SYDNEY DESALINATION PLANT

30 July 2026

Infrastructure Operating Plan

Sydney Desalination Plant Pty Limited

ACN 125 935 177
Suite 19, Level 17
Australia Square
264 George Street
Sydney NSW 2000

Phone: +61 2 8599 8534
Website: www.sydneydesal.com.au

Document Information

Title	Infrastructure Operating Plan
Subtitle	Supporting WICA Network Operator Licence 25_018

Authorisation

	Title	**Name**	**Date**
Owner	General Manager Operations	Reece Karamihas	30 July 2026
Reviewer	Chief Executive Officer	Philip Narezzi	30 July 2026

Document History

Rev No	Date	Amended by	Details of amendment
1	April 2013	V. Wypych G. Ovens	1st Revision following ownership change
2	April 2015	L. Welsh G. Ovens P. Birkby J. Camenzuli	2nd Revision
3	July 2018	M Blaikie P Birkby J Camenzuli	4th Revision
4	July 2019	M Blaikie A Richardson	5th Revision
5	July 2020	R Karamihas M Blaikie	6th Revision
6	July 2021	R Karamihas M Blaikie	Update of section 2.1 to reflect current operating environment + admin review
7	August 2022	R Karamihas M Blaikie	Minor administrative amendments
8	August 2023	L Tsang R Karamihas M Blaikie	9th Revision following new Operating Rules

9	August 2024	R Karamihas L Tsang J Myers	Minor adjustments
10	July 2025	J Myers R Karamihas	Update to reflect going from two licences to one
11	July 2026	J Myers R Karamihas	Minor adjustments

Review Details

Review Period:	Revision Date/Last Review Date + 1 years
NEXT Review Due:	August 2027

Table of Contents

Executive Summary 1
1. Background 2
1.1 Greater Sydney Water Strategy 2
1.2 Operating environment 2
1.2.1 Sydney Desalination Plant Pty Ltd (SDP) *2*
1.2.2 Veolia Water Australia (VWA) *3*
1.2.3 Institutional arrangements *3*
1.2.4 Operational Arrangements *4*
2. Overview of the Desalination plant and scheme 7
2.1 Scheme description 7
2.2 Energy use 8
2.3 Key processes 9
2.4 Operating Protocols 9
3. Management Systems 11
4. Stakeholder Engagement 12
5. Continuous improvement and review 13
6. Public reporting 14
7. Definitions 15

List of figures

Figure 1.1: Current structure of retail arrangements 3
Figure 1.2: Institutional arrangements for the Sydney Desalination Plant Pty Limited 4
Figure 1.3: Desalination business structure and management processes 6
Figure 2.1: Schematic of the Plant and delivery Pipeline to Erskineville 8

List of appendices

Appendix A Summary of Infrastructure Operating Plan Guidelines

Executive Summary

Meeting licence requirements

The Water Industry Competition Act 2006 licence requires a water infrastructure operating plan(s) to be developed. A number of plans and documents are in place, which meet the requirements of the infrastructure operating plan(s).

This Infrastructure Operating Plan has been developed as the over-arching plan describing infrastructure management with references to a supporting body of technical documents. This plan shall be reviewed on a regular basis according to the requirements of the Water Industry Competition Licence No. 25_018.

Appendix A of this plan provides a detailed analysis of Sydney Desalination Plant Pty Limited's (SDP) compliance with Water Industry Competition Act 2006 licence requirements. The table in Appendix A provides an in-depth summary of SDP's strategies and documentation in relation to the audit guidelines for water infrastructure operating plan(s) as published by the NSW Independent Pricing and Regulatory Tribunal. (Audit Guideline for Greenfield Schemes, Water Industry Competition Act 2006, July 2013)

1. Background

1.1 Greater Sydney Water Strategy

The NSW Government has developed and released (in August 2022) the Greater Sydney Water Strategy (GSWS) which charts a direction for delivering sustainable and resilient water services to Greater Sydney for the next 20 to 40 years.

