

**Darling Quarter Development
Retail Supplier's
Retail Supply Management Plan
Rev 1
March 2020**



Solutions & Technologies

DOCUMENT REVISION SUMMARY & DISTRIBUTION

Document Number

DW-RSMP-001

Document Title

Retail Supply Management Plan

Document Type

Management Plan

Document Owner

NSW Service Manager

Document Approval General Manager – Services

Revision Summary

Revision	Date	Issued for	Remarks	Prepared	Review	Approved
A-G	21Sep100 to 09Nov11	Review	Internal	R Harkness	C Mangion	NA
0WIP	18Apr11	Approval	Internal	R Harkness	K Shaw	NA
0	21Apr11	IPART& Audit	Audit	R Harkness	K Shaw	K Shaw
1	04Mar 20	Review + Update		C. Kohn	C Hancock/ Subrat Kar	G.McNay

Distribution

Rev No	Issued To	Organisation	Position	Remarks / Restrictions
A	K Shaw	VWS	Strategic Mgr	Strategic Group only
0				IPART auditor
1	Various	IPART; Auditor	Various	Submission to IPART and Auditor

Note the only controlled copy is that electronic version located on VWS server.

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Front Cover

*Artist impression of the Darling Walk Complex 1-25 Harbour Street Sydney NSW
In construction at time of preparation of this Plan*

1 Purpose

This Update of Retail Supply Management Plan (Plan) has been prepared by Veolia Water Solutions & Technologies (Australia) Pty Ltd (VWS, VWST) for the Darling Walk Development (DW), 1-25 Harbour Street Sydney NSW pursuant to VWS's obligation under its NSW Retail Supplier's Licence No 10_009R granted by the Minister for Water under section 10 of the Water Industry Competition Act 2006 (WICA) 24 June 2010 for the following specified water industry infrastructure and varied on 21st December 2016 for the following water industry infrastructure (the Infrastructure)::

- *A treatment plant for non-potable water and other water infrastructure only used, or to be used, in connection with the treatment plant, where components of the treatment plant or other water infrastructure may be used for one or more of the following:*
 - *production of non-potable water;*
 - *treatment of non-potable water;*
 - *filtration of non-potable water;*
 - *storage of non-potable water; and*
 - *conveyance of non-potable water*

- *A reticulation network for non-potable water and other infrastructure only used, or to be used, in connection with the reticulation network, where components of the reticulation network or the other water infrastructure may be used for one or more of the following:*
 - *storage of non-potable water;*
 - *conveyance of non-potable water; and*
 - *treatment of non-potable water*

As per WICA Act, "water infrastructure" means any infrastructure that is, or is to be, used for the production, treatment, filtration, storage, conveyance or reticulation of water, but does not include (a) any pipe, fitting or apparatus that is situated downstream of a customer's connection point to a water main, or (b) any pipe, fitting or apparatus that is situated upstream of a customer's connection point to a stormwater drain.

Under a contractual arrangement between VWS (the Licensee) and the owner of the asset, represented by Jones Lang LaSalle (NSW) Pty Limited (hereafter named "JLL"), customer's connection point (terminal point TP2) are the points just after the recycled storage tanks in basement level B3 (As set out in Appendix 4 of Darling Quarter Development Network Operator's Infrastructure Operating Plan Rev.5, February 2020 (IOP)).

Accordingly, VWS operates and maintains the water infrastructure up to these customer terminal point (that covers the plant designed, installed and commissioned by VWS up to the recycled storage tanks) (sometimes termed "RWTP", "Treatment Infrastructure" within this Plan); while the reticulation system beyond those terminal point (i.e. the network of pipes, pumps, meters, valves originating from outlet of the recycled water storage tanks and carrying treated recycled water to the cooling towers, toilet cisterns and irrigation downstream of recycled water storage tanks) are directly operated and maintained by JLL and are not part of the WICA licensed area.

The two product tanks (Storage Tanks #8010 and 8020) themselves up to the TP are within the limits of 'Recycled Water System' and infrastructure, maintained and managed by VWS.

This Plan describes the risk management approach to the operation and maintenance of the infrastructure to reliably and safely perform in the event of adverse events or circumstances.

2 Background

The Darling Walk (renamed Darling Quarter) Redevelopment Project located on Harbour Street in Darling Harbour between the Chinese Gardens and the IMAX cinema consists of two new premium A-grade, low rise commercial buildings developed for Lend Lease Developments.

Back in 2010, Bovis Lend Lease (BLL) was appointed as Project Manager and was responsible for the design and construction of the project. The development replaced previously existing and aging infrastructure marked for redevelopment and incorporated 4 levels of basement parking, a ground level retail floor including a children's theatre and up to 8 levels of an A grade office space. The associated public domain area was upgraded including a new children's playground. Construction commenced September 2008 and was completed around mid-2011.

The project incorporated a few environmental sustainable design initiatives.

One important environmental component of the development was the inclusion of a state of the art water recycling plant providing recycled water to the entire development to replace otherwise potable water for the purpose of:

- Cooling tower makeup,
- Toilet flushing, and
- Irrigation.

In February 2010 VWS was awarded a contract by BLL to design, supply, construct and commission a Water Recycling Plant (WRP) to produce 166kL per day of recycled water. Further details of design and construction are provided in the IOP and include the following summary components and unit processes:

- Receipt of sewage from the local Sydney Water Corporation (SWC) sewer main,
- Grease Removal System,
- Solids Screening System including macerating pumps,
- Proprietary Moving Bed Bioreactor (MBBR) System,
- Proprietary Membrane Bioreactor (MBR) System,
- Reverse Osmosis,
- Ultra Violet Light (UV) and Chlorine Disinfection Systems, and
- Ancillary tanks, pumps, piping, electrics, instrumentation and controls

A NSW Network Operator's Licence No. 10_008 was granted by the Minister for Water under Section 10 of the Water Industry Competition Act 2006 (WICA) on 24 June 2010 and varied on 18th December 2016 for the Treatment Infrastructure as explained in Section 1.

As of date, Darling Quarters boasts of

- (a) 6 Stars Green Star Certified Rating as defined by the Green Star Office Design and As-Built rating schemes for the Green Building Council of Australia (GBCA).
- (b) 5.5 Star NABERS Energy and 4.5 Star NABERS Water, as defined by the National Australian Built Environment Rating System.

3 The treatment infrastructure construction

The Infrastructure described in Section 1 and elaborated upon in Section 2 is presented diagrammatically in Appendix 1 and comprises the following scope split by the developer (BLL) and the Licensee (VWS).

3.1 By Developer, BLL

BLL was solely responsible for the design and construction of the following:

- Gravity sewerage infrastructure for sewage conveyance from the SWC 450mm vitreous clay sewer main under Harbour Street,
- The sewerage conveyance infrastructure to and including the waste collection sump and connections back to the main sewer.
- Extraction system and treatment for odour,
- The non-potable water piping infrastructure (Lilac System) including supply and installation of

customer water meters, and

- The treated water storage tanks including outlet connections.

3.2 By the Licensee and Supplier VWS

VWS was responsible for the design and construction of the following Infrastructure under contract to BLL.

- Feed pumps
- Solids screening system,
- MBBR,
- MBR,
- Reverse Osmosis
- Ultra Violet Light (UV) and Chlorine (sodium hypochlorite) disinfection, and
- Odour control,
- Ancillary pumps, piping, electrics, instrumentation and controls.

4 Scope included

4.1 Scope included

This Plan relates to the treatment infrastructure as explained in Section 1 and has been prepared in accordance with the Water Industry Competition (General) Regulation 2008 (the Regulation) Schedule 2 (Conditions for retail suppliers' licences), Part 2 (Additional conditions for license for water supply) Section 8, (Retail Supply Management Plans).

Accordingly the scope of this Plan addresses the prescriptive requirements of the Regulation, VWS certified Plan-Do-Check approach and the IPART audit guidelines (September 2018 Revision) as follows which have been logically categorised as Planning, Implementation and Compliance:

Planning:

The arrangements that the licensee (VWS) has made, or proposes to make, in relation to:

- (a) the events & circumstances that could adversely affect the licensee's ability to supply water, and
- (b) the probability of the occurrence of any such event or circumstance, and
- (c) the measures to be taken by the licensee:
 - i. to prevent the occurrence, or minimise the effect, of any such event or circumstance, and
 - ii. to arrange for alternative supplies of water (excluded; refer 10.4 below), and
- (d) The arrangements that the licensee has made, or proposes to make, to ensure that it complies with:
 - i. its code of practice for customer complaints & its code of practice for debt recovery, and
 - ii. marketing code of conduct and transfer code of conduct (as noted in detail in Section 7)

Implementation

The licensee:

- (a) must ensure that its retail supply management plan is fully implemented and kept under regular review and, in particular, that all of its activities are carried out in accordance with that plan, and
- (b) must, if the Minister so directs, amend its retail supply management plan in accordance with the Minister's direction.

Compliance

If the Minister or IPART so demands, or if any significant change is made to its retail supply management plan, the licensee:

- (a) must provide the Minister or IPART with a report, prepared by an approved auditor in such manner and form as the Minister or IPART may direct, as to the adequacy of the plan, or
- (b) must pay the Minister's or IPART's costs of conducting an investigation into the adequacy of the plan.

In the preparation of this Plan VWS has also taken due regard to IPART's Water Licensing Audit Guidelines (Latest Revision of September 2018) for the purpose of assuring all stakeholders that this Plan and its associated controlling actions have the resilience and integrity required under Regulation.

4.2 Scope not included

This Plan does not address the arrangement of alternative supply of water nor address any adverse event or circumstance or their risk management in relation to the following; these are the responsibilities of others (namely JLL):

- Recycled water systems delivering water for use in cooling towers, toilet flushing or irrigation,
- Sewage supply system to the treatment infrastructure,
- treatment infrastructure waste disposal system to sewer,
- Odour control system outside the boundaries of the treatment infrastructure (refer to section 2.6).

5 Other conditions under Licence

Schedule B under Retail Supplier's Licence No 10_009R prescribes a comprehensive list of standard conditions which the Minister has determined to impose pursuant to section 13(1)(b) of the Act as well as those obligations imposed by the Regulation:

- B1 - Ongoing capacity to operate,
- B2 - Obtaining appropriate insurance,
- B3 - Maintaining appropriate insurance,
- B4 - Complying with NWS Health requirements,
- B5 – Complying with Audit Guidelines from IPART
- B6 - Reporting in accordance with the reporting manual,
- B7 – Reporting information in relation to the Register of Licences
- B8 - Provision of copy of Plan,
- B9 – Delineating responsibilities
- B10 – Notification of changes to Authorised Person
- B11- Infrastructure to be used; and
- B12 – Notification of operation

While the above conditions are not specifically required to be addressed under this Plan, these are required under licence so for completeness VWS affirms it will meet these conditions as applicable.

6 Other conditions under Regulation

In addition to this Plan the licensee (VWS) must meet the following conditions under Regulation, Schedule 2 Parts 1 & 2 and to which VWS commits to meeting as applicable to Licence No 10_009R unless directed otherwise by IPART or the Minister:

- Part 1
 1. Provision of information,
 2. Implementation of government policy with respect to social programs,
 3. Customers to be notified of translation of services,
 4. Code of practice for customer complaints,
 5. Code of practice for debt recovery,
 6. Codes of conduct, and
 7. Environmental protection.
- Part 2
 8. This Retail supply management plan,
 9. Non-potable water to match customer's needs,
 10. Obligation not to over commit,
 11. Notice of intended termination of supply of water,
 12. Notice of water restrictions,
 13. Matters to be contained on the licensee's website, and
 14. Water to be supplied under contract to small retail customers

While the above conditions are not specifically required to be addressed under this Plan, these are required under licence so for completeness VWS affirms it will meet these conditions as applicable.

7 Codes of practice and conduct

This section addresses the arrangements that VWS has made, or proposes to make, to ensure that it complies with:

- its code of practice for customer complaints and its code of practice for debt recovery, and
- the marketing code of conduct and the transfer code of conduct.

Codes of Practice

VWS's code of practice for customer complaints is provided in the appendices and has been prepared pursuant to the Regulation, Schedule 2, Part 1, Section 4 Code of practice for customer complaints and in conformance with AS ISO 10002-2014 Customer satisfaction-Guidelines for complaints handling in organisations.

VWS's code of practice for debt recovery is provided in the appendices and has been prepared pursuant to the Regulation, Schedule 2, Part 1, section 5 Code of practice for debt recovery and in conformance with ACCC and ASIC Debt collection guideline for collectors and creditors.

Notably the Codes of Practice are generally applied in relation to small retail customers. For Darling Quarter, VWS does not have any small retail customers; only one large customer (JLL). Notwithstanding, VWS codes of practice developed for all existing and proposed sewerage services and recycle water project will be generally applied as a matter of good business practice and governance.

Codes of Conduct

VWS commits to complying with any water industry code of conduct, marketing code of conduct and transfer code of conduct that may be applicable to its Network Operator's Licence.

Having said that, VWS notes that NSW Office of Water (NOW) had issued draft marketing and transfer codes long back during early 2011. VWS as Licensee is not involved and nor does it anticipate in the foreseen future to be involved in any marketing and transfer activities in relation to its licenses for Darling Quarters RWTP.

8 Relationship with other plans under Regulation

This Plan forms part of a suite of plans required under the Regulation as part of VWS's obligations as both a Retail Supplier (this requirement) and a Network Operator (not part of this Licence requirement) in relation to the water Infrastructure as follows.

Network Operator's Licence (2 plans)

1. Infrastructure Operating Plan (IOP) pursuant to the Regulation Schedule 1, Part 2, Section 6 and describes the design, construction, operation and maintenance of the water infrastructure and its integrity,
2. Water Quality Plan (WQP) pursuant to the Regulation Schedule 1, Part 2, Section 7 and describes the non-potable water quality integrity of the water infrastructure having regard to defined guidelines (Australian Guidelines for Water Recycling - AGWR1), the purposes for which water is to be used and for which water is not used (this plan), and

Retail Supplier's Licence

3. Retail Supply Management Plan for water supply pursuant to the Regulation, Schedule 2 Part 2 (Additional conditions for licences for water supply) Section 8, (Retail Supply Management Plans); this Plan.

9 Stakeholders

This Plan refers to stakeholders, namely those persons, entities and authorities that have an interest in the infrastructure and supply of water under licence. These stakeholders are listed below:

Stakeholders

Stakeholder	Role
Australian Prime Property Fund (APPF) managed by Lend Lease Developments	Owner of the development and the built infrastructure; Also known as Lend Lease Funds Management Limited (LLFM)
City of Sydney Council	Local council authority.
Jones Lang LaSalle (JLL)	Asset Management and Operations of the built infrastructure and VWS's Single Customer for receiving water; as an agent of Darling Walk Trust. (JLL works for Lend Lease Funds Management Limited (ACN 000 335 473) and is the trustee and responsible of the Darling Walk Trust (ABN 24 634 378 816))
Public and DQ resident community	Users of Recycled Water
Independent Pricing and Regulatory Tribunal (IPART)	The independent economic regulator for NSW. In this case administers the WICA legislation.
Minister of Water, Property and Housing	WICA Licence Approver.
NSW Ministry of Health	In relation to all Health incidents for Schemes operated under WICA Act..
Office of Environment & Heritage (Under Ministry of Planning & Environment)	Administers environmental and water legislation other than WICA including noise and air quality (odour);
Department of Planning, Industry and Environment	Administers WIC Act, as necessary
Energy and Water Ombudsman of NSW (EWON)	Manages complaints (except for water pricing) which the Licensee has not handled to the satisfaction of the complainant and has referred the complainant to EWON.
Interfacing Contractors	Development maintenance including cooling tower, toilet, irrigation, landscape and associated interfacing services.
Sydney Water (SWC)	Supplier of sewage and potable water when Infrastructure off-line
Veolia Water Solutions & Technologies (Australia) Pty Ltd (VWS)	Design and Construct that part of the Treatment Infrastructure that treats sewage to produce treated water. Since 2011, known as the Supplier and Network Operator

10 Planning

The planning requirement of the Regulation, Schedule 2, Part 2, Clause 8 (1) requires this Plan to document the arrangements that the licensee (VWS) has made, or proposes to make, in relation to:

- (a) the events & circumstances that could adversely affect the licensee's ability to supply water, and
- (b) the probability of the occurrence of any such event or circumstance, and
- (c) the measures to be taken by the licensee:
 - i. to prevent the occurrence, or minimise the effect, of any such event or circumstance, and
 - ii. to arrange for alternative supplies of water in response to any such event or circumstance, and
- (d) The arrangements the licensee has made, or proposes to make, to ensure that it complies with:
 - i. its code of practice for customer complaints and its code of practice for debt recovery, and
 - ii. the marketing code of conduct and the transfer code of conduct.

Regarding items (a) through (c) inclusive above, these immediately focus VWS' approach and methodology applying proven Risk Management principles; these are introduced in the following section, and addressed in detail in Appendix 1, Approach and Methodology.

Over the years of VWS operation in Darling Quarters, VWS has obtained wide experience to better understand the events that would come within (a) through (c) inclusive and namely, the potential adverse events and circumstances, their probability of occurrence, the potential consequence of their occurrence and the measures taken to minimise the impact of such occurrences including making arrangements for alternative supplies of recycled water for cooling tower make-up, toilet flushing and irrigation

A single risk assessment register addresses the above.

Later sections under this Planning section address item (d) accordingly.

10.1 Approach and methodology

The VWS approach and methodology addressed in Appendix 2 demonstrates to IPART, VWS' customer and VWS' other stakeholders that VWS has:

- Developed and documented the approach and methodology to be used for identifying the events and circumstances that could adversely affect the ability to supply water,
- A documented process to periodically review and update the events and circumstances that could adversely affect the ability to supply water to incorporate any changes and,
- Documented a list of the events and circumstances, in accordance with the approach and methodology that could adversely affect its ability to supply water.

VWS is committed to good Risk Management (RM) principles and methodologies by application of the policies and procedures contained in its QMS Certification Services certified Business management system (BMS) and applied at every stage of project delivery from tendering through project management, contract management, design, procurement, construction, commissioning, operations, servicing and maintenance.

Importantly VWS is committed to the approach and methodology provided by AS/NZS ISO 31000:2018 Risk management; Principles and Guidelines (noting this standard supersedes the earlier RM standard AS/NZS ISO 31000:2018) and related standards for managing disruption related risk and operational continuity as further described in Appendix 2.

The stepwise approach and methodology addressed in the appendices and the following sections are summarised below:

- Define categories of adverse events and circumstances both external and internal
- Identify adverse events and circumstances for each category
- Consider the probability (likelihood) of each adverse event or circumstance occurring

- Consider the consequence of each adverse event or circumstance should these occur
- Evaluate the likelihood and consequence of each adverse event or circumstance and decide whether treatment is necessary to reduce the likelihood or to mitigate the consequence or both
- Decide on an appropriate risk treatment
- Repeat the evaluation process following risk treatment selected to assure that the risk treatment provides sufficient mitigation and control
- Repeat the process if necessary to arrive at an acceptable risk treatment
- Put the risk treatment in place, then manage and monitor.

10.2 Adverse events and circumstances

Potential adverse events and circumstances that could adversely affect VWS's ability to supply recycled water have been diligently considered, *identified* and categorised as follows; the complete list of identified potential adverse events and conditions is contained in Appendix 2:

Table 1 – Adverse events and circumstances

Adverse Event or Circumstance Category	Example Adverse Event or Circumstance
External context	
Access & security	Building fire not at WRP
Utilities, suppliers and logistics	Loss of supply of power
Legal and regulatory	WICA licence breach
Stakeholder	Community complaint
Internal context	
Public Health	Treated water quality excursion
OHS	Workplace injury
Environment	Environmental breach
Process, operations, service and maintenance	Process equipment or instrument failure
IT systems & communication	PLC failure
Contractual	Substantial/material breach
Financial	VWS bankruptcy
VWS compliance	Loss of IMS certification
Organisational, Human Resources	Loss of key staff

It is possible to categorise differently to the above. For example Environment could be considered external as well as internal; however, taking this same example we consider external environment (example storm, flood and earthquake) to be related to access and security, whereas environment in the internal context relates to VWS control of circumstances where it could possibly negatively impact on the environment.

Regardless of the method of categorising, the important outcome is that potential adverse events and circumstances are identified along with their risk of occurrence so that these can be managed (by this Plan).

10.3 Probability of occurrence

By reference to VWS' approach and methodology including definition of terms in Appendix 1, VWS considers the probability occurrence of any such event or circumstance in terms of risk management terminology:

- Risk identification,

- Risk analysis,
- Risk evaluation

VWS then considers the measures to be taken to prevent the occurrence, or minimise the effect, of any such event or circumstance in terms of Risk Treatment; addressed in the next section.

VWS considers *risk identification* of risk of occurrence (likelihood) as being from rare through, unlikely, to possible to likely then almost certain; and risk outcome (consequence) as having from insignificant through minor, moderate, major then to severe effect or impact.

VWS considers *risk analysis* in terms of the effect of uncertainty or risk rating arising from the likelihood of an adverse event occurring versus the consequence of that event or circumstance.

When considering *risk evaluation* VWS makes a decision whether to treat or not to treat the risk based on the risk analysis or rating from low through medium, high and very high. Clearly VWS seeks a low risk rating as reasonably practicable.

