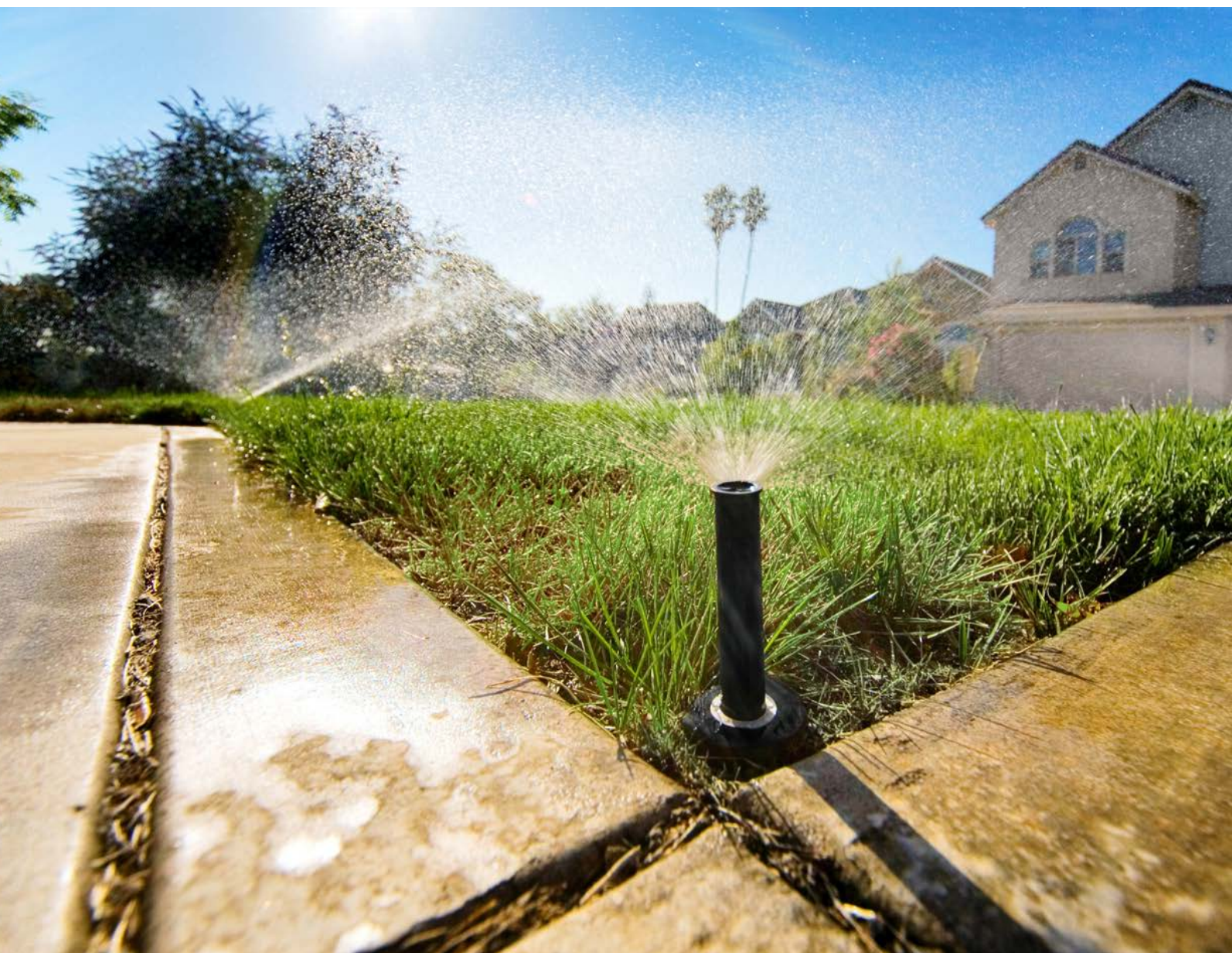


ASSESSING BOX HILL NORTH SCHEME LICENCE VARIATION APPLICATION



Ministerial Report

Prepared in accordance with the
Water Industry Competition Act 2006 (NSW)

November 2020

© Independent Pricing and Regulatory Tribunal (2020).

With the exception of any:

- (a) coat of arms, logo, trade mark or other branding;
- (b) photographs, icons or other images;
- (c) third party intellectual property; and
- (d) personal information such as photos of people,

this publication is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Australia Licence.



The licence terms are available at the [Creative Commons website](#):

IPART requires that it be attributed as creator of the licensed material in the following manner: © Independent Pricing and Regulatory Tribunal (2020).

The use of any material from this publication in a way not permitted by the above licence or otherwise allowed under the *Copyright Act 1968* (Cth) may be an infringement of copyright. Where you wish to use the material in a way that is not permitted, you must lodge a request for further authorisation with IPART.

Disclaimer

IPART has prepared this report for the Minister administering Part 2 of the *Water Industry Competition Act 2006* for the purpose of providing recommendations and advice to the Minister, in connection with an application to vary a licence under that Act. Use of the information in this report for any other purpose is at the user's own risk, and is not endorsed by IPART.

ISBN 978-1-76049-468-1

The Independent Pricing and Regulatory Tribunal (IPART)

We make the people of NSW better off through independent decisions and advice. IPART's independence is underpinned by an Act of Parliament. Further information on IPART can be obtained from [IPART's website](#).

Tribunal Members

The Tribunal members for this review are:

Ms Deborah Cope, Acting Chair

Ms Sandra Gamble

Mr Mike Smart

Enquiries regarding this document should be directed to a staff member:

Christine Allen (02) 9290 8412

Jamie Luke (02) 9290 8460

Sachin Singh (02) 9113 7784

Nick Singer (02) 9290 8459

Contents

1	Executive Summary	1
2	Recommendations	2
2.1	The applicants and parent organisation	2
2.2	The Box Hill North scheme	3
2.3	Current licences	4
2.4	Scope of variation applications	4
2.5	Environmental assessment	5
3	Consultation and Submissions	6
3.1	We considered all submissions	7
3.2	We requested information from Flow Systems after its sale	7
4	Assessment of application	8
4.1	The applicants are eligible for a licence	8
4.2	The applications are consistent with the licensing principles	9
4.3	The applicants would continue to meet the licensing criteria	11
5	Environmental assessment of the proposed non-potable water pipeline	23
5.1	Part 5 of the EP&A Act	23
5.2	Environmental assessment	23
A	Draft network operator licence and retail supplier licence	25
B	Detailed capacity analysis of FSO's and Flow Systems' applications	26
C	Flow Systems Operations' ownership structure and related licensees	33
D	Summary of submissions	35
E	Assessment of FSO's EIA Checklist	44

1 Executive Summary

We recommend that the Minister for Water, Property and Housing¹ (Minister) grants Flow Systems Operations Pty Ltd (FSO) a varied network operator licence and Flow Systems Pty Ltd (Flow Systems) a varied retail supplier licence.²

FSO currently provides sewerage services to residents of Box Hill North in the Hills Shire Council local government area (Box Hill North scheme), and recycles sewage to provide non-potable water for specific end-uses. Flow Systems holds the retail licence for these services.

FSO and Flow Systems have applied for licence variations for the Box Hill North scheme. The effect of this variation would allow FSO and Flow Systems to extend their supply of non-potable water to additional customers on the fringe of their current area of operations and add four new end-uses: car washing, general wash down, street cleaning and process water for use at the treatment plant.

The varied licences will provide FSO and Flow Systems with the ability to source additional customers, from existing premises, for excess non-potable water during times of over-supply. Management of over-supply is important to allow the scheme to expand beyond the current 3,300 equivalent tenements limit. The variation will not extend sewerage services to these additional customers.

In assessing FSO's application for a varied network operator licence (Network Operator Licence Application) and Flow Systems' application for a varied retail supplier licence (Retail Supplier Licence Application), we considered the licensing criteria set out in sections 10(3) and (4) of the *Water Industry Competition Act 2006* (WIC Act), and had regard to the licensing principles in section 7(1) of the WIC Act.

We recommend licence conditions for the Minister to consider when granting the varied licences in Chapters 4 and 5, and include a draft varied network operator licence and a draft varied retail supplier licence in **Appendix A** of this report.

¹ The Minister for Water, Property and Housing administers the *Water Industry Competition Act 2006* (NSW).

² Where this report refers to a *varied* licence, it is referring to a *new* licence granted by the Minister that replaces the previous licence.

2 Recommendations

We recommend that the Minister for Water, Property and Housing:

- 1 Grant a varied network operator licence to FSO (licence number 16_037) for the Box Hill North scheme, subject to the conditions as set out in the attached draft licence.
- 2 Grant a varied retail supplier licence to Flow Systems (licence 13_001R) for the Box Hill North scheme, subject to the conditions as set out in the attached draft licence.

The Minister must consider, but is not bound to accept, any advice or recommendation in this report in determining the licence applications. The Minister may, if circumstances so require, seek further advice from us on the licence applications.³

The Minister is required to provide us with a notice of the decision for each licence and the reasons for the decision when deciding whether or not to grant the licences.⁴ We then publish the notices on our website, as required by the WIC Act.⁵

2.1 The applicants and parent organisation

FSO has no employees and relies on the full support of Flow Systems to provide technical, financial and organisational capacity, under a Corporate Services Agreement. Flow Systems is the parent company of the Flow Systems group of companies. It has eight subsidiaries (including FSO) that hold ten network operator licences. The proposed network operator licence retains Flow Systems as an Authorised Person to construct, operate and maintain non-potable water infrastructure, consistent with the existing network operator licence.

Flow Systems' parent entity, Sustainable Communities Infrastructure Pty Ltd (SCI) is a special purpose vehicle with three shareholders, the New Zealand Superannuation Fund, the Commonwealth Superannuation Corporation (CSC) and MGIF SCIT PV Pty Ltd.

HRL Morrison & Co (Australia) Pty Ltd (Morrison & Co) manages SCI and the Sustainable Communities Infrastructure Trust (SCIT) on behalf of SCI's shareholders. Morrison & Co is an investment management fund, founded in 1988.

Flow Systems has adequate resources to support FSO to undertake the activities it seeks in the Network Operator Licence Application. Flow Systems also has the resources to undertake the activities it seeks in the Retail Supplier Licence Application without relying on third parties.

A diagram illustrating Flow Systems ownership structure and related licence holders is provided in **Appendix C**.

³ WIC Act, section 10(2).

⁴ WIC Act, section 10(5).

⁵ WIC Act, section 10(6).

2.2 The Box Hill North scheme

The Box Hill North scheme is servicing a community development in north-western Sydney in the Hills Shire Council local government area. The developer for this development was Celestino Developments Pty Ltd, who engaged FSO to provide non-potable water and sewerage services. Celestino Developments Pty Ltd has since sold the Box Hill North development land to Stockland Development Pty Ltd (the foundation developer).

FSO has constructed, and currently operates and maintains non-potable water and sewage reticulation infrastructure and a non-potable water treatment plant within its licensed area of operations. The current area of operations are the same for FSO's network operator licence and Flow Systems' retail supplier licence, and include lots owned by the foundation developer and other third party developers.

The Box Hill North scheme does not provide drinking water. Rather Sydney Water provides drinking water directly to the customers.

FSO is providing sewerage and non-potable water services in two phases at the Box Hill North scheme as described in Table 2.1.

Table 2.1 Sewerage and non-potable water servicing strategy

Phase	Capacity allocated to foundation developer	Capacity allocated to third party developers	Total capacity
Phase 1 (Current)	2500 ET	-	2500 ET
Phase 2 ^a (Future)	1800 ET	Up to 700 ET ^b	2500 ET
Phase 1 + Phase 2	4300 ET^c	Up to 700 ET	5000 ET

Note:

^a The timing of Phase 2 is dependent on when the foundation developer requires capacity above 2500 equivalent tenements (ET).

^b Flow Systems has stated that third party developer lots will be able to connect when capacity at the scheme is available.

^c The 4300 ET includes 4100 ET for the foundation developer's residential lots and 200 ET for ancillary facilities such as commercial development, schools and parks.

Source: Email from Flow Systems to IPART, 29 May 2020.

We understand that a third party developer is seeking access to services provided by FSO and Flow Systems in order to develop their land and provide additional housing within FSO's area of operations. FSO has advised that it will not have capacity to accept and treat additional sewage for third party developers until Phase 2 of the scheme is rolled out. The original application for WIC Act licences for this scheme anticipated Phase 2 would commence in 2024. The most recent information provided by FSO indicates that the first connections provided to third party developers is estimated for 2031.⁶

⁶ *Box Hill North Water Balance Report*, prepared by Kinesis for Flow Systems, 8 September 2020, Table 11, p 17.

2.3 Current licences

FSO holds a network operator licence (licence number 16_037) which authorises it to construct, operate and maintain non-potable water and sewerage infrastructure at the Box Hill North scheme with the support of Flow Systems.

The Minister administering the WIC Act granted FSO a network operator licence on 12 May 2016 and approved the commercial operation of sewerage services infrastructure on 23 May 2017. The Minister approved commercial operation of additional sewerage services infrastructure and non-potable water infrastructure on 27 November 2017.⁷

A condition of this licence is that FSO cannot construct non-potable water treatment infrastructure in excess of 3,300 equivalent tenements without written approval from the Minister.⁸ This condition was imposed to ensure that FSO could balance the amount of sewage accepted and treated at the plant with the demand for non-potable water at the scheme before further expansion occurs.

Flow Systems holds a corresponding retail supplier licence (licence number 13_001R) granted by the Minister administering the WIC Act on 17 April 2013. The retail supplier licence has been varied over time to authorise Flow Systems to provide (retail) services at various Flow Systems' schemes, including Box Hill North and eight other schemes.⁹

2.4 Scope of variation applications

FSO's varied network operator licence would authorise FSO to:

- ▼ Extend its area of operation to construct, operate and maintain non-potable water infrastructure to an additional section of road corridor on Janpieter Road.
- ▼ Provide non-potable water for four new end-uses: car washing, general wash down, street cleaning and process water at the non-potable water treatment plant.

Flow Systems' varied retail supplier licence would authorise Flow Systems to:

- ▼ Extend its area of operations for supply of non-potable water to include property lots immediately adjacent to the varied network operator's area of operations. These lots are not included in the network operator's licence as FSO considers that the expanded retail supplier area will be serviced by infrastructure at the boundary of the respective properties within the network operator's area of operations.
- ▼ Provide non-potable water for four new end-uses as per the network operator licence variation.

⁷ The then Minister for Energy and Utilities was the Minister administering the WIC Act when the network operator licence was granted.

⁸ Network operator licence 16_037, condition A8.

⁹ Pitt Town, Discovery Point, Wyee, North Cooranbong, Huntlee, Green Square, Glossodia, Box Hill North and Shepherds Bay.

The varied licences will provide FSO and Flow Systems with the ability to source additional customers for excess non-potable water during times of over-supply.

There are no proposed changes to the sewerage services in the current network operator licence and the retail supplier licence.

2.5 Environmental assessment

In determining whether to grant FSO a varied network operator licence for the Box Hill North scheme, the Minister is also a determining authority for the water industry infrastructure development under Part 5 of the EP&A Act.¹⁰

We have undertaken an environmental assessment for the non-potable water infrastructure to an additional section of road corridor on Janpieter Road, having had regard to the environmental considerations required by the WIC Act,¹¹ and the requirements of section 5.5 of the EP&A Act. We reviewed the environmental assessment¹² prepared by Flow Systems. The assessment concluded that the environmental impacts are within acceptable parameters, provided the mitigation measures outlined in the environmental assessment are effectively implemented.

¹⁰ *State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)* provides that infrastructure located in a prescribed zone which requires a licence under the WIC Act is development which may be carried out **without development consent**. As a result, such development requires environmental assessment under Part 5 of the *Environmental Planning and Assessment Act 1979*.

¹¹ WIC Act, sections 7(1)(a) and 10(4)(e); *Water Industry Competition Regulation 2008* (WIC Regulation), clause 7.

¹² Flow Systems Pty Ltd, *Box Hill - extension of recycled water reticulation, Environmental Impact Assessment Checklist*, 6 October 2020.

3 Consultation and Submissions

On 24 October 2019, we provided the Network Operator Licence Application and Retail Supplier Licence Application to, and invited submissions from, the following Ministers and their relevant departments:

- ▼ Minister administering the WIC Act and Chapter 2 of *Water Management Act 2000* (NSW) (Minister for Water, Property and Housing)
- ▼ Minister administering the *Public Health Act 2010* (NSW) (Minister for Health and Medical Research)
- ▼ Minister administering the *Protection of the Environment Operations Act 1997* (NSW) (POEO Act) (Minister for Energy and Environment)
- ▼ Minister administering the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act) (Minister for Planning and Public Spaces).¹³

At the same time, we also provided copies of the licence applications to Sydney Water, Fire and Rescue NSW (FRNSW) and The Hills Shire Council. The Hills Shire Council is the relevant consent authority under the EP&A Act and the appropriate regulatory authority under the POEO Act.

We notified Sydney Water of the licence application because FSO is using drinking water from Sydney Water to top-up its non-potable water, as part of the activities in relation to which it seeks variations to its network operator licence.

We also called for submissions on the application from the public.¹⁴ The closing date for submissions was 21 November 2019. FSO proposed further revisions to the application on 27 May 2020 and provided the environmental assessment report required for our assessment of the application on 6 October 2020.

¹³ WIC Act, section 9(1)(b) and *Water Industry Competition (General) Regulation 2008* (WIC Regulation), clause 17(1).

¹⁴ WIC Act, section 9(1)(c).

3.1 We considered all submissions

We received six submissions in total from The Hills Shire Council, the NSW Department of Planning, Industry and Environment (DPIE), NSW Environment Protection Authority (EPA), NSW Health, Sydney Water and an individual.^{15,16}

We considered all submissions against the relevant licensing principles and criteria as part of our assessment of the application. Where necessary, we sought more information from FSO to satisfy ourselves that issues raised in the submissions would be addressed.

A summary of all the submissions we received is presented in Appendix D.

Our recommended licence conditions are summarised in Chapters 4 and 5.

3.2 We requested information from Flow Systems after its sale

Subsequent to receiving the licence variation applications, the Flow Systems group was sold and now has new owners (i.e. New Zealand Superannuation, Commonwealth Superannuation Corporation, MGIF SCIT PV Pty Ltd). We have therefore assessed the technical, organisational and financial capacity of the applicants under the new ownership structure.

We sought further information to understand the impact of the sale on Flow Systems and FSO's capacity to undertake activities that the licences would authorise. The information that we sought included:

- ▼ Details of the sale, new ownership structure, changes to directors and management.
- ▼ Copies of agreements between the shareholders and the Flow Systems group, and relevant trust deeds and details of facilities or arrangements for funding.
- ▼ Financial information including budgeting and financial forecasts.

¹⁵ The submissions for the network operator variation are available on our website at: <https://www.ipart.nsw.gov.au/Flow Systems Operations/Box Hill North>, accessed on 20 November 2020.

¹⁶ The submissions for the retail supplier variation are available on our website at: <https://www.ipart.nsw.gov.au/Flow Systems Pty Ltd/Box Hill North>, accessed on 20 November 2020.

4 Assessment of application

The WIC Act sets out licensing principles which the Minister must have regard to in considering whether or not to grant a licence.¹⁷ The WIC Act also prohibits a licence from being granted to a disqualified corporation or related entity¹⁸ and requires the Minister to be satisfied that the applicant meets specific criteria set out in the WIC Act or the regulations in order to grant a licence.¹⁹ The Minister can consider other relevant matters, having regard to the public interest.²⁰

This section of our report contains our assessment of the Network Operator Licence Application and the Retail Supplier Licence Application against:

- ▼ The eligibility of the applicant (Section 4.1)
- ▼ The licensing principles (Section 4.2)
- ▼ The licensing criteria (Section 4.3).

This section also includes reasons for our recommendations. In addition to our assessment, we have updated the licence format and Schedule B of the network operator licence, the standard Ministerially-imposed licence conditions, which are applicable to all network operators. In this report we have only discussed substantial changes to licence conditions. We have not discussed minor changes, such as editorial or numbering changes.

4.1 The applicants are eligible for a licence

We consider that FSO and Flow Systems are not disqualified corporations or corporations that are a related entity of a relevant disqualified corporation²¹

We relied on the following information:

- ▼ We undertook ASIC checks and determined that the following are not disqualified individuals or corporations:
 - CEO and CFO of the applicants, and
 - Directors and company secretary of the applicants, and related parent entities (ie, SCIT).²²
- ▼ Information provided by FSO and Flow Systems regarding details of the:

¹⁷ WIC Act, section 7.

¹⁸ WIC Act, section 10(3).

¹⁹ WIC Act, section 10(4)(a)-(e).

²⁰ WIC Act, section 10(4)(f).

²¹ A related entity that would have a direct or indirect interest in, or influence on, the carrying out of the activities that the licence authorises: WIC Act, section 10(3)(b).

²² We completed the relevant searches on 10 & 27 November 2020.

-
- Relevant related parent entities²³
 - Names of the Directors and company secretary for each of Flow Systems and FSO's relevant related entities (subsidiary companies and holding companies within Australia).

4.2 The applications are consistent with the licensing principles

In considering whether or not to recommend that the Minister grants the varied licences, and the conditions to which these licences should be subject (if granted), we had regard to the licensing principles set out in the WIC Act.

Box 4.1 Licensing principles under section 7(1) of the WIC Act

In considering whether or not a licence is to be granted under this Part and what conditions are to be imposed on such a licence, regard is to be had to the following principles:

- a) the protection of public health, the environment, public safety and consumers generally,
- b) the encouragement of competition in the supply of water and the provision of sewerage services,
- c) the ensuring of sustainability of water resources,
- d) the promotion of production and use of recycled water,
- e) the promotion of policies set out in any prescribed water policy document,
- f) the potential for adverse financial implications for small retail customers generally arising from the activities proposed to be covered by the licence,
- g) the promotion of the equitable sharing among participants in the drinking water market of the costs of water industry infrastructure that significantly contributes to water security.

4.2.1 The Network Operator Licence Application is consistent with licensing principles

We consider that the application for the proposed new activities, to construct, maintain and operate non-potable water industry infrastructure in the expanded area of operations and to add four new end-uses, is consistent with each of the licensing principles set out in section 7 of the WIC Act.