The strategy sets out priorities and actions for the delivery of water, wastewater, recycled water and stormwater services into the future to service a growing Greater Sydney population, including the Illawarra and Blue Mountains. It considers that there is a deficit between yield and demand in Greater Sydney requiring better utilisation of existing assets, and furthermore, additional capacity added in the near term

Highlights of the GSWS include:

- building resilience to drought and a changing climate, safeguarding Greater Sydney even in times of prolonged drought and extreme weather events such as floods,
- supporting the economy and jobs, put water at the heart of the community
- implementing water conservation measures such as improved water efficiency, leakage management and reuse programs;
- optimisation and increased utilisation of existing assets
- investment in additional water supply in the next 5-10 years;
- investment in treated re-use programs for watering trees, sports fields, cooling and greening the city, and industrial use; and
- smarter use of stormwater with integration into land use planning.

One of the key directions identified in the GSWS is to increase the utilisation of the Sydney Desalination Plant (the Plant) by changing its operation from drought response to flexible full-time operation. This seeks to provide flexibility or optionality for Sydney Water in meeting the objectives in the GSWS and to secure Sydney's water supply against the effects of climate change, population growth and drought.

The Plant can supply up to 250 million litres of water a day, which is up to 15% of Sydney's water needs. The Plant's capacity can be doubled to produce approximately 30% of Sydney's water supply when required.

1.2 Operating environment

1.2.1 Sydney Desalination Plant Pty Ltd (SDP)

Sydney Desalination Plant Pty Ltd (SDP) holds the long term lease of Sydney Desalination Plant, the Drinking Water Pump Station (DWPS) and the 18km Kurnell to Erskineville pipeline (Pipeline). Drinking water from SDP is added into Sydney Water's distribution system at Erskineville Shaft 11C.

SDP is solely owned by the Utilities Trust of Australia.

The Plant is primarily regulated via the Water Industry Competition Act 2006 (WICA) and supporting regulations. SDP had previously been granted two licences under the WICA. These were as follows:

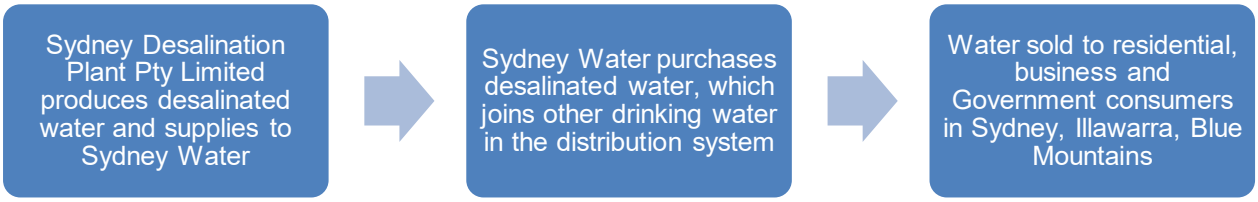
1. Retail Supplier's licence No. 10_011R, to supply water by means of the water industry infrastructure under the Network Operator Licence no 10_010.

2. Network Operator's Licence No. 10_010 to construct, operate and maintain water industry infrastructure.

As of 1 March 2025, the below licence replaced these licences:

3. Operator Licence No. 25_018, to construct and operate water industry infrastructure

Figure 1.1: Current structure of retail arrangements



SDP's Licence permits SDP to sell drinking water from the Plant. Currently, its only customer is Sydney Water (see Figure 1.1). Drinking water from the plant mixes in the distribution system with drinking water that originates in Sydney Water's other sources such as dams. Sydney Water sells drinking water to homes and businesses in Sydney, the Illawarra and the Blue Mountains (Figure 1.1).

SDP's Licence also specifies conditions that SDP must comply with any Annual Production Requests issued by Sydney Water, and use best endeavours to comply with any other request made by the Sydney Water.

SDP and Sydney Water have entered into a Water Supply Agreement for Sydney Water to purchase drinking water from SDP.