10.4 Measures to be taken

This section addresses the measures to be taken (or Risk Treatment) by the licensee (VWS) to prevent the occurrence, or minimise the effect, of any such event or circumstance; notably:

- VWS has limited control over the potential for external context adverse events or circumstances arising but does have some control over their consequences, and
- VWS does have considerable control and influence over those internal context adverse events and circumstances that could arise and control over their consequences.

The outcome of risk evaluation is to treat or not to treat. The measures taken or risk treatment are sufficient to eliminate or lower to an acceptable level the risk of an adverse event or circumstance occurring as well as mitigating the consequences of the potential adverse events and circumstances. VWS' approach is in line with AS/NZS ISO 31000:2018 as follows:

1. Avoiding the risk by deciding not to start or continue with the activity that gives rise to the risk,
2. Removing the risk source; namely removing the potential for an adverse event or circumstance,
3. Changing the likelihood or risk of,
4. Changing the consequence or risk outcome, or
5. Retaining the risk by informed decision.

This approach is a variation on the conventional approach to hazard identification, risk assessment and control (HIRAC) five step hierarchy of managing hazards; namely, elimination, substitution, segregation, engineering, administration, or personal protection.

This Plan and RM approach, risk treatment measures and controls are addressed in context with the VWS's ability to supply water by the treatment infrastructure or by alternative sources.

VWS had followed a risk management regime associated with design and construction phase. All risk management during operation and maintenance of the treatment infrastructure, and the risk management associated with water quality is addressed in a consolidated risk management register. The same is also attached to Water Quality Plan (WQP).

The 12 elements of the AGRW1 broad coverage has been considered in conducting

such risk management. During the design phase, RM principles have been applied by way of for example Design Reviews, Hazards and Operability (HAZOP) studies. Water quality HIRAC with applicable risk treatment controls are put in place that enables VWS to prevent or mitigate the potential for and adverse event or circumstance to arise and to mitigate the impact of that adverse event that may prevent VWS from supplying recycled water.

These controls are evident within the detail of the appendices and are addressed in detail in the IOP and WQP.

The consolidated risk register demonstrates the measures to prevent the occurrence, or minimise the effect of any adverse event or circumstance. These equate to Risk Treatment Plans under the standard and notably show:

- Risk treatment to prevent, or to remove, or to avoid, or change the likelihood of an adverse event or circumstance arising and the responsibility of either VWS or JLL according to their contractual scope split, and
- Risk treatment to mitigate the consequences of any one or more adverse events or circumstances should these occur shall be the responsibility of VWS or JLL to action according to their contractual scope split.

The level and standard of service provided by VWS to its customer JLL are detailed in the operations, service and maintenance agreement between JLL and VWS. These levels and standards are summarised in the appendices.

Treatment Infrastructure OHSE Plan, Emergency Preparedness & Response Plan and the Business Continuity Management Plan are companion documents of reference.

10.5 Odour management

This section specifically addresses odour management for the treatment infrastructure including odour from raw sewage feed through the various process stages of the infrastructure. The potential sources of odour are as follows:

- Macerator and associated piping;
- Buffer tank;
- Drum screen and sludge discharge holding tank;
- MBBR tanks;
- MBR tank;
- Solids and sludge discharge piping to waste water pit and sewer;
- Fume and odour vent ducting;
- Effluent treatment (RO, UV and disinfection) and recycled water production

At the Design and Construction stage the following preventative measures were included to mitigate the potential for or eliminate process odours.

- The treatment process by way of its stage-wise process units progressively treats the raw sewage to odourless recycled water and sludge discharge;
- All process tanks were hydrostatically pressure tested and sealed;
- All sewage, effluent and recycled water piping systems were sealed including hydrostatic pressure testing before commissioning;
- All fume and odour venting systems were gas tight and leak (soap) tested before commissioning;
- The Roto-Sieve drum screen was completely enclosed and under negative pressure;
- Air was designed to be injected into the raw sewage feed pipe to maintain adequate dissolved oxygen concentration in wastewater at all times;
- All tanks were designed to have their contents aerated to enable sufficient mixing to prevent organic solids deposition and wastewater becoming septic;

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- Average sludge age was maintained at approximately 5 hours at full rates (summer months) and up to 10 hours during winter months. The sludge age was an exponential distribution (63% will be younger than 5 hours, at full rates). Sludge were regularly discharged to sewer and not permitted to accumulate in tanks. The membrane tank was specifically designed with a hopper shaped bottom to ensure adequate sludge concentration is reached;
- Effluent treatment includes RO, UV and chlorine disinfection to achieve odourless recycled water;
- The Buffer tank, MBBR tank, MBR tank and RotoSieve were maintained under negative pressure based on the maximum aeration rates to the MBBR & MBR plus 20% and 4 air changes per hour on the RotoSieve, Waste Water Pit, Buffer Tank and Holding Tank. The air is sent to roof vent with treatment via an Activated Carbon Filter prior to discharge. The entire plant is maintained in a dedicated sealed plant room which is kept under negative pressure at 12 air volume changes per hour connected to the customer's building exhaust; VWS termination point is downstream of the customer's exhaust fan and activated carbon filter.
- Extraction addressed above is provided by the Customer whose responsibility it is to treat the extracted fumes through an activated carbon filter to remove any odour that may exist before discharging to atmosphere above the Darling Walk buildings

Odour is managed by the operations, service and maintenance personnel of JLL who manage the facility in accordance with the VWS O&M manuals.

In the event of an odour excursion leading to any complaint, the WRP would be shut down including ventilation to atmosphere and not brought back into service until the root cause is determined and corrective measures put in place.

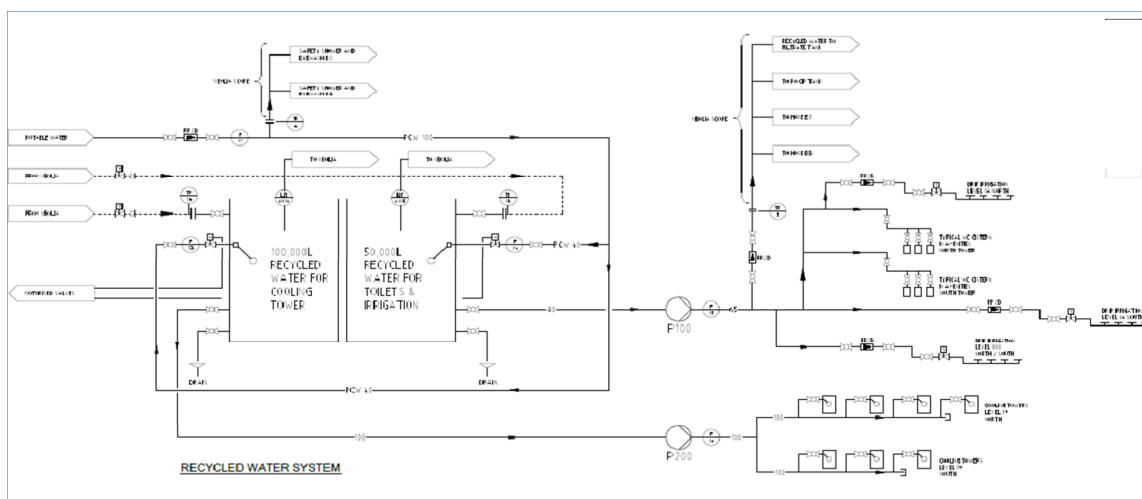
10.6 Alternative supply of water

As noted in preceding section 10.4, in the event of any failure or stoppage of the treatment infrastructure resulting from an adverse event or circumstance it is the responsibility of JLL to ensure continuity of supply of sufficient quantities of water for cooling tower makeup, toilet flushing and irrigation by means of the potable water main and automated backup systems installed by BLL, installed in accordance with the Plumbing and Drainage Code of Practice.

This is the only alternative supply of water to replace water produced by the treatment infrastructure.

While the treatment infrastructure is designed for automatic supply of potable water in the event the infrastructure is in shutdown mode or reduced supply volume mode, the interface between VWS and JLL is such that JLL is responsible for ensuring the supply of potable water until the WRP is returned to full operation as specified in the D&C Specification of contract No 90093 between BLL and VWS.

This interface is shown diagrammatically below (reference BLL drawing HD152200 Rev D):



JLL is responsible for the water management of water from the WRP and potable water for cooling tower makeup, toilet flushing and irrigation.

10.7 Codes of practice and conduct

The Codes of Practice are generally applied in relation to small retail customers. For Darling Quarter, VWS does not have any small retail customers; only one large customer (JLL). Notwithstanding, VWS codes of practice developed has been adapted to suit to the extent practicable.

Technical and financial complaints and debt recovery will be taken up directly by VWS with JLL.

11 Implementation

This section affirms that the licensee (VWS):

- Will ensure that its retail supply management plan is fully implemented and kept under regular review and, in particular, that all of its activities are carried out in accordance with that plan, and if the Minister so directs, will amend its retail supply management plan in accordance with the Minister's direction.

11.1 Implementation

This Plan is being implemented by VWS since VWS has executed operation, service and maintenance agreement of the WRP with JLL and is updated in this Revision considering certain changes over the years.

For information, prior to the implementation of the first version of this Plan, VWS had issued such plan in a timely manner to all stakeholders as applicable.

VWS ensures that those responsible for implementing and administering this Plan are made fully aware of the obligations required under this Plan and implement these accordingly.

VWS performs regular verification on various risk treatment provisions in anticipation of those significant potential adverse events or circumstances arising so that the planned actions can be implemented in a timely and proper manner to mitigate the impact of the adverse event or circumstance to the planned acceptable level or better.

In any event, should the treatment actions take longer than anticipated or other contingency circumstances arise, the fallback position will always be to shut-down the WRP and provide potable water for cooling tower makeup, toilet flushing and irrigation by way of the BLL-JLL backup systems.

This Plan shall be formally reviewed by VWS from time to time.

11.2 Amendments

Amendments to this Plan may be categorised as VWS improvements or those directed by the Minister. In any event, the revised Plan shall be made available to the Public by way of VWS website. In addition this Plan may be amended as may be necessary following outcomes of site inspections and audit findings by VWS, JLL, or any other authorised stakeholder.

12 Compliance

This section affirms that if the Minister or IPART so demands, or if any significant change is made to its retail supply management plan, the licensee (VWS):

- will provide the Minister or IPART with a report, prepared by an approved auditor in such manner and form as the Minister or IPART may direct, as to the adequacy of the plan, or
- will pay the Minister's or IPART's costs of conducting investigation into the adequacy of the plan.
-

12.1 IPART audit

This Plan may be audited by IPART or its representative at any time pursuant to IPART's Audit Guideline Water Licence Audits, Water — Guidelines, September 2018 or as amended and accessible from IPART's website.

12.2 VWS audit

All VWS personnel must perform their duties lawfully and in accordance with VWS' certified business management system (BMS). Even so, all our business activities, products and services, including performing our core and support processes, carry a measure of risk.

VWS has a defined way of doing business to eliminate risk or mitigate risk to a level acceptable to the company. The procedures and approaches for this are contained in its BMS documentation; namely, VWS procedures include the applicable risk management tools and the level of checking and verification required to properly conduct our business

VWS' organisation through its legal, contracts management and compliance resources provides a level of assurance to its executive management (namely VWS' CEO and GMs) that VWS is going about its business to meet its legal and contractual obligations and comply with its WICA obligations.

This is largely achieved by the auditing process, for which there are three levels:

- Level 1 - third party BMS certification and third party financial accounting compliance audits,
- Level 2 - internal audits by VWS' own auditors or consultants VWS may engage as its own,
- Level 3 - audits of VWS by its customers or others; alternatively of its suppliers by VWS.

In addition to IPART audits pursuant to their Audit Guidelines, VWS internally audits this Plan, its companion plans (IOP and WQP) and the Service Agreement between VWS and JLL, from time to time, to ensure VS is meeting its obligations under each

12.3 Audit outcomes

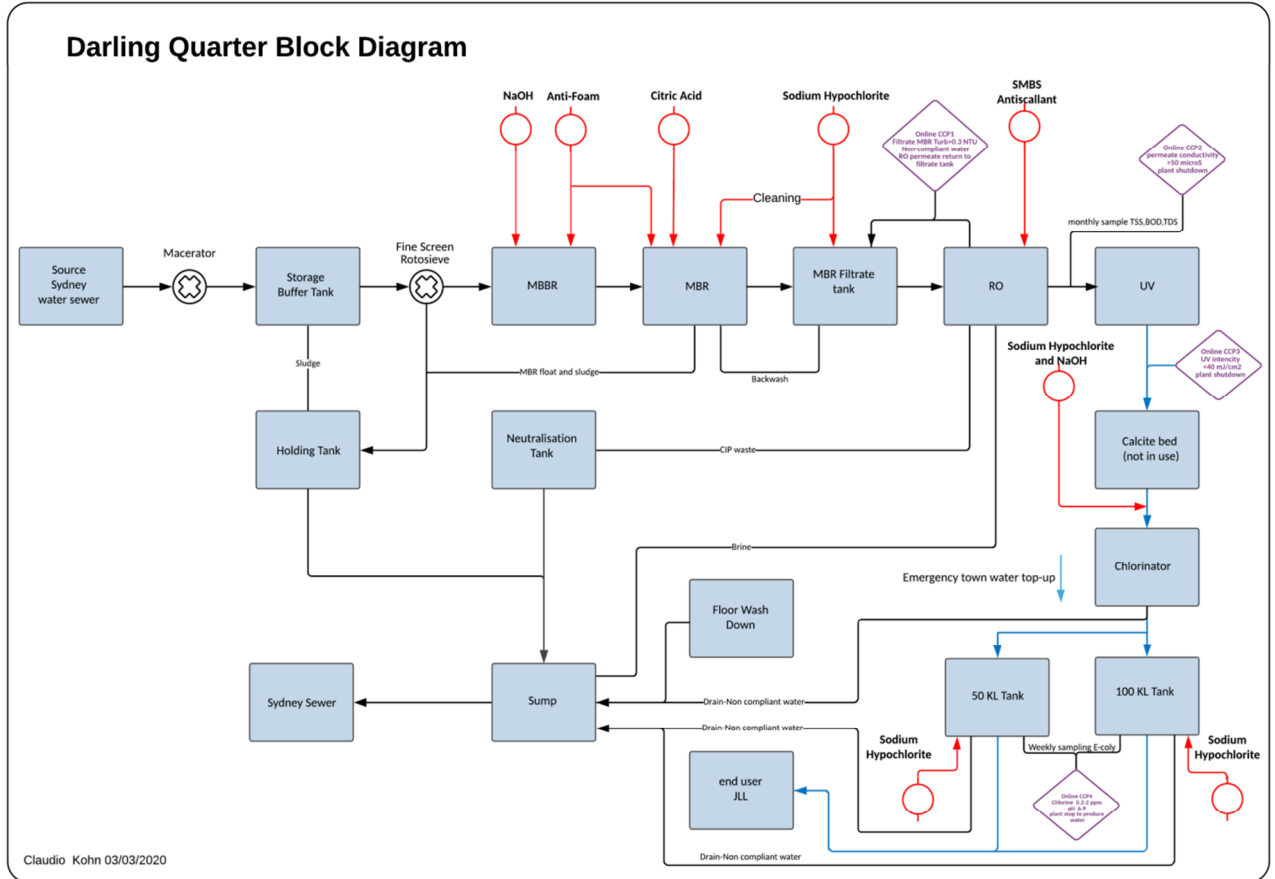
For IPART audits, following the submission of the final audit report, VWS may be required to take action to manage the audit outcomes. As prescribed in the IPART Audit Guidelines IPART will discuss the process for addressing any issues and the actions that the licensee proposes to take in response to the audit findings on a case-by-case basis.

For VWS internal audits, VWS will take applicable corrective action to any non-conformance, observation of opportunity for improvement followed by review and investigation as necessary to determine cause and then put in place preventative actions to avert any reoccurrence of the non-conformance.

Appendices

- Appendix 1 Treatment Infrastructure process block flow diagram
- Appendix 2 Risk management approach and methodology
- Appendix 3 Identification: Adverse events and circumstances
- Appendix 4 Risk Assessment Register; showing Probability: Risk identification, Assessment and evaluation and Measures: Risk treatment
- Appendix 5 Level of and standard of service
- Appendix 6 Code of Practice – Complaints Handling
- Appendix 7 Code of Practice – Debt Recovery
- Appendix 8 Treatment Infrastructure OHSE Plan
- Appendix 9 Treatment Infrastructure Emergency Preparedness & Response Plan (EPRP)
- Appendix 10 Treatment Infrastructure Business Continuity Management Plan (BCMP)
(VWST copies of relevant BCMPs attached)

Appendix 1 – Process Block Flow Diagram



Appendix 2 – Approach and methodology

This appendix demonstrates to IPART, VWS customer and VWS' other stakeholders that VWS has:

- Developed and documented the approach and methodology to be used for identifying the events and circumstances that could adversely affect their ability to supply water,
- A documented process to periodically review and update the events and circumstances that could adversely affect their ability to supply water to incorporate any changes and,
- Documented a list of the events and circumstances, in accordance with the approach and methodology that could adversely affect its ability to supply water,
- Estimated the probability of the occurrence of any such events or circumstance that could adversely affect their level of service,
- Evaluated the major sources of uncertainty associated with each event or circumstance and actions have been considered to reduce uncertainty,
- Determined the significant risks and established documented priorities for the management of those events or circumstances that could adversely affect their ability to supply water,

VWS is committed to good Risk Management (RM) principles and methodologies by application of the policies and procedures contained in VWS's business management system (BMS) which is certified by QMS Services to the following standards:

- AS/NZS 4801: 2001 Health and Safety Management System
- AS/NZS ISO 14001: 2015 Environmental Management System
- AS/NZS ISO 9001: 2015 Quality Management System

Importantly VWS is committed to the approaches outlined in the following standards specific to RM:

- AS/NZS ISO 31000:2018 Risk management; Principles and Guidelines; as well as
- AS/NZS 5050:2010 Business Continuity; Managing disruption related risk, and
- AS ISO 22301:2017 Business continuity management

To demonstrate this commitment, VWS's organisation includes a Compliance Manager reporting to the General Counsel and responsible for providing assurance to top management and VWS stakeholders that the company's activities, products and services are being performed or provided in accordance with applicable legislation, codes of practice, standards, contract conditions and VWS's own certified BMS policies and procedures; all necessary for good corporate governance and accountability.

These standards and VWS' BMS procedures require the application of rigorous RM principles at every stage of project delivery from initial planning, through project management of delivery, design, procurement, construction, commissioning, operations service and maintenance.

These principles include the identification of non-conformances, safety hazards, environmental aspects as well as incident management, emergency response and business continuity interruption; namely the management of adverse events and circumstances in a planned and controlled manner to mitigate negative outcomes.

This Plan applies the principles and processes contained in the above standards to meet the specific requirements of the Regulation; noting it is not the purpose of this Plan to repeat or quote in detail each and every definition contained in these standards, except for those addressed below.

VWS's RM approach and methodology are discussed below necessarily elaborating further on five main generic definitions contained in AS/NZS ISO 31000:2018 to better describe these specifically in context with this Plan

These are tabled below and these well equate to the requirements of the Regulation and define VWS's RM approach and methodology in relation to the Water Recycling Plant's (treatment infrastructure) integrity, and the management thereof, to supply water:

Table 1 - Risk management definitions related to planning

Term	AS/NZS ISO 31000:2018 Definition	Definition in context of this Plan
Event	Occurrence or change of a particular set of circumstances noting an event can be one or more occurrences and can have several causes; can consist of something not happening; can refer to an incident or accident; an event without consequence (eg near miss)	Events and circumstances that could adversely affect the licensee's ability to supply water; a disruptive occurrence. In this Plan we shorten this to a disruption or adverse event or similar while taking account of the extended definitions of the standard.
Risk	Effect of uncertainty on objectives noting risk is often expressed in terms of a combination of the consequences of an event (including changes in circumstances) and the associated likelihood of the occurrence.	The combination or risk rating arising from the likelihood of (probability of, or risk of) an adverse event occurring v the consequence (impact, or risk outcome) of that event.
Risk assessment	Overall process of risk identification, risk analysis and risk evaluation (refer to Standard)	Overall process of risk identification, risk analysis and risk evaluation related to potential adverse events and circumstances
Risk Treatment	The process to modify risk including avoiding the risk by deciding not to start or continue with the activity that gives rise to the risk, removing the risk source, changing the likelihood, changing the consequence or retaining the risk by informed decision.	The measures (controls) to be taken by the licensee: <ul style="list-style-type: none"> i. to prevent the occurrence, or minimise the effect, of any adverse event or circumstance, and ii. to arrange for alternative supplies of water in response to any such event or circumstance
Residual Risk	The risk remaining after risk treatment	The risk remaining after the measures taken to prevent the occurrence, or minimise the effect, of any adverse event or circumstance.