We analysed the information in the Network Operator Licence Application, and considered our assessment undertaken for the original network operator licence application in 2016. We conclude that there have not been any material changes to how licensing principles (b) and (d)-(g) apply. The analysis contained in the report provided to the Minister in 2016, in which we recommended that FSO be granted a network operator licence, continues to apply.²⁴

Our analysis of the new activities against licensing principle (a) and (c) is set out below.

²³ Flow Systems identified Sustainable Communities Infrastructure Pty Limited as trustee for the Sustainable Communities Infrastructure Trust (ACN 633 957 918) as a relevant related entity.

²⁴ IPART, [Assessment of Flow Systems Operations Pty Ltd's network operator's licence application, Report to the Minister](#), April 2016.

Protection of public health, the environment, public safety and consumers generally (licensing principle (a))

We had regard to FSO's capacity to undertake the proposed new activities in a manner that does not present a risk to public health, the environment, public safety and consumers generally.

Protection of public health

We assessed FSO's capacity to manage the key risks posed to public health by the new activities to be licensed, having regard to the protection of public health in Section 4.3 of this report.

Protection of the environment

In Chapter 5 of this report we assess whether FSO has met the requirements for environmental assessment under Part 5 of the EP&A Act in relation to the proposed activities.

We considered FSO's history of compliance with its legislative obligations to protect the environment. In its submission on the Network Operator Licence Application, DPIE stated that it found no record of enforcement action undertaken or carried out against FSO or Flow Systems under the EP&A Act.²⁵ Similarly, the EPA stated that it was not aware of any breaches of the POEO Act by these entities and it had not taken any actions against them.²⁶

We recommend that FSO should be subject to the following amended special (Schedule A) licence conditions (see draft licence in Appendix A), on its capacity to protect the environment.²⁷

Table 4.1 Recommended licence conditions for protection of the environment

Clause number	Condition
Schedule A, clause 2.1	Where the Licensee carries out any activities authorised by this Licence, the Licensee must: <ul style="list-style-type: none">a) implement environmental risk mitigation measures substantially consistent with the environmental risk mitigation measures identified in the Environmental Impact Assessments; andb) specify, in any Plan or combination of Plans, how the Licensee will implement environmental risk mitigation measures substantially consistent with the environmental risk mitigation measures identified in the Environmental Impact Assessments.
Schedule A, clause 2.2	If the Licensee proposes to vary its environmental mitigation measures referred to in Schedule A clause 2.1(a), it must first notify IPART in accordance with the Reporting Manual. The Licensee must not vary its environmental mitigation measures without the prior written approval of IPART.
Schedule A, clause 3.1	The Licensee must ensure that the construction of any Specified Water Industry Infrastructure is carried out in accordance with the Approved Construction Environmental Management Plan.

Note: Schedule A of the draft licence contains special Ministerially-imposed licence conditions.

²⁵ Submission from DPIE, 22 November 2019.

²⁶ Submission from the EPA, 21 November 2019.

²⁷ These amended special licence conditions replace existing licence condition A2, A3 and A6.

Protection of public safety

We assessed FSO's capacity to manage key risks with regard to public health specifically and public safety in general in section 4.3 of this report.

Protection of consumers generally

We considered whether any consumers would be disadvantaged as a result of a decision by the Minister to grant FSO a varied licence.

We also assessed the financial capacity of the applicant and the viability of the scheme (as varied) over the next 10 years. We consider consumers will remain protected against loss of essential services (see section 4.3).

If the Minister grants the varied network operator licence, we consider that consumers generally will continue to be protected in relation to the activities licensed.

Ensuring the sustainability of water resources (licensing principle (c))

We had regard to FSO's ability to reduce demand on Sydney Water's drinking water and sewerage networks by sourcing sewage from the Box Hill North scheme to produce non-potable water to replace drinking water.

We also had regard to the average volume of drinking water top-up proposed to maintain the reliable supply of non-potable water during warmer months. See our discussion under licensing criterion (f) in Section 4.3.1.

4.2.2 The Retail Supplier Licence Application is consistent with the licensing principles

We consider that the proposed extension of Flow Systems' area of operation to include new customers for the retail supply of non-potable water and for four end-uses is consistent with each of the licensing principles set out in the WIC Act.

We analysed the information in the Retail Supplier Licence Application, and considered our assessment undertaken for the original retail supplier licence application in 2016. We consider that there have not been any material changes to how licensing principles (a)-(g) apply, and that our the analysis contained in the report provided to the Minister in 2016, in which we recommended that Flow Systems be granted a retail supplier licence for the Box Hill North scheme, continues to apply.²⁸

4.3 The applicants would continue to meet the licensing criteria

In making our recommendation that the Minister grant the varied licences, and the conditions to which these licences should be subject (if granted), we considered the licensing criteria set out in the WIC Act.

²⁸ IPART, *Assessment of Flow Systems Pty Ltd's application to vary its retail supplier's licence no. 13_001R, Report to the Minister*, April 2016.

Box 4.2 Licensing criteria under section 10(4) of the WIC Act

A licence may not be granted unless the Minister is satisfied as to each of the following:

- a) that the applicant has, and will continue to have, the capacity (including technical, financial and organisational capacity) to carry out the activities that the licence (if granted) would authorise,
- b) that the applicant has the capacity to carry out those activities in a manner that does not present a risk to public health,
- c) that the applicant has made, and will continue to maintain, appropriate arrangements with respect to insurance,
- d) in the case of an application for a licence to supply water, that, if such a licence is granted, sufficient quantities of the water supplied by the licensee will have been obtained otherwise than from a public water utility,
- e) such matters as are prescribed by the regulations,
- f) such other matters as the Minister considers relevant, having regard to the public interest.

4.3.1 FSO meets the licensing criteria for a network operator licence

We consider that the proposed extension of the scheme to provide non-potable water services, and the addition of four new end-uses for non-potable water, satisfies the licensing criteria set out in the WIC Act.

Our analysis of the new activities against licensing criteria (a), (b), (c) and (f) is set out below. We consider that licensing criteria (d) relates to the supply of water which is an activity authorised under a retail supplier licence and we have not considered it in the context of the current Network Operator Licence Application.

For licensing criterion (e), we analysed the information in the Network Operator Licence Application, and considered our assessment undertaken for the original network operator licence application in 2016. We conclude that there have not been any material changes to our assessment on how licensing criterion (e) applies.

Technical capacity (licensing criterion (a))

We are satisfied that FSO has the technical capacity to undertake the proposed new activities.

FSO relies on the full support of Flow Systems staff and its systems for its technical capacity. Flow Systems provides technical services to FSO under a Corporate Services Agreement²⁹ between the parties. Therefore, we consider that Flow Systems' expertise is critical to FSO's technical capacity. Where necessary we have considered information and evidence relevant to both Flow Systems and FSO for the purpose of establishing FSO's capacity. We note that Flow Systems will remain as an Authorised Person on the varied licence.

²⁹ Executed as an agreement on 17 June 2016.

Evidence of technical capacity

FSO demonstrated its technical capacity by providing plans (including a recycled water quality plan) and documents³⁰ developed by Flow Systems for the Box Hill North scheme which show an understanding of design, operation and maintenance of non-potable water infrastructure.

We also considered FSO's relevant experience and compliance history to inform our assessment of technical capacity and provide detail in the sections below. We have included more detail of FSO's technical capacity assessment in Appendix B.

Relevant experience

FSO, supported by Flow Systems, operates infrastructure at the scheme under its network operator licence. Flow Systems will continue to provide sufficient technical capacity to FSO to operate under a varied licence. We assessed position descriptions and professional experience of specific personnel nominated in the application. We consider that the expertise required by FSO/Flow Systems' personnel under a varied licence is not different to the expertise required under its current licence.

Compliance history

FSO has demonstrated its capacity to construct, operate and maintain non-potable water industry infrastructure at the scheme since it was licensed in 2016.

An operational audit conducted in 2020 for the Box Hill Scheme identified two non-material non-compliances on full implementation of management plans.³¹ Separately, FSO was found non-compliant (material) due to an incident on implementation of its management plan.³² While the non-compliances indicate that improvement is required, they did not result in a failure of treatment processes or adversely impact public health and safety.

We have also considered similar non-compliances identified for other Flow Systems subsidiary licensees as relevant to Flow Systems' ability to provide technical capacity to FSO. IPART has investigated these non-compliances and continues to monitor follow-up action required by Flow Systems and the relevant subsidiary licensees to address outstanding issues.

We consider that the ongoing operation of the scheme demonstrates FSO's capacity to safely and reliably design, construct, operate and maintain water industry infrastructure, when supported by the additional licence conditions. We have recommended three additional licence conditions to mitigate the risk of similar non-compliances on the implementation of licence plans. We will continue to monitor ongoing compliance, including undertaking further audits. The proposed new licence conditions are summarised in Table 4.1.

³⁰ Notwithstanding a broader review of Flow Systems' licence plans in progress, FSO's recycled water quality plan is structured in line with the *Australian Guidelines for Water Recycling* (AGWR).

³¹ *Operational Audit Report – Box Hill Operational Audit*, prepared by Viridis Consultants for Flow Systems Pty Ltd, August 2020.

³² [Enforcement Action Notice 07/2020](#), 5 June 2020.

Table 4.2 Recommended new licence conditions for technical capacity

Clause number	Condition
Schedule A, clause 5.1	The Licensee must ensure that its Water Quality Plan is a single, cohesive and structured scheme-specific document which specifies the actions the licensee must take to implement the 12 elements of the framework for recycled water quality management and use set out in the <i>Australian Guidelines for Water Recycling</i> .
Schedule A, clause 6.1	The Licensee must develop and document, consistent with element 4 of the <i>Australian Guidelines for Water Recycling</i> , the following Operational Procedures: <ul style="list-style-type: none">a) Monitoring protocols for operational performance of the recycled water supply system, including the selection of operational parameters and criteria, and the routine analysis of results;b) Procedures for corrective action where operational parameters are not met;c) Procedures for rapid communication systems to deal with unexpected events; andd) Programs for regular inspection and maintenance of all equipment, including monitoring equipment.
Schedule A, clause 6.2	The Licensee must: <ul style="list-style-type: none">a) fully implement the Operational Procedures;b) ensure that all of its activities are carried out in accordance with the Operational Procedures; andc) keep records to demonstrate the extent to which the Operational Procedures have been implemented and complied with.

Note: Schedule A of the draft licence contains special Ministerially-imposed licence conditions.

Financial capacity (licensing criterion (a))

We are satisfied that FSO has the financial capacity to undertake the proposed new activities.

FSO currently relies on the support of Flow Systems for financial capacity as it does not have financial capacity as a stand-alone entity. In November 2019, the sale of the Flow Systems group to a consortium of investors (Shareholders), was completed.

We therefore re-assessed the financial capacity of the applicants under the new ownership structure and have concluded that the sale has not materially impacted FSO or Flow Systems' financial capacity.

With support from the Shareholders, FSO and Flow Systems have adequate levels of solvency and liquidity to undertake licensed activities under the network operator licence.

We have included more detail of Flow Systems' financial capacity assessment in Appendix B.

We note that our financial assessment represents financial capacity at a point in time. Our recommendation to grant FSO a varied licence should not be viewed as an endorsement of its future, ongoing viability of FSO or Flow Systems. The assessment is based on a combination of information sources, none of which is to be regarded as individually determinative. We undertake this assessment for our own purposes and for the Minister's purposes in making a determination on the application. Our conclusion is not to be relied upon for any other purpose or by any other person.

We do not recommend additional licence conditions on financial capacity, should the Minister grant FSO a varied licence. We consider that the existing condition in Schedule B, clause 1.1 adequately manages any risk on financial capacity.

Organisational capacity (licensing criterion (a))

We are satisfied that FSO has the organisational capacity to undertake the proposed new activities

We note that FSO has no employees and relies on the full support of Flow Systems to provide it with organisational capacity.

Flow Systems underwent a period of administration and a subsequent sale during the assessment of this application. We consider that despite the associated changes to the organisational structure, FSO and Flow Systems' organisational capacity remains largely unchanged.

We received no submissions on FSO's organisational capacity.

Our detailed assessment of FSO's organisational capacity is in Appendix B.

We consider that the existing condition in Schedule B, clause 1.1 adequately manages any risk on organisational capacity.

Capacity to carry out those activities in a manner that does not present a risk to public health (licensing criterion (b))

We are satisfied that FSO has the capacity to undertake the proposed new activities in a manner that does not present a risk to public health.

We assessed FSO's capacity to manage key risks to public health posed by the:

- ▼ Construction, operation and maintenance of approximately 250m of additional non-potable water infrastructure (reticulation) under a section of the Janpieter Road to connect to the rest of the licensed scheme.
- ▼ Use of non-potable water for four new end-uses at the scheme: general wash-down, street cleaning, dust suppression and process water at the non-potable water treatment plant.

We considered a range of information and evidence to establish that FSO has capacity. Our detailed assessment is in Appendix B.

NSW Health raised concerns regarding FSO's application

We received a submission from NSW Health regarding FSO's capacity to protect public health. The submission is available on our website and discussed in the summary of submissions in Appendix D. NSW Health advised that a detailed risk assessment with relevant stakeholders is required to ensure that the treatment is appropriate for all intended end-uses and the public health risks are managed.³³

Under clause B4.1 of the current network operator licence, FSO must carry out the activities in compliance with any requirements of NSW Health that IPART has agreed to and notified in writing. One such requirement is a requirement to "consult with NSW Health during the detailed risk assessments for drinking and recycled water".³⁴ Flow Systems has advised that it is consulting with NSW Health to address concerns with the risk assessment.³⁵

FSO must update its water quality plan to address the risks associated with the new proposed end-uses prior to supplying non-potable water for those purposes. This will include finalising the detailed risk assessment and identifying appropriate controls. This significant change to the water quality plan will require an audit to assess the adequacy of the revised plan under Schedule 1, clause 7(5)(a) of the *Water Industry Competition (General) Regulation (NSW) 2008* (WIC Regulation).

We are able to direct FSO and other licensees to undertake further consultation with NSW Health regarding FSO's risk assessment.³⁶ We will continue to work with NSW Health to address this issue as required.

We consider that FSO has the capacity to continue to protect public health under a varied licence when supported by a combination of the regulatory measures outlined above and additional licence conditions. We recommend that FSO should also be subject to the standard licence conditions in Schedule B of the licence (refer to Attachment A for the proposed licence) on its capacity to protect public health, if the Minister grants a varied licence.

We have restricted one of the proposed new end-uses for non-potable water

We consider that the risk mitigation measures that FSO has proposed in its risk register, are adequate to demonstrate FSO's technical capacity to undertake the current and proposed end-uses. However, this is not an endorsement of FSO's current risk register by IPART, which should be further developed with NSW Health prior to supplying non-potable water for the new end-uses.

³³ Submission from NSW Health, 21 November 2019.

³⁴ Letter to Flow Systems Operations Pty Ltd from IPART, Notification of NSW Health Requirements under Licence Clause B4, 7 December 2017

³⁵ IPART and Flow Systems monthly compliance meeting minutes, April to August 2020.

³⁶ This arrangement is set out in condition B4.1 of the current network operator licence.

The existing licence authorises FSO to supply non-potable water for “water features” generally. We consider that it is appropriate to limit this end-use to “ornamental water features” only, consistent with our recommendation for other network operator licence applications for Flow Systems’ schemes. We consider that the public health risks posed by authorising the use of non-potable water in water features is high. This is because water features can include splash park type features or shallow pools with which children or adults may interact resulting in a high likelihood of ingesting non-potable water.

Therefore, we propose to limit this end-use by defining it in the network operator licence as follows:

Ornamental Water Features means water features that:

- (a) are provided primarily for aesthetic or beautification purposes, and
- (b) do not, by their design or accessibility, encourage interaction with the water.³⁷

Appropriate arrangements with respect to insurance (licensing criterion (c))

We are satisfied that FSO has made, and will continue to maintain, appropriate insurance arrangements for the Box Hill North scheme.

We requested advice from Insurance and Care NSW (icare) on the adequacy of FSO’s insurance arrangements. As a result of its review, icare concluded that FSO’s insurance arrangements are sufficient for the existing and proposed activities under the Network Operator Licence Application.³⁸ Based on the advice from icare, we consider that FSO has demonstrated that it has made, and will continue to maintain, appropriate insurance arrangements for the scheme.

Further details of our assessment of FSO’s insurance arrangements are in Appendix B.

We received no submissions regarding FSO’s insurance arrangements.

We recommend no additional licence conditions on insurance, should the Minister grant FSO a varied licence. We consider that the standard conditions in Schedule B of the licence (refer to Attachment A for the proposed licence), clause 2 adequately manage insurance risks related to the Box Hill North scheme.

Matters of public interest (licensing criterion (f))

Despite the probability that in some years the scheme may require greater potable water top-up than is expected, we consider that the scheme is beneficial as it provides non-potable water, ultimately reducing the total potable water demand.

In its submission, Sydney Water stated that demand in extended dry periods typically exceeds the available supply requiring significant volumes of drinking water top-up (from Sydney Water). In light of this risk, we had regard to the availability of source sewage and non-potable water produced at the scheme, particularly given the recent drought and the probability of recurrence of such events in the future.

³⁷ In Schedule C Definitions of the proposed network operator licence in Attachment A.

³⁸ Emails to IPART from icare, 2 August 2019, 5 November 2019 and 10 February 2020.

The FSO water balance report³⁹ demonstrated that, with the inclusion of drinking water top-up and adequate storage, the scheme will meet current and future expected average non-potable water demand. Once the area is fully developed, the scheme runs the risk of running out of non-potable water during peak demand weeks (expected in dry summer months). FSO and Flow Systems propose to mitigate this risk through:

- ▼ Drinking water top-up supply from Sydney Water at the treatment plant
- ▼ 7.5 ML non-potable water storage capacity at the treatment plant
- ▼ A non-potable water servicing strategy where Tier 3 non-residential irrigation customers in the fringe area will be subject to water restrictions to reduce usage by approximately 15% during high demand periods (peak summer months). This is to ensure that Tier 1 residential and commercial customers and Tier 2 selected non-residential open space irrigation and on lot irrigation customers, do not face a shortage of non-potable water supply.

The non-potable water supply to third party developer lots are not proposed to be affected by water restrictions. Third party developer lots will be treated the same as Tier 1 and Tier 2 customers and will not be subject to water restrictions.

The water balance report demonstrates that adopting the above risk mitigation measures should ensure adequate non-potable water supply for residential and commercial customers during peak demand periods. Additionally, the WIC Regulation requires Flow Systems to not over-commit and must not enter into supply arrangements that it is not able to meet.⁴⁰

Flow Systems proposes to manage the different level of service received by Tier 3 customers through non-standard customer contracts, or other specific agreements, that will include conditions for the above strategy.⁴¹ Flow Systems proposes to offer low cost non-potable water with a clear understanding that water may not be available in times of drought.

We are not recommending any additional licence conditions on matters of non-potable water demand risk, should the Minister grant FSO a varied licence. We consider that the requirements under Schedule 2 of the WIC Regulation adequately manage this risk for the Box Hill North scheme.

We received submissions from The Hills Shire Council and an individual (a third party landholder) that FSO should provide services to all development in the area of operations including third party developer dwellings. The water balance report shows that FSO intends to offer services to all development in the area of operations, including 700 third party developer dwellings. The servicing of third party developer dwellings is forecasted to commence at a staggered rate from 2031. The timing will depend on:

- ▼ The foundation developer initiating the next phase of the scheme, and
- ▼ Sewage treatment capacity for third party developers being available at the next stage of the development once the foundation developer has used up its capacity.⁴²

³⁹ *Box Hill North Water Balance Report*, prepared by Kinesis for Flow Systems, 8 September 2020.

⁴⁰ *Water Industry Competition (General) Regulation 2008*, Schedule 2, clause 10.

⁴¹ Email from Flow Systems to IPART, *Box Hill Scheme Risk Register*, revision 3.3, 21 October 2020, see risk ID RD1.9a and RD1.9b.

⁴² FSO is contractually obligated to provide capacity for up to 4100 ET and ancillary facilities to the foundation developer, who has funded the water industry infrastructure.

FSO's current network operator licence contains a condition⁴³ that limits the non-potable water treatment infrastructure to 3,300 equivalent tenements until FSO demonstrates it has a viable method of disposing excess non-potable water. The varied licence (if granted) would enable FSO to manage any excess non-potable water produced. The varied licence could assist in removing the cap imposed by the current licence and allow for the scheme to expand in the future.

4.3.2 Flow Systems meets the licensing criteria for a retail supplier licence

We consider that the proposed extension of Flow Systems' area of operation to include additional customers for the supply of non-potable water services satisfies each of the licensing criteria set out in the WIC Act. We analysed the information in the Retail Supplier Licence Application, and considered our assessment undertaken for the Box Hill North retail licence variation in 2016. We conclude that there have not been any material changes to our assessment on licensing criteria (e) and (f), and that our the analysis contained in the report provided to the Minister in 2016, in which we recommended that Flow Systems be granted a retail supplier licence variation, continue to apply.⁴⁴

We have undertaken further analysis of the Retail Supplier Licence Application in relation to licensing criteria (a) - (d) as described below.

Technical capacity (licensing criterion (a))

We are satisfied that Flow Systems has the technical capacity to undertake the proposed new activities.

With the exception of Tier 3 non-residential customers (as described in Section 4.3.1 *Matters of public interest (licensing criterion (f))* above). Flow Systems proposes to use the same systems, procedures and resources to supply its intended small retail customers for the varied licence, as it uses to supply the existing small customers at Box Hill North.⁴⁵

Appendix B discusses in detail our consideration of Flow Systems proposed management of Tier 3 customers.

Flow Systems has demonstrated its technical capacity as a retail supplier of sewerage and non-potable water services through the provision of plans, codes of practice and policies that show its understanding of retail supply of non-potable water and sewerage services to customers.

We have included more detail of Flow Systems' technical capacity assessment in Appendix B.

We receive no submissions on Flow Systems' technical capacity.

⁴³ Network Operator licence No 16_037, condition A8.

⁴⁴ IPART, *Assessment of Flow Systems Pty Ltd's application to vary its retail supplier's licence no. 13_001R, Report to the Minister*, April 2016.

⁴⁵ The Retail Supply Management Plan, codes and compliance procedures are standard documents that apply across all of Flow Systems' schemes.