1.2.2 Veolia Water Australia (VWA)

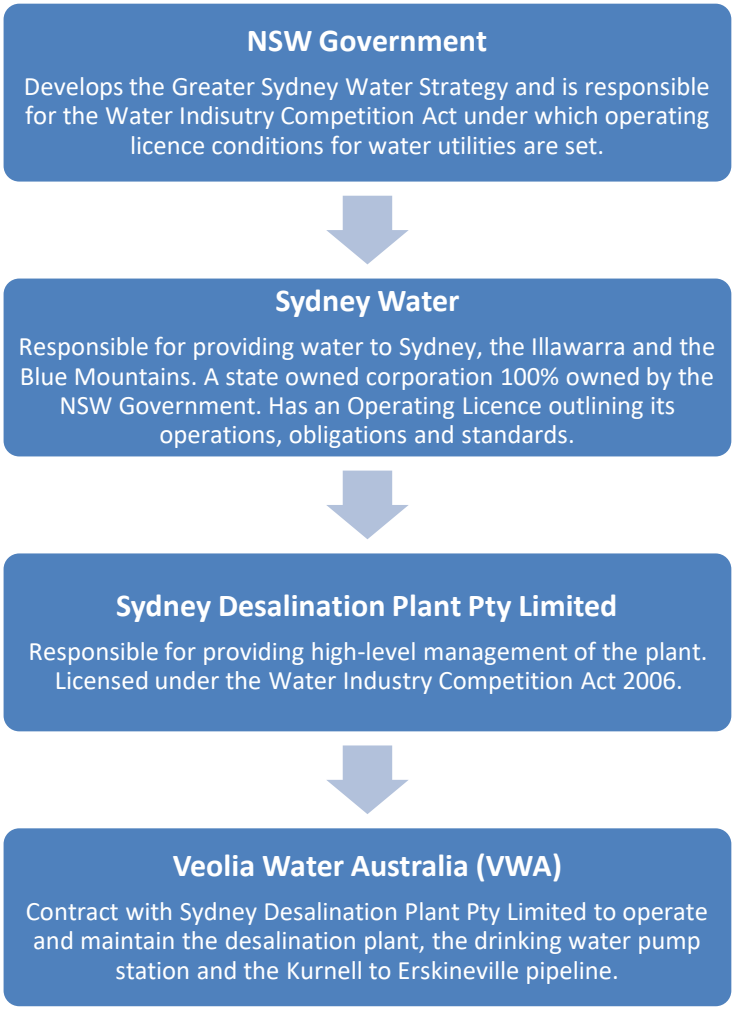
SDP has a long-term contract with Veolia Water Australia (VWA) for the operation and maintenance of the Plant, DWPS as well as the Kurnell to Erskineville Pipeline.

VWA is a world leader in managing, operating and providing water and wastewater infrastructure services. It operates treatment plants and networks to provide drinking water, treat wastewater and produce recycled water for reuse.

1.2.3 Institutional arrangements

Institutional arrangements for the SDP are shown in Figure 1.2.

Figure 1.2: Institutional arrangements for the Sydney Desalination Plant Pty Limited



1.2.4 Operational Arrangements

Figure 1.3 shows the process and business structure map for SDP and the Plant operational arrangements. It indicates the company boundaries, physical responsibilities, drivers, management systems and interfaces.