VWS RM approach and methodology follows that of AS/NZS ISO 31000:2018 and is as follows to prevent the occurrence, or minimise the effect, of any adverse event or circumstance, and to arrange for alternative supplies of water in response to any such event or circumstance:

- 1. Establish the context:** Identify the potential adverse events; these are defined in the next sub-section and may be caused by external occurrences or internal occurrences,
- 2. Risk Assessment:** Risk identification, risk analysis and risk evaluation related to potential adverse events and circumstances,
- 3. Risk Treatment:** Put in place appropriate controls to prevent the (likelihood of or risk of) occurrence and to minimise the effect (mitigate the consequence or risk outcome) of the adverse event to an acceptable residual risk level,

Implement, manage and monitor the Plan, including periodic review and update of the events and circumstances that could adversely affect VWS ability to supply recycled water and to incorporate any changes; this is implementation phase addressed in section 3.

The combination of the likelihood of an adverse event and its consequence will determine the level of risk as shown in the Figures below: Risk (Rating) Matrix. This matrix identifies the level of risk found when analysing the likelihood versus consequence of an adverse or disruptive event occurring.

This table is similar to Table 6.6 in AS HB 436:2004 RM Guidelines and Table 2.7 Qualitative Risk Estimation in The Australian Guidelines for Water recycling: managing Health and Environmental Issues (phase 1) 2006; namely a 5x5 matrix with 4 Risk Ranking levels requiring some qualitative assessment.

The risk matrix ranks the likelihood of an adverse event or circumstance occurring increasing from rare, to unlikely, possible, likely to almost certain (or 1 to 5 respectively); and the consequence of such event or circumstance increasing from insignificant to minor, moderate, major or severe (or 1 to 5 respectively) as the case may be.

The quasi-quantitative assessment of the combination of likelihood v consequence is determined by multiplying the likelihood and consequence ranking; refer to Figure 2.

Figure 1 – Risk (Rating) Matrix - display 1: qualitative

Likelihood or Probability	Consequence or Impact (Risk outcome)				
	Insignificant -1	Minor - 2	Moderate - 3	Major - 4	Severe - 5
Almost Certain - 5	Low	Medium	High	Very High	Very High
Likely - 4	Low	Medium	High	Very High	Very High
Possible - 3	Low	Medium	High	Very High	Very High
Unlikely - 2	Low	Low	Medium	High	Very High
Rare event - 1	Low	Low	Low	High	High

Figure 2 – Risk (Rating) Matrix - display 2: quasi-quantitative

Likelihood or Probability	Consequence or Impact (Risk outcome)				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	5	10	15	20	25
Likely	4	8	12	16	20
Possible	3	6	9	12	15
Unlikely	2	4	6	8	10
Rare event	1	2	3	4	5

It follows from the above risk matrix that VWS considers and puts in place mitigation actions and controls for any adverse event that results in a Medium, High or Very High risk category or combined risk rating of 4 or above, unless noted otherwise.

The priority of the actions and controls put in place shall be proportional to the level of risk identified in order that the residual risk becomes acceptable.

This can be described qualitatively as follows noting that with the 5x5 matrix and 4 Risk Ratings, there is some crossover in the ratings and therefore cross over in our qualitative assessment:

Figure 3 – Qualitative assessment rating of controls

Qualitative Residual Risk Rating	Quasi-quantitative Residual Risk Rating	Qualitative Assessment of Controls
Low-medium	1-3	Best practice unless noted otherwise
Medium	4	Adequate unless noted otherwise
High-Very High	4-25	Inadequate

The higher the residual risk rating the greater the significance of that risk; and the highest priority given to its prevention and or mitigation as applicable.

Once VWS puts in place actions and controls to mitigate the consequence of an adverse event, VWS then reassesses that mitigation to assure itself the control in place reduce the residual risk rating to an acceptable level.

Appendix 3 – Adverse events and circumstances

Context & Category	Potential Adverse Event or Circumstance
External	
Access & security	Flood / Storm / Fire / Road accident / external Chemical spill
Access & security	fire, explosion or vandalism or risk to operations (RWTP and network)
Access & security	earthquake
Access & security	internal fire within the development
Access & security	lightning remembering the plant is in the building basement
Utilities, suppliers	Potable water make up to plant & storage tanks fails due to solenoid or pipe failure.
Utilities, suppliers	Sewage blockage in inflow pipe or take of point in access chamber.
Utilities, suppliers	Sydney Water isolates sewer main upstream of take off line for maintenance
Utilities, suppliers	Electrical power outage
Legal and regulatory	WICA licence breach
Legal and regulatory	new legal requirements for licence holder
Stakeholder	not meeting client and/or customer expectations
Stakeholder	Sub-contractor gap
Internal	
Public Health	Sewage odour
Public Health	Recycle water odour
Public Health	Infrastructure odour
Public Health	Recycle water below specification; potential for sickness
OHS	work related illness/injury
OHS	inadequate management of an emergency or crisis
OHS	Inadequate resources
OHS	Inadequate supply of OH&S equipment (PPE)
OHS	Non injury safety incident
OHS	Illegal cross connection between recycled water and potable water in building distribution system and unexpected exposure to recycled water.
Environmental	Chemical spills
Environmental	Environment pollution - noise, odour etc.
Environmental	Contamination risk
Operations	Insufficient laboratory and testing equipment and reagents
Operations	Partial or full loss of supply of chemicals - Sodium Hypochlorite
Operations	Partial or full loss of supply of chemicals - Antiscalant
Operations	Partial or full loss of supply of chemicals - Antifoam
Operations	Partial or full loss of supply of chemicals - Citric Acid
Operations	Partial or full loss of supply of chemicals - Caustic
Operations	Sewage quality deterioration
Operations	Pump failure
Operations	Macerator failure

Context & Category	Potential Adverse Event or Circumstance
Operations	Screen or & buffer tank failure
Operations	Dosing systems failure
Operations	MBBR biological treatment failure
Operations	MBR system (including membranes, blowers, pumps...) failure
Operations	CIP system failure
Operations	RO system failure
Operations	Recycled water storage / pumping failure
Operations	Compressed air system failure
Operations	Electrical components / Switchboards failure
Operations	Control instrumentation failure
Operations	Inadequate supply of spares
IT systems & coms	Loss of telephone, fax and/or mobile phone communication for more than a day
IT systems & coms	Loss of PLC/SCADA system
IT systems & coms	IT systems (server/internet) failure
Contractual	Material breach (eg unable to meet obligations)
Contractual	Change in law
Financial	Bankruptcy by VWS
Financial	VWS losing money on job
VWS compliance	IMS - loss of certification
VWS compliance	Failure to submit reports on time – contract, EPA, Work cover
VWS compliance	Not keeping licences up to date (driver, trade, confined space and the like)
VWS compliance	Contract non-compliance - reporting requirements
Organisational	Loss of key staff due to resignation

Appendix 4 – Risk Assessment Register, showing probability: risk identification, analysis and evaluation and Measures: Risk treatment

Reference is made to next four pages; as attached.

Darling Quarter Risk Assessment				
Operations, Quality, Corporate, IT, Legal, Work, Health and Safety				
Prepared by	Reviewed by	Approved by	Reviewed by	Approved by
Claudio Kohn		Inshan Sheriff	Subral Kar	
Position				
Plant Manager				
Date	18/07/2019			

Matrix	Consequence				
	Probability	Insignificant	Minor	Moderate	Catastrophic
Almost Certain	High	High	High	Extreme	Extreme
Likely	Medium	High	High	Extreme	Extreme
Possible	Low	Medium	Medium	High	Extreme
Unlikely	Low	Low	Medium	High	Extreme
Rare	Low	Low	Medium	High	High

Haz no.	Component <small>(A system or block flow diagram component)</small>	Risk or Hazardous Event <small>(Adverse consequence that is being assessed and of how that consequence arises)</small>	Risk or Hazard(s) <small>(Hazards that have been identified associated with the Hazardous Event.)</small>	Inherent Controls <small>(Controls assumed to be functioning when the maximum risk is assessed.)</small>	Before Controls			Basis of Risk Score	Controls (Principal Preventive Measures) <small>(Measures that are specifically designed and operated to manage identified risk, includes Critical Control Points and other important preventive measures)</small>	Principal Person(s) responsible for operating and managing preventive measures	After Controls			Basis of Risk Score	Cover of Assessment of Reliability in Risk Analysis of	Possible Improvement Ideas <small>(Ideas for additional investigations, preventive measures or other follow-up actions related to this risk - note these are not necessarily actions that will be completed.)</small>
					Maximum	Residual	Level of Risk				Residual	Residual	Residual			
1	Darling Quarter	Fall of Person	Fall while using ladders,	Correct design	Possible	Moderate	High	Persons may not be adequately trained.	Design of plant and Equipment, Training, maintenance of ladders,	VWT Plant	Unlikely	Minor	Low	Job planning and Adequate controls in place	Confident	Restrict use where possible.
2	Darling Quarter	Uncontrolled release of electrical energy	Injury during inspection, testing and maintenance tasks	Isolators	Possible	Catastrophic	Extreme	Possibility of Electrocutation	Isolation (LOTO), Plant electrical design, Permit To Work, Training, competent persons, Appropriate Equipment, LV rescue training	VWT Plant	Unlikely	Moderate	Medium	Isolation protocols, adequate safety controls in place, competent persons	Confident	None
3	Darling Quarter	Mental Health & Fatigue	Injury or illness as a result of working alone	Non-specific	Possible	Major	Extreme	Worker could injure himself with limited phone network coverage	Permit to work, Site supervision, Two person task	VWT Plant	Unlikely	Minor	Low	More than one person scheduled for the task at hand	Confident	None
	Darling Quarter	Mental Health & Fatigue	Injury as a result of working after hours / early morning	Non-specific	Possible	Major	Extreme	Task scheduled for early morning	Minimum 10 hour break between shifts, scheduled shift work	VWT Plant	Unlikely	Minor	Low	Adequate labour scheduling via designated shift times	Confident	None
	Darling Quarter	Mental Health & Fatigue	Injury or illness as a result of personal circumstances, stress.	Non-specific	Possible	Major	Extreme	Distractions resulting in inability to work safely	Staff Supervision, Communication, Compassion Guidelines, Appropriate leave entitlements.	VWT Plant	Unlikely	Moderate	Medium	Adequate controls and inoculations for site staff	Confident	None
4	Darling Quarter	Vehicle and plant incident in public areas	Injury as a result of accident driving to/from site, after hour work	Road regulations	Possible	Catastrophic	Extreme	Potential for accidents to occur	Monitor work hours, take regular breaks, Site supervision, Worker Fatigue management	VWT Plant	Unlikely	Moderate	Medium	Staff communication, safety culture on site, toolbox subject discussions, monitoring of hours worked	Confident	None
5	Darling Quarter	Uncontrolled release of non electrical energy	Injury as a result of mechanical fatigue, structural and moving parts	Design	Likely	Moderate	High	Modifying existing pipework and valve actuation	Reduce water pressure on valves and pipework by lowering head pressure, Permit to Work, Selection and Design, Periodic inspections	VWT Plant	Unlikely	Minor	Low	Lower pressure, pipe material rating in design	Confident	None
7	Darling Quarter	Cross Connection	Cross connection between RW and PW network	Certificate from qualified plumber for any new installations	Unlikely	Minor	Low	Procedural and Plan Establishment	VWT Licenced operator, Annual Cross connection testing by JLL, Third party licence audits.	VWT Plant	Rare	Minor	Low	No Cross connections found during testing recently conducted	Confident	N/A
8	Darling Quarter	Loss of recycled water supply for extended time periods	Plant and/or infrastructure failure, including Recycled Water line service strike.	Job planning, Response time.	Unlikely	Major	High	Non-specific	Contingency planning - Spare fittings, tooling, materials, all on standby. Plant design wrt to shutting down flow on a line break. Operator response time to remote alarm	VWT Plant	Unlikely	Minor	Low	Appropriate Protocols and job planning, high level of communication with JLL, competent trades people.	Confident	Review Scada set points.
9	Darling Quarter	Poor Water quality	Non compliant water quality	Routine Water quality testing, Plant operational CCP's, licenced operator, plant design	Possible	Minor	Medium	Non-specific	Reviewing of CCP's, network water quality testing for residual free chlorine, plant design, plant approved performance testing completed, experienced operators.	VWT Plant	Rare	Insignificant	Low	Adequate water quality management across the network	Confident	N/A
10	Darling Quarter	Not meeting client and/or customer expectations	Potential additional costs	Plant Design, Testing Regimes	Unlikely	Moderate	Medium	Non-specific	Have in place excellent Account Management plan and O&M management plans. Implement these plans as a matter of course. Not only implement our plans but take direct action by senior personnel according to the severity of the issue arising	VWT Plant	Rare	Major	Low	Continued Plant Compliance	Confident	N/A
	Darling Quarter	Operations	Partial or full loss of supply of chemicals - sodium hypochlorite, antiscalant, antifoam, citric acid, caustic soda	Robust inventory monitoring and procurement system in place. Robust tank design including bunding to avert environmental release	Unlikely	Minor	Low	Non-specific	Arrange for immediate Chem delivery if inventory lower than planned.	VWT Plant	Rare	Moderate	Low	Job planning and Adequate controls in place	Confident	N/A
	Darling Quarter	Operations	Pump failure	Robust preventative maintenance program; sufficient spares available; remote monitoring IDs	Unlikely	Major	High	Non-specific	Identify root cause and rectify in timely manner to avert treatment upset or odour or health issues. Bypass plant if necessary	VWT Plant	Rare	Moderate	Medium	Job planning and Adequate controls in place	Confident	N/A
	Darling Quarter	Operations	Macerator failure	Robust preventative maintenance program; sufficient spares available; remote monitoring IDs	Possible	Major	Extreme	Non-specific	Identify root cause and rectify in timely manner to avert treatment upset or odour or health issues. Bypass plant if necessary	VWT Plant	Rare	Moderate	Medium	Job planning and Adequate controls in place	Confident	N/A
	Darling Quarter	Operations	Dosing systems failure	Robust preventative maintenance program; sufficient spares available; remote monitoring IDs	Unlikely	Major	High	Non-specific	Identify root cause and rectify in timely manner to avert treatment upset or odour or health issues. Bypass plant if necessary	VWT Plant	Rare	Moderate	Low	Job planning and Adequate controls in place	Confident	N/A

Darling Quarter Risk Assessment				
Operations, Quality, Corporate, IT, Legal, Work, Health and Safety				
Prepared by	Reviewed by	Approved by	Reviewed by	Approved by
Claudio Kohn		Inshan Sheriff	Subrat Kar	
Position				
Plant Manager				
Date	18/07/2019			

Matrix	Consequence				
	Insigificant	Minor	Moderate	Major	Catastrophic
Almost Certain	High	High	High	High	High
Likely	Medium	High	High	High	High
Possible	Low	Medium	Medium	High	High
Unlikely	Low	Low	Medium	High	High
Rare	Low	Low	Medium	High	High

Haz no.	Component <small>(A system or block flow diagram component)</small>	Risk or Hazardous Event <small>(Adverse consequence that is being assessed and of how that consequence arises)</small>	Risk or Hazard(s) <small>(Hazards that have been identified associated with the Hazardous Event.)</small>	Inherent Controls <small>(Controls assumed to be functioning when the maximum risk is assessed.)</small>	Before Controls			Basis of Risk Score	Controls (Principal Preventive Measures) <small>(Measures that are specifically designed and operated to manage identified risk, includes Critical Control Points and other important preventive measures)</small>	Principal Responsible Party <small>(Entity responsible for operating and managing preventive measures)</small>	After Controls			Basis of Risk Score	Cover of Assessment <small>(Assessment of reliability in Risk Analysis of measures present and operating as intended, other than any assumed to be failing for the hazard event, helps identify whether additional preventive measures are desirable.)</small>	Possible Improvement Ideas <small>(Ideas for additional investigations, preventive measures or other follow-up actions related to this risk - note these are not necessarily actions that will be completed.)</small>
					Maximum	Residual	Level of Risk				Residual	Residual	Residual			

11	Darling Quarter	Operations	MBBR treatment failure	On-line DO monitoring measurement. Duty / Standby units on blowers	Possible	Major	Extreme	Non-specific	Identify root cause and rectify in timely manner to avert treatment upset or odour or health issues. Bypass plant if necessary	VWT Plant	Rare	Moderate	Low	Job planning and Adequate controls in place	Confident	N/A
	Darling Quarter	Operations	MBR system failure	Robust preventative maintenance and scheduled servicing. Scheduled membrane integrity testing & autopsies. Remote monitoring ability.	Possible	Major	Extreme	Non-specific	Identify root cause and rectify in timely manner to avert treatment upset or odour or health issues. Bypass plant if necessary	VWT Plant	Rare	Moderate	Low	Job planning and Adequate controls in place	Confident	N/A
	Darling Quarter	Operations	CIP system failure	Robust preventative maintenance program; sufficient spares available; remote monitoring IDs immediately; refer IOPs	Unlikely	Major	High	Non-specific	Identify root cause and rectify in timely manner to avert treatment upset or odour or health issues. Bypass plant if necessary	VWT Plant	Rare	Moderate	Low	Job planning and Adequate controls in place	Confident	N/A
	Darling Quarter	Operations	RD system failure	Robust preventative maintenance and scheduled servicing. Scheduled membrane integrity testing & autopsies. Remote monitoring ability.	Possible	Major	Extreme	Non-specific	Identify root cause and rectify in timely manner to avert treatment upset or odour or health issues. Bypass plant if necessary	VWT Plant	Rare	Moderate	Low	Job planning and Adequate controls in place	Confident	N/A
	Darling Quarter	Operations	Recycled water storage / pumping failure	Robust preventative maintenance program. Remote monitoring ability.	Possible	Major	Extreme	Non-specific	Identify root cause and rectify in timely manner to avert treatment upset or odour or health issues. Bypass plant if necessary	VWT Plant	Rare	Moderate	Low	Job planning and Adequate controls in place	Confident	N/A
	Darling Quarter	Operations	Compressed air system failure	Robust preventative maintenance program. Remote monitoring ability.	Unlikely	Major	High	Non-specific	Identify root cause and rectify in timely manner to avert treatment upset or odour or health issues. Bypass plant if necessary	VWT Plant	Rare	Moderate	Low	Job planning and Adequate controls in place	Confident	N/A
	Darling Quarter	Operations	Control instrumentation failure	Robust preventative maintenance program; sufficient spares available; refer IOPs	Possible	Major	Extreme	Non-specific	Identify root cause and rectify in timely manner to avert treatment upset or odour or health issues. Bypass plant if necessary	VWT Plant	Rare	Moderate	Low	Job planning and Adequate controls in place	Confident	N/A
	Darling Quarter	Operations	Inadequate supply of spares	Robust inventory monitoring and procurement system in place	Possible	Moderate	High	Non-specific	If necessary use local supplier. Bypass plant if necessary	VWT Plant	Rare	Moderate	Low	Job planning and Adequate controls in place	Confident	N/A
Darling Quarter	Operations	Sewage quality deterioration	No real control over sewage quality in Harbour Street main. Treatment Plant may be taken off line if sewage deteriorates sufficiently to upset biological process	Possible	Major	Extreme	Non-specific	As plant is not critical, we can take treatment plant off line until quality returns	VWT Plant	Rare	Moderate	Medium	Adequate controls in place	Confident	N/A	

12	Darling Quarter	IT Systems & Coms	Loss of telephone, fax and/or mobile phone communication for more than a day	Plant Design, Testing Regimes	Possible	Major	Extreme	No real control over third party supplier of these services	Adequate supplier services agreements in place. Ensure 24 site attendance rather than remote monitoring. Bypass plant if necessary	VWT Plant	Rare	Minor	Low	Adequate controls in place	Confident	N/A
	Darling Quarter	IT Systems & Coms	Loss of PLC/SCADA system	Plant Design, Testing Regimes	Possible	Major	Extreme	Plant operates through SCADA	Have critical spares available eg PLC cards, back up program and the like. Attend site, determine cause and rectify. Bypass plant if necessary	VWT Plant	Rare	Minor	Low	Adequate controls in place	Confident	N/A
	Darling Quarter	IT Systems & Coms	Server and internet failure	Plant Design, Testing Regimes	Possible	Major	Extreme	Non-specific	Operate locally from site. Implement normal recovery or disaster recovery if needed. Bypass plant if necessary. Robust back up; disaster recovery plan in place	VWT Plant	Rare	Minor	Low	Adequate controls in place	Confident	N/A

Darling Quarter Risk Assessment				
Operations, Quality, Corporate, IT, Legal, Work, Health and Safety				
Prepared by	Reviewed by	Approved by	Reviewed by	Approved by
Name: Claudio Kohn		Inshan Sheriff	Subrat Kar	
Position: Plant Manager				
Date: 18/07/2019				

Matrix	Consequence				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain	High	High	Extreme	Extreme	Extreme
Likely	Medium	High	High	Extreme	Extreme
Possible	Low	Medium	Medium	Extreme	Extreme
Unlikely	Low	Low	Medium	High	Extreme
Rare	Low	Low	Medium	High	High