We recommend no additional licence conditions related to Flow Systems' technical capacity, should the Minister grant Flow Systems the variation to its licence. We consider that the existing condition in Schedule B, clause 1.1 adequately manages risks related to technical capacity.

Financial and organisational capacity (licensing criterion (a))

We are satisfied that Flow Systems has the financial and organisational capacity to undertake the proposed new activities.

With support from the Shareholders, Flow Systems has adequate levels of solvency and liquidity to undertake licensed activities under the retail supplier licence.

We note that our financial assessment represents financial capacity at a point in time. Our recommendation to grant Flow Systems a varied licence should not be viewed as an endorsement of its future, ongoing viability of Flow Systems. The assessment is based on a combination of information sources, none of which is to be regarded as individually determinative. We undertake this assessment for our own purposes and for the Minister's purposes in making a determination on the application. Our conclusion is not to be relied upon for any other purpose or by any other person.

We received no submissions regarding Flow Systems' financial or organisational capacity.

We recommend no additional licence conditions related to financial and organisation capacity, should the Minister grant Flow Systems a varied licence. We consider that the existing condition in Schedule B, clause 1.1 adequately manages risks related to financial and organisational capacity.

Our detailed assessment of Flow Systems' financial and organisational capacity is in Appendix B.

Capacity to carry out those activities in a manner that does not present a risk to public health (licensing criterion (b))

We are satisfied that Flow Systems has the capacity to undertake the proposed new activities in a manner that does not present a risk to public health.

As Flow Systems will retail non-potable water produced by FSO at the Box Hill North non-potable water treatment plant, we consider the management of public health risks by FSO as outlined in Section 4.3.1 to be relevant.

Our detailed assessment of Flow Systems' capacity to undertake licensed retail activities in a manner that does not pose a risk to public health is in Appendix B.

NSW Health commented on Flow Systems' application

NSW Health recommended that Flow Systems' customers and other end-users of non-potable water are made aware of, and agree to, any requirements to manage risks with their use of non-potable water.⁴⁶ Under Schedule 2, clause 9 of the WIC Regulation, Flow Systems must inform customers of the authorised purposes of non-potable water and must not supply non-potable water for any other purpose. In addition, Flow Systems' water quality plans will be required to identify controls to manage the risk to end-users and audits will assess the adequacy and implementation of the controls.

We recommend no additional licence conditions for this criterion, should the Minister grant Flow Systems the varied retail supplier licence. We consider that the existing condition in Schedule B, clause 4.1⁴⁷ adequately manages risks on public health.

Appropriate arrangements with respect to insurance (licensing criterion (c))

We are satisfied that Flow Systems has made, and will continue to maintain, appropriate insurance arrangements for the scheme.

We have previously assessed Flow Systems' insurance as adequate for the retail supply activities undertaken under the retail supplier licence, which covers a number of schemes including the Box Hill North scheme.⁴⁸ The insurance arrangements set out in the Retail Supplier Licence Application have not materially changed from Flow Systems' existing insurance arrangements. Further details of our assessment of Flow Systems' insurance arrangements are in Appendix B.

We consider that Flow Systems' insurance arrangements on the activities undertaken under the retail supplier licence are sufficient to cover the additional non-potable water customers and new end-uses in the Box Hill North scheme.

Sufficient quantities of water (licencing criterion (d))

We are satisfied that if the licence variation is granted, sufficient quantities of water supplied by Flow Systems will have been obtained otherwise than from a public water utility.

We have had regard to this criterion in assessing the Retail Supplier Licence Application in light of the recent drought.

We consider that by supplying an alternate source of water that reduces the drinking water demand from Sydney Water, Flow Systems satisfies this licence criterion.

We did not receive any submissions on this matter.

We recommend no new licence conditions for this criterion, should the Minister grant Flow Systems a varied licence.

⁴⁶ Submission from NSW Health, 21 November 2019.

⁴⁷ Schedule B, clause 3.1 of the proposed varied retailer supplier licence.

⁴⁸ IPART, *Assessment of Flow Systems Pty Ltd's retail supplier's licence no. 13_001R, Report to the Minister*, April 2016.



5 Environmental assessment of the proposed non-potable water pipeline

5.1 Part 5 of the EP&A Act

In addition to a licence application assessment, the proposed activities under the Network Operator Licence Application require a Part 5 infrastructure and environmental impact assessment to be undertaken. We have examined and taken into account to the fullest extent possible all matters affecting or likely to affect the environment should the Minister vary the network operator licence for the proposed activities for the Box Hill North scheme.

5.2 Environmental assessment

Under a varied licence, FSO would construct additional infrastructure to supply non-potable water to new customers. We received an Environmental Impact Assessment (EIA) Checklist⁴⁹ provided with the application to demonstrate that FSO has addressed to the fullest extent possible all matters under Part 5 Division 5.1 of the EP&A Act affecting or likely to affect the environment associated with the variation application.

The EIA Checklist concluded that the proposed activities, in conjunction with the proposed mitigation measures, are not likely to significantly affect the environment.

We reviewed the EIA Checklist and concluded that:

- ▼ The EIA Checklist meets the requirements for determination under the EP&A Act and has taken into account to the fullest extent possible all matters affecting or likely to affect the environment associated with the proposed activities.
- ▼ The proposed activities are not likely to significantly affect the environment or any protected biodiversity.
- ▼ The EIA Checklist provides a range of mitigation measures to be implemented during construction that would adequately mitigate any environmental risks.
- ▼ Appropriately qualified and experienced personnel prepared the EIA Checklist.
- ▼ With regard to protection of the environment, we are satisfied that the proposed activities can be carried out with acceptable risk to the environment, provided the protection and mitigation measures specified in the EIA Checklist are implemented.

We include our EIA Checklist assessment report in Appendix E.

We recommend amending existing licence conditions to ensure mitigation measures identified in the EIA Checklist are incorporated in the construction and operation of the water industry infrastructure licensed at Box Hill North.

The proposed amended licence conditions are summarised in Table 4.1.

⁴⁹ Flow Systems Pty Ltd, *Box Hill - extension of recycled water reticulation, Environmental Impact Assessment Checklist*, 6 October 2020.



Appendix

A Draft network operator licence and retail supplier licence



NEW SOUTH WALES GOVERNMENT

Water Industry Competition Act 2006 (NSW)

Network operator's licence

Licence no. 16_037

Flow Systems Operations Pty Ltd

(ACN 603 106 305)

PRELIMINARY

1. Summary

- 1.1. This Licence is granted under section 10(1) of the Act.
- 1.2. The Act prohibits a person from constructing, maintaining or operating any water industry infrastructure otherwise than under the authority of a licence. This Licence authorises the Licensee and other Authorised Persons to carry out such activities that would otherwise be prohibited under the Act.

2. Outline

- 2.1. This Licence is divided into the following sections and schedules:

Section 1 authorises the construction, maintenance and operation of water infrastructure for non-potable water (if applicable).

Section 2 authorises the construction, maintenance and operation of water infrastructure for drinking water (if applicable).

Section 3 authorises the construction, maintenance and operation of sewerage infrastructure (if applicable).

Schedule A sets out special Ministerially-imposed licence conditions that are specific to this Licence.

Schedule B sets out Ministerially-imposed licence conditions that generally apply to network operator's licences granted under the Act.

Schedule C sets out definitions and interpretation provisions.

Schedule D sets out the area of operations for the activities authorised under Section 1.

Schedule E sets out the area of operations for the activities authorised under Section 3.

Schedule F provides indicative maps for reference only.

- 2.2. In addition to the conditions in Schedules A and B to this Licence, the Act and Regulation also contain conditions that apply to this Licence. Nothing in Schedules A or B modifies or affects the conditions imposed on this Licence by the Act or Regulation.
- 2.3. Where there is an inconsistency between Schedule F on the one hand and any of Schedules D and E on the other hand, Schedules D and E are to prevail over Schedule F to the extent of the inconsistency.

SECTION 1 – ACTIVITIES AUTHORISED: NON-POTABLE WATER

Subject to the conditions imposed by the Act, the Regulation and Schedules A and B of this Licence, this Licence authorises the Licensee and any Authorised Persons specified in Table 1.1 to construct, maintain and operate the water industry infrastructure which is specified in Table 1.2, and is substantially consistent with water industry infrastructure described in the Water Centre REF, the Systems REF or the Extension of Reticulation EIA Checklist, as applicable:

- a) for one or more of the purposes for water industry infrastructure specified in Table 1.2; and
- b) within the area of operations specified in Table 1.3.

The non-potable water supplied by means of the water industry infrastructure specified in Table 1.2 may only be used for the authorised purposes for non-potable water specified in Table 1.4.

Table 1.1 Authorised Persons

Flow Systems Pty Ltd (ACN 136 272 298)
--

Table 1.2 Water industry infrastructure and purposes for water industry infrastructure

- | |
|--|
| <ol style="list-style-type: none">1) A treatment plant for non-potable water and other water infrastructure 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 purposes for water industry infrastructure:<ol style="list-style-type: none">a) production of non-potable water;b) treatment of non-potable water;c) filtration of non-potable water;d) storage of non-potable water; ande) conveyance of non-potable water.2) A reticulation network for non-potable water and other water infrastructure used, or to be used, in connection with the reticulation network, where components of the reticulation network or other water infrastructure may be used for one or more of the following purposes for water industry infrastructure:<ol style="list-style-type: none">a) production of non-potable water;b) treatment of non-potable water;c) filtration of non-potable water;d) storage of non-potable water; ande) conveyance of non-potable water. |
|--|

Table 1.3 Area of operations

- | |
|---|
| <ol style="list-style-type: none">1) For the water industry infrastructure described in Table 1.2(1), refer to Schedule D, Table D.12) For the water industry infrastructure described in Table 1.2(2), refer to Schedule D, Table D.2 |
|---|

Table 1.4 Authorised purposes for non-potable water

- | |
|--|
| <ol style="list-style-type: none">1) Car washing2) Dust suppression3) General wash down4) Irrigation5) Ornamental Water Features6) Process water at the non-potable water treatment plant7) Street cleaning8) Supply of cold water to washing machine, and9) Toilet flushing |
|--|

SECTION 2 – ACTIVITIES AUTHORISED: DRINKING WATER

[Not applicable]

Table 2.1 Authorised Persons

[Not applicable]

Table 2.2 Water industry infrastructure and purposes for water industry infrastructure

[Not applicable]

Table 2.3 Area of operations

[Not applicable]

SECTION 3 – ACTIVITIES AUTHORISED: SEWERAGE SERVICES

Subject to the conditions imposed by the Act, the Regulation and Schedules A and B of this Licence, this Licence authorises the Licensee and any Authorised Persons specified in Table 3.1 to construct, maintain and operate the water industry infrastructure which is specified in Table 3.2, and is substantially consistent with water industry infrastructure described in the Water Centre REF or the Systems REF, as applicable:

- a) for one or more of the purposes for water industry infrastructure specified in Table 3.2; and
- b) within the area of operations specified in Table 3.3.

Table 3.1 Authorised Persons

Flow Systems Pty Ltd (ACN 136 272 298)
--

Table 3.2 Water industry infrastructure and purposes for water industry infrastructure

- | |
|--|
| <ol style="list-style-type: none">1) A treatment plant for sewage and other sewerage infrastructure used, or to be used, in connection with the treatment plant, where components of the treatment plant or other sewerage infrastructure may be used for one or more of the following purposes for water industry infrastructure:<ol style="list-style-type: none">a) production of treated non-potable water from sewage;b) treatment of sewage;c) filtration of sewaged) storage of sewage; ande) conveyance of sewage.
2) A reticulation network for sewage and other sewerage infrastructure used, or to be used, in connection with the reticulation network, where components of the reticulation network or other sewerage infrastructure may be used for one or more of the following purposes for water industry infrastructure:<ol style="list-style-type: none">a) production of treated non-potable water from sewage;b) treatment of sewage;c) filtration of sewage;d) storage of sewage; ande) conveyance of sewage. |
|--|

Table 3.3 Area of operations

- 1) For the water industry infrastructure described in Table 3.2(1), refer to Schedule E, Table E.1
- 2) For the water industry infrastructure described in Table 3.2(2), refer to Schedule E, Table E.2

SCHEDULE A – SPECIAL MINISTERIALLY-IMPOSED LICENCE CONDITIONS

1. Notification of changes to Agreement

1.1. If a party to an Agreement proposes to:

- a) terminate the Agreement;
- b) novate the Agreement;
- c) assign or transfer any of its rights or obligations under the Agreement to any other person; or
- d) alter the Agreement in any way that materially reduces the Licensee's technical, financial or organisational capacity to carry out the activities authorised by this Licence,

the Licensee must provide IPART with written notice of that fact as soon as practicable, but no later than 3 months before the time when the proposed action is to occur. The written notice must include details of how the services provided under the Agreement will be provided subsequent to the proposed termination, novation, assignment, transfer or alteration.

2. Environmental Impact Assessments

2.1. Where the Licensee carries out any activities authorised by this Licence, the Licensee must:

- a) implement environmental risk mitigation measures substantially consistent with the environmental risk mitigation measures identified in the Environmental Impact Assessments; and
- b) specify, in any Plan or combination of Plans, how the Licensee will implement environmental risk mitigation measures substantially consistent with the environmental risk mitigation measures identified in the Environmental Impact Assessments.

2.2. If the Licensee proposes to vary its environmental mitigation measures referred to in Schedule A clause 2.1(a), it must first notify IPART in accordance with the Reporting Manual. The Licensee must not vary its environmental mitigation measures without the prior written approval of IPART.

3. Approved Construction Environmental Management Plan

3.1. The Licensee must ensure that the construction of any Specified Water Industry Infrastructure is carried out in accordance with the Approved Construction Environmental Management Plan.

4. Limitations on infrastructure

- 4.1. The Specified Water Industry Infrastructure is not to be used for the treatment, filtration, storage or conveyance of stormwater.
- 4.2. The Licensee must not commence construction of the infrastructure specified in Section 1 Table 1.2(1) in excess of capacity of 3,300 equivalent tenements, until after the Licensee has provided a report on the Licensee's proposed strategy for managing excess recycled water to be produced by the infrastructure specified in Section 1 Table 1.2(1), and the Minister has provided written approval of the report. The report must:
- a) be prepared by a suitably qualified person;
 - b) identify and analyse reasonably available disposal/reuse options, including Appropriate Facilities; and
 - c) recommend a preferred approach that will deliver the most efficient outcome having regard to financial and economic considerations.

5. Water Quality Plan

- 5.1. The licensee must ensure that its water quality plan is a single, cohesive and structured scheme specific document which specifies the actions the licensee must take to implement the 12 elements of the framework for recycled water quality management and use set out in the Australian Guidelines for Water Recycling.

6. Operational Procedures

- 6.1. The Licensee must develop and document, consistent with element 4 of the Australian Guidelines for Water Recycling, the following Operational Procedures:
- a) monitoring protocols for operational performance of the recycled water supply system, including the selection of operational parameters and criteria, and the routine analysis of results;
 - b) procedures for corrective action where operational parameters are not met;
 - c) procedures for rapid communication systems to deal with unexpected events; and
 - d) programs for regular inspection and maintenance of all equipment, including monitoring equipment.

6.2. The Licensee must:

- a) fully implement the Operational Procedures;
- b) ensure that all of its activities are carried out in accordance with the Operational Procedures; and
- c) keep records to demonstrate the extent to which the Operational Procedures have been implemented and complied with.

SCHEDULE B – GENERAL MINISTERIALLY-IMPOSED LICENCE CONDITIONS

1. Ongoing capacity to operate

- 1.1. The Licensee must have the technical, financial and organisational capacity to carry out the activities authorised by this Licence. If the Licensee ceases to have this capacity, it must report this to IPART in accordance with the Reporting Manual.

2. Maintaining appropriate insurance

- 2.1. The Licensee must hold insurance that is appropriate for the size and nature of the activities that the Licensee is carrying out under this Licence.
- 2.2. The Licensee must provide a copy of each certificate of currency of the insurance maintained by the Licensee to IPART in accordance with the Reporting Manual.
- 2.3. Before commencing to commercially operate the Specified Water Industry Infrastructure under this Licence, the Licensee must demonstrate that the insurance held is appropriate for the size and nature of those commercial operation activities, by providing a report to IPART from an Insurance Expert that:
- a) certifies that in the Insurance Expert's opinion, the type, scope and limit of the insurance held by the Licensee is appropriate for the size and nature of those commercial operation activities; and
 - b) is in the form prescribed by the Reporting Manual.
- 2.4. [Not applicable]
- 2.5. If, in relation to the activities authorised by this Licence, there is, or is to be, a change in either of the following, the Licensee must provide a report to IPART in accordance with the Reporting Manual:
- a) the insurer or underwriting panel in respect of an insurance policy held by the Licensee; or
 - b) the type, scope or limit on the amount of insurance held by the Licensee.

- 2.6. From time to time when requested in writing by IPART, the Licensee must provide a report to IPART, in the manner and form and within the timeframes specified by IPART, from an Insurance Expert certifying that in the Insurance Expert's opinion the type, scope and limit on the amount of insurance held by the Licensee is appropriate for the size and nature of the activities that the Licensee is carrying out under this Licence.

[Note: The circumstances in which IPART may request a report under clause 2.6 include (but are not limited to) the following:

- *where IPART considers that there may be a change in the type, scope or limit on the amount of insurance held by the Licensee in relation to activities that the Licensee is carrying out under this Licence;*
- *where there is a change in the type or extent of activities authorised by this Licence; or*
- *where IPART or an approved auditor considers that the type, scope or limit on the amount of insurance held by the Licensee may not be appropriate for the size and nature of the activities that the Licensee is carrying out under this Licence.]*

- 2.7. The Licensee must maintain professional indemnity insurance during the Design Phase and for a minimum of 6 years from the date of the completion of the Design Phase.

3. Complying with NSW Health requirements

- 3.1. The Licensee must carry out the activities authorised by this Licence in compliance with any requirements of NSW Health that:
- a) IPART has agreed to; and
 - b) are notified from time to time to the Licensee by IPART in writing.

4. Complying with Audit Guidelines

- 4.1. The Licensee must comply with any Audit Guidelines issued by IPART.

5. Reporting in accordance with the Reporting Manual

- 5.1. The Licensee must prepare and submit reports in accordance with the Reporting Manual.

6. Reporting information in relation to the register of licences

- 6.1. The Licensee must notify IPART, and provide IPART with details, of any change in relation to the following, in accordance with the Reporting Manual, within 14 days of the change:
- a) any source from which the water handled by the Specified Water Industry Infrastructure is derived;
 - b) the identity of each licensed retail supplier or public water utility that has access to the infrastructure services provided by the Specified Water Industry Infrastructure for the purpose of supplying water to its customers;
 - c) any other water infrastructure to which the Specified Water Industry Infrastructure is connected;
 - d) in the case of non-potable water, the authorised purposes for that water;
 - e) the identity of each licensed retail supplier or public water utility that has access to infrastructure services provided by the Specified Water Industry Infrastructure for the purpose of providing sewerage services to its customers;
 - f) any other sewerage infrastructure to which the Specified Water Industry Infrastructure is connected; and
 - g) the arrangements for the disposal of waste from the water industry infrastructure specified in Section 3, Table 3.2.

7. Monitoring

- 7.1. The Licensee must undertake any monitoring that is required for the purposes of this Licence, any Plan, the Act or the Regulation in accordance with this clause 7.
- 7.2. The Licensee must keep the following records of any samples taken for monitoring purposes specified in the Water Quality Plan:
- a) the date on which the sample was taken;
 - b) the time at which the sample was collected;
 - c) the point or location at which the sample was taken; and
 - d) the chain of custody of the sample (if applicable).
- 7.3. The Licensee must ensure that analyses of all samples taken for the purposes of Verification Monitoring are carried out by a laboratory accredited for the specified tests by an independent body that is acceptable to NSW Health, such as the National Association of Testing Authorities or an equivalent body.

8. Delineating responsibilities

- 8.1. If a code of conduct has not been established under clause 25 of the Regulation, the Licensee must, by a date specified by IPART, establish a code of conduct (**Licensee's Code of Conduct**) in accordance with this clause 8.
- 8.2. Before the Licensee brings the Specified Water Industry Infrastructure into commercial operation or by a later date specified by IPART (if any), the Licensee's Code of Conduct must be agreed in writing between:
- a) the Licensee; and
 - b) each licensed network operator, licensed retail supplier and/or public water utility that:
 - i) supplies water or provides sewerage services by means of any water industry infrastructure that is connected to the Specified Water Industry Infrastructure; or
 - ii) constructs, maintains or operates any water industry infrastructure that is connected to the Specified Water Industry Infrastructure.
- 8.3. [Not applicable]
- 8.4. The Licensee's Code of Conduct must set out the respective responsibilities of the entities specified in clause 8.2 by, at a minimum, providing for:
- a) who is responsible for repairing, replacing or maintaining any pipes, pumps, valves, storages or other infrastructure connecting the Specified Water Industry Infrastructure to the other water industry infrastructure;
 - b) who is responsible for water quality;
 - c) who is liable in the event of the unavailability of water;
 - d) who is liable in the event of failure of any water industry infrastructure;
 - e) the fees and charges payable in respect of the use of the water industry infrastructure; and
 - f) who is responsible for handling customer complaints.
- 8.5. The Licensee must not contravene the Licensee's Code of Conduct to the extent that it makes the Licensee responsible or liable for the matters set out in it.

9. Notification of changes to end-use

- 9.1. If the Licensee proposes to operate the Specified Water Industry Infrastructure to supply non-potable water for an end-use which is not set out in the most recent Water Quality Plan provided to IPART, the Licensee must notify IPART in writing at least 3 months before commencing such operation.

10. Notification of commercial operation

10.1. Each time the Licensee has brought any new Specified Water Industry Infrastructure into commercial operation, the Licensee must:

- a) notify IPART in accordance with the Reporting Manual that it has brought the relevant Specified Water Industry Infrastructure into commercial operation; and
- b) provide such notification within 10 days after it has brought the relevant Specified Water Industry Infrastructure into commercial operation.