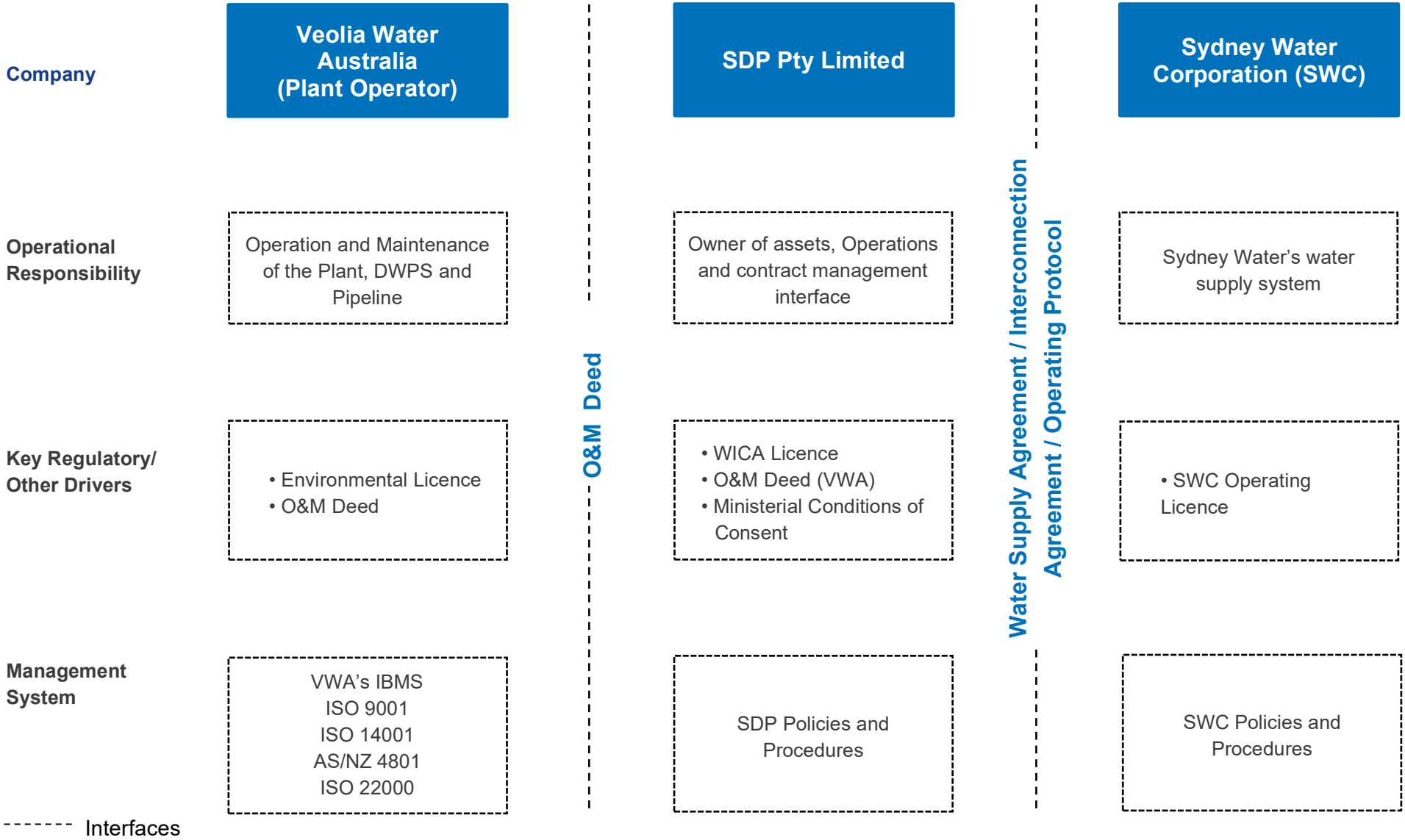
The operational boundary between SDP and the customer (Sydney Water Corporation) is at the last valve before shaft 11 where the Pipeline enters the city tunnel (asset # SNSV1/VLV01).

This Infrastructure Operating Plan sets out SDP's strategies to ensure that WICA and regulation requirements are met, including:

- The operation and maintenance of the infrastructure, including particulars as to the life span of the infrastructure and the arrangements for the renewal of the infrastructure, and
- The continued safe and reliable performance of the infrastructure, and
- The continuity of water supply, and
- The maintenance, monitoring and reporting of standards of service under the O&M Deed with VWA for the Plant, the Pipeline and the DWPS.

This plan shall be reviewed on a regular basis according to the requirements of the Water Industry Competition Licence No. 25_018.

Figure 1.3: Desalination business structure and management processes



 30 July 2026 © Sydney Desalination Plant Pty Limited

2. Overview of the Desalination plant and scheme

2.1 Scheme description

SDP is responsible for the production of drinking water from the Plant, and pumping of this water into Sydney Water's distribution system via the Pipeline.

The Plant site is comprised of Lot 2 in DP 1077972, Lot 1 in DP 1088703, Kurnell, the offshore discharge and inlet structures located in the Tasman Sea, associated inlet and outlet tunnels, and the area of the Pipeline. Figure 2.1 shows the location of the Plant and Pipeline. There are no off-takes from the Pipeline until its connection to the City Tunnel at Erskineville and distribution into the Potts Hill system.

The Plant can supply an average of 250 million litres per day of drinking water, which represents about 15% of the total supply for Sydney.