Haz no.	Component <small>(A system or block flow diagram component)</small>	Risk or Hazardous Event <small>(Adverse consequence that is being assessed and of how that consequence arises)</small>	Risk or Hazard(s) <small>(Hazards that have been identified associated with the Hazardous Event.)</small>	Inherent Controls <small>(Controls assumed to be functioning when the maximum risk is assessed.)</small>	Before Controls			Basis of Risk Score	Controls (Principal Preventive Measures) <small>(Measures that are specifically designed and operated to manage identified risk, includes Critical Control Points and other important preventive measures)</small>	Principal Responsible Party <small>(Party responsible for operating and managing preventive measures)</small>	After Controls			Basis of Risk Score	Level of Assessment of Reliability in Risk Analysis	Possible Improvement Ideas <small>(Ideas for additional investigations, preventive measures or other follow-up actions related to this risk – note these are not necessarily actions that will be completed.)</small>
					Maximum	Residual	Level of Risk				Residual	Residual	Residual			
13	Darling Quarter	Organisational	Loss of key staff due to resignation	Plant Design, Organisation Structure	Possible	Major	Extreme	No site presence to operate	Have in place succession or support duties plan. Call-out if needed	VWT Plant	Rare	Moderate	Medium	job planning and Adequate controls in place	Confident	N/A
14	Darling Quarter	Fire And Explosion	Fire & explosion, due to equipment or electrical fault, or lightning strike	Servicing of equipment by JLL and T&T of equipment	Likely	Major	Extreme	Due to Fire	Subcontractors selected under VWT corporate procedures with preference to existing contractors and suppliers. Fire Alarm system installed.	VWT Plant	Likely	Moderate	High	Fire Alarm system connected to alarm escalation system or Emergency Services	Confident	Add fire alarm to Scada
	Darling Quarter	Fire And Explosion	Fire & Explosion while accessing a confined space with potential built up of flammable gases	Qualified persons, appropriate equipment	Likely	Catastrophic	Extreme	Flammable gases are likely to be present in confined spaces	Permit to Work, Confined Space Trained, Gas detection equipment, Hazard identification, Isolation, PPE, CFS permit, Ventilation (as required), hot work permit (as required)	VWT Plant	Unlikely	Major	High	Adequate controls and trained persons on site	Confident	Clearly identify all confined spaces
15	Darling Quarter	Failure of Moving Parts.	Interruption of Plant Process	Plant Design	Possible	Moderate	High	Generally equipment has stop/duty/standby, for this	Permit to Work, Hazard identification, Isolation, PPE, Site Inductions, Appropriate Equipment, Training, Staff Experience. Duty / Standby Plant.	VWT Plant	Possible	Minor	Medium	Duty / Standby, Sewerage	Confident	Spare Parts to be available on site
	Darling Quarter	Injury Caused by Moving Parts.	Injury resulting from Rotating Parts Machinery	Competent or Trained persons	Possible	Major	Extreme	Persons may not follow correct procedures.	Permit to Work, Hazard identification, Isolation, PPE, Site Inductions, Appropriate Equipment, Training, Staff Experience. Plant design, guards and limit switches installed	VWT Plant	Unlikely	Major	High	Adequate design, supplier selection, staff training.	Confident	None
	Darling Quarter	Failure of structures (temporary or permanent)	Injury due to collapse of scaffolds / working at heights / storage racks and cabinets	competent or Trained persons	Possible	Major	Extreme	Fall from this height may result in death / structure failure could result in injury or death.	Permit To Work, Working at Heights training, Riggers to erect scaffold above 1.8m, competent persons, Appropriate Equipment / design, inspection and follow SWL guidelines. Proper manual handling techniques.	VWT Plant	Unlikely	Moderate	Medium	Adequate design and use of competent riggers, Working at heights training, manual handling training, load limit signage,	Confident	Use an EWP where possible, use of platform ladders, employ certified inspectors.
16	Darling Quarter	Occupational health exposure	Injury associated with handling chemicals	Trained Persons	Likely	Major	Extreme	High Probability due to the frequency of handling	Permit to Work, Hazard identification, Isolation, PPE, Site Inductions, Appropriate Equipment, Chemical Training , safety shower/ eyewash, SDS, DAP.	VWT Plant	Possible	Minor	Medium	Adequate controls and experience in chemical handling	Confident	None
	Darling Quarter	Occupational health exposure	Injury from contact with biological materials (raw sewage inside plant)	Trained Persons	Likely	Moderate	High	High Probability due to the frequency of handling and nature of work	Permit to Work, Hazard identification, Personnel Innoculations, Isolation, PPE, Site Inductions, barricade.	VWT Plant	Possible	Minor	Medium	Adequate controls and Innoculations for site staff	Confident	None
17	Darling Quarter	Public health exposure	Recycle water quality below specification;	Well designed plant	Possible	Moderate	High	Transmission of Disease	Infrastructure design and CCPs to be specific for producing treated water meeting the required health standards	VWT Plant	Possible	Minor	Medium	Alarm controls are in place, priority response is initiated by staff, periodic inspection program	Confident	
18	Darling Quarter	Confined space incident	Injury or death as a result of incorrect access to confined spaces	Trained staff	Likely	Catastrophic	Extreme	Persons could enter confined space with a compromised atmosphere	Permit to Work, Confined space permit, Hazard identification, Confined Space Trained, Gas monitoring, Dual workers, Access Equipment, PPE, Site Inductions, barricade, security, Rescue plan	VWT Plant	Unlikely	Moderate	Medium	Training, Adequate Controls, Hazard Identification, competent persons	Confident	Monitoring of confined space register
	Darling Quarter	Confined space incident	Injury or death as a result of working in a confined space.	Trained staff	Likely	Catastrophic	Extreme	Persons could enter confined space with a compromised atmosphere or engulfment	Permit to Work, Confined space permit, Hazard identification, Confined Space Trained, Gas monitoring, Dual workers, Access Equipment, PPE, Site Inductions, barricade, security, Rescue plan	VWT Plant	Unlikely	Moderate	Medium	Training, Adequate Controls, Hazard Identification, Competent Persons	Confident	None
19	Darling Quarter	Essential service failure	Injury as a result of failure of life saving systems (emergency lighting, fire detection and alarm, safety shower and eyewash, etc.) due to lack of testing or maintenance.	Non-specific	Likely	Catastrophic	Extreme	Poor or lack of maintenance	Back up generator, Sub-contract selection, Programmed Periodic Maintenance as per AS, statutory requirements	VWT Plant	Unlikely	Moderate	Medium	Training, Adequate Controls, Hazard Identification, Experienced Persons	Confident	None
20	Darling Quarter	Commercial	Material breach (eg unable to meet obligations)	Understand contract before signing and properly administer by competent personnel	Unlikely	Moderate	Medium	Non-specific	Meet with JLL and authorities to mitigate negative outcomes	VWT Plant	Rare	Minor	Low	Training, Adequate Controls, Hazard Identification, Experienced Persons	Confident	None
21	Darling Quarter	Legal & regulatory	WICA licence breach	Have in place excellent contract administration and infrastructure management	Rare	Major	High	Non-specific	Meet with JLL and authorities to mitigate negative outcomes	VWT Plant	Possible	Minor	Medium	Training, Adequate Controls, Hazard Identification, Experienced Persons	Confident	None

Darling Quarter Risk Assessment

Operations, Quality, Corporate, IT, Legal, Work, Health and Safety

Prepared by	Reviewed by	Approved by	Reviewed by	Approved by
Claudio Kohn	Inshan Sheriff	Subrat Kar		
Position: Plant Manager				
Date: 18/07/2019				

Matrix	Consequence				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain	High	High	Extreme	Extreme	Extreme
Likely	Medium	High	High	Extreme	Extreme
Possible	Low	Medium	High	Extreme	Extreme
Unlikely	Low	Low	Medium	High	Extreme
Rare	Low	Low	Medium	High	High

Haz no.	Component <small>(A system or block flow diagram component)</small>	Risk or Hazardous Event <small>(Adverse consequence that is being assessed and of how that consequence arises)</small>	Risk or Hazard(s) <small>(Hazards that have been identified associated with the Hazardous Event.)</small>	Inherent Controls <small>(Controls assumed to be functioning when the maximum risk is assessed.)</small>	Before Controls			Basis of Risk Score	Controls (Principal Preventive Measures) <small>(Measures that are specifically designed and operated to manage identified risk, includes Critical Control Points and other important preventive measures)</small>	Principal Responsible Party <small>(The person or team responsible for operating and managing preventive measures.)</small>	After Controls			Basis of Risk Score	Cover or Assessment of Reliability in Risk	Possible Improvement Ideas <small>(Ideas for additional investigations, preventive measures or other follow-up actions related to this risk - note these are not necessarily actions that will be completed.)</small>
					Maximum	Residual	Level of Risk				Residual	Assessment	Residual Risk			
	Darling Quarter	Legal & regulatory	new legal requirements for licence holder	VWS has no influence over change in law. These may occur	Rare	Major	High	Non-specific	Negotiate sensibly with IPART and JLL	VWT Plant	Possible	Minor	Medium	Training, Adequate Controls, Hazard Identification, Experienced Persons	Confident	None

Appendix 5 – VWS level and standard of service

The level and standard of service being provided by VWS to its customer JLL are detailed in the current version of operations, service and maintenance agreement between JLL and VWS. These levels and standards are summarised below.

- Commitment 1 ensure a safe operation having minimal impact on the environment
- Commitment 2 supply 166kL per day of recycled water noting 95% availability
- Commitment 3 supply potable water equivalent when not able to provide recycled water
- Commitment 4 provide 24/7 attendance on site or by remote access to ensure the above
- Commitment 5 ensure reliability of media and membranes
- Commitment 6 ensure the reliable supply of water treatment chemicals and consumables
- Commitment 7 handle customer complaints in accordance with AS ISO 10002-2006
- Commitment 8 manage adverse events or circumstances in accordance with this Plan

The level or scope of service includes:

- Site Operations**
 - Operate and monitor the plant 24/7 in accordance with the WRP operating procedures and performance criteria
- Service support**
 - Carry out specialty servicing as contained in detail in the service agreement to ensure optimal plant performance
- Maintenance**
 - Perform all necessary plant maintenance in accordance with manufacturers' instructions and as detailed in the O&M manual and considering age of the RWTP
- Spare Parts and Consumables**
 - Supply all necessary spare parts and consumables for operation of the WRP; and considering age of the RWTP, for large capital expenditure items such as RO and MBR membrane replacement these will be in accordance with negotiated agreement on the matter between VWS and JLL
- Chemicals**
 - Supply all necessary chemicals to operate the plant for the duration of the contract
- Water testing**
 - All necessary water testing to achieve performance parameters and regulatory compliance
- Licensing**
 - Maintain plant performance to meet or exceed all licensing requirements
- Meetings and reporting**
 - Meet regularly with and report to applicable stakeholders as required under contract and Regulation.

The standard of performance will be measurable as in terms of key performance indicators (KPIs) as tabled below

Table 1 – Standard of service key performance indicators

KPI	Min/Max target	Method of Assessment
Safety	No lost time injuries	Number of lost time injuries reported
Environment	No environmental incidents	Number of incidents reported
Service Delivery	Phone response within 4 hours of contact by JLL representative	Contact with VWS personnel
Reclaimed Water Quality	Samples taken as per specification requirements	Independent water analysis
System Performance	95% availability over a 365 day period. Availability is based on stoppages for routine maintenance only. Emergency stoppages are excluded from this guarantee.	Review of hours run counter
Critical control points: MBR filtrate turbidity RO permeate conductivity UV status Chlorine residual value	Refer service agreement & WQP	Refer service agreement & WQP
Maintenance Mechanical Electrical & controls Instrumentation	All work detailed in the Service agreement will be carried out in accordance with the O&M manual and equipment manufacturers' instructions	Review of quarterly reports

The probability of the occurrence of any event or circumstance that could adversely affect the level and standard of service has been addressed in the forgoing sections and the plan to treat the risks addressed in the RWTP accordingly

Appendix 6 Code of Practice for Complaints Handling

Note

The Codes of Practice are generally applied in relation to small retail customers. For Darling Quarter, VWS does not have any small retail customers; only one large customer (JLL). Notwithstanding, VWS codes of practice developed for all existing and proposed sewerage services and recycle water project will be generally applied as a matter of good business practice and governance

PURPOSE

This code of practice provides a guideline for complaints handling (including the preparation of related procedures) by management and employees of Veolia Water Solutions & Technologies (Australia) Pty Ltd (VWS) in relation to its Recycled Water Services as Recycled Water Network Operator and Retail Supplier Licences for the Darling Quarters Development pursuant to the Water Industry Competition (General) Regulation 2008, Schedule 2, Part 1, Cl 4.

This code of practice is for VWS internal use only; a short version has been made available to its sole Customer (JLL).

BACKGROUND

VWS has been contracted by JLL to supply recycle water services for the Darling Quarters Development.

VWS commits to provide these services in accordance with the code of practice described in this appendix prepared by VWS as licence holder. VWS will be responsible for customer communication, complaints handling and debt recovery. The split of responsibility is as follows:

- VWS - All operational related customer interface matters
- JLL - All financial related customer interface matters including tariff setting and debt recovery (knowing that JLL is the customer and also asset owner representative and as such it will need to deal with itself in relation to any financial related customer interface matter)

LICENCE HOLDER OBLIGATION

Pursuant to the above Regulation, VWS shall:

- (a) establish and comply with a code of practice for customer complaints, whether in relation to:
 - i. the supply of water, or the provision of sewerage services, by the licensee, or
 - ii. the operation of the water or sewerage infrastructure from which that water is supplied or those services provided, and
 - iii. establishment of a procedure for notifying NSW Health during the development of (and any amendment of) a procedure for notifying NSW Health of Health related complaints, agreed to by NSW Health, in the Retail Supply Management Plan, if and as applicable and
- (b) provide copies of that code of practice to the Minister, IPART and to the ombudsman (EWON), if and as applicable and
- (c) keep its customers informed as to:
 - i. the provisions of that code of practice, and
 - ii. the existence of the ombudsman, and the procedure for referring complaints or disputes to the ombudsman, and
- (d) furnish periodic reports to the Minister and IPART, in relation to the complaints it receives, in such form, and containing such information, as the Minister or IPART requires.

REFERENCE STANDARD

This code of practice conforms to and takes from AS/ISO 10002—2014 Customer Satisfaction; Guidelines for complaints handling in organisations, as published by Standards Australia.

DEFINITIONS

The reference standard definitions follow, edited specifically to this Plan and Licence

Complainant

JLL as sole customer

Complaint

Expression of dissatisfaction made to VWS, related to its products (namely recycled water supply), or the complaints-handling process itself, where a response or resolution is explicitly or implicitly expected

Customer

JLL as sole customer

GUIDING PRINCIPLES

Visibility

Information about how and where to complain shall be well publicised to the sole customer (JLL).

Accessibility

VWS complaints handling process shall be easily known to the sole complainant (JLL). Information shall be made available on the details of making and resolving complaints. The complaints handling process and supporting information shall be easy to understand and use.

Responsiveness

Receipt of each complaint shall be acknowledged to the complainant immediately. Complaints shall be addressed promptly in accordance with their urgency. For example, significant health and safety issues shall be processed immediately. The complainants shall be treated courteously and be kept informed of the progress of their complaint through the complaints handling process.

Objectivity

Each complaint shall be addressed in an equitable, objective and unbiased manner through the complaints handling process.

Charges

Access to the complaints handling process shall be free of charge to the complainant.

Confidentiality

Personally identifiable information concerning the complainant shall be available where needed, but only for the purposes of addressing the complaint within VWS and shall be actively protected from disclosure, unless the customer or complainant expressly consents to its disclosure.

Customer-focused approach

VWS shall adopt a customer-focused approach, shall be open to feedback including complaints, and shall show commitment to resolving complaints by its actions.

Accountability

VWS shall ensure that accountability for and reporting on the actions and decisions of VWS with respect to complaints handling is clearly established.

Continual improvement

The continual improvement of the complaints handling process and the quality of products shall be a permanent objective of VWS.

COMPLAINTS HANDLING FRAMEWORK

Commitment

VWS is actively committed to effective and efficient complaints handling.

Policy

VWS is committed to customer focused complaints handling practices.

Responsibility and authority

Top management shall be responsible for the following:

- ensuring that the complaints handling process and objectives are established;
- ensuring that the complaints handling process is planned, designed, implemented, maintained and continually improved;
- identifying and allocating the management resources needed for an effective and efficient complaints handling process;
- ensuring the promotion of awareness of the complaints handling process and the need for a customer focus throughout VWS;
- ensuring that information about the complaints handling process is communicated to the sole customer JLL in an easily accessible manner;
- establishing a resource as a complaints handling management representative and clearly defining his or her responsibilities and authority in addition to the responsibilities and authority set out below;
- ensuring that there is a process for rapid and effective notification to top management of any significant complaints;
- periodically reviewing the complaints handling process to ensure that it is effectively and efficiently maintained and continually improved.

The complaints handling management representative shall be responsible for the following:

- establishing a process of performance monitoring, evaluation and reporting;
- reporting to top management on the complaints handling process, with recommendations for improvement;
- maintaining the effective and efficient operation of the complaints handling process, including the recruitment and training of appropriate personnel, technology
- requirements, documentation, setting and meeting target time limits and other requirements, and process reviews.

Other managers involved in the complaints handling process shall, as applicable within their area of responsibility, be responsible for the following:

- ensuring that the complaints handling process is implemented;
- liaising with the complaints handling management representative;
- ensuring the promotion of awareness of the complaints handling process and of the need for a customer focus;
- ensuring that information about the complaints handling process is easily accessible;
- reporting on actions and decisions with respect to complaints handling;
- ensuring that monitoring of the complaints handling process is undertaken and recorded;
- ensuring that action is taken to correct a problem, prevent it happening in the future, and that the event is recorded;
- ensuring that complaints handling data are available for the top management review.

All personnel in contact with the customer and complainant (JLL) shall

- be trained in complaints handling,
- comply with any complaints handling reporting requirements determined by VWS,
- treat customer in a courteous manner and promptly respond to their complaints or direct them to the appropriate individual, and
- show good interpersonal and good communication skills.

All personnel shall

- be aware of their roles, responsibilities and authorities in respect of complaints,
- be aware of what procedures to follow and what information to give to complainants, and
- report complaints which may have a significant impact on VWS.

PLANNING AND DESIGN

Objectives

Top management shall ensure that the complaints handling objectives are established for relevant functions and levels within VWS. These objectives shall be measurable and consistent with the complaints handling policy. These objectives shall be set at regular intervals as detailed performance criteria.

Activities

Top management shall ensure that the planning of the complaints handling process is carried out in order to maintain and increase customer satisfaction.

Resources

In order to ensure that the complaints handling process operates effectively and efficiently, top management shall assess the needs for resources and provide them. These include resources such as personnel, training, procedures, documentation, specialist support, materials and equipment, computer hardware and software, and finances.

OPERATION OF COMPLAINTS-HANDLING PROCESS

Communication

Information concerning the complaints handling process shall be made readily available to customers, complainants and other interested parties including:

- where complaints can be made;
- how complaints can be made;
- information to be provided by the complainant;
- the process for handling complaints;
- time periods associated with various stages in the process;
- the complainant's options for remedy, including external means;
- how the complainant can obtain feedback on the status of the complaint.

Receipt of complaint

Upon reporting of the initial complaint, the complaint shall be recorded with supporting information and a unique identifier code. The record of the initial complaint shall identify the remedy sought by the complainant and any other information necessary for the effective handling of the complaint including the following:

- a description of the complaint and relevant supporting data;
- the requested remedy;

- the products or practices complained about;
- the due date for a response;
- data on people, department, branch, organization and market segment;
- Immediate action taken (if any).

Tracking of complaint

The complaint shall be tracked from initial receipt through the entire process until the complainant is satisfied or the final decision is made. An up-to-date status shall be made available to the complainant upon request and at regular intervals, at least at the time of preset deadlines.

Acknowledgement of complaint

Receipt of each complaint shall be acknowledged to the complainant immediately (for example via post, phone or e-mail).

Initial assessment of complaint

After receipt, each complaint shall be initially assessed in terms of criteria such as severity, safety implication, complexity, impact, and the need and possibility of immediate action.

Investigation of complaints

Every reasonable effort shall be made to investigate all the relevant circumstances and information surrounding a complaint. The level of investigation shall be commensurate with the seriousness, frequency of occurrence and severity of the complaint.

Response to complaints

Following an appropriate investigation, VWS shall offer a response, for example correct the problem and prevent it happening in the future. If the complaint cannot be immediately resolved, then it shall be dealt with in a manner intended to lead to its effective resolution as soon as possible.

Communicating the decision

The decision or any action taken regarding the complaint, which is relevant to the complainant or to the personnel involved, shall be communicated to them as soon as the decision or action is taken.

Closing the complaint

If the complainant accepts the proposed decision or action, then the decision or action shall be carried out and recorded. If the complainant rejects the proposed decision or action, then the complaint shall remain open. This shall be recorded and the complainant shall be informed of alternative forms of internal and external recourse available. VWS shall continue to monitor the progress of the complaint until all reasonable internal and external options of recourse are exhausted or the complainant is satisfied.

MAINTENANCE AND IMPROVEMENT

Collection of information

VWS shall record the performance of its complaints handling process. VWS shall establish and implement procedures for recording complaints and responses and for using these records and managing them, while protecting any personal information and ensuring the confidentiality of complainant. This shall include the following:

- specifying steps for identifying, gathering, classifying, maintaining, storing and disposing of records;
- recording its handling of a complaint and maintaining these records, taking utmost care to preserve such items as electronic files;
- keeping records of the type of training and instruction that individuals involved in the complaints handling process have received; if and as necessary;
- specifying VWS's criteria for responding to requests for record presentation and record

submissions made by a complainant or his or her agent; this may include time limits, what kind of information will be provided, to whom, or in what format;

- Specifying how and when statistical non-personally identifiable complaints data are disclosed to the public.