SCHEDULE C – INTERPRETATION AND DEFINITIONS

1. Interpretation

1.1. In this Licence, unless the context requires otherwise:

- a) the singular includes the plural and vice versa;
- b) headings are used for convenience only and do not affect the interpretation of this Licence;
- c) a reference to a document includes the document as modified from time to time and any document replacing it;
- d) a reference to a “person” includes a natural person and any body or entity whether incorporated or not;
- e) a reference to a clause is to a clause in this Licence;
- f) a reference to a section is to a section in this Licence;
- g) a reference to a schedule is to a schedule to this Licence;
- h) a reference to a law or statute includes regulations, rules, codes and other instruments under it, and consolidations, amendments, re-enactments or replacements of them; and
- i) explanatory notes do not form part of this Licence, but in the case of uncertainty may be relied on for interpretation purposes.

2. Definitions

2.1. Expressions used in this Licence that are defined in the Act or the Regulation have the meanings set out in the Act or the Regulation.

2.2. In this Licence:

Act means the *Water Industry Competition Act 2006* (NSW).

Agreement means any agreement or deed provided to IPART in connection with the Licensee's application for this Licence, or any application to vary this Licence.

Appropriate Facilities	<p>means (as applicable):</p> <ul style="list-style-type: none"> a) a facility or facilities with the capacity to accept sludge and/or sludge cake produced by the water industry infrastructure specified in Section 3 Table 3.2(1); b) a facility or facilities with the capacity to accept excess recycled water produced by the water industry infrastructure specified in Section 1 Table 1.2(1).
Approved Construction Environmental Management Plan	<p>means the document titled <i>Box Hill Local Water Centre Construction Environmental Management Plan</i>, Version 4, prepared by RPS Australia East Pty Ltd, December 2016.</p>
Audit Guidelines	<p>means the document titled “<i>Audit Guideline – Water Industry Competition Act 2006</i>”, which is prepared by IPART and is available on IPART’s website at www.ipart.nsw.gov.au, and any other guidelines issued by IPART in relation to audits under the Act.</p>
Authorised Person	<p>means each person specified in, as applicable:</p> <ul style="list-style-type: none"> a) section 1, Table 1.1; b) section 2, Table 2.1; and c) section 3, Table 3.1.
Design Phase	<p>means the period during which any design works are carried out in relation to the water industry infrastructure that the Licensee is authorised to construct, maintain and operate under this Licence.</p>

Environmental Impact Assessments	<p>means the documents titled:</p> <ul style="list-style-type: none"> a) <i>Review of Environmental Factors for the Proposed Sewage, Recycled Water Reticulation Systems, Box Hill North Precinct New South Wales, Version 7</i>, prepared by RPS Australia East Pty Ltd, March 2016; b) <i>Review of Environmental Factors for the Proposed Local Water Centre, Box Hill North Precinct New South Wales, Version 4</i>, prepared by RPS Australia East Pty Ltd, March 2016; and c) <i>Environmental Impact Assessment Checklist, Box Hill – extension of recycled water reticulation</i>, prepared by Flow Systems Pty Ltd, Revision Final 2.0, 6 October 2020. <p>and does not include any modified version of these documents or any other document replacing any of them.</p>
Extension of Reticulation EIA Checklist	<p>means the document titled <i>Environmental Impact Assessment Checklist, Box Hill – extension of recycled water reticulation</i>, prepared by Flow Systems Pty Ltd, Revision Final 2.0, 6 October 2020.</p>
Insurance Expert	<p>means an insurance broker which holds an Australian financial services licence under Part 7.6 of the <i>Corporations Act 2001</i> (Cth) that authorises the broker to provide financial product advice for, and deal in, contracts of insurance within the meaning of Chapter 7 of that Act.</p>
IPART	<p>means the Independent Pricing and Regulatory Tribunal of New South Wales established under the <i>Independent Pricing and Regulatory Tribunal Act 1992</i> (NSW).</p>
Licence	<p>means this network operator's licence granted under section 10 of the Act.</p>
Licensee	<p>means Flow Systems Operations Pty Ltd (ACN 603 106 305).</p>
Licensee's Code of Conduct	<p>has the meaning given in Schedule B, clause 8.1.</p>

Minister	means the Minister responsible for Part 2 of the Act.
NSW Health	means the Water Unit of NSW Ministry of Health and any of the local health districts as defined by the NSW Ministry of Health.
Ornamental Water Feature	means water features that: <ul style="list-style-type: none"> a) are provided primarily for aesthetic or beautification purposes, and b) do not, by their design or accessibility, encourage interaction with the water.
Plan	means any infrastructure operating plan, water quality plan or sewage management plan that the Licensee is required to prepare under the Regulation.
Regulation	means the <i>Water Industry Competition (General) Regulation 2008</i> (NSW).
Reporting Manual	means the document titled “Network Operator's Reporting Manual”, which is prepared by IPART and is available on IPART’s website at www.ipart.nsw.gov.au .
Specified Water Industry Infrastructure	means the water industry infrastructure specified in, as applicable: <ul style="list-style-type: none"> a) section 1, Table 1.2; b) section 2, Table 2.2; and c) section 3, Table 3.2.
Systems REF	means the document titled <i>Review of Environmental Factors for the Proposed Sewage, Recycled Water Reticulation Systems, Box Hill North Precinct New South Wales</i> , Version 7, prepared by RPS Australia East Pty Ltd, March 2016.
Verification Monitoring	means verification monitoring as described in the document titled “ <i>Australian Drinking Water Guidelines</i> ” or the document titled “ <i>Australian Guidelines for Water Recycling</i> ” as the case may be.

Water Centre REF	means the document titled <i>Review of Environmental Factors for the Proposed Local Water Centre, Box Hill North Precinct New South Wales</i> , Version 4, prepared by RPS Australia East Pty Ltd, March 2016.
Water Quality Plan	means the water quality plan that the Licensee is required to prepare under the Regulation.

SCHEDULE D – AREA OF OPERATIONS – NON-POTABLE WATER

Table D.1 Vertices for area of operations for non-potable water treatment plant

Vertex	Easting	Northing	Vertex	Easting	Northing
A1	305343.938	6277802.933	A5	305361.643	6277933.403
A2	305338.558	6277801.171	A6	305390.320	6277940.401
A3	305268.128	6277836.598	A7	305408.843	6277930.864
A4	305289.398	6277888.395	A8	305343.938	6277802.933

Table D.2 Vertices for area of operations for non-potable water reticulation network

Vertex	Easting	Northing	Vertex	Easting	Northing
0	305550.063	6275594.422	28	304805.131	6276689.976
1	305548.988	6275592.053	29	304744.958	6277120.167
2	305530.685	6275600.506	30	304751.979	6277138.984
3	305537.828	6275615.986	31	305118.957	6276963.483
4	305471.676	6275646.504	32	305351.104	6277234.339
5	305466.100	6275633.445	33	305428.616	6277402.141
6	305448.779	6275638.715	34	305108.150	6277519.041
7	305453.487	6275649.748	35	305260.530	6277818.041
8	305426.757	6275662.016	36	305066.648	6277915.568
9	305489.200	6275809.070	37	305053.083	6277911.198
10	305543.262	6275925.511	38	305035.198	6277919.867
11	305522.371	6275952.133	39	305234.596	6278300.496
12	305495.285	6275959.751	40	305298.146	6278418.001
13	305473.992	6275952.145	41	305290.278	6278430.786
14	305390.137	6275942.970	42	305309.946	6278451.398
15	305354.712	6275945.925	43	305318.534	6278456.692
16	305324.085	6275955.065	44	305566.415	6278914.582
17	305292.582	6275973.078	45	305566.019	6278924.903
18	305448.567	6276268.281	46	305580.506	6278939.370
19	305206.642	6276350.080	47	305593.614	6278922.662
20	305079.068	6276133.881	48	305595.473	6278916.476
21	305041.059	6276145.496	49	306595.389	6278384.364
22	305012.511	6276160.325	50	306647.230	6278380.032
23	305004.417	6276166.017	51	306686.634	6278388.485
24	304935.581	6276227.927	52	306721.467	6278403.930
25	305039.512	6276404.431	53	306721.551	6278405.372
26	305050.448	6276400.871	54	307093.690	6278214.678
27	305039.435	6276495.239	55	307093.105	6278211.170

Vertex	Easting	Northing	Vertex	Easting	Northing
56	306923.513	6277898.509	72	306657.881	6277082.543
57	306977.270	6277869.862	73	306540.587	6276983.079
58	306861.152	6277655.302	74	306507.327	6276946.051
59	307059.436	6277549.923	75	306463.466	6276890.864
60	307116.318	6277658.056	76	306423.101	6276831.942
61	307176.541	6277772.609	77	306228.862	6276519.414
62	307193.666	6277761.943	78	306225.383	6276499.716
63	307138.280	6277658.781	79	306209.549	6276474.231
64	307075.362	6277541.423	80	306194.582	6276483.435
65	307075.362	6277541.423	81	306147.085	6276406.967
66	307034.481	6277465.422	82	306169.787	6276399.152
67	306998.487	6277408.438	83	305969.415	6275800.271
68	306961.255	6277357.077	84	305684.600	6275898.147
69	306920.564	6277308.301	85	305680.970	6275878.177
70	306876.723	6277262.254	86	305550.063	6275594.422
71	306811.961	6277203.551			

Note: Coordinate reference system is MGA 56.

SCHEDULE E – AREA OF OPERATIONS – SEWERAGE SERVICES

Table E.1 Vertices for area of operations for sewage treatment plant

Vertex	Easting	Northing	Vertex	Easting	Northing
A1	305343.938	6277802.933	A5	305361.643	6277933.403
A2	305338.558	6277801.171	A6	305390.320	6277940.401
A3	305268.128	6277836.598	A7	305408.843	6277930.864
A4	305289.398	6277888.395	A8	305343.938	6277802.933

Table E.2 Vertices for area of operations for sewage reticulation network

Vertex	Easting	Northing	Vertex	Easting	Northing
0	305550.063	6275594.422	28	304805.131	6276689.976
1	305548.988	6275592.053	29	304744.958	6277120.167
2	305530.685	6275600.506	30	304751.979	6277138.984
3	305537.828	6275615.986	31	305118.957	6276963.483
4	305471.676	6275646.504	32	305351.104	6277234.339
5	305466.100	6275633.445	33	305428.616	6277402.141
6	305448.779	6275638.715	34	305108.150	6277519.041
7	305453.487	6275649.748	35	305260.530	6277818.041
8	305426.757	6275662.016	36	305066.648	6277915.568
9	305489.200	6275809.070	37	305053.083	6277911.198
10	305543.262	6275925.511	38	305035.198	6277919.867
11	305522.371	6275952.133	39	305234.596	6278300.496
12	305495.285	6275959.751	40	305298.146	6278418.001
13	305473.992	6275952.145	41	305290.278	6278430.786
14	305390.137	6275942.970	42	305309.946	6278451.398
15	305354.712	6275945.925	43	305318.534	6278456.692
16	305324.085	6275955.065	44	305566.415	6278914.582
17	305292.582	6275973.078	45	305566.019	6278924.903
18	305448.567	6276268.281	46	305580.506	6278939.370
19	305206.642	6276350.080	47	305593.614	6278922.662
20	305079.068	6276133.881	48	305595.473	6278916.476
21	305041.059	6276145.496	49	306595.389	6278384.364
22	305012.511	6276160.325	50	306647.230	6278380.032
23	305004.417	6276166.017	51	306686.634	6278388.485
24	304935.581	6276227.927	52	306721.467	6278403.930
25	305039.512	6276404.431	53	306721.551	6278405.372
26	305050.448	6276400.871	54	307093.690	6278214.678
27	305039.435	6276495.239	55	307093.105	6278211.170

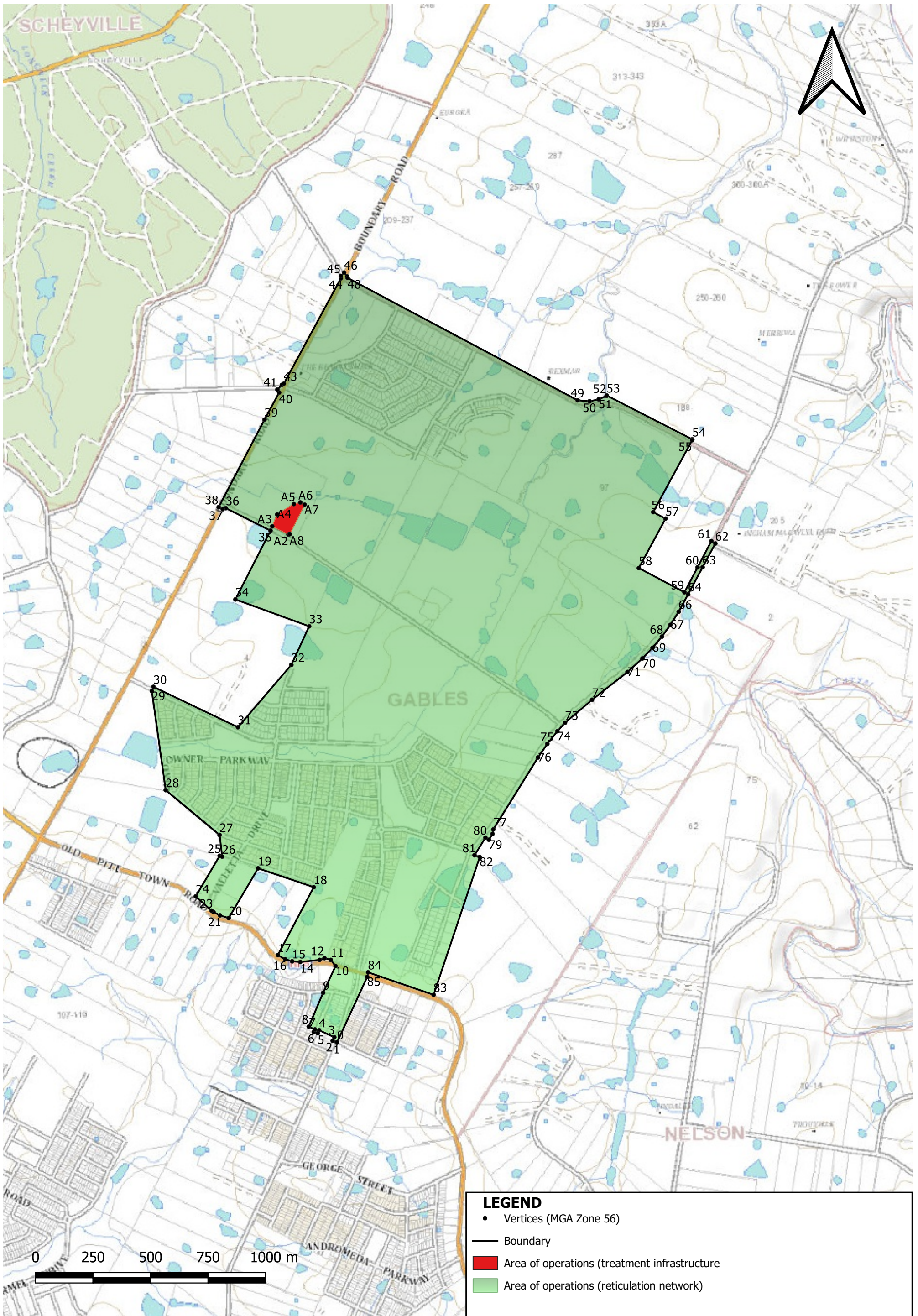
Vertex	Easting	Northing	Vertex	Easting	Northing
56	306923.513	6277898.509	69	306463.466	6276890.864
57	306977.270	6277869.862	70	306423.101	6276831.942
58	306861.152	6277655.302	71	306228.862	6276519.414
59	307075.362	6277541.423	72	306225.383	6276499.716
60	307034.481	6277465.422	73	306209.549	6276474.231
61	306998.487	6277408.438	74	306194.582	6276483.435
62	306961.255	6277357.077	75	306147.085	6276406.967
63	306920.564	6277308.301	76	306169.787	6276399.152
64	306876.723	6277262.254	77	305969.415	6275800.271
65	306811.961	6277203.551	78	305684.600	6275898.147
66	306657.881	6277082.543	79	305680.970	6275878.177
67	306540.587	6276983.079	80	305550.063	6275594.422
68	306507.327	6276946.051			

Note: Coordinate reference system is MGA 56.

SCHEDULE F – AREA OF OPERATIONS – MAPS

Schedule F contains two maps:

- 1) Map 1 Non-potable water services
- 2) Map 2 Sewerage services



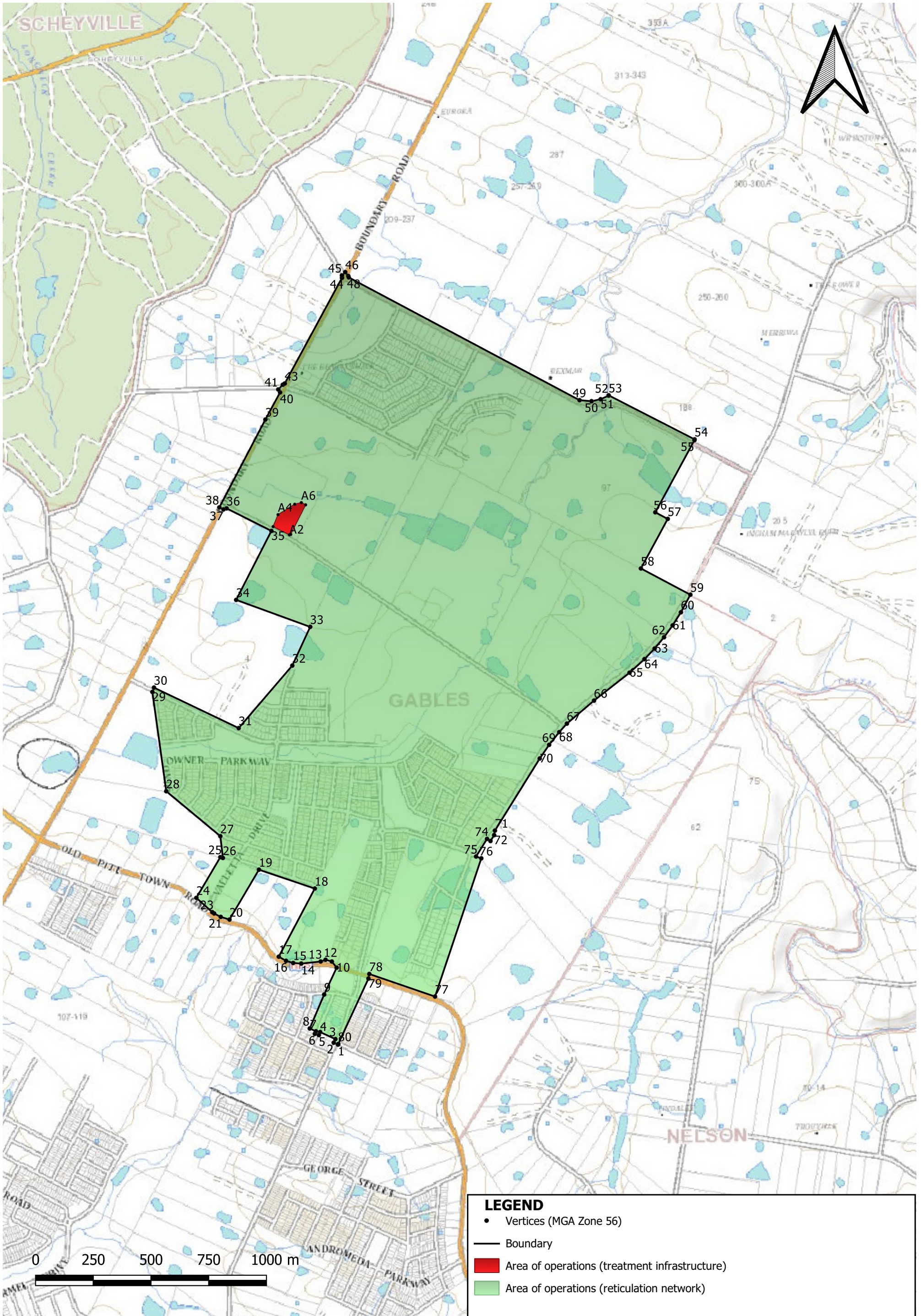
Area of Operations - Box Hill North Scheme
non-potable water reticulation and treatment infrastructure

Date created: 4 August 2020
 Version: 1.0

LEGEND

- Vertices (MGA Zone 56)
- Boundary
- Area of operations (treatment infrastructure)
- Area of operations (reticulation network)

LICENCE DETAILS:
 Licence Number: 16_037
 Licence Type: Network Operator's Licence
 Licensee: Flow Systems Operations Pty Ltd
 (ACN 603 106 305)



LEGEND

- Vertices (MGA Zone 56)
- Boundary
- Area of operations (treatment infrastructure)
- Area of operations (reticulation network)

LICENCE DETAILS:
 Licence Number: 16_037
 Licence Type: Network Operator's Licence
 Licensee: Flow Systems Operations Pty Ltd
 (ACN 603 106 305)

**Area of Operations - Box Hill North Scheme
 sewage reticulation and treatment infrastructure**

Date created: 4 August 2020
 Version: 1.0



NEW SOUTH WALES GOVERNMENT

Water Industry Competition Act 2006 (NSW)

Retail supplier's licence

Licence no. 13_001R

Flow Systems Pty Ltd

(ACN 136 272 298)

PRELIMINARY

1. Summary

- 1.1. This Licence is granted under section 10(1) of the Act.
- 1.2. The Act prohibits a person from supplying water, or providing a sewerage service, by means of any water industry infrastructure, otherwise than under the authority of a licence. This Licence authorises the Licensee and other Authorised Persons to carry out such activities that would otherwise be prohibited under the Act.

2. Outline

- 2.1. This Licence is divided into the following sections and schedules:

Section 1 authorises the supply of non-potable water (if applicable).
Section 2 authorises the supply of drinking water (if applicable).
Section 3 authorises the supply of sewerage services (if applicable).
Schedule A sets out special Ministerially-imposed licence conditions that are specific to this Licence.
Schedule B sets out Ministerially-imposed licence conditions that generally apply to retail suppliers' licences granted under the Act.
Schedule C sets out relevant scheme details.
Schedule D sets out the area of operations for the retail of non-potable water for the North Cooranbong Scheme.
Schedule E sets out the area of operations for the retail of drinking water and sewerage services for the North Cooranbong Scheme.
Schedule F provides indicative maps for the North Cooranbong Scheme included for reference only.
Schedule G sets out the area of operations for the retail of non-potable water for the Box Hill North Scheme.