The Plant commenced operation in 2010 and is powered by 100% renewable energy. Water is delivered from the Plant into Sydney Water's system in compliance with the guideline values in the Australian Drinking Water Guidelines. SDP supplies water to Sydney Water under a 50-year Water Supply Agreement, the term of which concludes in 2062.

The Plant was placed into water security mode (mothball) in June 2012 and this continued until January 2019.

On 27 January 2019 Water NSW notified SDP that the Available Storages fell below 60% and consequently Sydney Water confirmed with SDP that, under the Operating Licence conditions at the time, a Restart Trigger had been met and that the period to restart the Plant had commenced. SDP was ready and committed to respond, and achieved successful restart of its water infrastructure and supply at or above an annual average of 250 Mega-litres of water per day (ML/day).

Following a period of heavy rainfall in February 2020, the Available Storages of Sydney rose from approximately 41% to above 75% within a short period. On 27 March 2020 Sydney Water and SDP entered an agreement whereby SDP remained operational to mitigate the effects of bushfires, flooding, and damaging storms on water quality, as well as to support major system maintenance. This arrangement continued until 30 June 2023, to ensure Public Health was maintained.

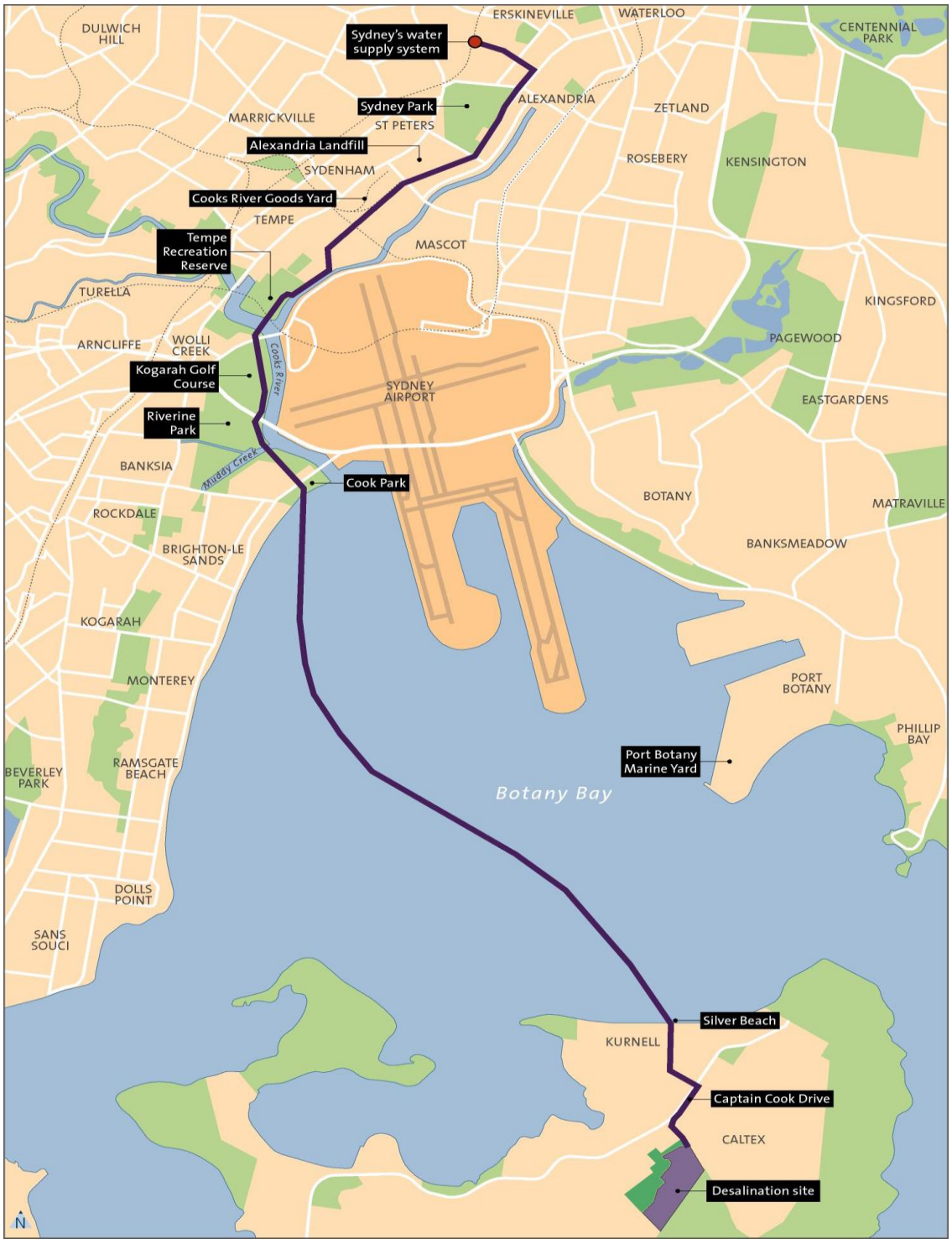
From 1 July 2023, the Plant has formally shifted to flexible full-time operation with production requests issued by Sydney Water depending on network needs. Under SDP's revised Network Operator's licence, SDP must meet flow requests as specified by Sydney Water in accordance with the operational protocol that seek to achieve the following:

