respect of the Darling Walk Recycled Water Scheme. ALS Environmental holds NATA Accreditation No: 825, the scope of which provides for testing of the required parameters including *Analysis for physical and chemical characteristics* (Site No: 10911) and *Analysis for microorganisms* (Site No: 14913).<sup>109</sup>

On this basis, it is assessed that analyses of all samples taken for the purposes of Verification Monitoring during the audit period was carried out by a laboratory that was accredited for the specified tests by an independent body acceptable to NSW Health.

---

**Recommendations**

The following recommendation is made in respect of these obligations:

- **REC-DW-2020.03:** It is recommended that Veolia takes action to ensure that all requisite records of water quality samples, and specifically the date and time at which samples are collected, are systematically recorded.

---

**Opportunities for improvement**


The following opportunities for improvement have been identified in respect of these obligations:

- **OFI-DW-2020.06:** It is suggested that Veolia reviews the terminology used when recording verification monitoring test results in its *Maintenance Records* workbook to ensure that it is consistent with actual practice.
- **OFI-DW-2020.07:** It is suggested that Veolia consistently completes all relevant fields on the Chain of Custody records.

---

<sup>109</sup> NATA website, including webpages: <https://www.nata.com.au/accredited-facility?q1=emm&str=&&AccNo=825>,  
[https://www.nata.com.au/entity\\_scope/?AccNo=825&q1=8f3&str=&&AccNo=825](https://www.nata.com.au/entity_scope/?AccNo=825&q1=8f3&str=&&AccNo=825)  
and [https://www.nata.com.au/entity\\_scope/?AccNo=825&q1=emm&str=&&AccNo=825](https://www.nata.com.au/entity_scope/?AccNo=825&q1=emm&str=&&AccNo=825).

Table E.7 Schedule B to the Network Operator’s Licence – Clause B11

Clause	Requirement	Compliance Grade
<b>Network Operator’s Licence cl.B11</b>	If the Licensee proposes to operate the Specified Water Industry Infrastructure to supply water for an end-use which is not set out in the most recent Water Quality Plan provided to IPART, the Licensee must notify IPART in writing at least 3 months before commencing such operation.	 <b>No Requirement</b>

#### Risk

Non-compliance with this requirement presents a low risk. Notification to IPART is required so that it can assess whether the water to be supplied is suitable for the proposed new end-use.

#### Target for Full Compliance

In the event that the Licensee proposes to operate the Specified Water Industry Infrastructure to supply water for a new end-use, evidence that it provided the requisite notification to IPART.

#### Evidence sighted

- Interviews with Veolia personnel on 14 May 2020.
- Virtual site inspection of infrastructure at Darling Walk on 14 May 2020.
- Veolia, *Darling Quarter; Network Operator’s Water Quality Plan* (DQ-WQP-001-08) (Revision 8), 5 March 2020.<sup>110</sup>
- “The Darling Quarter Recycled Water Treatment Plant” webpage, available on the My Recycled Water webpage at: <http://www.myrecycledwater.com.au/darling-quarter-rwtp>.
- *Darling Quarter Recycled Water Plant* brochure available on the My Recycled Water website at: <http://www.myrecycledwater.com.au/Content/Documents/dq-rwtp-brochure.pdf>.

#### Summary of reasons for grade

Veolia did not, during the audit period or subsequently, commence distribution of water for an end-use that is not set out in the *Water Quality Plan* most recently provided to IPART. Accordingly, there was “No Requirement” for notification to IPART pursuant to this obligation during the audit period.

#### Discussion and notes

Veolia advised that it had not commenced (or proposed to commence) operation of the Specified Water Industry Infrastructure to supply water for an end-use which is not set out in its *Water Quality Plan* most recently provided to IPART, either during the audit period or subsequently. No evidence to the contrary was identified during the audit; however, specific end-uses were not inspected.