Analysis and evaluation of complaints

All complaints shall be classified and then analysed to identify systematic, recurring and single incident problems and trends, and to help eliminate the underlying causes of complaints.

Satisfaction with the complaints handling process

There shall be regular action taken to determine the levels of satisfaction of complainants with the complaints handling process. This may take the form of random surveys of complainants and other techniques.

Monitoring of the complaints handling process

Monitoring of the complaints handling process, the resources required (including personnel) and the data to be collected shall be undertaken.

Auditing of the complaints handling process

VWS shall regularly perform or provide internal audits in order to evaluate the performance of the complaints handling process. The audit shall provide information on

- process conformity to complaints handling procedures, and
- process suitability to achieve complaints handling objectives.

The complaints handling audit may be conducted as part of VWS quality management system audit. The audit results shall be taken into account in the management review to identify problems and introduce improvements in the complaints handling process. The audit shall be carried out by competent individuals independent of the activity being audited.

Management review of the complaints handling process

Top management of VWS shall review the complaints handling process on a regular basis (annually or as otherwise required) in order to:

- ensure its continuing suitability, adequacy, effectiveness and efficiency,
- identify and address instances of non-conformity with health, safety, environmental, customer, regulatory and other legal requirements,
- identify and correct product deficiencies,
- identify and correct process deficiencies,
- assess opportunities for improvement and the need for changes to the complaints handling process and products offered, and
- evaluate potential changes to the complaints handling policy and objectives.

The input to management review may include information on:

- internal factors such as changes in the policy, objectives, organizational structure, resources available, and products offered or provided,
- external factors such as changes in legislation, competitive practices or technological innovations,
- the overall performance of the complaints handling process, including customer satisfaction surveys and the results of the continual monitoring of the process,
- the results of audits,
- the status of corrective and preventive actions,
- follow up actions from previous management reviews, and
- recommendations for improvement.

The output from the management review may include

- decisions and actions related to improvement of the effectiveness and efficiency of the complaints handling process,

- proposals on product improvement, and decisions and actions related to identified resource needs.

Records from management review shall be maintained and used to identify opportunities for improvement.

Continual improvement

VWS shall continually improve the effectiveness and efficiency of the complaints handling process. As a result, VWS can continually improve the quality of its products and service. This can be achieved through corrective and preventive actions and innovative improvements. VWS shall take action to eliminate the causes of existing and potential problems leading to complaints in order to prevent recurrence and occurrence, respectively. VWS shall

- explore, identify and apply best practices in complaints handling,
- foster a customer-focused approach within VWS,
- encourage innovation in complaints handling development, and
- recognise exemplary complaints handling behaviour.

RECOURSE TO FURTHER ACTION

In the event a customer is not satisfied with the handling of their complaint by VWS, VWS shall direct the customer to the Energy and Water Ombudsman of NSW (EWON) should they wish to take further action.

REFERENCES

- VWS Corporate Complaints handling Policy
- (Note: CF04 is for VWS internal complaints; but is easily adaptable to external events)
- Complaints Handling Administration Procedure
 - Complaint Form – external use
 - Complaint Follow-up Form – internal use (to be prepared case to case)
- Performance Monitoring
- Training Program; if and as necessary
- Internal VWS Audit (as per BR14 Auditing Procedure)

TECHNICAL COMPLAINT PROCESS*

* **Current Call Toll Free No: 1300 726 678 (if 0407 867 157 is not answering)**
Email Address: info@myrecycledwater.com.au

Courteous receipt of call:

1. Call centre records time of call AEST
2. First of all we shall need to record your name, address and contact phone number and email:
 - a) Name
 - b) Address
 - c) Phone number at home and mobile
 - d) Email address
 - e) What is the most suitable number to call you back and at what time?
3. To help us understand your complaint for us to resolve the matter as efficiently as possible is your complaint in connection with one of the following:
 - a) Recycled Water Collection issues
 - b) Sewer (Feed to the plant)
 - c) Recycle Water Treatment Plant
 - d) None of the above
4. If your complaint refers to the Recycled Water, are you concerned about:
 - a) no recycle water available
 - b) low recycle water pressure
 - c) colour of the water
 - d) any odour
 - e) health Issues in relation to the recycled water
 - f) none of the above
5. If your complaint refers to the sewer, have you discussed this with Sydney Water, who (and now VWS) are responsible for supply of sewerage to the Plant:
 - a) Yes, but Sydney Water advised to contact VWS
 - b) Yes, Sydney Water is resolving the matter, but I want VWS also to get involved
 - c) health Issues in relation to the sewer network
 - d) don't know
6. If your complaint refers to the Recycle Water Treatment Plant, are you concerned about:
 - a) Security
 - b) noise
 - c) odour
 - d) Others

FINANCIAL COMPLAINT PROCESS*

* - **Toll Free No: 1300 726 678 (if 0407 867 157 is not answering)**
Email: info@myrecycledwater.com.au

As JLL is the sole commercial customer for RWTP and also the asset owner's representative, and there is no financial transactions from JLL to any other customer (other than internal), other than fees to be payable by JLL to VWS in accordance with contract between VWS and JLL, financial complaint process is no applicable for this license.

Appendix 7 Code of Practice for Debt Recovery

As JLL is the sole commercial customer for RWTP and at the same time the asset owner's representative, so JLL as the Customer technically not be the debt holder to the asset owner (itself) – However, JLL may have **financial** liability as asset owner to parties involved in RWTP (such as VWS and its suppliers and service providers) such the **fees to be payable by JLL to VWS in accordance with contract between VWS and JLL**, **The following pages describe a Debt Recovery Code of Practice that** may apply in both a theoretical situation of JLL (Customer) contacting JLL (Asset Owner) in relation to a debt by JLL (Customer)

PURPOSE

This code of practice provides a guideline for debt recovery by management and employees of Veolia Water Solutions & Technologies (Australia) Pty Ltd (VWS) in relation to its Recycled Water Network Operator and Retail Supplier Licences for the Darling Quarters Development pursuant to the Water Industry Competition (General) Regulation 2008, Schedule 2, Part 1, Cl 5.

This code of practice is for VWS internal use only; a short version may be made available to JLL if appropriate at any point of time.

BACKGROUND

VWS has been contracted by JLL to supply recycle water services for the Darling Quarters Development..

VWS commits to provide these services in accordance with the code of practice described in this appendix prepared by VWS as licence holder; if and as required. VWS will be responsible for customer communication, complaints handling and debt recovery. The split of responsibility is as follows:

- VWS - All operational related customer interface matters
- JLL - All financial related customer interface matters including tariff setting and debt recovery

(knowing that JLL is the customer and also asset owner representative and as such it will need to deal with itself in relation to any financial related customer interface matter)

LICENCE HOLDER OBLIGATION

Pursuant to the above Regulation, VWS shall:

- (e) establish and comply with this code of practice for debt recovery, and
- (f) provide copies of this code of practice to the Minister, IPART and to the ombudsman (EWON),
and
- (g) keep its customer JLL, informed as to the provisions of this code of practice.

Specifically this code of practice provides for the deferment, in whole or in part, of payments owed by the sole customer, JLL to cover for all RWTP obligations (such as Payments to VWS and other Suppliers and service providers) suffering financial hardship; this is in addition to any other legal provisions that may be obligatory on JLL to settle any debt issue towards any other party.

This code of practice, so far as Darling Quarters RWTP is concerned, applies to the sole customer (JLL who offtakes for further distribution of recycled water supply services throughout the development.

GUIDING PRINCIPLES

This code of practice conforms to and takes from ACCC and ASIC Debt Collection Guideline: for collectors and creditors as published by the ACCC and ASIC published in July 2017.

Notably the ACCC/ASIC guideline is specifically developed for Debt Collection Agencies whereas this code of practice is for reference by VWS appointed personnel for handling debt recovery by VWS. Only when this code of practice is followed through to completion and debt remains with JLL, the sole customer, shall VWS transfer debt recovery to a third party debt collection company.

PRACTICAL GUIDANCE

Contact for a reasonable purpose only

Communications with the debtor (JLL, also asset owner's representative) must always be for a reasonable purpose, and should only occur to the extent necessary. It is considered necessary and reasonable for VWS to contact a debtor to:

- give information about the debtor's account,
- convey a demand for payment,
- accurately explain the consequences of non-payment, including any legal remedies available to the collector/creditor, and any service restrictions,
- make arrangements for repayment of a debt,
- put a settlement proposal or alternative payment arrangement to the debtor,
- review existing arrangements after an agreed period,
- ascertain why earlier attempts to contact the debtor have not been responded to within a reasonable period, if this is the case and
- ascertain why an agreed repayment arrangement has not been complied with, if this is the case

Making contact with debtor

Under privacy laws, VWS has an obligation to protect the privacy of debtors. When making direct contact, VWS must always ensure the person that it is dealing with is the debtor. This must be done every time VWS makes contact before VWS divulges any information about the debt, the process for its recovery or other confidential information.

The privacy limits on disclosing information to third parties apply to the debtor's spouse, partner and/or family as much as they apply to other third parties (in this case JLL Organisation). Having established the debtor's identity, VWS person will need to identify who he or she is and whom he/she works for, and explain the purpose of the contact.

VWS representatives identify themselves only by company name and enquirers first name and also give at least basic information about the debt, including the name of the creditor and any assignee of the debt, and details of the account and the amount claimed.

Hours of contact

VWS representative only contacts the debtor or a third party at reasonable hours, taking into account their circumstances and reasonable wishes. The following are considered reasonable.

Hours of contact

Contact Method	Periods	Times
By Phone, emails and fax	Monday to Friday	7.30am – 9.00pm
	Weekends	9.00am – 9.00pm
	Public Holidays	Nil
Face-to-Face (not by VWS; by third party collector only engaged by VWS)	Monday to Friday	9.00am – 9.00pm
	Weekends	9.00am – 9.00pm
	Public Holidays	Nil

Frequency of contact

Debtors are entitled to be free from excessive communications from collectors. Communications must always be for a reasonable purpose, and should only occur to the extent necessary.

Unduly frequent contact designed to wear down or exhaust a debtor, or likely to have this effect, constitutes 'undue harassment' or coercion and is contrary to this code of practice. This is particularly likely if VWS would make a number of phone calls or other contacts in rapid succession.

Location of contact

In most cases, the debtor's office premises will be the appropriate place to contact a debtor, with contact by letter or telephone generally being the appropriate mode of contact. However, if a debtor provides a telephone (including mobile phone) contact number as the means of contact, contact using that number will be appropriate whatever the debtor's location.

Privacy obligations to the debtor

A debtor's personal information should always be treated with respect. The improper use of a debtor's personal information may cause that person serious difficulties. There are legal obligations under the NSW Privacy Act 1988 designed to protect the privacy of a debtor's personal information.

In this case, as the debtor (JLL as Asset Owner's representative) is a registered business, such privacy obligations may not apply.

When a debtor is represented

A debtor has a right to have an authorised representative (such as a financial counsellor, financial advisor, community worker, solicitor, guardian or carer) represent them or advocate on their behalf about a debt. Except in the circumstances outlined below VWS shall not contact a debtor directly after it knows, or should know, that the debtor is represented and shall not refuse to deal with an appointed or authorised representative. VWS is entitled to contact a debtor directly if:

- the representative does not respond to within a reasonable time (normally 14 days)
- the representative advises that they do not have instructions from the debtor about the debt
- the representative does not consent to act
- the debtor specifically requests direct communication with you
- the representative is not a solicitor and you advise that written authority stating that you are to communicate through the debtor's representative is required, and the debtor or their representative does not provide that authority.

Record keeping

Accurate record keeping by all parties is vital to promptly resolve disputes and allow collectors and debtors to limit or avoid costly collection activity. VWS shall ensure:

- it maintains accurate, complete and up-to-date records of all communications with debtors, including the time, date and nature of calls about the debt, records of any visits in person, and records of all correspondence sent
- all payments made are accurately recorded (including details of date, amount and payment method).
- settlements are fully documented in relevant files and computer systems
- once a debt is settled, any credit reporting agency report on the debtor must be updated appropriately

Providing information and documents

Requests by debtors for information and/or documentation about an account should not be ignored. In certain circumstances, failure to provide information may constitute misleading and deceptive conduct or unconscionable conduct. VWS shall provide such information as necessary to demonstrate proof of debt.

If liability is disputed

If a person VWS contacts about a debt claims that they are not the alleged debtor or the debt has been paid or otherwise settled and VWS has not already confirmed their identity and liability, VWS shall suspend further collection activity (including credit report listing) until the debtor's identity and ongoing liability have been confirmed.

Conduct towards the debtor

A debtor is entitled to respect and courtesy, and must not be subject to misleading, humiliating or intimidating conduct. Such conduct is likely to breach the Commonwealth consumer protection laws, and may breach other laws as well.

CUSTOMERS SUFFERING FINANCIAL HARDSHIP

VWS commitment

This code of practice provides for the deferment, in whole or in part, of payments owed by retail customers suffering financial hardship. In such cases of financial hardship VWS shall not enforce disconnection of services in part or in whole.

This may not apply to the sole customer, JLL is a well established business, representing Lend Lease Group in terms of all financial obligations.

Debtors

Debtors are legally responsible for paying the debts they legitimately owe, and they should not deliberately try to avoid their obligations. Whenever possible, debtors should take action before they get into difficulties. Debtors experiencing financial hardship should promptly contact VWS to negotiate a variation in payments or other arrangement. In seeking a variation, debtors should be candid about their financial position, including their other debts. VWS also recommends that debtors in financial difficulty consider seeking the assistance of a community-based financial counsellor, solicitor or other qualified adviser who may be able to help them with a debt negotiation.

Hardship

Proof of financial hardship shall be provided by the relevant customer. Examples of hardship may include but not be limited to:

- Commercial difficulties,
- other (undefined)

Assistance

Assistance may include one or more of the following:

- Deferment of payment for an agreed period of time,
- Incremental instalments to recover the debt over time,
- Regular smaller payments spread over time to assist budgeting by customers exposed to hardship.

Waiver

Notwithstanding the above commitment, VWS having taken all steps reasonably practicable in accordance with this code of practice to recover debt and that debt still not paid by the customer may take such further actions as allowable to it in law to recover such debt but not disconnection of services, nor reduce the flow of non potable water below necessary for basic hygiene or restrict the flow of sewage into the main.

MAINTENANCE AND IMPROVEMENT

Collection of information

VWS shall record the performance of its debt recovery handling process. VWS shall establish and implement procedures for recording debt and for using these records and managing them, while protecting any personal information and ensuring the confidentiality of complainants. This shall include the following:

- specifying steps for identifying, gathering, classifying, maintaining, storing and disposing of records;
- recording its handling of debt recovery and maintaining these records, taking utmost care to preserve such items as electronic files;
- keeping records of the type of training and instruction that individuals involved in the debt recovery process have received;
- specifying VWS's criteria for responding to requests for record presentation and record submissions made by a debtor or his or her agent; this may include time limits, what kind of information will be provided, to whom, or in what format;
- specifying how and when statistical non-personally identifiable debt data are disclosed to the public.

Analysis and evaluation of debts

All debt shall be classified and then analysed to identify systematic, recurring and single incident problems and trends, and to help eliminate the underlying causes of debt.

Monitoring of the debt recovery process

Continual monitoring of the debt recovery process, the resources required (including personnel) and the data to be collected shall be undertaken. The performance of the debt recovery process shall be measured against predetermined criteria.

Auditing of the debt recovery process

VWS shall perform or provide for audits in order to evaluate the performance of the debt recovery process. The audit shall provide information on

- process conformity to debt recovery procedures, and
- process suitability to achieve debt recovery objectives.

The debt recovery audit may be conducted as part of VWS quality management system audit. The audit results shall be taken into account in the management review to identify problems and introduce improvements in the debt recovery process. The audit shall be carried out by competent individuals independent of the activity being audited.

Management review of the debt recovery process

Top management of VWS shall review the debt recovery process on a regular basis in order

- to ensure its continuing suitability, adequacy, effectiveness and efficiency,
- to identify and address instances of nonconformity with health, safety, environmental, customer, regulatory and other legal requirements,
- to identify and correct product deficiencies,
- to identify and correct process deficiencies,
- to assess opportunities for improvement and the need for changes to the complaints handling process and products offered, and
- to evaluate potential changes to the complaints handling policy and objectives.

Records from management review shall be maintained and used to identify opportunities for improvement.

Continual improvement

VWS shall continually improve the effectiveness and efficiency of the debt recovery process. As a result, VWS can continually improve the quality of its products. This can be achieved through corrective and preventive actions and innovative improvements. VWS shall take action to eliminate the causes of existing and potential problems leading to customer debt in order to prevent recurrence and occurrence, respectively.

DEBTOR DISPUTES AND COMPLAINTS HANDLING

In the event a customer has a complaint regarding the handling of their debt by VWS, VWS shall direct the customer to our complaints handling system.

In the event a customer is not satisfied with the handling of their complaint by VWS, VWS shall direct the customer to the Energy and Water Ombudsman of NSW (EWON) should they wish to take further action.

REFERENCES

- Debt Recovery Policy (Debt Collection Guideline for Collectors and Creditors by ACCC and ASIC)
- Debt Recovery Organisation and Responsibilities
- Debt Recovery Procedure (to be prepared based on above Debt Collection Guideline)
- Debt Recovery Administration Procedure
- Performance Monitoring
- Training Program; if and as necessary
- Internal VWS Audit (as per BR14 Auditing Procedure)

VEOLIA WATER SOLUTIONS & TECHNOLOGIES AUSTRALIA

Darling Quarter Recycling WWTP

**SITE SPECIFIC OHSE
MANAGEMENT PLAN**

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1 Document control

All changes made to the OHSE Plan are recorded in the amendment table below. The version number and date of revision for the current manual are shown in the footer of the document. Changes to the manual can be made at the discretion of Service Manager; a review process will be adhered to with allowance for comment from Veolia Water Solutions & Technologies Australia (VWS) employees.

Please note that any printed copies are no longer considered a controlled document, the intranet should be checked for the latest version before this document is used.

1.1 Revision Summary

Revision	Date	Details	Prepared	Review	Approved
0		Initial Release	CS/AP	CG	
1	22/02/2010		CS/AP	CG	
2	08/04/2010	Change Site Supervisor	CG		
3	18/06/2010	Muster Point + common equipment	AP		
4	17/09/2015	Operation review	Chow Leong	Inshan Sheriff	
5	30/10/2017	Review and update	Claudio Kohn	Inshan Sheriff	
6	04/03/2020	Review and update	Filbert Hidayat	Subrat Kar	

1.2 Controlled copy distribution

Copy No	Issued To	Organisation	Remarks
Original	Kings Park office data base	Veolia	Electronic
2	Main Plant Operator and Service Engineer	Veolia	(to Remain on Site)
3	Service Manager	Veolia	Electronic
4	Subcontractors	Various	Electronic

Notes:

1. All other copies are considered uncontrolled

2. Subcontractors are to ensure that the current version of the plan is available on site, regardless if they are working under their own approved OHSE Plan.

2 Purpose

This Site Specific OHSE Management Plan (Plan) sets out how VWS shall manage the occupational health and safety requirements for all site activities included in the Contract scope of work to ensure the health safety and welfare at work of all its employees and to ensure that third parties (including subcontractor employees) are not exposed to risks to their health and safety while they are at the Workplace. Environmental and quality requirements are also part of this plan.