Schedule H provides an indicative map for the Box Hill North Scheme included for reference only.

Schedule I sets out definitions and interpretation provisions.

- 2.2. In addition to the conditions in Schedules A and B to this Licence, the Act and Regulation also contain conditions that apply to this Licence. Nothing in Schedules A or B modify or affect the conditions imposed on this Licence by the Act or Regulation.
- 2.3. Where there is an inconsistency between, on one hand, Schedule D or Schedule E and, on the other hand, Schedule F, Schedule D and E prevail over Schedule F to the extent of the inconsistency.
- 2.4. Where there is an inconsistency between Schedule G and Schedule H, Schedule G prevails over Schedule H to the extent of the inconsistency.

SECTION 1 – ACTIVITIES AUTHORISED - NON-POTABLE WATER SUPPLY

Subject to the conditions imposed by the Act, the Regulation and Schedules A and B of this Licence, this Licence authorises the Licensee and any Authorised Persons specified in Table 1.1 to supply non-potable water:

- a) by means of the water industry infrastructure specified in Table 1.2
- b) to the persons or classes of persons specified in Table 1.3
- c) within the Area of Operations specified in Table 1.4, and
- d) for one or more of the Authorised Purposes for non-potable water specified in Table 1.5.

Table 1.1 Authorised Persons

[Not applicable]

Table 1.2 Water industry infrastructure

The water industry infrastructure detailed in Schedule C, Table C.1.

Table 1.3 Person or classes of persons

Persons within the Area of Operations detailed in Schedule C, Table C.1.

Table 1.4 Area of Operations

The Area of Operations detailed in Schedule C, Table C.1.

Table 1.5 Authorised Purposes for non-potable water

The Authorised Purposes detailed in Schedule C, Table C.1.

SECTION 2 – ACTIVITIES AUTHORISED - DRINKING WATER SUPPLY

Subject to the conditions imposed by the Act, the Regulation and Schedules A and B of this Licence, this Licence authorises the Licensee and any Authorised Persons specified in Table 2.1 to supply drinking water:

- a) by means of the water industry infrastructure specified in Table 2.2
- b) to the persons or classes of persons specified in Table 2.3
- c) within the Area of Operations specified in Table 2.4, and
- d) for one or more of the Authorised Purposes for drinking water specified in Table 2.5.

Table 2.1 Authorised Persons

[Not applicable]

Table 2.2 Water industry infrastructure

The water industry infrastructure detailed in Schedule C, Table C.2.

Table 2.3 Person or classes of persons

Persons within the Area of Operations detailed in Schedule C, Table C.2.

Table 2.4 Area of Operations

The Area of Operations detailed in Schedule C, Table C.2.

Table 2.5 Authorised Purposes for drinking water

The Authorised Purposes detailed in Schedule C, Table C.2.

SECTION 3 – ACTIVITIES AUTHORISED - SEWERAGE SERVICES

Subject to the conditions imposed by the Act, the Regulation and Schedules A and B of this Licence, this Licence authorises the Licensee and any Authorised Persons specified in Table 3.1 to provide sewerage services:

- a) by means of the water industry infrastructure specified in Table 3.2
- b) to the persons or classes of persons specified in Table 3.3
- c) within the Area of Operations specified in Table 3.4, and
- d) for one or more of the Authorised Purposes for sewerage services specified in Table 3.5.

Table 3.1 Authorised Persons

[Not applicable]

Table 3.2 Water industry infrastructure

The water industry infrastructure detailed in Schedule C, Table C.3.

Table 3.3 Person or classes of persons

Persons within the Area of Operations detailed in Schedule C, Table C.3.

Table 3.4 Area of Operations

The Area of Operations detailed in Schedule C, Table C.3.

Table 3.5 Authorised Purposes for sewerage services

The Authorised Purposes detailed in Schedule C, Table C.3.

SCHEDULE A – SPECIAL MINISTERIALLY-IMPOSED LICENCE CONDITIONS

This schedule sets out the conditions which the Minister imposes pursuant to section 13(1)(b) of the Act. In addition to these special Ministerially-imposed conditions, the Licensee is subject to obligations imposed by the Act, the Regulation and the standard Ministerially-imposed licence conditions set out in Schedule B. The Minister may vary the conditions in this schedule or impose new conditions, provided there is no inconsistency with the conditions imposed by the Act or the Regulation.

1. If requested by IPART, the Licensee must prepare and provide IPART with:
 - a) a report, to IPART's satisfaction, outlining:
 - (i) evidence of discussions with intended customer(s) or formal agreement(s) with customer(s); and
 - (ii) the curriculum vitae of the key personnel involved in the operation and management of the activities authorised by this Licence, and
 - b) a statement:
 - (i) identifying any third party providing customer services under this Licence; and
 - (ii) outlining the enforceable controls the Licensee has in place to enable it to effectively respond to any suspected breaches of these Licence conditions.

SCHEDULE B – GENERAL MINISTERIALLY-IMPOSED LICENCE CONDITIONS

1. Ongoing capacity to operate

- 1.1. The Licensee must have the technical, financial and organisational capacity to carry out the activities authorised by this Licence. If the Licensee ceases to have this capacity, it must report this to IPART in accordance with the Reporting Manual.

2. Maintaining appropriate insurance

- 2.1. The Licensee must hold insurance that is appropriate for the size and nature of the activities that the Licensee is carrying out under this Licence.
- 2.2. The Licensee must provide a copy of each certificate of currency of the insurance maintained by the Licensee to IPART in accordance with the Reporting Manual.
- 2.3. Before commencing any of the activities authorised by this Licence, the Licensee must demonstrate that the insurance held is appropriate for the size and nature of the activities, by providing a report to IPART from an Insurance Expert that:
- a) certifies that in the Insurance Expert's opinion, the type, scope and limit of the insurance held by the Licensee is appropriate for the size and nature of the activities; and
 - b) is in the form prescribed by the Reporting Manual.
- 2.4. *[Not applicable]*
- 2.5. If, in relation to the activities authorised by this Licence, there is, or is to be a change in either of the following, the Licensee must provide a report to IPART in accordance with the Reporting Manual:
- a) the insurer or underwriting panel in respect of an insurance policy held by the Licensee; or
 - b) the type, scope or limit on the amount of insurance held by the Licensee.
- 2.6. From time to time when requested in writing by IPART, the Licensee must provide a report to IPART, in the manner and form and within the timeframes specified by IPART, from an Insurance Expert certifying that in the Insurance Expert's opinion the type, scope and limit on the amount of insurance held by the Licensee is appropriate for the size and nature of the activities that the Licensee is carrying out under this Licence.

[Note: The circumstances in which IPART may request a report under clause 2.6 include (but are not limited to) the following:

- *where IPART considers that there may be a change in the type, scope or limit on the amount of insurance held by the Licensee in relation to activities that the Licensee is carrying out under this Licence;*

- *where there is a change in the type or extent of activities authorised by this Licence; or*
- *where IPART or an approved auditor considers that the type, scope or limit on the amount of insurance held by the Licensee may not be appropriate for the size and nature of the activities that the Licensee is carrying out under this Licence.]*

3. Complying with NSW Health requirements

- 3.1. The Licensee must carry out the activities authorised by this Licence in compliance with any requirements of NSW Health that:
- a) IPART has agreed to; and
 - b) are notified from time to time to the Licensee by IPART in writing.

4. Complying with Audit Guidelines

- 4.1. The Licensee must comply with any Audit Guidelines issued by IPART.

5. Reporting in accordance with the Reporting Manual

- 5.1. The Licensee must prepare and submit reports in accordance with the Reporting Manual.

6. Reporting information in relation to the register of licences

- 6.1. The Licensee must notify IPART, and provide IPART with details, of any change in relation to the following, in accordance with the Reporting Manual within 14 days of the change:
- a) any licensed network operator or public water utility from whose water industry infrastructure the Licensee supplies water to its customers;
 - b) any source from which the water handled by the water industry infrastructure referred to in clause 6.1a) is derived;
 - c) whether or not any of the Licensee's customers are Small Retail Customers;
 - d) any order under section 54 of the Act by which the Licensee is declared to be a retailer of last resort; and
 - e) any licensed network operator or public water utility by means of whose sewerage infrastructure the Licensee provides sewerage services to its customers.

7. Delineating responsibilities

- 7.1. If a code of conduct has not been established under clause 25 of the Regulation, the Licensee must, by a date specified by IPART, establish a code of conduct (Licensee's Code of Conduct) in accordance with this clause 7.
- 7.2. Before commencing to supply water or provide sewerage services by means of the Licensed Water Industry Infrastructure under this Licence or by a later date specified by IPART (if any), the Licensee's Code of Conduct must be agreed in writing between:
- a) the Licensee; and
 - b) each licensed network operator, licensed retail supplier and/or public water utility that:
 - i) supplies water or provides sewerage services by means of any water industry infrastructure that is connected to the Licensed Water Industry Infrastructure; or
 - ii) constructs, maintains or operates any water industry infrastructure that is connected to the Licensed Water Industry Infrastructure.
- 7.3. *[Not Applicable]*
- 7.4. The Licensee's Code of Conduct must set out the respective responsibilities of the entities specified in clause 7.2 by, at a minimum, providing for:
- a) who is responsible for repairing, replacing or maintaining any pipes, pumps, valves or storages or other infrastructure connecting the Licensed Water Industry Infrastructure to the other water industry infrastructure;
 - b) who is responsible for water quality;
 - c) who is liable in the event of the unavailability of water;
 - d) who is liable in the event of failure of any water industry infrastructure;
 - e) the fees and charges payable in respect of the use of the water industry infrastructure; and
 - f) who is responsible for handling customer complaints.
- 7.5. The Licensee must not contravene the Licensee's Code of Conduct to the extent that it makes the Licensee responsible or liable for the matters set out in it.

8. Infrastructure to be used

- 8.1. The Licensee must only source and supply water by means of water industry infrastructure, if that water industry infrastructure is maintained and operated by a licensed network operator or public water utility.
- 8.2. The Licensee must only provide sewerage services by means of water industry infrastructure, if that water industry infrastructure is maintained and operated by a licensed network operator or public water utility.

9. Notification of supply of water or provision of sewerage services

9.1. Each time the Licensee commences to supply water under this Licence, the Licensee must:

- a) notify IPART in accordance with the Reporting Manual that it has commenced to supply water to customers by means of the relevant Licensed Water Industry Infrastructure; and
- b) provide such notification within 10 days after such commencement.

9.2. Each time the Licensee commences to provide sewerage services under this Licence, the Licensee must:

- a) notify IPART in accordance with the Reporting Manual that it has commenced to provide sewerage services to customers by means of the relevant Licensed Water Industry Infrastructure; and
- b) provide such notification within 10 days after such commencement.

SCHEDULE C – RELEVANT SCHEME DETAILS

Table C.1 Non-potable water supply

Scheme	Water industry infrastructure	Authorised Purposes	Area of Operations
Box Hill North Scheme	The water industry infrastructure specified in Section 1, Table 1.2 of the Box Hill North Network Operator's Licence.	The Authorised Purposes specified in Section 1, Table 1.4 of the Box Hill North Network Operator's Licence.	The Area of Operations specified in Schedule G of this licence.
Central Park Scheme	The water industry infrastructure specified in Section 1, Table 1.2A and Table 1.2B of the Central Park Water Network Operator's Licence.	The Authorised Purposes specified in Section 1, Table 1.3 of the Central Park Water Network Operator's Licence.	The Area of Operations specified in Section 1, Table 1.4A and Table 1.4B of the Central Park Water Network Operator's Licence, and Lot 2012 DP 1183894, and Lot 2012 DP 1190337.
Discovery Point Scheme	The water industry infrastructure specified in Section 1, Table 1.2 of the Discovery Point Water Network Operator's Licence.	The Authorised Purposes specified in Section 1, Table 1.3 of the Discovery Point Water Network Operator's Licence.	The Area of Operations specified in Section 1, Table 1.4 of the Discovery Point Water Network Operator's Licence.
Glossodia Scheme	The water industry infrastructure specified in Table 1.2 in Section 1 of the Glossodia Network Operator's Licence.	The Authorised Purposes specified in Table 1.4 in Section 1 of the Glossodia Network Operator's Licence.	The Area of Operations specified in Table 1.3 in Section 1 of the Glossodia Network Operator's Licence.
Green Square Scheme	The water industry infrastructure specified in Section 1, Table 1.2 of the Green Square Water Network Operator's Licence.	The Authorised Purposes specified in Section 1, Table 1.3 of the Green Square Water Network Operator's Licence.	The Area of Operations specified in Section 1, Table 1.4 of the Green Square Water Network Operator's Licence.
Huntlee Scheme	The water industry infrastructure specified in Schedule A, Table 1.2 of the Huntlee Water Network Operator's Licence.	The Authorised Purposes specified in Schedule A, Table 1.3 of the Huntlee Water Network Operator's Licence.	The Area of Operations specified in Schedule A, Table 1.4 of the Huntlee Water Network Operator's Licence.
North Cooranbong Scheme	The water industry infrastructure specified in Section 1, Table 1.2 of the Cooranbong Water Network Operator's Licence.	The Authorised Purposes specified in Section 1, Table 1.4 of the Cooranbong Water Network Operator's Licence.	The Area of Operations specified in Schedule D of this licence.

Scheme	Water industry infrastructure	Authorised Purposes	Area of Operations
Pitt Town Scheme	The water industry infrastructure specified in Schedule A, Table 1.2 of the Pitt Town Water Network Operator's Licence.	The Authorised Purposes specified in Schedule A, Table 1.3 of the Pitt Town Water Network Operator's Licence.	The Area of Operations specified in Schedule A, Table 1.4 of the Pitt Town Water Network Operator's Licence.
Shepherds Bay Scheme	The water industry infrastructure specified in Section 1, Table 1.2 of the Shepherds Bay Water Network Operator's Licence.	The Authorised Purposes specified in Section 1, Table 1.2 and Table 1.4 of the Shepherds Bay Water Network Operator's Licence.	The Area of Operations specified in Section 1, Table 1.3 of the Shepherds Bay Water Network Operator's Licence.
Wye Scheme	The water industry infrastructure specified in Schedule A, Table 1.2 of the Wye Water Network Operator's Licence.	The Authorised Purposes specified in Schedule A, Table 1.3 of the Wye Water Network Operator's Licence.	The Area of Operations specified in Schedule A, Table 1.4 of the Wye Water Network Operator's Licence.

Table C.2 – Drinking water supply

Scheme	Water industry infrastructure	Authorised Purposes	Area of Operations
Central Park Scheme	The water industry infrastructure specified in Section 2, Table 2.2 of the Central Park Water Network Operator's Licence.	The Authorised Purposes specified in Section 2, Table 2.2 of the Central Park Water Network Operator's Licence.	The Area of Operations specified in Section 2, Table 2.3 of the Central Park Water Network Operator's Licence., and Lot 2012 DP 1183894, and Lot 2012 DP 1190337.
Discovery Point Scheme	The water industry infrastructure specified in Section 2, Table 2.2 of the Discovery Point Water Network Operator's Licence.	The Authorised Purposes specified in Section 2, Table 2.3 of the Discovery Point Water Network Operator's Licence.	The Area of Operations specified in Section 2, Table 2.4 of the Discovery Point Water Network Operator's Licence.
Huntlee Scheme	The water industry infrastructure specified in Schedule A, Table 2.2 of the Huntlee Water Network Operator's Licence.	The Authorised Purposes specified in Schedule A, Table 2.3 of the Huntlee Water Network Operator's Licence.	The Area of Operations specified in Schedule A, Table 2.4 of the Huntlee Water Network Operator's Licence.
North Cooranbong Scheme	The water industry infrastructure specified in Section 2, Table 2.2 of the Cooranbong Water Network Operator's Licence.	The Authorised Purposes specified in Section 2, Table 2.4 of the Cooranbong Water Network Operator's Licence.	The Area of Operations specified in Schedule E of this licence.
Shepherds Bay Scheme	The water industry infrastructure specified in Section 2, Table 2.2 of the Shepherds Bay Water Network Operator's Licence.	The Authorised Purposes specified in Section 2, Table 2.2 of the Shepherds Bay Water Network Operator's Licence.	The Area of Operations specified in Section 2, Table 2.3 of the Shepherds Bay Water Network Operator's Licence.
Wye Scheme	The water industry infrastructure specified in Schedule A, Table 2.2 of the Wye Water Network Operator's Licence.	The Authorised Purposes specified in Schedule A, Table 2.3 of the Wye Water Network Operator's Licence.	The Area of Operations specified in Schedule A, Table 2.4 of the Wye Water Network Operator's Licence.

Table C.3 Provision of sewerage services

Scheme	Water industry infrastructure	Authorised Purposes	Area of Operations
Box Hill North Scheme	The water industry infrastructure specified in Section 3, Table 3.2 of the Box Hill North Network Operator's Licence.	The Authorised Purposes specified in Section 3, Table 3.3 of the Box Hill North Network Operator's Licence.	Area bounded by the vertices listed in Table E.2 in the Box Hill North Network Operator's Licence.
Central Park Scheme	The water industry infrastructure specified in Section 3, Table 3.2 of the Central Park Water Network Operator's Licence.	The Authorised Purposes specified in Section 3, Table 3.2 of the Central Park Water Network Operator's Licence.	The Area of Operations specified in Section 3, Table 3.3 of the Central Park Water Network Operator's Licence, and Lot 2012 DP 1183894, and Lot 2012 DP 1190337.
Discovery Point Scheme	The water industry infrastructure specified in Section 3, Table 3.2 of the Discovery Point Water Network Operator's Licence.	The Authorised Purposes specified in Section 3, Table 3.3 of the Discovery Point Water Network Operator's Licence.	The Area of Operations specified in Section 3, Table 3.4 of the Discovery Point Water Network Operator's Licence.
Glossodia Scheme	The water industry infrastructure specified in Table 3.2 in Section 1 of the Glossodia Network Operator's Licence.	The Authorised Purposes specified in Table 3.2 in Section 1 of the Glossodia Network Operator's Licence.	The Area of Operations specified in Table 3.3 in Section 1 of the Glossodia Network Operator's Licence.
Pitt Town Scheme	The water industry infrastructure specified in Schedule A, Table 2.2 of the Pitt Town Water Network Operator's Licence.	The Authorised Purposes specified in Schedule A, Table 2.3 of the Pitt Town Water Network Operator's Licence.	The Area of Operations specified in Schedule A, Table 2.4 of the Pitt Town Water Network Operator's Licence.
Huntlee Scheme	The water industry infrastructure specified in Schedule A, Table 3.2 of the Huntlee Water Network Operator's Licence.	The Authorised Purposes specified in Schedule A, Table 3.3 of the Huntlee Water Network Operator's Licence.	The Area of Operations specified in Schedule A, Table 3.4 of the Huntlee Water Network Operator's Licence.
North Cooranbong Scheme	The water industry infrastructure specified in Section 3, Table 3.2 of the Cooranbong Water Network Operator's Licence.	The Authorised Purposes specified in Section 3, Tables 3.2 and 3.4 of the Cooranbong Water Network Operator's Licence.	The Area of Operations specified in Schedule E of this licence.

Scheme	Water industry infrastructure	Authorised Purposes	Area of Operations
Shepherds Bay Scheme	The water industry infrastructure specified in Section 3, Table 3.2 of the Shepherds Bay Water Network Operator's Licence.	The Authorised Purposes specified in Section 3, Table 3.2 of the Shepherds Bay Water Network Operator's Licence.	The Area of Operations specified in Section 3, Table 3.3 of the Shepherds Bay Water Network Operator's Licence.
Wye Scheme	The water industry infrastructure specified in Schedule A, Table 3.2 of the Wye Water Network Operator's Licence.	The Authorised Purposes specified in Schedule A, Table 3.3 of the Wye Water Network Operator's Licence.	The Area of Operations specified in Schedule A, Table 3.4 of the Wye Water Network Operator's Licence.