The *Water Quality Plan*<sup>111</sup> identifies the end uses of recycled water as Cooling tower water and makeup, Toilet flushing and Garden irrigation. These end uses are consistent with the “Authorised purposes” nominated in the Network Operator’s Licence.<sup>112</sup>

It is noted that the authorised end uses are also clearly identified on the My Recycled Water website, both on an “Important Information” webpage<sup>113</sup> and in the *Darling Quarter Recycled Water Plant* brochure available on the My Recycled Water website.<sup>114</sup>

<sup>110</sup> As reported in **Section 2.2**, previous revisions of the *Water Quality Plan* were also in place during parts of the audit period. General reference is made unless reference to a specific version of the Plan is appropriate.

<sup>111</sup> *Water Quality Plan*, section 12.2.1 in Revision 5; section 11.2.1 in Revisions 6, 7 and 8.

<sup>112</sup> *Network Operator’s Licence No: 10\_008* (as varied on 18 December 2016), Table 1.3.

<sup>113</sup> Darling Quarter RWTP “Important Information” webpage, available on the My Recycled Water webpage at: <http://www.myrecycledwater.com.au/darling-quarter-rwtp/project-information/important-notice>.



---

## **Recommendations**

There are no recommendations in respect of this obligation.

---

## **Opportunities for improvement**


No opportunities for improvement have been identified in respect of this obligation.

---

---

<sup>114</sup> *Darling Quarter Recycled Water Plant* brochure available on the My Recycled Water website at:  
<http://www.myrecycledwater.com.au/Content/Documents/dq-rwtp-brochure.pdf>.

**Table E.8** Schedule B to the Network Operator’s Licence – Clause B13

Clause	Requirement	Compliance Grade
<b>Network Operator’s Licence cl.B13</b>	<p>[B13.1] This clause B13 applies each time the Licensee has brought any of the Specified Water Industry Infrastructure into commercial operation.</p> <p>[B13.2] The Licensee must:</p> <ol style="list-style-type: none"> <li>a) notify IPART in accordance with the Reporting Manual that it has brought the relevant Specified Water Industry Infrastructure into commercial operation; and</li> <li>b) provide such notification within 10 days after it has brought the relevant Specified Water Industry Infrastructure into commercial operation.</li> </ol>	 <b>No Requirement</b>
<b>Risk</b>	<p>This presents a relatively low operational risk. Whilst it is essential that the Licensee has approval to bring new infrastructure into commercial operation before doing so, there is a lower risk associated with failing the notify IPART that it has brought that infrastructure into commercial operation.</p>	<b>Target for Full Compliance</b>
		<p>Evidence that the Licensee has notified IPART in accordance with the <i>Reporting Manual</i> within 10 days of bringing any Specified Water Industry Infrastructure into operation.</p>
<b>Evidence sighted</b>	<ul style="list-style-type: none"> <li>▪ Interviews with Veolia personnel on 14 May 2020.</li> <li>▪ Virtual site inspection of infrastructure at Darling Walk on 14 May 2020.</li> <li>▪ IPART, <i>Network Operators’ Reporting Manual under the Water Industry Competition Act 2006 (NSW)</i> (Issue No: 10), 13 November 2019.</li> </ul>	
<b>Summary of reasons for grade</b>	<p>Veolia did not bring any additional Specified Water Industry Infrastructure into commercial operation during the audit period. Accordingly, there was “No Requirement” for compliance with this obligation.</p>	
<b>Discussion and notes</b>	<p>As previously reported in further detail in Table B.2, the Licensee did not bring any Specified Water Industry Infrastructure into commercial operation during the audit period. All infrastructure in operation at the time of the audit had been so since prior to the audit period.</p> <p>Accordingly, there was no requirement for the Licensee to notify IPART that any such Specified Water Industry Infrastructure had been brought into commercial operation.</p>	
<b>Recommendations</b>	<p>There are no recommendations in respect of this obligation.</p>	
<b>Opportunities for improvement</b>	<p>No opportunities for improvement are identified in respect of this obligation.</p>	