3 Details and introduction

Project Name / Client	Darling Quarter Water Recycling Water Plant
Project Address	1-25 harbour St Sydney NSW 2000
Main Plant Operator and Service Engineer	Name : Claudio Kohn Mobile : 0407 867 157 Email : claudio.kohn@veolia.com
NSW Service Manager	Name : Inshan Sheriff Mobile : 0438 880 219 Email : inshan.sheriff@veolia.com
NSW VWS General Manager Services	Name : Grant McNay Mobile : 0429 845 875 Email : grant.mcnay@veolia.com
WHSEQ & Compliance Systems Manager	Name : Filbert Hidayat Mobile : 0418 404 961 Email: filbert.hidayat@veolia.com
Veolia Water Solutions & Technologies – 24h/7	Line : 1 300 726 678
Recycled Water Plant	Line : 02 9264 0128
Jones Lang Lassalle - Building Manager	Name: John Scott Mobile: 0407 353 489 Email : johnd.scott@ap.jll.com

The process of the WWTP includes :

Macerator

Grease Removal

System Buffer tank

Fine Screening

Biological aerated tank with Moving Bed Biofilm Reactor

technology (MBBR) Membrane BioReactor (MBR) tank fitted

with hollow fibers membrane cassette Filtrate tank

Reverse Osmosis

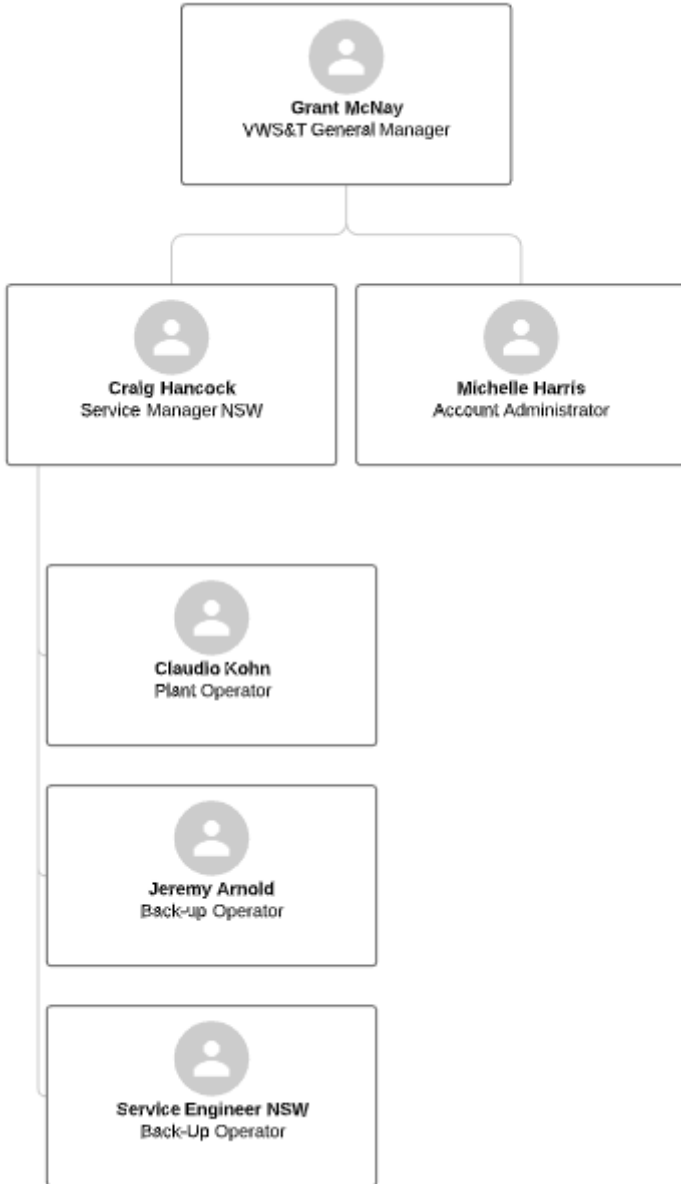
Ultraviolet

disinfection

pH control and

4 Authority and Responsibility

4.1 Organisation Structure



4.2 Roles and Responsibilities

4.2.1 SERVICES MANAGER

The VWS Services Manager has the overall responsibility for health and safety of all persons involved in the Operation and overall authority in the determination of all matters affecting the implementation and operation of the plant. The Services Manager reports to the Veolia General Manager Solutions, and establishes the necessary policies, procedures, and resources for implementing effective accident

prevention process to meet the OHSE and production needs of the entire Project.

The Veolia Services Manager must exhibit strong leadership and absolute commitment to safety. The Services Manager is responsible for the following:

- Developing, review, authorising and maintain the OHSE Management Plan as current.
- Authorising Operation Specific Safety Procedures.
- Ensuring all operation management, supervision and employees are accountable for the effective implementation of the OHSE Management Plan.
- Ensuring that the relevant sections of this plan are communicated to those persons responsible for its implementation.
- Monitor the implementation of this plan.
- Continually monitoring of OHSE performance of the operation to ensure compatibility and continued effectiveness with VWS Health and Safety policy and objectives.
- Communicating OHSE performance to the VWS General Manager Solutions, and OHSE Manager.
- Appoint sufficient competent persons as may be required to assist with the effective management of the objectives of this OHSE Plan.
- Provide subcontractors with the OHSE Management Plan and any updates.
- Manage the OHSE information communication and consultation arrangements with all personnel at the site and (if applicable) the communications between OHSE workplace committees.
- Identifying the OHSE training needs of management, operators and all personnel on the site.
- Providing sufficient funds, materials and equipment to implement the requirements of the OHSE Management Plan.
- Participating in serious incident investigations.
- Participating in relevant section of this plan as prescribed.

4.2.2 OPERATOR

The Operator (Site Supervisor) reports to the Services Manager and is responsible for OHSE at the workplace. His duties include to:

- Be the main point of contact for the Principal and Authorities on Site
- Implement the OHSE Management Plan & ensure that records are maintained
- Observe all OHSE rules & regulations, and seek assistance if unsure of OHSE rules
- Actioning OHSE reports and carrying out workplace inspections;
- Plan to do all work safely including any interface with other work activities;
- Provide advice and assistance on OHSE matters to subcontractors and their employees;
- Action OHSE reports and carrying out workplace inspections (as required);
- Stop contractors from performing unsafe work practices or work practices which will have a negative impact on the environment;
- Remove / quarantine any unsafe materials on site;
- Write down incident investigations;
- Lead by example and promoting sound OHSE practices at every opportunity;
- Verify by way of inspections that work areas, work methods, materials, plant and equipment comply with OHSE legislation and applicable requirements;

- Issue NCR reports and ensure that they are closed-out;
 - Implement Corrective actions to prevent reoccurrence of injuries/incidents;
 - Assist with the logistic and supply of equipment, material and tools to the site.
 - Be in charge of other OHSE duties as directed by the Services Manager.
-
- providing suggestion, through agreed consultation methods, on how to improve OHSE issues;
 - working in a safe manner without risk to themselves, others or the environment
 - conduct pre-start checks on plant and equipment;
 - reporting any faulty tools or plant to Manager;
 - reporting all incidents to Manager;
 - correctly using all personal protective equipment;
 - stop work if they believe that there is a risk to personnel or the environment; and
 - reporting all injuries and illnesses to their designated First Aid Officer;

4.2.3 SUBCONTRACTOR

Subcontractors are responsible for the following:

- develop relevant documentation (SOP, ITP or SWMS) which comply with this OHSE Plan and submit for approval;
- ensure that personnel are qualified and competent to complete the work being undertaken (Complete competency assessment for all personnel with National Licence for High Risk Work);
- ensure that employees are involved in the development of SWMS;
- ensure that consultation arrangements for your employees are in accordance with OHSE Regulations and Code of Practice and are detailed with your OHSE Plan;
- ensure that all personnel attend the Site OHSE Induction;
- ensure that all plant and equipment that attend site have the required OHSE documentation and that the attached registers are provide prior to commencement;
- ensure that personnel on site are provided with the necessary supervision for the work being undertaken;
- conduct inspections, task observations and audits to verify compliance with site rules, SWMS and safe work practices;
- reporting all incidents to the Site Supervisor or OHSE Manager;
- complete the HAZCHEM / DG Register and provide a copy of all SDS that will be used on site;
- provide the necessary first aid and emergency equipment required for your scope or work;
- provide first aid personnel required for your scope of work;
- reporting all injuries and illnesses to your designated First Aid Officer and Site OHSE Manager;
- reporting any OHSE hazards to the Site OHSE Manager;
- provide employees with the required PPE;

- ensuring that NCRs issued are addressed within the timeframe provided;
- complying with emergency and evacuation procedures.
- Ensure that resources are available to manage OHSE emergencies associated with the subcontractor's scope of work.
- Provide RFI to the Site Supervisor for any design / construction related issues.

5 Consultation and Communication

VWS promotes the active participation of all employees in OHS decisions.

5.1 Dispute Resolution

Disputes that arise regarding decisions that relate to the health and welfare of employees and contractors shall be handled in the following way: The problem shall first be reported to Service Manager. If a satisfactory resolution does not occur, the problem may be escalated to Health & Safety Representative (HSR) or WHSEQ & Compliance Systems Manager to assist with either the resolution or further escalation to General Manager Service.

If a satisfactory resolution is not made, the Health & Safety Representative (HSR) may contact Safework NSW for assistance to resolve the issue.

Any formal decision made will be documented & communicated back to the worker making the report.

5.2 Internal Communication

For monthly reports, please refer to the achievement of "OHSE objectives and targets"

6 Service Providers and Purchasing

6.1 Service Provider

VWS ensures that all service providers working on the project comply with OHSE requirements.

All service providers have been assessed and selected based on their ability to comply with appropriate OHSE requirements.

Depending on the scope, the service provider may require to submit SWMS & other relevant documentation prior to starting work on site.

The Operator shall review the service providers OHSE documentation to check that the service provider has identified risks associated with the activities they will be performing, as well as the applicable QC requirements. The **SWMS Assessment Checklist** shall be completed if the contractor is undertaking High Risk Construction Work and kept on record. Should issues be identified by the review, these shall be rectified prior to the service provider commencing work.

On a regular basis, the Service Manager will carry out reviews of subcontractor performance. Record of this Inspection shall be recorded in the site diary and shall include the name of the subcontractor, identification of activity reviewed and comments relating to compliance. Where subcontractors are found to be in breach of OHSE requirements, they will be presented with a formal **NCR Form**. Task Observations are to be undertaken to encourage safe behaviour and address at risk behaviours. Task Observations are not to include the name of the employee / subcontractor being assessed and no NCR form is to be generated as a result of the observation being undertaken.

6.2 Purchasing

Prior to purchasing materials (from suppliers that have been assessed as being able to comply with OHSE requirements for supply and delivery of materials), VWS ensures that risk assessment is carried out to identify potential OHSE hazards associated with the material. Where hazards are identified controls are implemented based on the hierarchy of control. First control will always be to eliminate the use of the material or substitute with a different material that may be less hazardous.

For every Hazardous Chemical that is brought onto site, up-to-date (within 5 years) **Safety Data Sheet** shall be kept in a folder on site and captured in a **Hazardous Chemical Register**.

Chemical stock will be maintained at the lowest level possible to accommodate plant requirement.

7 Plant and Equipment

7.1 Plant

Subcontractors are to present the following documentation for each plant operating on site:

- Copy of Plant Design Registration and Work Cover Registration;
- Copy of detailed plant Risk Assessment (which is to include use, maintenance, servicing and casual access);
- SWMS covering the plant operation & pre-start inspections;
- Copy of plant maintenance records and qualification of plant operator;

7.2 Equipments

All lifting equipment on site are captured on the **Lifting Equipment Register** and inspected.

All Working At Height (WAH) PPE on site are inspected in detail within the last 6 months.

All electrical equipment tags are valid and recorded on the **Electrical Tools and Equipment Register**.

Scaffolding is to be erected by competent and qualified subcontractor in accordance with AS/NZS 1576: Scaffolding Part 1: General Requirements. Scaffold tags are to be placed on the scaffold, noting the date of erection, next inspection date and weight limits.

The **Hot Works Permit** may need to be completed for any hot works that are carried out on site, including the use of oxy acetylene, welding, cutting or grinding of steel etc.

Equipment required for calibration and testing is to be registered in the **Plant Register** and the details of the calibration recorded.

8 Materials

8.1 Handling and Storage of Material

Any materials may be stored on site however must not pose slip, trip & falls hazards. Minimise the item weight to avoid manual handling injury.

Any Hazardous Chemical stored on site must have SDS handy and captured on a register. Storage & handling of these chemicals requires correct labelling, signage, separation, and bunding.

9 Environmental

9.1 Waste

Any hazardous chemical spills on site are collected into the wastewater system that will be treated by Veolia process. Any spills need to be flushed with clean water into the drain or absorbed into spill kits where the waste will be taken off site for proper disposal.

Any hazardous chemical waste drums shall be rinsed, label taken off, and disposed as general waste on site. Otherwise they need to be taken to Veolia depot for proper disposal.

9.2 Waste Reduction

Veolia manages the site chemical order via MRP system to minimise the amount of chemical stored on site. This means waste reduction as well.

10 Risk Management

10.1 Risk Assessment/Register

The site risk assessment / register has been established and maintained on annual basis by Service Manager.

10.2 Design Change

Design change of the process is not expected to occur as the plant is in operational phase. When there is a change in the equipment design, it shall be risk assessed by Service Manager & Subject Matter Expert in consultation with client & General Manager Services.

Once the change is approved, a Design Change Plan shall be prepared.

10.3 Safe Work Method Statements (SWMS)

Safe Work Methods Statements (SWMS) shall be developed for any activities that trigger the definition of High Risk Construction Work that is standardised across all Australian states by the person leading the work activities.

Subcontractor SWMS shall be assessed using the **SWMS Assessment Checklist** by Service Manager or delegate. Any foreseeable issue shall be raised back to the subcontractor to be addressed.

10.4 PPE

Employees & subcontractors are expected to comply with the PPE requirements at all times.

Minimum PPE on site is non-slip safety boots as the site itself has been issued occupancy certificate from local council and not classified as construction site anymore.

10.5 Permit to Work

The following Veolia Permits are to be used on site and approved by Veolia:

Permit	When is the permit required?	Permit Duration
Hot Works Permit	Cutting, grinding or welding	Daily
Working at heights Permit	Working at a height with risk of falling for 2m or more	Daily
Confined Space Permit	Where there is a risk of engulfment	Daily

10.6 Biological Hazard

Each personnel undergoes pre-employment medical to verify the antibody of tetanus, Hepatitis A & Hepatitis B. Any cost to receive vaccination booster for these diseases are covered by Veolia when required.

Apart from the antibody, these controls are made available on site:

- Maintain restricted plant access to authorised personnel only & install bio-hazard signage;
- Toilet amenities with clean water for washing hands are available outside the plant area;
- Disposable gloves

11 Site Induction and Training

11.1 Induction

All Veolia operators shall complete:

- JLL induction that outlines the site arrangements, emergency plan, etc. before undertaking work on site.
- Veolia site specific induction where Service Manager or delegate disseminate the site risk assessment/register and OHSE responsibilities listed in this plan.

Visitor to the plant shall be given induction to the site emergency plan & any relevant site rules by either Plant Operator or Service Manager.

11.2 Training

Plant Operator shall complete the mandatory training listed in Training Needs Analysis for his position.

Service Manager or delegate shall ensure all subcontractor personnel to be suitably qualified prior to attending site to perform work and records retained.

12 Incident & Hazard Management, corrective action & reporting

12.1 Incidents & Hazards

Any unidentified hazard or HSE incident on site shall be reported into the electronic database immediately and assigned to Service Manager for resolution.

Each shall be investigated for root cause using ICAM method and corrective actions shall be assigned to rectify them & prevent re-occurrence.

Any complaint shall be treated in the same manner as HSE incident or hazard above.

12.2 Notification

Any Notifiable Incident, according to each regulator's definition, shall be reported by General Counsel or delegate. Typically the report is made either to IPART, NSW EPA, or Safework NSW, depending on the relevance.

12.3 Non Conformance

Non conformances from an audit, incident or inspection shall be recorded in the electronic database and treated similarly to HSE incident or hazard above.

12.4 Return to Work

WHSEQ & Compliance Systems Manager is the Return To Work Coordinator in liaison with iCare (Workers Compensation insurer).

Individual employee injury shall be managed as per the agreed goal between RTW Coordinator, Service Manager, and Workers Compensation insurer.

Subcontractors are responsible for providing their own Rehabilitation Program.

13 Emergency management

In the event of the building emergency evacuation signal, work shall cease immediately & Plant Operator shall evacuate & assemble on the designated muster point. Report this occurrence into the electronic database

In the event of an emergency including accident, medical injury, fire, explosion, and environmental incidents:

- Make safe the site, remove personnel to a safe area;

- barricade the area & placard signage
- Report the emergency into the electronic database

Fire Fighting equipment is maintained by the building management. All firefighting equipment shall be tested every six months as per the Australian Standard. This testing shall be carried out by a licensed contractor and a **Fire Extinguisher Register** shall be maintained of testing and tagging.

The map attached at Appendix shows the route to the nearest trauma centre and medical centre.

Nearest Hospital Sydney Hospital and Sydney Eye Hospital	187 Macquarie St, Sydney NSW 2000	Telephone (02) 9382 7111
Nearest Medical Centre	580 George Street Mezzanine Level Sydney NSW 2000	Telephone: (02) 9261 9200

14 Inspection, Monitoring, and Internal Review.

14.1 Internal Audits

Internal audit for the site is undertaken annually & managed within Annual Audit Program. Suitably trained auditor shall be selected to review the system implementation on site.

14.2 Inspection

Veolia assisted the Building Manager in performing their WHS obligations as follows.

Item	Frequency	Method / Form	Responsibility
Plant HSE inspection	Quarterly	Depot Inspection Checklist	Plant Operator
Wastewater Treatment Plant Maintenance	As per the IOP & WQP	Field Service Report	Plant Operator
Electrical Equipment	12-monthly	Contractor to test & tag, and provide register	Plant Operator
Fire Fighting Equipment	6 Monthly	Contractor to test & tag, and provide register	Plant Operator
Emergency Procedures (evacuation drill)	Annually	Email	Building Management
Overhead crane	Annual	Contractor to test & tag, and provide register	Plant Operator

15 Site Rules

All persons working on site must obey the following site rules:

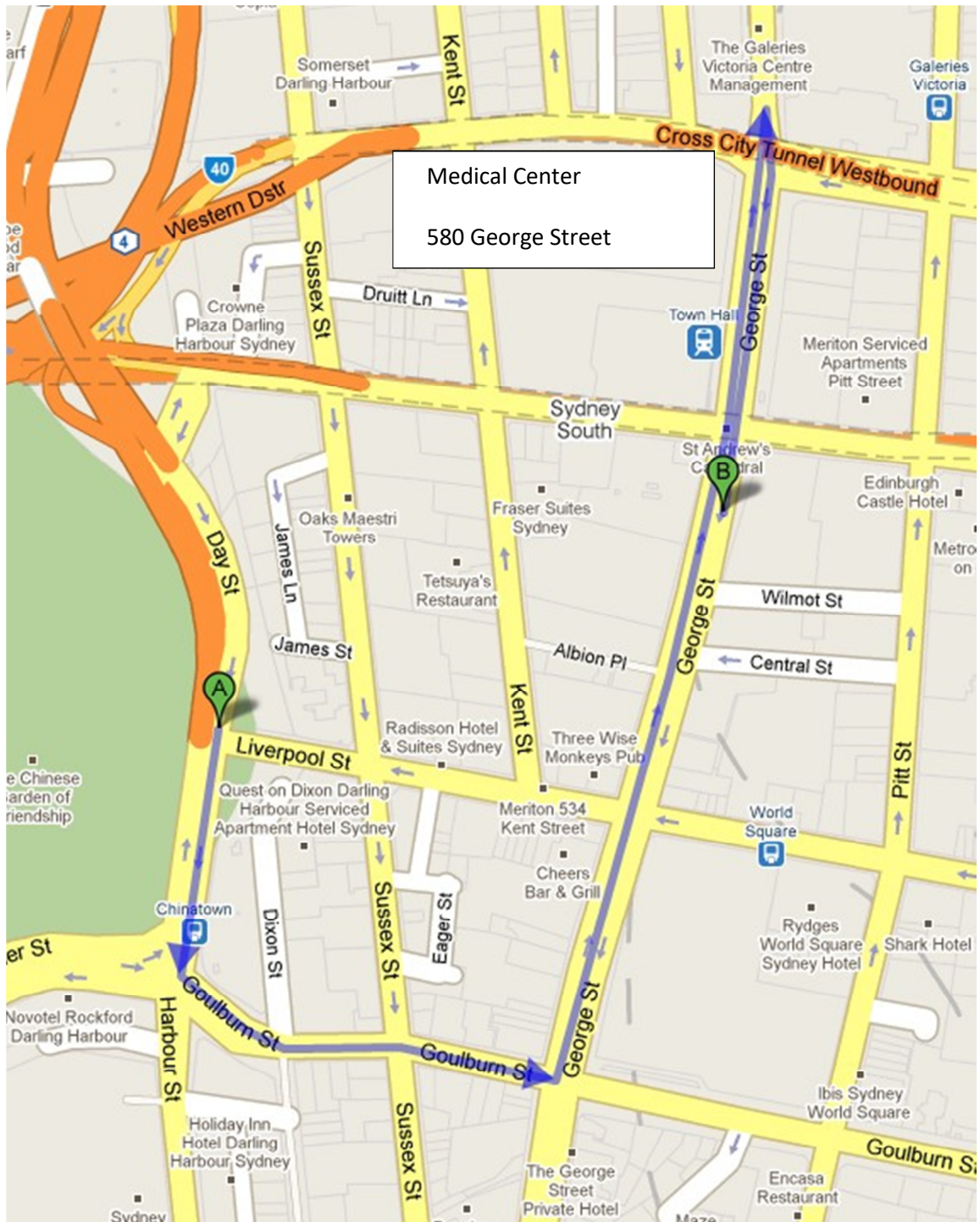
- a) Working at heights: scaffolds, platforms, ladders, EWP's, etc. Platform, ladders shall only be used if safer methods of access are not available. Scaffolding tags must be used for when over 4 meters high. No one should be placed at risk of falling from heights.
- b) Maintenance and safe use of electrical tools and equipment. All must be currently tagged before use. A Register of electrical tools and equipment used on site must be maintained
- c) No work on energised parts is permitted on VWS sites.
- d) Hot work permit may be required for all heating, cutting and welding activities. Requirement to maintain fire extinguishers when performing hot works and flashing screens when arc welding. Oxy/acetylene cylinders must be maintained in a trolley and dual flash back arrestors (Bottle + Cutting Tip) provided.
- e) Maintaining a safe environment for pedestrian and vehicular public traffic.
- f) Establishing and maintaining safe access and egress for the workforce and the public. Safe provision of access platforms. Use of single access planks is an unsafe work practice.
- g) Importation and consumption of alcohol and drugs on site is banned.
- h) Maintaining the work area in a safe and tidy condition, and waste is disposed appropriately.
- i) Manual handling and safe lifting practices. Do not lift a heavy or awkward item alone.
- j) SDS documents provide you with information on the safe handling and first aid requirements for hazardous, combustible and toxic products, etc.
- k) All decanted containers must be properly labeled. Ensure storage containers are appropriately ventilated if storing products and equipment that tend to release hazardous fumes.