**SCHEDULE D – AREA OF OPERATIONS – NORTH COORANBONG SCHEME - RETAIL
OF NON-POTABLE WATER**

Coordinates ¹			Coordinates ¹		
Vertex	Easting	Northing	Vertex	Easting	Northing
1	354351.202	6342167.550	46	355960.599	6341304.676
2	354514.692	6342139.480	47	355962.109	6341304.822
3	354592.036	6342126.211	48	355963.620	6341304.959
4	355263.261	6342010.852	49	355965.130	6341305.090
5	355299.057	6342004.699	50	355966.642	6341305.211
6	355457.953	6341977.432	51	355968.154	6341305.325
7	355476.118	6341974.262	52	355969.667	6341305.432
8	355928.178	6341895.744	53	355971.181	6341305.530
9	355947.934	6341892.376	54	355972.694	6341305.620
10	355853.373	6341292.557	55	355974.208	6341305.702
11	355889.131	6341288.932	56	355975.723	6341305.776
12	355908.528	6341294.666	57	355977.237	6341305.843
13	355909.987	6341295.082	58	355978.752	6341305.902
14	355911.448	6341295.492	59	355980.267	6341305.953
15	355912.912	6341295.894	60	355981.783	6341305.996
16	355914.377	6341296.289	61	355983.299	6341306.031
17	355915.844	6341296.675	62	355984.816	6341306.058
18	355917.315	6341297.054	63	355986.332	6341306.076
19	355918.785	6341297.426	64	355987.847	6341306.088
20	355920.259	6341297.789	65	355989.363	6341306.091
21	355921.734	6341298.145	66	355990.880	6341306.086
22	355923.210	6341298.493	67	355992.396	6341306.074
23	355924.690	6341298.834	68	355993.911	6341306.054
24	355926.169	6341299.168	69	355995.427	6341306.026
25	355927.652	6341299.492	70	355996.943	6341305.990
26	355929.136	6341299.810	71	355998.458	6341305.945
27	355930.620	6341300.120	72	355999.973	6341305.893
28	355932.108	6341300.421	73	356001.488	6341305.834
29	355933.596	6341300.716	74	356003.003	6341305.764
30	355935.085	6341301.002	75	356004.517	6341305.689
31	355936.577	6341301.280	76	356006.030	6341305.606
32	355938.069	6341301.552	77	356007.543	6341305.514
33	355939.563	6341301.814	78	356009.055	6341305.415
34	355941.058	6341302.070	79	356010.568	6341305.307
35	355942.555	6341302.318	80	356012.079	6341305.193
36	355944.052	6341302.557	81	356013.589	6341305.069
37	355947.053	6341303.013	82	356015.100	6341304.938
38	355948.553	6341303.229	83	356036.436	6341302.923
39	355950.057	6341303.438	84	356040.052	6341298.556
40	355951.560	6341303.639	85	356036.864	6341263.580
41	355953.064	6341303.831	86	356150.057	6341238.764
42	355954.569	6341304.015	87	356154.466	6341287.101
43	355956.076	6341304.193	88	356150.397	6341292.015
44	355957.583	6341304.363	89	356230.926	6341284.356
45	355959.091	6341304.523	90	356234.995	6341279.435

Coordinates ¹		
Vertex	Easting	Northing
91	356251.894	6341277.870
92	356256.765	6341281.960
93	356403.679	6341268.302
94	356407.748	6341263.377
95	356424.694	6341261.757
96	356429.593	6341265.824
97	356484.442	6341260.581
98	356488.511	6341255.657
99	356505.457	6341254.038
100	356498.096	6341175.733
101	356649.645	6341148.313
102	356774.359	6341125.628
103	356976.796	6341088.994
104	356953.354	6340941.979
105	356911.009	6340676.479
106	356885.170	6340514.852
107	356884.165	6340509.213
108	356879.669	6340483.987
109	356871.355	6340438.179
110	356663.500	6340472.232
111	356675.399	6340545.157
112	356655.424	6340548.976
113	356654.135	6340541.077
114	356517.390	6340564.916
115	356517.393	6340564.916
116	356511.020	6340529.497
117	356509.328	6340520.087
118	356508.144	6340512.920
119	356507.647	6340509.879
120	356473.232	6340515.876
121	356459.461	6340518.274
122	356457.642	6340507.902
123	356425.193	6340513.556
124	356392.735	6340519.209
125	356378.973	6340521.608
126	356346.515	6340527.260
127	356343.352	6340509.238
128	356314.239	6340533.244
129	356314.179	6340540.351
130	356255.557	6340549.401
131	356241.003	6340473.322
132	356251.795	6340469.873
133	356238.394	6340391.931
134	356228.412	6340393.983
135	356218.483	6340342.249
136	356253.676	6340334.913
137	356249.597	6340308.500
138	356308.787	6340296.974

Coordinates ¹		
Vertex	Easting	Northing
139	356304.967	6340279.013
140	356297.856	6340238.541
141	356313.647	6340235.975
142	356329.672	6340233.370
143	356345.706	6340230.766
144	356361.740	6340228.161
145	356377.774	6340225.556
146	356373.420	6340204.076
147	356370.510	6340204.431
148	356294.047	6340216.855
149	356271.293	6340220.551
150	356255.643	6340195.055
151	356235.132	6340161.656
152	356281.620	6340098.924
153	356320.705	6340027.191
154	356341.037	6340032.670
155	356370.510	6340204.431
156	356373.420	6340204.076
157	356363.245	6340144.607
158	356353.070	6340085.137
159	356332.720	6339966.200
160	356323.680	6339976.503
161	356287.552	6339941.527
162	356269.488	6339924.042
163	356251.424	6339906.549
164	356139.306	6340022.406
165	356132.106	6339947.433
166	356089.208	6339500.483
167	356087.789	6339499.202
168	356102.181	6339485.034
169	356108.883	6339477.550
170	356137.009	6339446.173
171	356191.060	6339385.868
172	356146.496	6339345.677
173	356101.721	6339305.283
174	356056.936	6339264.888
175	356012.152	6339224.497
176	355967.378	6339184.103
177	355937.522	6339157.174
178	355889.604	6339150.239
179	355789.484	6339135.747
180	355790.994	6339125.721
181	355792.485	6339115.772
182	355800.099	6339062.819
183	355807.754	6339009.666
184	355815.398	6338956.515
185	355823.990	6338896.791
186	356022.960	6338925.561

Coordinates ¹		
Vertex	Easting	Northing
187	356014.361	6338985.301
188	356006.707	6339038.470
189	355999.045	6339091.637
190	355991.422	6339144.609
191	356208.677	6339176.100
192	356188.363	6339058.200
193	356179.897	6339009.081
194	356193.555	6338914.428
195	356214.688	6338767.887
196	356237.327	6338610.893
197	356323.194	6338606.372
198	356541.862	6338568.677
199	356471.029	6338437.977
200	356461.448	6338420.286
201	356360.085	6338292.326
202	356368.580	6338289.206
203	356379.966	6338285.023
204	356455.341	6338380.178
205	356456.826	6338382.050
206	356478.322	6338409.186
207	356491.967	6338434.366
208	356583.626	6338418.630
209	356568.240	6338323.669
210	356566.185	6338304.586
211	356564.640	6338290.269
212	356564.400	6338288.775
213	356574.441	6338287.192
214	356581.223	6338286.276
215	356584.637	6338285.820
216	356588.070	6338285.368
217	356591.541	6338284.917
218	356595.048	6338284.470
219	356598.602	6338284.027
220	356602.212	6338283.592
221	356605.878	6338283.163
222	356609.628	6338282.738
223	356614.135	6338282.254
224	356618.726	6338281.798
225	356623.372	6338281.390
226	356628.045	6338281.049
227	356632.717	6338280.794
228	356637.350	6338280.644
229	356641.934	6338280.618
230	356646.423	6338280.731
231	356650.797	6338281.006
232	356655.039	6338281.461
233	356661.259	6338282.546
234	356667.081	6338284.079

Coordinates ¹		
Vertex	Easting	Northing
235	356672.533	6338286.035
236	356677.615	6338288.388
237	356682.345	6338291.113
238	356686.744	6338294.184
239	356690.821	6338297.576
240	356694.595	6338301.264
241	356698.085	6338305.222
242	356701.291	6338309.423
243	356703.484	6338312.657
244	356705.536	6338316.011
245	356707.446	6338319.488
246	356709.213	6338323.095
247	356710.849	6338326.829
248	356712.342	6338330.695
249	356713.693	6338334.697
250	356714.902	6338338.835
251	356715.979	6338343.113
252	356716.913	6338347.534
253	356717.689	6338351.908
254	356718.361	6338356.380
255	356718.967	6338360.915
256	356720.122	6338370.043
257	356720.737	6338374.564
258	356721.410	6338379.011
259	356722.177	6338383.350
260	356723.068	6338387.545
261	356724.120	6338391.561
262	356725.919	6338396.872
263	356728.079	6338401.796
264	356730.598	6338406.370
265	356733.458	6338410.635
266	356736.648	6338414.624
267	356740.160	6338418.374
268	356743.982	6338421.928
269	356748.097	6338425.314
270	356752.502	6338428.577
271	356757.180	6338431.748
272	356760.131	6338433.630
273	356763.166	6338435.465
274	356766.259	6338437.220
275	356769.409	6338438.868
276	356772.589	6338440.379
277	356775.800	6338441.726
278	356779.004	6338442.875
279	356782.202	6338443.800
280	356785.376	6338444.473
281	356788.507	6338444.860
282	356794.858	6338444.699

Coordinates ¹		
Vertex	Easting	Northing
283	356800.975	6338443.328
284	356806.873	6338440.896
285	356812.552	6338437.552
286	356818.018	6338433.445
287	356823.287	6338428.724
288	356828.367	6338423.535
289	356833.265	6338418.029
290	356837.978	6338412.358
291	356842.534	6338406.662
292	356847.081	6338400.879
293	356851.486	6338395.211
294	356855.750	6338389.638
295	356859.911	6338384.142
296	356863.967	6338378.702
297	356867.958	6338373.295
298	356871.883	6338367.906
299	356875.771	6338362.510
300	356879.641	6338357.091
301	356883.502	6338351.627
302	356887.583	6338345.809
303	356891.674	6338339.933
304	356895.794	6338334.008
305	356899.923	6338328.042
306	356904.063	6338322.048
307	356908.230	6338316.038
308	356912.417	6338310.024
309	356916.612	6338304.016
310	356920.836	6338298.026
311	356925.068	6338292.062
312	356930.100	6338285.066
313	356935.158	6338278.127
314	356940.254	6338271.251
315	356945.404	6338264.439
316	356950.591	6338257.692
317	356955.851	6338251.018
318	356961.166	6338244.417
319	356966.555	6338237.893
320	356972.017	6338231.446
321	356977.572	6338225.086
322	356982.345	6338219.748
323	356987.165	6338214.451
324	356992.004	6338209.164
325	356996.824	6338203.864
326	357001.607	6338198.526
327	357006.335	6338193.125
328	357010.972	6338187.638
329	357015.507	6338182.036
330	357019.894	6338176.299

Coordinates ¹		
Vertex	Easting	Northing
331	357024.125	6338170.398
332	357027.179	6338165.866
333	357030.150	6338161.252
334	357033.056	6338156.577
335	357035.935	6338151.865
336	357038.796	6338147.141
337	357041.665	6338142.425
338	357044.562	6338137.737
339	357047.515	6338133.107
340	357050.550	6338128.551
341	357053.677	6338124.094
342	357057.305	6338119.270
343	357061.061	6338114.587
344	357064.955	6338110.037
345	357068.959	6338105.610
346	357073.064	6338101.291
347	357075.622	6338098.734
348	357077.271	6338097.075
349	357081.560	6338092.950
350	357085.914	6338088.907
351	357090.332	6338084.936
352	357094.795	6338081.026
353	357099.097	6338077.329
354	357103.417	6338073.648
355	357107.709	6338069.955
356	357111.974	6338066.217
357	357116.175	6338062.406
358	357120.293	6338058.492
359	357124.301	6338054.441
360	357127.536	6338050.932
361	357128.181	6338050.226
362	357131.905	6338045.816
363	357135.455	6338041.178
364	357139.090	6338035.840
365	357142.477	6338030.208
366	357145.597	6338024.293
367	357148.432	6338018.099
368	357150.963	6338011.644
369	357153.180	6338004.932
370	357155.074	6337997.976
371	357156.626	6337990.783
372	357157.817	6337983.363
373	357158.629	6337975.725
374	357159.053	6337968.431
375	357159.180	6337960.979
376	357159.076	6337953.394
377	357158.768	6337945.699
378	357158.322	6337937.915

Coordinates ¹		
Vertex	Easting	Northing
379	357157.773	6337930.068
380	357157.170	6337922.175
381	357156.557	6337914.266
382	357156.000	6337906.360
383	357155.527	6337898.481
384	357155.067	6337887.123
385	357154.839	6337875.839
386	357154.770	6337864.587
387	357154.794	6337853.339
388	357154.847	6337842.054
389	357154.872	6337830.707
390	357154.797	6337819.254
391	357154.555	6337807.668
392	357154.092	6337795.911
393	357153.323	6337783.952
394	357152.513	6337774.826
395	357151.460	6337765.757
396	357150.132	6337756.943
397	357148.481	6337748.581
398	357146.483	6337740.862
399	357144.091	6337733.981
400	357141.282	6337728.138
401	357137.998	6337723.525
402	357134.217	6337720.335
403	357133.604	6337720.112
404	357129.899	6337718.766
405	357126.408	6337718.717
406	357122.626	6337719.477
407	357118.563	6337720.896
408	357114.240	6337722.826
409	357109.670	6337725.115
410	357104.863	6337727.617
411	357099.831	6337730.180
412	357094.605	6337732.655
413	357089.167	6337734.891
414	357083.566	6337736.741
415	357079.097	6337737.828
416	357074.539	6337738.630
417	357072.875	6337738.825
418	357069.901	6337739.173
419	357065.201	6337739.497
420	357060.438	6337739.628
421	357055.621	6337739.605
422	357050.769	6337739.456
423	357045.899	6337739.221
424	357041.002	6337738.930
425	357036.096	6337738.613
426	357016.705	6337737.402

Coordinates ¹		
Vertex	Easting	Northing
427	357011.165	6337737.033
428	357007.108	6337736.763
429	356997.625	6337736.054
430	356988.282	6337735.235
431	356979.120	6337734.268
432	356970.175	6337733.110
433	356961.457	6337731.733
434	356953.023	6337730.087
435	356944.901	6337728.143
436	356934.659	6337725.073
437	356924.937	6337721.490
438	356915.651	6337717.473
439	356906.706	6337713.101
440	356898.036	6337708.456
441	356889.546	6337703.618
442	356881.160	6337698.667
443	356872.794	6337693.677
444	356864.371	6337688.735
445	356855.806	6337683.920
446	356850.137	6337680.884
447	356844.421	6337677.886
448	356838.723	6337674.886
449	356833.073	6337671.840
450	356827.537	6337668.706
451	356822.160	6337665.443
452	356816.992	6337662.008
453	356812.079	6337658.359
454	356807.478	6337654.454
455	356803.236	6337650.251
456	356800.775	6337647.447
457	356798.456	6337644.524
458	356796.241	6337641.491
459	356794.121	6337638.355
460	356792.068	6337635.136
461	356790.043	6337631.840
462	356788.039	6337628.480
463	356786.016	6337625.071
464	356783.966	6337621.620
465	356781.851	6337618.141
466	356774.830	6337607.347
467	356767.061	6337596.674
468	356758.604	6337586.383
469	356749.512	6337576.753
470	356739.847	6337568.055
471	356729.659	6337560.557
472	356719.021	6337554.535
473	356707.984	6337550.261
474	356696.600	6337548.003

Coordinates ¹		
Vertex	Easting	Northing
475	356692.595	6337548.015
476	356684.930	6337548.037
477	356679.710	6337548.840
478	356674.491	6337550.110
479	356669.313	6337551.811
480	356664.204	6337553.916
481	356659.201	6337556.390
482	356654.362	6337559.203
483	356649.714	6337562.321
484	356645.305	6337565.713
485	356641.162	6337569.347
486	356637.335	6337573.188
487	356635.389	6337575.366
488	356633.536	6337577.594
489	356631.767	6337579.864
490	356630.071	6337582.178
491	356628.440	6337584.529
492	356626.865	6337586.913
493	356625.336	6337589.326
494	356623.835	6337591.764
495	356622.361	6337594.223
496	356620.896	6337596.700
497	356617.938	6337601.759
498	356614.960	6337606.844
499	356611.936	6337611.922
500	356608.846	6337616.963
501	356605.665	6337621.930
502	356602.364	6337626.796
503	356598.906	6337631.532
504	356595.272	6337636.101
505	356591.446	6337640.473
506	356587.399	6337644.616
507	356580.203	6337650.904
508	356572.436	6337656.603
509	356564.238	6337661.828
510	356555.709	6337666.699
511	356546.978	6337671.329
512	356538.164	6337675.834
513	356529.379	6337680.334
514	356520.751	6337684.942
515	356512.400	6337689.775
516	356504.435	6337694.949
517	356501.709	6337696.895
518	356499.047	6337698.892
519	356496.422	6337700.934
520	356493.815	6337703.015
521	356491.235	6337705.128
522	356488.646	6337707.267

Coordinates ¹		
Vertex	Easting	Northing
523	356483.439	6337711.596
524	356480.793	6337713.774
525	356478.100	6337715.950
526	356467.177	6337724.255
527	356455.447	6337732.267
528	356442.995	6337739.787
529	356429.890	6337746.619
530	356416.211	6337752.561
531	356402.043	6337757.421
532	356387.445	6337761.002
533	356372.506	6337763.101
534	356357.311	6337763.528
535	356341.909	6337762.078
536	356335.532	6337760.908
537	356329.130	6337759.483
538	356322.712	6337757.892
539	356316.266	6337756.235
540	356309.811	6337754.604
541	356303.336	6337753.093
542	356296.839	6337751.797
543	356290.319	6337750.811
544	356283.783	6337750.228
545	356277.221	6337750.143
546	356275.250	6337750.227
547	356271.288	6337750.530
548	356269.296	6337750.733
549	356267.304	6337750.963
550	356265.303	6337751.211
551	356257.194	6337752.253
552	356247.564	6337753.215
553	356237.734	6337753.792
554	356227.799	6337753.936
555	356217.862	6337753.605
556	356208.007	6337752.754
557	356198.346	6337751.337
558	356188.975	6337749.313
559	356179.987	6337746.633
560	356171.485	6337743.256
561	356163.564	6337739.138
562	356156.833	6337734.687
563	356150.547	6337729.805
564	356144.591	6337724.730
565	356138.830	6337719.703
566	356133.140	6337714.960
567	356127.395	6337710.740
568	356121.471	6337707.280
569	356115.225	6337704.819
570	356108.549	6337703.598

Coordinates ¹		
Vertex	Easting	Northing
571	356101.310	6337703.855
572	356097.136	6337704.571
573	356080.630	6337705.924
574	356064.585	6337704.465
575	356048.835	6337700.710
576	356033.242	6337695.179
577	356017.658	6337688.383
578	356001.936	6337680.843
579	355985.928	6337673.075
580	355969.486	6337665.593
581	355952.454	6337658.915
582	355934.693	6337653.559
583	355927.221	6337651.857
584	355919.663	6337650.388
585	355912.064	6337649.080
586	355897.023	6337646.657
587	355889.685	6337645.398
588	355882.545	6337644.013
589	355875.651	6337642.426
590	355869.078	6337640.572
591	355862.874	6337638.371
592	355860.954	6337637.572
593	355859.062	6337636.736
594	355857.189	6337635.870
595	355855.325	6337634.981
596	355853.472	6337634.076
597	355849.718	6337632.240
598	355845.842	6337630.422
599	355843.820	6337629.535
600	355835.893	6337626.488
601	355827.222	6337623.817
602	355817.948	6337621.564
603	355808.209	6337619.778
604	355798.136	6337618.505
605	355787.878	6337617.789
606	355777.564	6337617.681
607	355767.334	6337618.221
608	355757.317	6337619.460
609	355747.644	6337621.442
610	355739.337	6337623.894
611	355731.507	6337626.918
612	355724.248	6337630.446
613	355717.664	6337634.403
614	355711.822	6337638.722
615	355706.815	6337643.330
616	355702.739	6337648.155
617	355699.679	6337653.127
618	355697.718	6337658.175

Coordinates ¹		
Vertex	Easting	Northing
619	355696.944	6337663.227
620	355699.137	6337673.375
621	355705.629	6337683.300
622	355715.381	6337693.055
623	355727.365	6337702.700
624	355740.555	6337712.285
625	355753.923	6337721.867
626	355766.421	6337731.497
627	355777.023	6337741.236
628	355784.700	6337751.138
629	355788.416	6337761.252
630	355788.237	6337768.359
631	355785.947	6337775.517
632	355781.790	6337782.652
633	355776.039	6337789.685
634	355768.936	6337796.539
635	355760.735	6337803.136
636	355751.709	6337809.401
637	355742.091	6337815.254
638	355732.154	6337820.617
639	355722.140	6337825.412
640	355715.855	6337828.139
641	355709.656	6337830.659
642	355703.553	6337833.029
643	355691.687	6337837.523
644	355685.940	6337839.756
645	355680.333	6337842.054
646	355674.883	6337844.463
647	355669.598	6337847.045
648	355664.478	6337849.849
649	355659.739	6337852.784
650	355655.128	6337855.924
651	355650.616	6337859.228
652	355646.160	6337862.645
653	355637.262	6337869.640
654	355632.748	6337873.125
655	355628.142	6337876.539
656	355623.398	6337879.835
657	355618.497	6337882.966
658	355612.613	6337886.333
659	355606.563	6337889.523
660	355600.458	6337892.632
661	355594.400	6337895.761
662	355588.489	6337899.009
663	355582.846	6337902.476
664	355577.571	6337906.259
665	355572.767	6337910.462
666	355568.552	6337915.180

Coordinates ¹		
Vertex	Easting	Northing
667	355565.019	6337920.516
668	355563.288	6337923.986
669	355561.804	6337927.693
670	355560.514	6337931.616
671	355559.389	6337935.740
672	355558.383	6337940.049
673	355557.467	6337944.526
674	355556.596	6337949.155
675	355555.732	6337953.920
676	355554.890	6337958.509
677	355553.859	6337963.796
678	355553.155	6337967.246
679	355552.422	6337970.719
680	355551.022	6337977.644
681	355550.421	6337981.055
682	355549.933	6337984.406
683	355549.586	6337987.679
684	355549.409	6337990.848
685	355549.429	6337993.894
686	355549.694	6337996.799
687	355551.104	6338002.511
688	355553.502	6338007.619
689	355556.664	6338012.275
690	355560.362	6338016.622
691	355564.352	6338020.806
692	355568.398	6338024.974
693	355572.275	6338029.268
694	355575.736	6338033.840
695	355578.566	6338038.832
696	355580.519	6338044.388
697	355581.496	6338051.637
698	355581.284	6338059.650
699	355580.186	6338068.244
700	355578.504	6338077.232
701	355576.539	6338086.431
702	355574.573	6338095.654
703	355572.917	6338104.716
704	355571.855	6338113.434
705	355571.706	6338121.620
706	355572.745	6338129.091
707	355573.777	6338132.493
708	355575.121	6338135.698
709	355576.710	6338138.734
710	355578.469	6338141.630
711	355580.351	6338144.413
712	355586.041	6338152.348
713	355587.740	6338154.945
714	355589.232	6338157.565

Coordinates ¹		
Vertex	Easting	Northing
715	355592.667	6338168.360
716	355592.554	6338179.843
717	355589.500	6338191.935
718	355584.123	6338204.550
719	355577.050	6338217.604
720	355568.898	6338231.023
721	355560.284	6338244.718
722	355551.826	6338258.610
723	355544.151	6338272.612
724	355537.866	6338286.646
725	355537.147	6338288.552
726	355535.849	6338292.379
727	355535.270	6338294.306
728	355534.269	6338298.202
729	355533.857	6338300.180
730	355533.228	6338304.212
731	355533.021	6338306.275
732	355532.803	6338312.183
733	355533.039	6338318.311
734	355533.619	6338324.597
735	355534.420	6338330.994
736	355535.324	6338337.441
737	355536.210	6338343.884
738	355536.965	6338350.272
739	355537.470	6338356.543
740	355537.604	6338362.649
741	355537.246	6338368.528
742	355536.625	6338372.662
743	355535.735	6338376.671
744	355534.632	6338380.571
745	355533.371	6338384.392
746	355532.009	6338388.153
747	355529.210	6338395.579
748	355527.886	6338399.294
749	355526.682	6338403.035
750	355525.665	6338406.828
751	355524.160	6338415.775
752	355523.696	6338425.080
753	355524.077	6338434.725
754	355525.116	6338444.681
755	355526.617	6338454.928
756	355528.385	6338465.440
757	355530.215	6338476.196
758	355531.939	6338487.170
759	355533.334	6338498.338
760	355534.231	6338509.677
761	355534.322	6338511.765
762	355534.384	6338513.852