1. To maximise yield contribution of the Sydney Desalination Plant to Sydney's water supply and slow the depletion rate during drought

2. Operate SDP and other water filtration plants to reduce the risk of dam spill where practical

3. Allow Sydney Water and SDP flexibility to respond to system shocks, outages and maintenance in accordance with good operating practice

Figure 2.1: Schematic of the Plant and delivery Pipeline to Erskineville



2.2 Energy use

The Plant's energy use is 100% offset by renewable energy, through the use of energy and LGCs supplied under long term contracts with Iberdrola Australia Limited.

2.3 Key processes

SDP has entered into an O&M Deed with VWA for the operation and maintenance of the Plant, drinking water pump station (DWPS) and the delivery Pipeline. The O&M Deed provides for operation and maintenance of Plant to comply with SDP's Network Operator's Licence.

Under the Deed, the plant, Pipeline and DWPS will be operated and maintained:

- In accordance with best industry practice and the requirements of the contract;
- So as to remain at all times fit for purpose;
- So as to provide drinking water at the delivery point in such quantities as SDP directs;
- To have an operating life consistent with contract requirements;
- To be capable of continuous and reliable operation throughout the term.

Regular contract and operational interface meetings (Operations Review Group) are held between SDP and VWA to:

- review site safety performance and initiatives;
- review the performance of the Operations and Maintenance services and the performance of the Operator's other obligations;
- review the quality of the Operations and Maintenance services and any remedial measures required;
- review the adequacy of VWA's Integrated Business Management System (IBMS) and subsidiary documents;
- provide a forum for discussion and co-ordination of the Operations and Maintenance services in the various operating modes for the plant;
- review customer and community complaints and action taken to address complaints;
- discuss the implementation of varying production and other operational requests;
- assist in the resolution of any special matters or disputes referred to the Operations Review Group by a party; and
- review any other matters required by contract representatives.

SDP utilises external consultants as technical experts in the management of the contract and SDP's assets from time to time, to provide technical input and advice.

2.4 Operating Protocols

SDP and Sydney Water have developed an operating protocol, attached to the Water Supply Agreement. The operating protocol describes the operational interface arrangement and key procedures, including:

- Water supply system.
- Storage and distribution.
- Water quality
- Operational responsibility.
- Management of emergency situations.
- Communication including primary point of contact and communication contact levels.

- Planned maintenance / shutdown protocols.
- Operational change requests and the water order process including agreement of Annual Production Requests and other production requests between Sydney Water and SDP.

The protocol clearly defines the roles and responsibilities that each party and staff member undertakes regarding the operation of the Plant.

SDP, Sydney Water and VWA have incident and emergency management procedures and plans in place which include integration of each other party into emergency response.

3. Management Systems

The Operations and Maintenance contractor, VWA has developed and maintains the Integrated Business Management System (IBMS) which is certified to ISO 9001 (Quality), ISO 14001 (Environment), ISO22000 (Food Safety), OHSAS18001(OHS) and AS/NZ 4801 (OHS).

The IBMS is a combination of business processes, objectives, culture, products and services / outputs, documents, actions, requirements / inputs, risk and controls, knowledge and responsibilities.