- l) Maintain amenities and the work site in a clean and safe condition.
- m) Do not work alone at an isolated area unless appropriate plans are in place to protect you..
- n) A confined space permit must be authorised by Veolia before work is allowed inside an area identified by VWS or as a confined space area. Do not work unless authorised by the Permit.
- o) If you are performing outdoor activities during extreme cold or hot weather conditions, you must ensure that job rotation provisions are in place and you must promptly advise your work supervisor as soon as you feel uncomfortable.
- p) Failure to comply - due process and instant dismissals.
- q) All issue referred to in the site induction

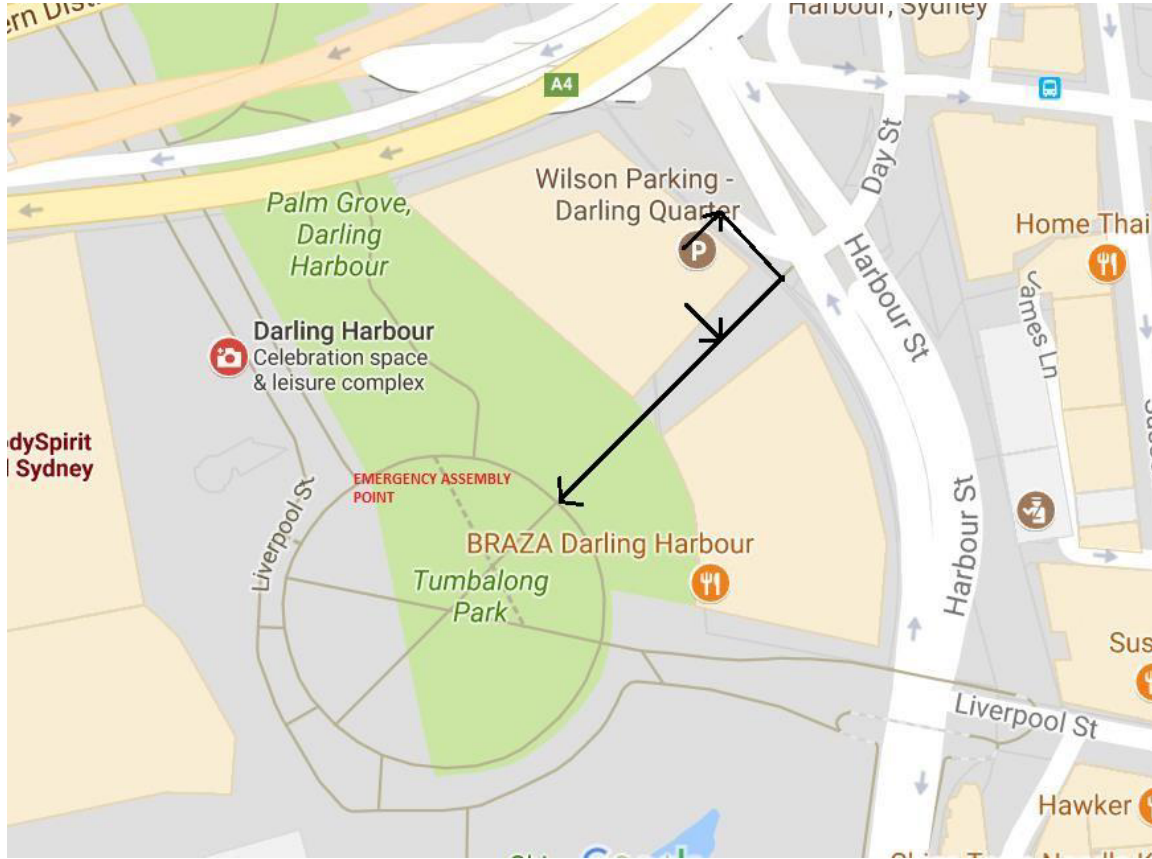
16.1 Directions to nearest Trauma Centre



16.2 Direction to nearest Medical Centre



16.3 Muster Point



Emergency Contact List

FACILITY NAME		Darling Quarter
ROLES	NAME	PHONE NUMBER
Emergency Service	Fire, Ambulance, Police	000
Poison Information Centre	Poison Information Center	131 126
NSW Ambulance	Paddington Ambulance Service	02 9320 7777
	Eveleigh Ambulance Service	02 8396 5141
Fire and Rescue NSW	Pymont Fire Station	02 9493 1038
	Sydney Fire Station	02 9265 2799
State Emergency Services	SES	13 25 00
NSW Police (Sydney)	Day Street Police Station	02 9265 6499
Emergency Control Organisation (ECO)		
Chief Warden	Claudio Kohn (when on site)	0407 867 157
	Security Controller	02 9264 0130
Building Manager	JLL	02 9264 0130
	Property Services Manager	02 8267 8204
Security - 24/7	Security JLL	0407 867 157 / 02 9264 0130 / 02 8267 8210
Darling Harbour Authority	Security	1 300 655 995
Immediate Contact Points for all Incidents that are reportable as per IPART		
NSW Health PHU - South Eastern Sydney	Ms. Toni Cains, Senior Environment and Health Officer	02 9382 8242 / 02 9540 7756 waterqual@doh.health.nsw.gov.au
	Operator (M-F 8.30-17.00)	02 9382 8333
	Hut U, Easy Street, Randwick Hospitals Campus, Randwick, NSW, 2031 (On Call)	02 9382 2222
Ministry of Energy and Utilities - Division of Energy, Water and Portfolio Strategy in the Department of Planning and Environment	Colette Grigg	02 8275 1914 Colette.grigg@planning.nsw.gov.au
Director, Water Licensing and Compliance	IPART	02 9113 7722 compliance@ipart.nsw.gov.au
Health Services		
Sydney Medical Centre	580 George St, Sydney CBD	02 9261 9200
World Square Medical Centre	644 George St, Sydney CBD	02 9777 0024
Sydney Day Hospital	1/187 Macquarie St, Sydney CBD	02 9231 3688
St Vincent's Hospital Sydney	390 Victoria St, Darlinghurst	02 8382 1111
Balmain Hospital	29 Booth St, Balmain	02 9395 2111
Utilities		

Gas provider	Origin	1800 427 532
Electricity	Energy Australia	131 338
Water Provider	Sydney Water-Paul Kelly	0407 929 456/ 9800 6001
Lift Maintenance	Thyssen Krupp	1300 799 599
Air conditioning	Velocity Air	02 9418 7700
Fire Maintenance	Premier Fire	1300 225 580
FIP Monitoring	ADT	1300 360 575

Regulatory & Compliance Bodies		
Local Council	Sydney City Council	02 9265 9333
Health & Safety Regulator	Safework NSW	131 050
IPART	IPART	02 9290 8400
EWON	Energy & Water Ombudsman NSW	1800 246 545
Minister of Health	NSW Minister Office (Health)	02 9391 9000 / 1800 020 103
Environmental Regulator	Office of Environment & Heritage (Head Office)	02 9995 5000
	NSW EPA	131 555
Department of Primary Industry	NSW Office of Water	1800 353 104
VWS&T Contacts		
VWS&T WHSEQ & Compliance Representative	Filbert Hidayat	0418 404 961
VWS&T General Manager Service	Grant McNay	0429 845 875
VWS&T Service Manager NSW	Craig Hancock	0418 538 708
VWS&T National Hydrex Manager	Inshan Sheriff	0438 880 219
VWS&T Plant Service Engineer	Claudio Kohn	0407 867 157
VWS&T General Counsel	Martin Reid	0428 816 972
VWS&T Senior Contracts Manager	Subrat Kar	0459 818 644
VWS&T IT Representative	Stevell Polchleb	0438 716 986
VWS&T SCADA/PLC Support	Tom Lappalainen	0467 766 911



Emergency Plan (EPRP)

FACILITY:	Darling Quarters RWTP
ADDRESS:	1-11 Harbour St, Sydney NSW 2000
DATE PREPARED:	27/03/19
REVIEW DATE:	03/03/20

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1. Purpose

The purpose of this plan is to provide a written set of instructions that outlines what workers and others at the workplace should do in an emergency.

2. Types of Emergencies

An assessment conducted by Veolia Water Technologies Emergency Planning Committee (EPC) has identified potential emergency situations arising from the characteristics of this facility and the work undertaken using *BR01-TOOL01 Emergency Identification and Analysis Form*.

Types of emergencies covered by this plan are:

<input type="checkbox"/>	Bomb threats and suspect package
<input type="checkbox"/>	Bushfire
<input type="checkbox"/>	Fire
<input checked="" type="checkbox"/>	Gas leak / Explosion
<input checked="" type="checkbox"/>	Hazardous chemical incidents (Fumes, loss of containment, contamination)
<input checked="" type="checkbox"/>	Infectious diseases
<input checked="" type="checkbox"/>	Medical emergencies
<input type="checkbox"/>	Sever weather
<input type="checkbox"/>	Violent or threatening person
<input checked="" type="checkbox"/>	Power failure
<input checked="" type="checkbox"/>	Flood / water leakage
<input checked="" type="checkbox"/>	Motor Vehicle Accident

3. Emergency Control Organisation (ECO)

The ECO consists of the following members: (Refer to JLL (Building) ECO)

POSITION	APPAREL COLOUR (for identification in an emergency)
<input type="checkbox"/> Chief Warden	White
<input type="checkbox"/> Deputy Chief Warden	White
<input type="checkbox"/> Communications Officer	White
<input type="checkbox"/> Floor / Area Warden	Yellow
<input type="checkbox"/> First Aid officers	White cross on green background

In the event of an emergency situation, the ECO is delegated the authority to make decisions regarding the management of an emergency and all workers and visitors are required to follow instructions issued by ECO personnel.

VWST Service person is to ensure that JLL representative is notified / aware of each visitation for the purpose of Emergency Control / Evacuation.

3.1 ECO Structure

(Refer to JLL ECO Organisation Chart)

3.2 Roles and Responsibilities

ECO POSITION	RESPONSIBILITIES
--------------	------------------

ECO POSITION	RESPONSIBILITIES
VWST	<ul style="list-style-type: none"> • Ensure a copy of this plan is issued to JLL annually or as / when updated. • Ensure JLL is appraised of all visitations
Chief Warden	<ul style="list-style-type: none"> • Maintain knowledge of the layout of the building, structure and workplace • On becoming aware of an emergency: <ul style="list-style-type: none"> ○ Don ECO apparel ○ Proceed to the ECP ○ Ascertain the nature of the emergency and determine appropriate action ○ If required, ensure that the appropriate emergency services are notified ○ Ensure that area wardens are advised of the situation ○ If necessary, initiate evacuation and control entry to the affected areas ○ Inform and direct Area / Floor wardens and make arrangements for receive reports from area / floor wardens ○ If there has been an evacuation, ensure that all occupants are accounted for ○ Brief emergency services and follow directions given until the termination of the emergency • When the emergency has ceased, inform occupants to return to the building • Conduct a debriefing with the ECO and EPC to assess conditions, and make recommendations
Deputy Chief Warden	<ul style="list-style-type: none"> • On becoming aware of an emergency: <ul style="list-style-type: none"> ○ Don ECO apparel ○ Proceed to the ECP ○ Assist the Chief Warden • Act as the Chief Warden or communications officer in their absence
Communications Officer	<ul style="list-style-type: none"> • Be competent in the use of the communication equipment in the building, structure and workplace • On becoming aware of an emergency: <ul style="list-style-type: none"> ○ Don ECO apparel ○ Proceed to the ECP ○ Ascertain the nature and location of the emergency ○ If required, ensure that emergency services have been notified ○ Act as directed by the chief warden ○ Transmit and record instructions and information between the chief warden, wardens and occupants ○ Maintain a log of the events
Area / Floor Wardens	<ul style="list-style-type: none"> • On hearing an alarm or on becoming aware of an emergency, <ul style="list-style-type: none"> ○ Don ECO apparel ○ If required, ensure that the emergency services have been notified ○ Communicate with the chief warden and act as directed ○ Search the area to ensure all persons have evacuated ○ Assist persons with disabilities ○ Advise the Chief Warden of circumstances and action taken
First Aid Officers	<ul style="list-style-type: none"> • On becoming aware of an emergency: <ul style="list-style-type: none"> ○ Don ECO apparel ○ Grab portable first aid kits ○ Proceed to the ECP ○ Act as directed by the Chief Warden ○ Assist injured persons and administer appropriate first aid ○ Ensure that all treatment is recorded

4. Response Arrangements

EMERGENCY CONTROL POINT (ECP) - The area which all emergencies are controlled will be:	Loading dock next to the security office.
MUSTER POINT - The assembly area is located:	In front of playground
FIRST AID KITS – The number and location of first aid kits are:	Veolia car at loading dock level 2 and
ALARM AND COMMUNICATION SYSTEM – The warning and notification system arrangements are:	Fire alarm and H2S alarm

4.1 Notification

Upon discovering an emergency situation:

1. The person discovering the emergency should immediately contact the Chief Warden
2. The following information should be obtained by the Chief Warden:
 - Type of emergency
 - Location
 - Actions being taken at the scene
 - Any persons injured
 - Whether emergency services have been notified or are required

4.2 Evacuation Procedure

On being instructed to evacuate, workers and visitors shall:

- Remain calm
- Collect personal belongings
- Follow instructions of wardens
- Leave via the nearest safe exit and proceed to the designated Assembly Area
- Remain at the Assembly Area and report any missing persons to the Chief Warden

Once the facility has been evacuated, re-entering is not permitted until directed by the Chief Warden.

5. Response Procedures

5.1 Fire	
RESPONSE:	<ul style="list-style-type: none"> • Evacuate people from the immediate danger and other areas as necessary only if safe to do so • Alert others: <ul style="list-style-type: none"> a. First priority is personnel in the vicinity b. Second priority is to contact the Fire Brigade and notify others as required • Contain the fire by closing all doors, confining the heat and smoke • Extinguish the fire (if safe to do so and trained) • Do not allow evacuees to return into the facility
RECOVERY MEASURES:	<ul style="list-style-type: none"> • Secure the site. Do not enter the damaged site. • Offer EAP for workers affected by the fire • Implement Business Continuity Plans and arrange for repairs • Return the workplace to normal as soon as possible • Review the emergency plan

5.2 Gas Leak / Explosion	
RESPONSE:	<ul style="list-style-type: none"> • Avoid ignition sources • Evacuate the affected area • Contact the Chief Warden • Ventilate the affected area if possible • If the leak is major, evacuate the building and notify the emergency services • Follow directions from emergency service personnel • Contact gas provider
RECOVERY MEASURES:	<ul style="list-style-type: none"> • Offer EAP to affected workers • Implement Business Continuity Plans • Arrange repairs • Return the workplace to normal as soon as possible • Review the emergency plan

5.3 Biological / Hazardous Chemical Incidents (Fumes, Loss of Containment, Contamination)	
Veolia Water Technologies does not store hazardous chemicals at manifest levels.	
RESPONSE:	<ul style="list-style-type: none"> • Clear immediate area • Turn off all equipment including electrical equipment, air handling system and gas supply • Turn off ignition sources in the area • Evacuate the affected area – isolate affected workers from non-affected • Decontaminate affected people. Do not allow any person to eat or smoke until decontamination has taken place • Seal off the area and prevent unauthorised access • Contact the Chief Warden or 000 if the spill is of a significant size, the substance involved is unknown or the substance is highly flammable / explosive / poisonous • Refer to the Safety Data Sheet (SDS), if known
RECOVERY MEASURES:	<ul style="list-style-type: none"> • Organise clean up with assistance of relevant emergency services

	<ul style="list-style-type: none"> • Decide when to reopen the workplace, in consultation with local emergency services • Review the emergency plan and hazard chemical control measures
--	--

5.4 Infectious Diseases

RESPONSE:	<ul style="list-style-type: none"> • Seek medical help early for workers that may be suffering from an infectious disease • Communicate and notify workers of suspected infectious diseases
RECOVERY MEASURES:	<ul style="list-style-type: none"> • Liaise with Public Health Authorities about the return of individuals or groups to the workplace • Develop return to work plan

5.5 Medical Emergencies

RESPONSE:	<ul style="list-style-type: none"> • Avoid moving the injured person unless there is danger to the person if they are not moved • Notify the nearest First Aid Officer • If the person's condition is uncertain or possibly life threatening, call for emergency services before notifying the First Aid Officer • Notify the Chief Warden • Provide assistance to the First Aid Officer • Do not move or interfere with any equipment that has been involved • Follow BR09 Incident Management Procedure • Secure the area • Follow notification / escalation procedures if the incident is considered notifiable
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5.6 Power Failure Procedure

RESPONSE:	<ul style="list-style-type: none"> • Look outside for damage such as wires down or trees lying across powerlines. Stay away from any fallen powerlines and / or trees lying across powerlines • Check to see if neighbours have power • Once you have assessed the situation, contact the service provider • Ensure all computer equipment (including fax machines, printers etc.) affected by the power failure is turned off at the power point to prevent a power surge when the power is returned • Evacuate and secure building • Use LOTO procedures if required, do not remove locks installed by others.
RECOVERY MEASURES:	<ul style="list-style-type: none"> • Return to normal operation upon receipt of advice from Chief Warden or Deputy • Contact electrician or electrical service to assist in repairing electrical faults

5.7 Flood / Water Leakage Procedure

RESPONSE:	<ul style="list-style-type: none"> • Prevent unauthorised access to the flooded area • Contact the Chief Warden or emergency services for assistance
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5.7 Flood / Water Leakage Procedure

	<ul style="list-style-type: none">• Shut off electricity and equipment to the affected area
RECOVERY MEASURES:	<ul style="list-style-type: none">• Arrange repairs

5.8 Motor Vehicle Accident

RESPONSE:	<ul style="list-style-type: none">• Ascertain if any person(s) is injured and / or trapped. If yes, call 000 for emergency services• Request for the assistance of the nearest First Aid Officer• Determine if the vehicle poses a hazard to persons nearby e.g. leaking fuel. If yes, call 000 for emergency services and evacuate persons from the immediate danger area• Provide assistance to the First Aid Officer and emergency services• Obtain the following particulars from driver(s) and witnesses involved:<ul style="list-style-type: none">○ Name○ Addresses○ Telephone numbers○ Details of registered owner(s) of vehicle(s) involved.○ Vehicle details○ Brief description of events
RECOVERY MEASURES:	<ul style="list-style-type: none">• Replenish first aid equipment• Arrange for repairs• Establish Return to Work Plans• Complete investigation• Offer EAP for affected workers

VWT Australia Business Continuity Plan

The aim of this plan is to ensure VWT Australia operational continuity after the occurrence of severe event with significant impacts or Force Majeure as mitigation strategy to minimise operational risk stated in the Company Risk Register.

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1. Business Continuity Assessment	2
2. Business Continuity Risk Detailed Information.....	4
2.1 Information Technology Continuity Risk Management	4
2.2 Facility Provision Continuity Risk Management	4
2.3 Financial Continuity Risk Management	4

1. Business Continuity Assessment

The table below summarised the primary risks considered to ensure the operational continuity. Details for each of these risks can be found in Section 2.

Business Activity Risks	Critical period	Business Impact Analysis	Preventive Action	Responsibility	Recovery Action	Responsibility
1. Inability to access electronic applications, documents, and records due to significant IT infrastructure breakdown.	24 hours	<ul style="list-style-type: none"> No work output due to limited capability to manage job; Inability to share important information amongst colleagues; Delay in job completion and payments; and Inability to provide adequate support to clients as per contractual agreement that might lead to financial penalty. 	<ul style="list-style-type: none"> Each premises Shared Drive is backed-up locally and remotely to Macquarie Park server; Cross back-up between Macquarie Park server and the remote server; Email and intranet contents are backed up using Cloud technology; and All applications are backed up in daily basis. 	LAN Administrator	<ul style="list-style-type: none"> Service recovery by IT team and its consultant; Communicate & advice on the expected recovery time to the workers affected; and Assessment of recovery actions to prepare for future events. 	LAN Administrator
2. Inability to access office, warehouse, infrastructure or yards due to flooding, storm, power loss, structural damage, fatality on VWT premises, etc.	1 week	<ul style="list-style-type: none"> Loss of day-to-day operational activity for project delivery; Financial loss from not fulfilling contracts; Loss of service from support functions (IT, WHSEQ, HR, Finance, Legal., Marketing); 	<ul style="list-style-type: none"> Inclusion of Force Majeure relief in contract obligations IT back up plan to ensure email and Google Hangout communication available for remote (work from home or temporary offices) access 	Facility Coordinator	<ul style="list-style-type: none"> Relocate the operation to temporary facility if loss exceeds 1 week; Non-field workers to work from home until access from temporary facility can be organised; Field workers and supervisors to standby from a safe 	Facility Coordinator

Business Activity Risks	Critical period	Business Impact Analysis	Preventive Action	Responsibility	Recovery Action	Responsibility
			<ul style="list-style-type: none"> Standby subcontractors panel that can perform the required tasks using VWT Australia system documentation & supervision 	Project Manager	<p>area until access from temporary facility can be organised;</p> <ul style="list-style-type: none"> Communicate & advice on the recovery arrangements to the managers & workers affected; and Assessment of recovery actions to prepare for future events 	
3. Financial loss from the termination of contract by the client due to Force Majeure	1 day	<ul style="list-style-type: none"> Unsustained overhead cost on the divisional budget 	<ul style="list-style-type: none"> Meet or perform above client performance requirements; and Improve tenders submission either by expanding the client base or additional projects for existing clients. 	General Manager	<ul style="list-style-type: none"> Veolia Water Technology Australia relies on the financial support from Veolia head quarter. 	General Manager

Table 1: Business Continuity Assessment

2. Business Continuity Risk Detailed Information

2.1 Information Technology Continuity Risk Management

The detailed information for business continuity plan from Information Technology division is embedded below.