Coordinates ¹		
Vertex	Easting	Northing
763	355534.428	6338515.936
764	355534.426	6338518.006
765	355534.309	6338522.093
766	355534.186	6338524.102
767	355534.017	6338526.075
768	355533.792	6338528.011
769	355533.522	6338529.908
770	355563.810	6338534.264
771	355669.898	6338549.521
772	355653.124	6338669.041
773	355636.350	6338788.534
774	355468.237	6338764.361
775	355473.844	6338770.985
776	355482.422	6338781.283
777	355487.326	6338787.426
778	355442.354	6338780.960
779	355450.493	6338790.585
780	355458.805	6338800.550
781	355466.927	6338810.724
782	355474.507	6338820.973
783	355481.200	6338831.173
784	355486.645	6338841.192
785	355490.489	6338850.898
786	355492.387	6338860.167
787	355491.979	6338868.864
788	355488.920	6338876.861
789	355487.049	6338879.632
790	355484.843	6338882.331
791	355482.395	6338884.999
792	355479.769	6338887.673
793	355477.049	6338890.395
794	355474.328	6338893.210
795	355471.680	6338896.155
796	355469.178	6338899.272
797	355466.916	6338902.601
798	355464.968	6338906.184
799	355465.601	6338907.562
800	355466.235	6338908.939
801	355466.868	6338910.318
802	355467.501	6338911.699
803	355468.125	6338913.080
804	355468.993	6338914.966
805	355469.862	6338916.848
806	355470.730	6338918.736
807	355471.561	6338920.635
808	355472.355	6338922.552
809	355473.432	6338925.451
810	355474.425	6338928.388

Coordinates ¹		
Vertex	Easting	Northing
811	355475.353	6338931.351
812	355476.224	6338934.330
813	355477.067	6338937.316
814	355477.844	6338940.303
815	355478.556	6338943.308
816	355479.231	6338946.323
817	355479.905	6338949.341
818	355480.598	6338952.351
819	355481.302	6338955.300
820	355482.005	6338958.249
821	355482.718	6338961.196
822	355483.421	6338964.144
823	355484.134	6338967.093
824	355484.707	6338969.389
825	355485.299	6338971.679
826	355485.891	6338973.972
827	355486.417	6338976.274
828	355486.850	6338978.591
829	355487.241	6338981.788
830	355487.319	6338982.860
831	355487.474	6338985.016
832	355487.594	6338988.257
833	355487.594	6338988.259
834	355487.649	6338991.508
835	355487.713	6338994.749
836	355487.754	6338997.039
837	355487.748	6338999.327
838	355487.757	6338999.331
839	355487.742	6339001.617
840	355487.746	6339003.907
841	355487.787	6339006.197
842	355487.891	6339008.018
843	355487.891	6339008.021
844	355488.041	6339009.848
845	355488.041	6339009.859
846	355488.182	6339011.674
847	355488.258	6339013.493
848	355488.203	6339015.303
849	355487.859	6339017.782
850	355487.290	6339020.246
851	355486.572	6339022.698
852	355485.789	6339025.136
853	355485.789	6339025.141
854	355485.035	6339027.569
855	355484.231	6339030.155
856	355483.371	6339032.726
857	355482.484	6339035.286
858	355481.578	6339037.843

Coordinates ¹		
Vertex	Easting	Northing
859	355480.681	6339040.400
860	355479.424	6339043.974
861	355478.157	6339047.543
862	355476.872	6339051.107
863	355475.578	6339054.666
864	355474.265	6339058.219
865	355430.823	6339049.207
866	355431.334	6339035.497
867	355431.844	6339021.789
868	355432.373	6339008.084
869	355432.921	6338994.388
870	355433.487	6338980.698
871	355434.090	6338967.018
872	355434.731	6338953.351
873	355435.418	6338939.697
874	355436.151	6338926.059
875	355436.950	6338912.439
876	355406.717	6338958.670
877	355406.358	6338907.672
878	355413.213	6338797.484
879	355384.111	6338766.488
880	355088.710	6338812.032
881	355080.330	6338822.454
882	355076.126	6338827.686
883	355071.304	6338833.685
884	355077.380	6338839.504
885	355086.255	6338847.995
886	355120.242	6338873.751
887	355158.717	6338902.900
888	355095.724	6338985.464
889	355100.718	6339019.034
890	355019.597	6339031.162
891	354999.703	6339034.136
892	354949.398	6339055.461
893	354914.031	6339100.776
894	354903.507	6339161.362
895	354918.454	6339213.790
896	354957.362	6339261.672
897	355021.020	6339258.656
898	355032.172	6339252.737
899	355051.022	6339242.743
900	355086.915	6339223.704
901	355127.205	6339197.814
902	355168.759	6339160.845
903	355267.779	6339044.490
904	355310.268	6339070.545
905	355335.245	6339079.353
906	355365.957	6339088.034

Coordinates ¹		
Vertex	Easting	Northing
907	355379.990	6339067.128
908	355381.770	6339068.045
909	355382.214	6339068.272
910	355382.659	6339068.495
911	355383.104	6339068.719
912	355384.003	6339069.166
913	355384.457	6339069.386
914	355384.902	6339069.610
915	355385.357	6339069.825
916	355385.802	6339070.044
917	355386.256	6339070.260
918	355387.610	6339070.903
919	355388.973	6339071.534
920	355389.882	6339071.950
921	355390.336	6339072.154
922	355390.791	6339072.363
923	355391.254	6339072.566
924	355391.709	6339072.765
925	355392.627	6339073.171
926	355393.537	6339073.568
927	355394.928	6339074.153
928	355395.847	6339074.537
929	355396.775	6339074.921
930	355397.230	6339075.109
931	355398.167	6339075.484
932	355398.631	6339075.668
933	355399.096	6339075.848
934	355399.560	6339076.033
935	355400.952	6339076.576
936	355401.426	6339076.753
937	355401.890	6339076.929
938	355402.828	6339077.279
939	355403.766	6339077.625
940	355404.240	6339077.795
941	355405.178	6339078.133
942	355406.125	6339078.467
943	355406.599	6339078.632
944	355407.546	6339078.959
945	355408.011	6339079.120
946	355408.494	6339079.281
947	355408.968	6339079.439
948	355409.915	6339079.754
949	355410.863	6339080.065
950	355411.337	6339080.219
951	355413.252	6339080.818
952	355414.683	6339081.256
953	355415.166	6339081.397
954	355416.124	6339081.682

Coordinates ¹			Coordinates ¹		
Vertex	Easting	Northing	Vertex	Easting	Northing
955	355421.386	6339083.221	1003	355349.138	6339145.765
956	355463.912	6339091.639	1004	355345.391	6339145.956
957	355463.370	6339093.635	1005	355341.838	6339146.337
958	355462.827	6339095.632	1006	355338.486	6339146.942
959	355462.244	6339097.787	1007	355335.392	6339147.813
960	355461.661	6339099.942	1008	355332.592	6339148.982
961	355461.060	6339102.093	1009	355330.775	6339150.025
962	355460.468	6339104.244	1010	355329.086	6339151.205
963	355459.857	6339106.392	1011	355327.499	6339152.491
964	355459.434	6339107.268	1012	355325.975	6339153.840
965	355458.991	6339108.138	1013	355324.489	6339155.222
966	355458.540	6339109.000	1014	355322.994	6339156.597
967	355458.070	6339109.852	1015	355321.452	6339157.930
968	355457.581	6339110.696	1016	355319.846	6339159.181
969	355455.460	6339113.957	1017	355318.121	6339160.321
970	355453.052	6339117.083	1018	355316.257	6339161.308
971	355450.412	6339120.055	1019	355314.585	6339161.987
972	355447.607	6339122.857	1020	355312.812	6339162.559
973	355444.684	6339125.464	1021	355310.956	6339163.036
974	355441.812	6339127.699	1022	355309.018	6339163.431
975	355438.766	6339129.748	1023	355307.015	6339163.773
976	355435.610	6339131.656	1024	355304.984	6339164.065
977	355432.400	6339133.467	1025	355302.917	6339164.336
978	355429.171	6339135.227	1026	355300.840	6339164.596
979	355426.592	6339136.630	1027	355298.773	6339164.858
980	355423.995	6339138.010	1028	355296.733	6339165.147
981	355421.370	6339139.323	1029	355289.148	6339166.631
982	355418.701	6339140.528	1030	355282.106	6339168.685
983	355415.978	6339141.584	1031	355275.569	6339171.268
984	355413.763	6339142.321	1032	355269.511	6339174.344
985	355411.503	6339142.980	1033	355263.885	6339177.871
986	355409.226	6339143.562	1034	355258.663	6339181.818
987	355406.931	6339144.063	1035	355253.800	6339186.140
988	355404.628	6339144.480	1036	355249.268	6339190.808
989	355402.632	6339144.938	1037	355245.021	6339195.773
990	355399.253	6339145.533	1038	355241.041	6339201.008
991	355395.782	6339145.990	1039	355236.785	6339207.200
992	355392.201	6339146.316	1040	355232.750	6339213.616
993	355388.547	6339146.528	1041	355228.853	6339220.179
994	355384.811	6339146.641	1042	355225.038	6339226.817
995	355381.001	6339146.662	1043	355221.224	6339233.464
996	355377.127	6339146.607	1044	355217.345	6339240.044
997	355373.189	6339146.497	1045	355213.338	6339246.486
998	355369.195	6339146.336	1046	355209.119	6339252.719
999	355365.127	6339146.141	1047	355204.633	6339258.674
1000	355361.049	6339145.950	1048	355199.816	6339264.278
1001	355356.999	6339145.798	1049	355195.134	6339268.989
1002	355353.014	6339145.725	1050	355190.176	6339273.423

Coordinates ¹			Coordinates ¹		
Vertex	Easting	Northing	Vertex	Easting	Northing
1051	355185.025	6339277.653	1099	355079.577	6339414.280
1052	355179.745	6339281.744	1100	355098.627	6339533.454
1053	355174.401	6339285.768	1101	355117.678	6339652.623
1054	355169.066	6339289.803	1102	355469.612	6339596.480
1055	355163.813	6339293.915	1103	355494.695	6339592.478
1056	355158.699	6339298.172	1104	355550.242	6339583.617
1057	355153.796	6339302.650	1105	355550.702	6339580.953
1058	355149.188	6339307.418	1106	355551.152	6339578.288
1059	355147.146	6339309.774	1107	355555.778	6339551.395
1060	355145.168	6339312.201	1108	355560.395	6339524.504
1061	355143.273	6339314.700	1109	355576.358	6339431.622
1062	355141.433	6339317.270	1110	355525.521	6339425.709
1063	355139.657	6339319.910	1111	355531.916	6339389.628
1064	355137.946	6339322.611	1112	355583.099	6339392.407
1065	355136.280	6339325.369	1113	355586.530	6339372.449
1066	355134.670	6339328.182	1114	355535.450	6339369.686
1067	355133.106	6339331.051	1115	355540.574	6339340.760
1068	355131.587	6339333.971	1116	355540.938	6339340.703
1069	355130.578	6339335.949	1117	355544.349	6339320.883
1070	355129.559	6339337.910	1118	355547.760	6339301.062
1071	355128.503	6339339.831	1119	355551.162	6339281.239
1072	355127.374	6339341.677	1120	355554.572	6339261.417
1073	355126.144	6339343.411	1121	355557.983	6339241.597
1074	355124.776	6339345.003	1122	355563.591	6339208.953
1075	355123.261	6339346.423	1123	355612.134	6339223.461
1076	355121.534	6339347.636	1124	355612.676	6339220.288
1077	355119.597	6339348.607	1125	355560.590	6339204.720
1078	355117.420	6339349.312	1126	355565.736	6339187.531
1079	355115.707	6339349.627	1127	355578.941	6339191.213
1080	355113.883	6339349.815	1128	355583.743	6339175.155
1081	355111.959	6339349.880	1129	355603.400	6339181.310
1082	355109.942	6339349.842	1130	355618.998	6339183.498
1083	355107.862	6339349.723	1131	355625.758	6339144.186
1084	355105.736	6339349.535	1132	355633.831	6339148.885
1085	355103.583	6339349.294	1133	355644.310	6339154.984
1086	355101.411	6339349.020	1134	355630.370	6339236.073
1087	355099.249	6339348.724	1135	355629.135	6339243.258
1088	355097.115	6339348.430	1136	355624.978	6339267.451
1089	355093.975	6339348.006	1137	355641.776	6339272.460
1090	355090.928	6339347.612	1138	355665.816	6339279.628
1091	355087.945	6339347.247	1139	355663.172	6339294.965
1092	355085.046	6339346.907	1140	355681.259	6339297.429
1093	355082.203	6339346.582	1141	355742.508	6339305.770
1094	355079.407	6339346.279	1142	355762.310	6339308.467
1095	355076.657	6339345.988	1143	355765.526	6339309.428
1096	355073.934	6339345.707	1144	355764.542	6339316.651
1097	355071.231	6339345.432	1145	355761.361	6339339.956
1098	355068.536	6339345.162	1146	355778.057	6339355.092

Coordinates ¹			Coordinates ¹		
Vertex	Easting	Northing	Vertex	Easting	Northing
1147	355781.088	6339357.840	1189	355947.704	6339548.039
1148	355792.598	6339368.211	1190	355947.965	6339548.694
1149	355800.836	6339375.636	1191	355948.198	6339549.361
1150	355806.189	6339380.467	1192	355948.394	6339550.041
1151	355821.053	6339393.871	1193	355948.561	6339550.728
1152	355843.279	6339413.904	1194	355948.681	6339551.423
1153	355850.965	6339420.836	1195	355948.764	6339552.125
1154	355884.520	6339383.555	1196	355948.819	6339552.831
1155	355885.393	6339382.592	1197	355948.837	6339553.537
1156	355897.437	6339393.442	1198	355932.958	6339571.070
1157	355898.880	6339391.848	1199	355925.763	6339624.135
1158	355916.729	6339407.919	1200	355923.302	6339642.269
1159	355921.333	6339402.810	1201	355920.590	6339662.217
1160	355936.261	6339416.278	1202	355917.879	6339682.168
1161	355951.189	6339429.749	1203	355915.157	6339702.123
1162	355947.810	6339433.509	1204	355912.436	6339722.083
1163	355926.263	6339457.429	1205	355909.706	6339742.043
1164	355910.715	6339474.699	1206	355901.412	6339803.130
1165	355932.692	6339494.515	1207	355898.784	6339822.451
1166	355940.580	6339501.630	1208	355896.093	6339842.266
1167	355942.156	6339503.049	1209	355893.475	6339861.547
1168	355937.149	6339540.083	1210	355888.721	6339896.529
1169	355937.521	6339540.138	1211	355885.360	6339921.299
1170	355938.220	6339540.270	1212	355874.564	6340000.771
1171	355938.908	6339540.439	1213	355974.222	6340014.312
1172	355939.577	6339540.644	1214	356089.192	6340029.935
1173	355940.246	6339540.883	1215	356060.937	6340102.361
1174	355940.896	6339541.158	1216	355678.579	6340204.001
1175	355941.535	6339541.466	1217	355705.062	6340481.788
1176	355942.156	6339541.808	1218	355712.114	6340526.706
1177	355942.748	6339542.180	1219	355483.378	6340566.356
1178	355943.330	6339542.582	1220	355492.821	6340625.715
1179	355943.894	6339543.016	1221	355502.256	6340685.073
1180	355944.428	6339543.479	1222	355277.225	6340723.274
1181	355944.935	6339543.968	1223	355279.994	6340740.685
1182	355945.339	6339544.397	1224	355286.602	6340781.992
1183	355945.422	6339544.484	1225	355288.970	6340796.823
1184	355945.872	6339545.023	1226	355314.438	6340956.788
1185	355946.302	6339545.587	1227	354491.441	6341991.245
1186	355946.695	6339546.172	1228	354446.385	6342047.958
1187	355947.069	6339546.776	1229	354351.202	6342167.550
1188	355947.396	6339547.399			

¹ Coordinate reference system is MGA 56

**SCHEDULE E – AREA OF OPERATIONS – NORTH COORANBONG SCHEME - RETAIL
OF DRINKING WATER AND SEWERAGE SERVICES**

Coordinates ¹			Coordinates ¹		
Vertex	Easting	Northing	Vertex	Easting	Northing
1	354351.202	6342167.550	46	355959.091	6341304.523
2	354514.692	6342139.480	47	355960.599	6341304.676
3	354592.036	6342126.211	48	355962.109	6341304.822
4	355263.261	6342010.852	49	355963.620	6341304.959
5	355299.057	6342004.699	50	355965.130	6341305.090
6	355457.953	6341977.432	51	355966.642	6341305.211
7	355476.118	6341974.262	52	355968.154	6341305.325
8	355928.178	6341895.744	53	355969.667	6341305.432
9	355947.934	6341892.376	54	355971.181	6341305.530
10	355853.373	6341292.557	55	355972.694	6341305.620
11	355889.131	6341288.932	56	355974.208	6341305.702
12	355908.528	6341294.666	57	355975.723	6341305.776
13	355909.987	6341295.082	58	355977.237	6341305.843
14	355911.448	6341295.492	59	355978.752	6341305.902
15	355912.912	6341295.894	60	355980.267	6341305.953
16	355914.377	6341296.289	61	355981.783	6341305.996
17	355915.844	6341296.675	62	355983.299	6341306.031
18	355917.315	6341297.054	63	355984.816	6341306.058
19	355918.785	6341297.426	64	355986.332	6341306.076
20	355920.259	6341297.789	65	355987.847	6341306.088
21	355921.734	6341298.145	66	355989.363	6341306.091
22	355923.210	6341298.493	67	355990.880	6341306.086
23	355924.690	6341298.834	68	355992.396	6341306.074
24	355926.169	6341299.168	69	355993.911	6341306.054
25	355927.652	6341299.492	70	355995.427	6341306.026
26	355929.136	6341299.810	71	355996.943	6341305.990
27	355930.620	6341300.120	72	355998.458	6341305.945
28	355932.108	6341300.421	73	355999.973	6341305.893
29	355933.596	6341300.716	74	356001.488	6341305.834
30	355935.085	6341301.002	75	356003.003	6341305.764
31	355936.577	6341301.280	76	356004.517	6341305.689
32	355938.069	6341301.552	77	356006.030	6341305.606
33	355939.563	6341301.814	78	356007.543	6341305.514
34	355941.058	6341302.070	79	356009.055	6341305.415
35	355942.555	6341302.318	80	356010.568	6341305.307
36	355944.052	6341302.557	81	356012.079	6341305.193
37	355945.552	6341302.789	82	356013.589	6341305.069
38	355947.053	6341303.013	83	356015.100	6341304.938
39	355948.553	6341303.229	84	356036.436	6341302.923
40	355950.057	6341303.438	85	356040.052	6341298.556
41	355951.560	6341303.639	86	356036.864	6341263.580
42	355953.064	6341303.831	87	356035.744	6341259.492
43	355954.569	6341304.015	88	356150.057	6341238.764
44	355956.076	6341304.193	89	356154.466	6341287.101
45	355957.583	6341304.363	90	356150.397	6341292.015

Coordinates ¹		
Vertex	Easting	Northing
91	356230.926	6341284.356
92	356234.995	6341279.435
93	356251.894	6341277.870
94	356256.765	6341281.960
95	356403.679	6341268.302
96	356407.748	6341263.377
97	356424.694	6341261.757
98	356429.593	6341265.824
99	356484.442	6341260.581
100	356488.511	6341255.657
101	356505.457	6341254.038
102	356498.096	6341175.733
103	356649.645	6341148.313
104	356774.359	6341125.628
105	356976.796	6341088.994
106	356953.354	6340941.979
107	356933.899	6340819.976
108	356933.894	6340819.976
109	356911.009	6340676.479
110	356885.170	6340514.852
111	356884.165	6340509.213
112	356879.669	6340483.987
113	356871.355	6340438.179
114	356663.500	6340472.232
115	356675.399	6340545.157
116	356655.424	6340548.976
117	356654.135	6340541.077
118	356517.390	6340564.916
119	356511.020	6340529.497
120	356509.328	6340520.087
121	356508.144	6340512.920
122	356507.647	6340509.879
123	356473.232	6340515.876
124	356459.461	6340518.274
125	356457.642	6340507.902
126	356425.193	6340513.556
127	356392.735	6340519.209
128	356378.973	6340521.608
129	356346.515	6340527.260
130	356314.239	6340533.244
131	356314.179	6340540.351
132	356255.557	6340549.401
133	356241.003	6340473.322
134	356251.795	6340469.873
135	356238.394	6340391.931
136	356228.412	6340393.983
137	356218.483	6340342.249
138	356253.676	6340334.913