By following this system and processes, both companies can facilitate:

- proper accountability, probity and transparency
- compliance with contractual and other performance requirements
- compliance with relevant legislation and regulations
- identification, assessment and management of risks
- employee understanding of expectations and standards as relevant to their role, site or contract
- identification and implementation of best practice in key aspects of its business
- planning, documentation and monitoring of business performance
- setting of goals, objectives and targets to continually improve business performance
- capturing, recording and communicating business knowledge.

Key elements such as management review, document control, training and auditing are also combined into a holistic approach to business management.

VWA's management systems adhere to the principles of ISO 9001 which include the requirements of:

- Management Support – through management commitment to the quality systems; authorisation of the quality policies; business planning commitment; responsibility, authority and communication; and management review
- Document Control – including requirements of registering documents; documentation protocols; regular document review and use of document templates; and records management.
- Resource Management – including provision of resources; appropriate management of human resources (including training and assessment); provision of appropriate infrastructure and work environment.
- Product Realisation – management of customers and customer enquiries; purchasing processes; control of monitoring and measurement devices.
- Measurement, Analysis and Improvement – through management of non-conforming products; analysis of data, management review and improvement processes.

VWA's IBMS, and associated documents, incorporates the business management of the plant from the ocean intake, through production and delivery to the operational boundary.

The IBMS is regularly reviewed and audited. Internal, collaborative and external audits are carried out on the plant. The results and findings from these audits are reported by VWA to SDP.

4. Stakeholder Engagement

The key stakeholders for the Plant and SDP include:

- SDP
- VWA
- Sydney Water
- NSW Health
- Office of Environment and Heritage (OEH)
- NSW Environment Protection Authority (EPA)
- IPART
- NSW Treasury
- The NSW Department of Planning and Environment
- Water NSW
- Consumers
- Local Community
- Ausgrid
- Iberdrola Australia (formerly Infigen Energy)
- The NSW Department of Home Affairs

SDP liaises regularly with IPART, Sydney Water, NSW Treasury and VWA on a range of operational and regulatory matters. SDP liaises with NSW Health as required, in relation to the quality of water supplied from the Plant.

SDP and VWA liaise with the Department of Planning and Environment in regards to any remaining requirements of the Planning Minister's Conditions of Approval as required.

Liaison with consumers and the local community occurs as necessary with contact information available on the SDP website.

The plant operator, VWA, liaises with the OEH and the EPA regarding compliance with the Environment Protection Licence.

5. Continuous improvement and review

Continuous improvement and review of overall processes and this document is currently facilitated through:

- Regular meetings between SDP management and relevant regulatory agencies.
- Regular operational and contractual meetings between SDP and VWA.
- Regular operational and contractual meetings between SDP and Sydney Water.
- Management review of business systems.
- Quality system, O&M Deed and regulatory audits.
- Incident and issue management systems

This Infrastructure Operating Plan will be reviewed regularly.

6. Public reporting

SDP provides operational details about the plant including information on operating hours, volume of desalinated water produced and equivalent emissions of carbon dioxide associated with the operation on its website http://sydneydesal.com.au/.

7. Definitions

Term Definition

Term	Definition
AS/NZ	Australian and New Zealand Standard.
IBMS	Veolia Water's Integrated Business Management System.
Customer	Defined as 'Sydney Water' – being SDPs only current 'customer.
Consumer	Defined as the public receiving the water at the 'tap' from Sydney Water (consistent with the SWC Operating Licence).
DWPS	Drinking Water Pumping Station
EPL	Environment Protection Licence at the Plant.
ISO	International Standards Organisation.
Operational Monitoring	Sampling and analysis that occurs for the purpose of producing the desalinised water that is sold to the customer (monitoring of the plant output)
SDP	Sydney Desalination Plant Pty Limited.
Verification Monitoring	The sampling and analysis that occurs in the distribution system for the purpose of ensuring quality water is received by consumers at the tap.
VWA	Veolia Water Australia
WSA	Water Supply Agreement.
LGC	Large Scale Generation Certificate

Appendix A

Summary of Infrastructure Operating Plan Guidelines

Commercial in Confidence