VWT Australia IT BCP
V3.0.pdf

Contact Name	Contact Role	Phone Number	Email Address
Steve Polchleb	LAN Administrator	0438 716 986	steve.polchleb@veolia.com

Table 2: Information Technology Risk Management Contact

2.2 Facility Provision Continuity Risk Management

Veolia Water Technologies is obligated to provide safe and suitable office or warehouse space, where they will be managed by the assigned Facility Coordinator as per Table 3.

Contact Name	Role	Phone Number	Email Address
Martin Reid	Facility Coordinator – Macquarie Park, NSW	0428 816 972	martin.reid@veolia.com
Wendy Thomas	Back-Up Facility Coordinator – Macquarie Park, NSW	0410 740 204	wendy.thomas@veolia.com
George Baronoff	Facility Coordinator – Kings Park, NSW	0438 384 054	george.baronoff@veolia.com
Craig Hancock	Back-Up Facility Coordinator – Kings Park, NSW	0418 538 708	craig.hancock@veolia.com
Craig Hancock	Facility Coordinator – Dandenong South, VIC	0418 538 708	craig.hancock@veolia.com
Shaun Coutinho	Back-Up Facility Coordinator – Dandenong South, VIC	0400 868 097	shaun.coutinho@veolia.com
Roger Lourenco	Facility Coordinator – Rocklea, QLD	0438 880 287	roger.lourenco@veolia.com
Jessica Clark	Back-Up Facility Coordinator – Rocklea, QLD	0457 741 505	jessica.clark@veolia.com
Richard Ashley	Facility Coordinator – Kewdale, WA	0438 880 526	richard.ashley@veolia.com
Trevina Panui	Back-Up Facility Coordinator – Kewdale, WA	0414 239 099	trevina.panui@veolia.com

Table 3: Facility Provision Risk Management Contact

2.3 Financial Continuity Risk Management

Contact Name	Contact Role	Phone Number	Email Address
Michelle Moroney	General Manager – Projects	0438 128 998	michelle.moroney@veolia.com
Grant McNay	General Manager – Services	0429 845 875	grant.mcnay@veolia.com

Table 4: Financial Continuity Risk Management Contact

VWT Australia IT Business Continuity Plan

1. Aim

The aim of this document is to provide a comprehensive setup on the IT setup at both Macquarie Park Office and NextDC Data Center sites.

In the event of a disaster at the Macquarie Park Office, the IT Business continuity plan can be activated based upon the decision from VWT Australia Management.

2. VWT Australia IT BCP Design

Global Applications Access (Workaround)

Not all existing computing facilities will be available in an event where the Macquarie Park office is no longer accessible. However some workaround facilities will be available, for example the Latis and Global Intranet accessibility will be through the VPN link in Singapore.

Cloud Applications

Other cloud based setup can be accessed via the Internet. This includes the Corporate Google email, VWT AU Google Site and Google Lumworks files.

Virtual Applications

All Macquarie Park Virtual Applications Systems are being replicated daily to NextDC Virtual Servers

There is no requirement for the Macquarie Park domain servers and monitoring servers to be replicated over to NextDC

Localised Physical File Server

Each respective local file server at the Macquarie Park Office and NextDC sites is cross backed up to the backup units at the remote site.

Branch Office Network Connections

All local Branch Office files can still be accessed on-site.

There will be no Internet and WAN access due to the inter-connect link in Macquarie Park being no longer available.

The Infonet business application and Macquarie Park files will be accessible using VPN through the user's mobile phone Internet hotspots. This will be following the Virtual Servers are being reconfigured and ready at NextDC in around 1 day later.

3. Recovery Time & Point Objective

Recovery Point Objective (RPO)

Virtual applications: Nightly Incremental VMDK Backups using Veeam

File System backups: Nightly incremental Backups using ShadowProtect

Recovery Time Objective (RTO)

Virtual applications: VMs can be powered up immediate with minor reconfiguring. Estimated recovery time could vary from 2 – 6 hours.

File System Recovery: Estimated recovery time is around 4 hours.

Estimation timeframe in having the Macquarie Park computing facilities back online is around 1 day.

There will require assistance required from Corporate IT Team on Virtual Servers reconfiguration and Network Consultant (Computer Integrations Australia Pty Ltd)

4. Macquarie Park office computing and phone facilities accessibility

In the event of a disaster in the Macquarie Park Office, the Business Continuity Plan is for the Business to be able to keep functioning from either a Serviced Business Office/home with Internet facilities. This is possible as most major IT services are accessible via the Internet and all other VWT Australian Business applications will be accessible within 1 day of downtime in reconfiguring these services.

Accessing the Australian Business applications operating from NextDC is made possible using VMWare Virtualised setup and Veeam backup's software for virtualised environments.

Nearby the Branch Office in Kings Park may have the office space but do not have Internet facilities due to the non-availability of the Macquarie Park cross connect link.

All Macquarie Park Office Desk Phone facilities will diverted to the respective user's mobile phone through the Cloud Web portal management facilities.

5. Remedial Operations

In returning from the Business Continuity Plan for the Macquarie Park Office, the Macquarie Park links and Systems need to be assessed. If required replacement equipment and link needs to be ordered.

There will be gradual migration back to normal operations when the network links and VMWare Systems are in place.

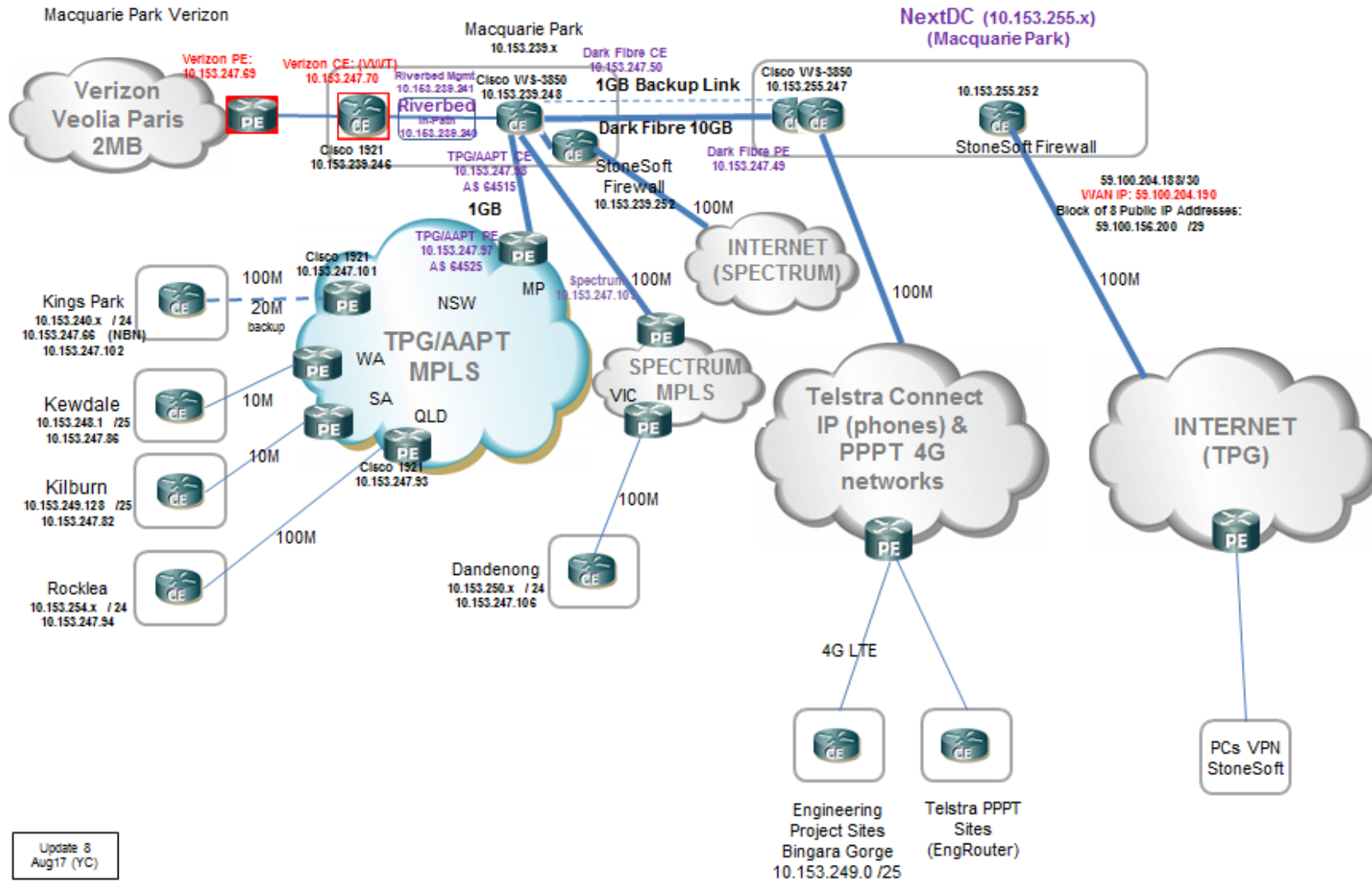
Appendix

Appendix A - Major Connection Links

Location	Vendor	Link Type	Speed
Macquarie Park Office	Verizon A/C: AUP1004428 Ph.: 1-213 225 8234 Lester.liwanag@hk.verizon.com	Verizon link to Veolia Paris (for Latis & Global Intranet)	2Mbps SDSL with OOB phone dial modem
Macquarie Park Office	Pipe Networks Service ID: 5215240 /CN19494 Ph.: 1300 534 228 (opt 1)	Dark Fibre link to NextDC	10Gbps Dark Fibre link (SFP+)
Macquarie Park Office	AAPT/TPG Service ID: 5223775 Ph.: 1300 534 228 (opt 1)	MPLS (IP-VPN) link to Branch Offices	1Gbps Fibre link with RJ45 connection
Macquarie Park Office	AAPT/TPG Service ID: 5215241/1297783 Ph.: 1300 534 228 (opt 1)	e-line Backup link to NextDC	1Gbps Fibre link with RJ45 connection
Macquarie Park Office	Spectrum / Vocus A/C : 000001031 Ph.: 1300 133 299	Phone, MPLS & Secondary Internet link to Spectrum Networks	200Mbps link with Tik Routerboard 10Ports (Spectrum)
NextDC	Pipe Networks Service ID: 5215240 /CN19494 Ph.: 1300 534 228 (opt 1)	Dark Fibre link to Macquarie Park Office	10Gbps Dark Fibre link (SFP+)
NextDC	AAPT/TPG Service ID: 5215241 /1297784 Ph.: 1300 534 228 (opt 1)	e-line Backup link to Macquarie Park Office	1Gbps Fibre link with RJ45 connection
NextDC	AAPT/TPG Service ID: 6018343/5215242 Ph.: 1300 534 228 (opt 1)	IP-Line Main Internet	100Mbps link with RJ45 connection
NextDC	Telstra Service ID: N2560824R Ph.: 132999	Link to Telstra Networks	100Mbps link with 1Gbps Fibre (SFP)

Appendix B – VWT Australia IT Network Diagram

VWT Australia Networking



Appendix C - PHYSICAL INVENTORY: Servers, Storage Systems & Main Switches

Location	Description	Name	IP Address
Macquarie Park Office	MP Dell ESX Server 1	AUMAC02ESX01	10.153.239.1
Macquarie Park Office	MP Dell ESX Server 2	AUMAC02ESX01	10.153.239.2
Macquarie Park Office	MP QNAP Storage	AUMAC03PS1	10.153.239.3
Macquarie Park Office	Dell Storage Switch (Dual)	AUMACSW1	10.153.239.31
Macquarie Park Office	HP Backup Unit	AUMAC01BK2	10.153.239.17
Macquarie Park Office	HP File Server	AUNSW01FS2	10.153.239.25
Macquarie Park Office	Dell Probe	AUMAC01PB1	10.153.239.30
Macquarie Park Office	Cisco 3850 Core Switch (Dual)	AUMACSW2	10.153.239.248
Macquarie Park Office	StoneSoft FW-315	-	10.153.239.252
Macquarie Park Office	HP 2920 Switch (Phones Sys)	-	10.153.239.238
Macquarie Park Office	HP 2920 Switch (Network)	-	10.153.239.237
NextDC	NextDC Dell ESX Server 1	AUMA202ESX01	10.153.255.1
NextDC	NextDC Dell ESX Server 2	AUMA202ESX02	10.153.255.2
NextDC	NextDC QNAP Storage	AUMA203PS1	10.153.255.3
NextDC	Dell Veeam Backup Server	AUMA201BK2	10.153.255.16
NextDC	Dell Storage Switch (Dual)	AUMA2SWS1	10.153.255.31
NextDC	Dell DFSR Server	AUMA201FS2	10.153.255.x
NextDC	HP File Server	AUMA201FS1	10.153.255.25
NextDC	HP Backup Unit	AUMA201BK1	10.153.255.24
NextDC	Dell Probe	AUEX01PB1	10.153.255.30
NextDC	Cisco 3850 Core Switch (Dual)	AUMA2SWS2	10.153.255.247
NextDC	Stonesoft NGF-1035C1	-	10.153.255.252

Notes:

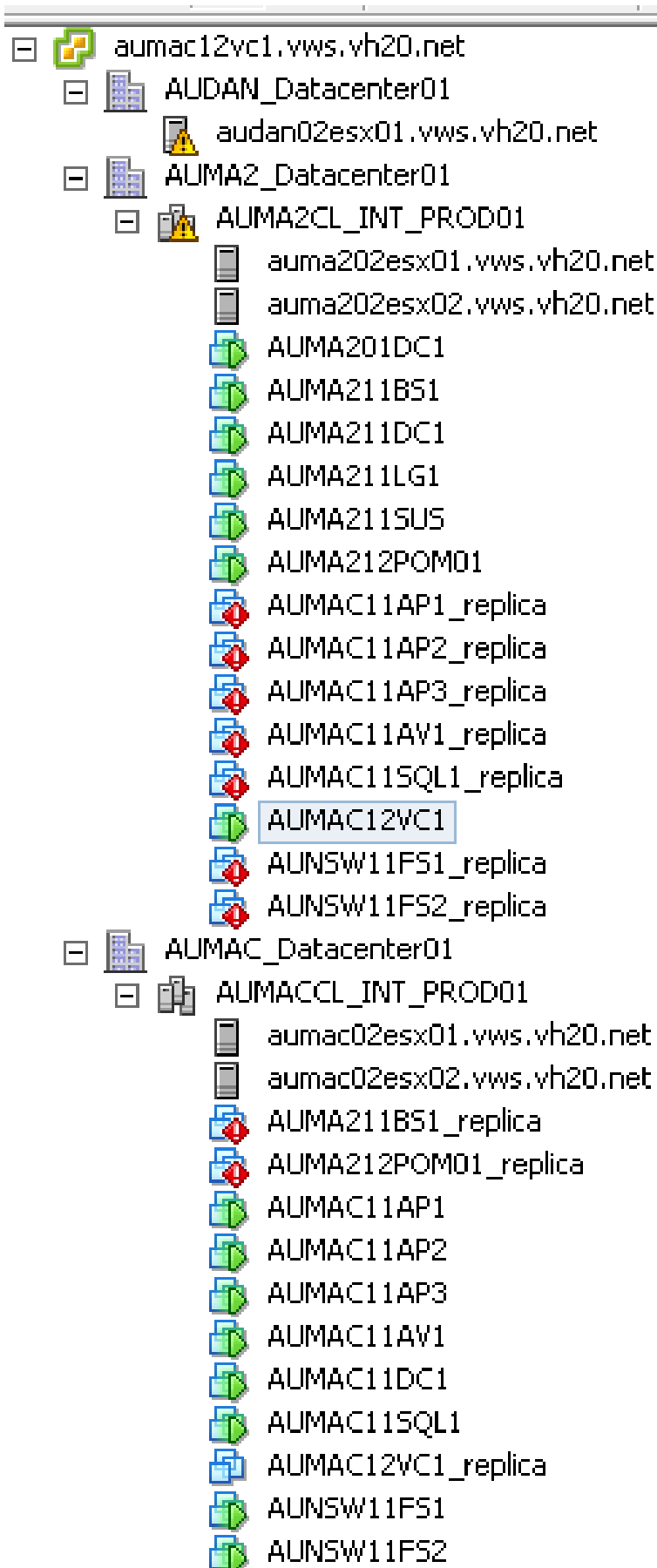
- Physical HP File Server (AUNSW01FS2 – 10.153.239.25) in Macquarie Park Office now have remote ShadowProtect backup onto HP Backup unit in NextDC (AUMA201BK1 – 10.153.255.24)
- Physical HP File Server (AUMA201FS1 – 10.153.255.25) in NextDC now have remote ShadowProtect backup onto HP Backup unit in Macquarie Park Office (AUMAC01BK2 – 10.153.239.17)

Appendix D – Key Business Applications

Location	Description	Name	IP Address
Macquarie Park Office	Infonet	VM - AUMAC11AP1 (10.153.239.40)	Virtual
Macquarie Park Office	SQL Server	VM – AUMAC11SQL1 (10.153.239.42)	Virtual
Macquarie Park Office	Symantec Vault	VM – AUMAC11AP2 (10.153.239.41)	Virtual
Macquarie Park Office	Codafire	VM – AUMAC11AP3 (10.153.239.43)	Virtual
Macquarie Park Office	Kaspersky	VM – AUMAC11AV1 (10.153.239.11)	Virtual
Macquarie Park Office	Domain Servers	Domain Servers including Radius setup VM – AUMAC11DC1 (10.153.239.13)	Virtual
Macquarie Park Office	Fileserver	VM – AUNSW11FS1 (10.153.239.21)	Virtual
Macquarie Park Office	Fileserver	VM – AUNSW11FS2 (10.153.239.26)	Virtual
Macquarie Park Office	Fileserver	Server – AUNSW01FS2 (10.153.239.25)	Physical
Macquarie Park Office	Probe	Server – AUMAC01PB1 (10.153.239.30)	Physical
Cloud - Macquarie Park Office	Phone System	Spectrum Phone System Link Only	Cloud
Cloud - Macquarie Park Office	Latis & Global Intranet	Verizon Link – 10.153.239.246 (10.153.247.70 & 10.153.247.69)	Cloud
NextDC	WSUS	VM – AUMA211SUS (10.153.255.23)	Virtual
NextDC	OH&S Reporting	VM – AUMA211BS1 (10.153.255.8)	Virtual
NextDC	POM Monitor	VM – AUMA212POM01 (10.153.255.4)	Virtual
NextDC	Performance Monitor (VM)	VM – AUMA211LG1 (10.153.255.22)	Virtual
NextDC	Domain Servers	VM – AUMA201DC1 (10.153.255.20) VM – AUMA211DC1 (10.153.255.21)	Virtual
NextDC	Vcenter	VM – AUMAC12VC1 (10.153.255.10)	Virtual
NextDC	Veeam Backup	Server – AUMA201BK2 (10.153.255.16)	Physical
NextDC	Probe	Server AUEX01PB (10.153.255.30)	Physical
NextDC	File Server	Server – AUMA201FS1 (10.153.255.25)	Physical
NextDC	Backup Unit	Server – AUMA201BK1 (10.153.255.24)	Physical
Cloud - Generic	Google Email	Google Email	Cloud
Cloud - Generic	AU Google Sites	Google AU Web site	Cloud

Location	Description	Name	IP Address
Cloud - Generic	Lumworks	Google Cloud Share Drive	Cloud
Cloud - Generic	IT ServiceNow	IT ServiceDesk	Cloud

Appendix E – VMWare Map / Topology (Standard Mode – Non DR)



Appendix F – Contact Details

VWT Australia IT Contacts

IT Manager – Yoon Chong (ph.: 0447 189 745 / 0419 262 091)

IT Administrator – Steve Polchleb (ph.: 0438 716 986)

IT ServiceDesk – Tomson Bak (ph.: 0437 081 726)

Network Consultant Contact

Computer Integrations Australia Pty Ltd – Zelko Lukacevic (ph.: 0411 191 291)

Computer Vendors Contacts

Virtuelle Group Pty Ltd – Nehru Eliz (ph.: 0404 148 800) (Supplier of IT Services & Panasonic Toughbooks)

ASI Solutions Pty Ltd – Fady Wardy (ph.: 0408 236 290) (Supplier of Lenovo PCs)