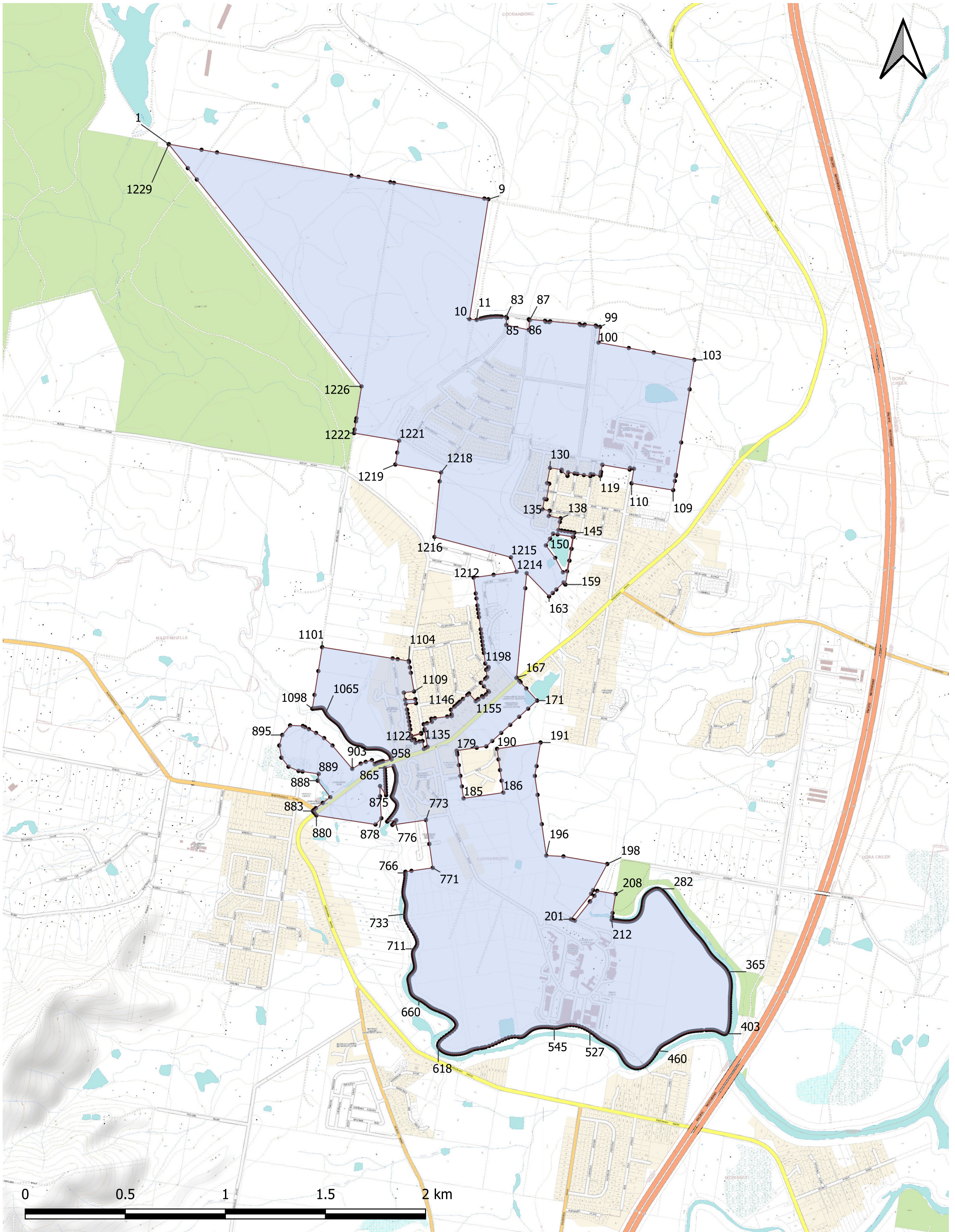
Coordinates ¹		
Vertex	Easting	Northing
139	356249.597	6340308.500
140	356308.787	6340296.974
141	356304.967	6340279.013
142	356297.856	6340238.541
143	356313.647	6340235.975
144	356329.672	6340233.370
145	356345.706	6340230.766
146	356361.740	6340228.161
147	356377.774	6340225.556
148	356373.420	6340204.076
149	356370.510	6340204.431
150	356294.047	6340216.855
151	356271.293	6340220.551
152	356255.643	6340195.055
153	356235.132	6340161.656
154	356281.620	6340098.924
155	356320.705	6340027.191
156	356341.037	6340032.670
157	356370.510	6340204.431
158	356373.420	6340204.076
159	356363.245	6340144.607
160	356353.070	6340085.137
161	356332.720	6339966.200
162	356323.680	6339976.503
163	356287.552	6339941.527
164	356269.488	6339924.042
165	356251.424	6339906.549
166	356139.306	6340022.406
167	356132.106	6339947.433
168	356089.208	6339500.483
169	356087.789	6339499.202
170	356102.181	6339485.034
171	356108.883	6339477.550
172	356137.009	6339446.173
173	356191.060	6339385.868
174	356146.496	6339345.677
175	356101.721	6339305.283
176	356018.411	6339397.769
177	356004.080	6339423.674
178	356005.942	6339425.349
179	356007.794	6339427.023
180	356022.722	6339440.491
181	356037.650	6339453.962
182	356052.579	6339467.432
183	356067.507	6339480.903
184	356000.322	6339555.491
185	355985.394	6339542.025
186	355970.456	6339528.561

Coordinates ¹		
Vertex	Easting	Northing
187	355965.166	6339523.792
188	355955.518	6339515.096
189	355942.156	6339503.049
190	355937.149	6339540.083
191	355937.521	6339540.138
192	355938.220	6339540.270
193	355938.908	6339540.439
194	355939.577	6339540.644
195	355940.246	6339540.883
196	355940.896	6339541.158
197	355941.535	6339541.466
198	355942.156	6339541.808
199	355942.748	6339542.180
200	355943.330	6339542.582
201	355943.894	6339543.016
202	355944.428	6339543.479
203	355944.935	6339543.968
204	355945.339	6339544.397
205	355945.422	6339544.484
206	355945.872	6339545.023
207	355946.302	6339545.587
208	355946.695	6339546.172
209	355947.069	6339546.776
210	355947.396	6339547.399
211	355947.704	6339548.039
212	355947.965	6339548.694
213	355948.198	6339549.361
214	355948.394	6339550.041
215	355948.561	6339550.728
216	355948.681	6339551.423
217	355948.764	6339552.125
218	355948.819	6339552.831
219	355948.837	6339553.537
220	355932.958	6339571.070
221	355925.763	6339624.135
222	355923.302	6339642.269
223	355920.590	6339662.217
224	355917.879	6339682.168
225	355915.157	6339702.123
226	355912.436	6339722.083
227	355909.706	6339742.043
228	355901.412	6339803.130
229	355898.784	6339822.451
230	355896.093	6339842.266
231	355893.475	6339861.547
232	355888.721	6339896.529
233	355885.360	6339921.299
234	355874.564	6340000.771

Coordinates ¹		
Vertex	Easting	Northing
235	355974.222	6340014.312
236	356089.192	6340029.935
237	356060.937	6340102.361
238	355678.579	6340204.001
239	355705.062	6340481.788
240	355712.114	6340526.706
241	355483.378	6340566.356
242	355492.821	6340625.715
243	355502.256	6340685.073
244	355277.225	6340723.274
245	355279.994	6340740.685
246	355286.602	6340781.992
247	355288.970	6340796.823
248	355314.438	6340956.788
249	354491.441	6341991.245
250	354446.385	6342047.958
251	354351.202	6342167.550

1 Coordinate reference system is MGA 56

SCHEDULE F – AREA OF OPERATIONS – NORTH COORANBONG SCHEME – MAPS



SCHEDULE F - MAP 1 - FLOW SYSTEMS - Area of Operations (Retail) - Non-potable water services

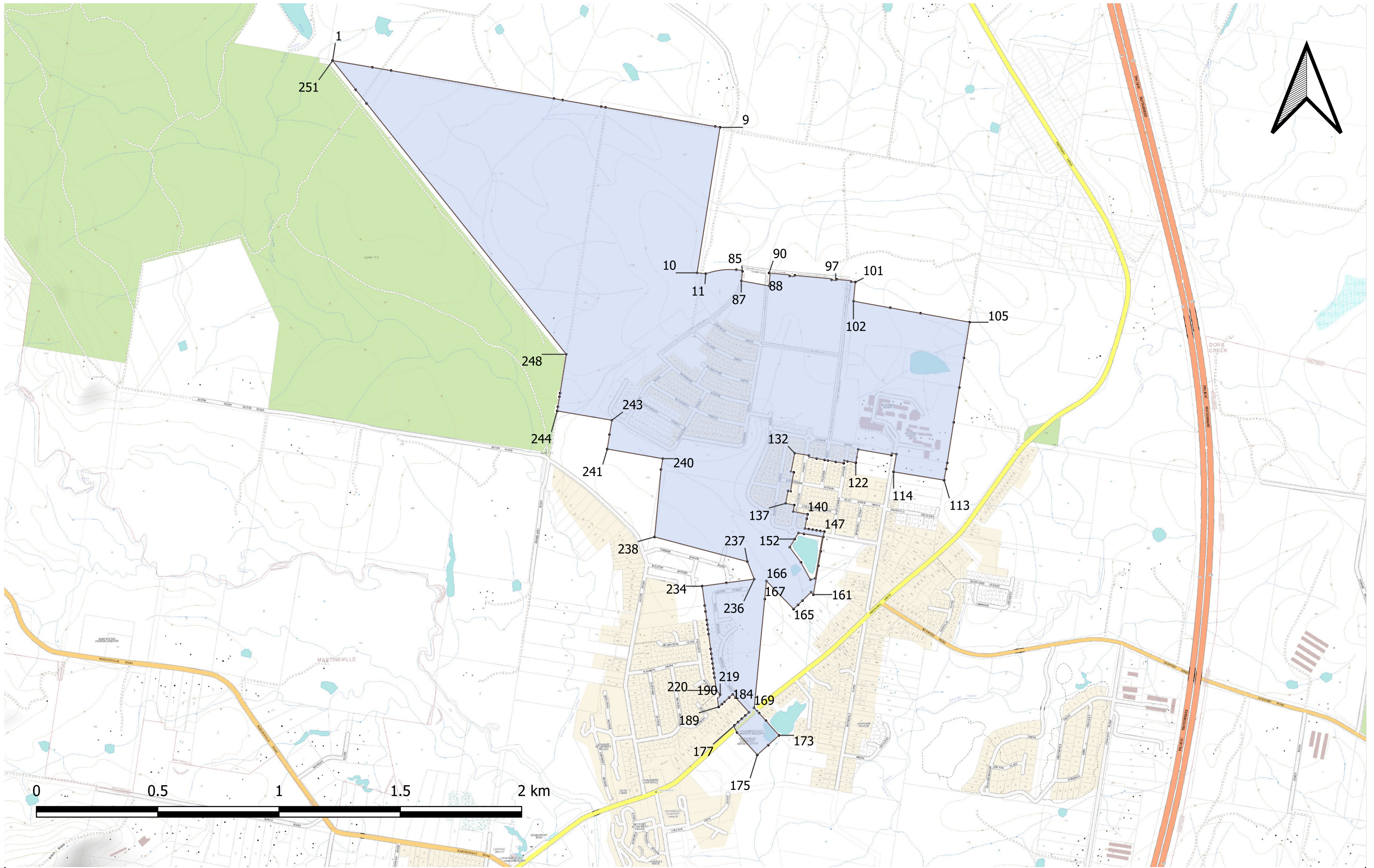
Date created: 4 March 2020
Version: 1.0

LEGEND

- Licensed area
- Non-potable water boundary
- Non-potable water vertices

LICENCE DETAILS:

Licence Number: 13_001R
Licence Type: Retail Supplier's Licence
Licensee: Flow Systems Pty Ltd (ACN 136 272 298)



SCHEDULE F - MAP 2 - FLOW SYSTEMS - Area of Operations (Retail) - Drinking water and sewerage services

Date created: 5 March 2020
Version: 1.0

LEGEND

- Licensed area
- Drinking water & sewerage boundary
- Drinking water & sewerage vertices

LICENCE DETAILS:

Licence Number: 13_001R
Licence Type: Retail Supplier's Licence
Licensee: Flow Systems Pty Ltd (ACN 136 272 298)

**SCHEDULE G – AREA OF OPERATIONS – BOX HILL NORTH SCHEME - RETAIL OF
NON-POTABLE WATER**

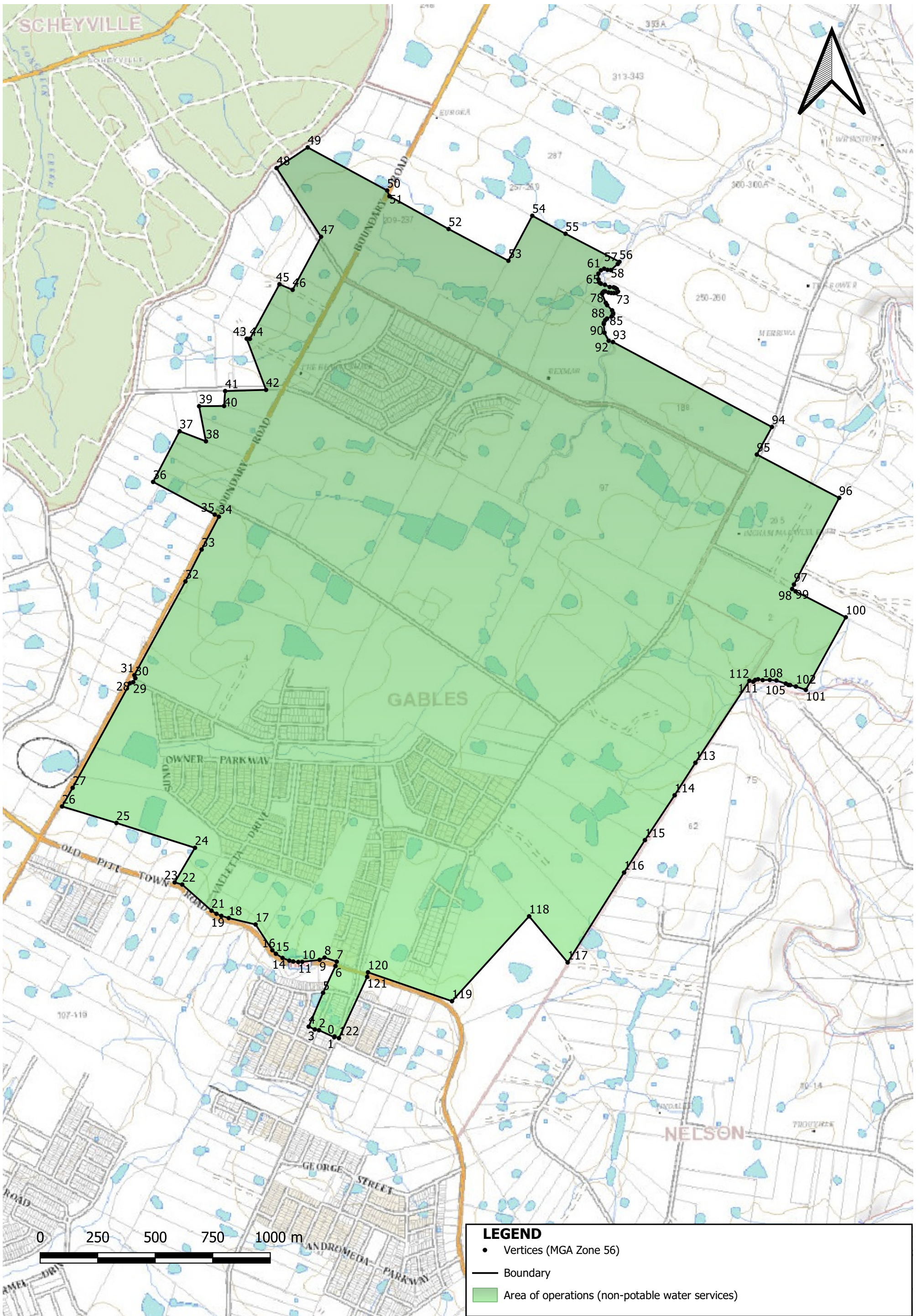
Coordinates ¹			Coordinates ¹		
Vertex	Easting	Northing	Vertex	Easting	Northing
0	305539.186	6275618.928	47	305480.576	6279095.292
1	305537.828	6275615.986	48	305287.488	6279393.798
2	305471.676	6275646.504	49	305422.613	6279483.497
3	305453.487	6275649.748	50	305767.766	6279296.364
4	305426.757	6275662.016	51	305777.773	6279271.682
5	305489.200	6275809.070	52	306034.852	6279128.993
6	305543.262	6275925.511	53	306294.774	6278990.969
7	305548.612	6275944.592	54	306398.716	6279186.591
8	305495.867	6275962.174	55	306543.137	6279108.345
9	305473.992	6275952.145	56	306777.488	6278986.353
10	305398.799	6275943.563	57	306770.309	6278977.063
11	305381.457	6275942.830	58	306739.888	6278950.473
12	305359.557	6275945.025	59	306725.543	6278951.290
13	305342.700	6275948.668	60	306710.989	6278956.211
14	305313.095	6275960.426	61	306696.750	6278949.320
15	305284.356	6275978.700	62	306686.115	6278935.009
16	305268.787	6275994.125	63	306686.479	6278910.174
17	305195.977	6276105.958	64	306689.733	6278897.139
18	305079.068	6276133.881	65	306692.002	6278894.694
19	305047.304	6276143.183	66	306697.208	6278891.026
20	305025.918	6276152.429	67	306714.354	6278886.577
21	305004.417	6276166.017	68	306735.148	6278876.813
22	304877.041	6276279.522	69	306752.608	6278875.577
23	304844.273	6276289.191	70	306759.094	6278872.744
24	304932.500	6276439.263	71	306765.834	6278867.915
25	304591.170	6276547.305	72	306771.128	6278857.238
26	304354.926	6276619.069	73	306763.787	6278850.830
27	304400.885	6276699.940	74	306752.681	6278850.434
28	304649.910	6277154.498	75	306741.552	6278850.838
29	304663.770	6277158.991	76	306730.281	6278852.841
30	304673.275	6277176.621	77	306715.318	6278858.050
31	304668.999	6277189.737	78	306709.718	6278857.701
32	304891.023	6277597.069	79	306704.253	6278852.344
33	304961.374	6277735.705	80	306702.192	6278846.980
34	305036.285	6277878.474	81	306717.961	6278807.930
35	305018.392	6277887.660	82	306723.836	6278797.970
36	304750.665	6278029.735	83	306745.576	6278775.309
37	304865.645	6278249.931	84	306749.993	6278763.706
38	304980.103	6278206.243	85	306749.829	6278758.592
39	304950.570	6278358.696	86	306743.667	6278749.140
40	305059.125	6278359.766	87	306723.422	6278739.487
41	305063.749	6278424.519	88	306715.597	6278732.417
42	305241.477	6278429.730	89	306709.664	6278721.296
43	305157.361	6278652.115	90	306709.286	6278715.994
44	305171.002	6278651.243	91	306712.250	6278678.315
45	305299.679	6278888.743	92	306730.731	6278643.189
46	305357.017	6278864.452	93	306749.275	6278637.786

Coordinates ¹		
Vertex	Easting	Northing
94	307440.257	6278268.396
95	307374.860	6278148.627
96	307732.592	6277960.187
97	307536.149	6277583.326
98	307528.270	6277564.034
99	307542.984	6277554.126
100	307761.354	6277441.219
101	307587.600	6277125.866
102	307544.684	6277140.470
103	307519.276	6277146.671
104	307512.113	6277147.028
105	307500.433	6277153.089
106	307459.792	6277166.559
107	307430.923	6277169.067
108	307400.158	6277168.107
109	307379.992	6277171.757
110	307367.595	6277168.881

Coordinates ¹		
Vertex	Easting	Northing
111	307358.912	6277161.268
112	307342.530	6277165.253
113	307107.663	6276808.954
114	307017.422	6276667.762
115	306888.240	6276472.636
116	306797.764	6276331.826
117	306552.423	6275941.227
118	306385.024	6276141.484
119	306049.627	6275772.738
120	305684.600	6275898.147
121	305680.970	6275878.177
122	305558.194	6275612.053
123	305539.186	6275618.928

¹ Coordinate reference system is MGA 56

SCHEDULE H – AREA OF OPERATIONS – BOX HILL NORTH SCHEME - MAPS



Area of Operations - Box Hill North Scheme
Non-potable water services

Date created: 4 August 2020
 Version: 1.0

LEGEND

- Vertices (MGA Zone 56)
- Boundary
- Area of operations (non-potable water services)

LICENCE DETAILS:

Licence Number: 13_001R
 Licence Type: Retail Supplier's Licence
 Licensee: Flow Systems Pty Ltd
 (ACN 136 272 298)

SCHEDULE I – INTERPRETATION AND DEFINITIONS

1. Interpretation

1.1. In this Licence, unless the context requires otherwise:

- a) the singular includes the plural and vice versa;
- b) headings are used for convenience only and do not affect the interpretation of this Licence;
- c) a reference to a document includes the document as modified from time to time and any document replacing it;
- d) a reference to a “person” includes a natural person and any body or entity whether incorporated or not;
- e) a reference to a clause is to a clause in this Licence;
- f) a reference to a section is to a section in this Licence;
- g) a reference to a schedule is to a schedule to this Licence;
- h) a reference to a law or statute includes regulations, rules, codes and other instruments under it, and consolidations, amendments, re-enactments or replacements of them; and
- i) explanatory notes do not form part of this Licence, but in the case of uncertainty may be relied on for interpretation purposes.

2. Definitions

2.1. Expressions used in this Licence that are defined in the Act or the Regulation have the meanings set out in the Act or the Regulation.

2.2. In this Licence:

Act means the *Water Industry Competition Act 2006* (NSW).

Area of Operations means the area of operations specified in, as applicable:

- a) section 1, Table 1.4
- b) section 2, Table 2.4, and
- c) section 3, Table 3.4.

Audit Guidelines means the document titled “*Audit Guideline – Water Industry Competition Act 2006*”, which is prepared by IPART and is available on IPART’s website at www.ipart.nsw.gov.au, and any other guidelines issued by IPART in relation to audits under the Act.

Authorised Persons means each person specified in, as applicable:

- a) section 1, Table 1.1
- b) section 2, Table 2.1, and
- c) section 3, Table 3.1.

Authorised Purposes means the authorised purposes specified in, as applicable:

- a) section 1, Table 1.5
- b) section 2, Table 2.5, and
- c) section 3, Table 3.5.

Box Hill North Network Operator's Licence means network operator's licence no. 16_037 granted to Flow Systems Operations Pty Ltd (ACN 603 106 305) (as varied by the Minister from time to time)

Central Park Water Network Operator's Licence means network operator's licence no. 12_022 granted to Central Park Water Factory Pty Ltd (ACN 151 072 838) (as varied by the Minister from time to time).

Cooranbong Water Network Operator's Licence means network operator's licence no. 15_033 granted to Cooranbong Water Pty Ltd (ACN 169 450 453) (as varied by the Minister from time to time).

Discovery Point Water Network Operator's Licence means network operator's licence no. 13_025 granted to Discovery Point Water Factory Pty Ltd (ACN 142 392 541) (as varied by the Minister from time to time).

Glossodia Network Operator's Licence means network operator's licence no. 19_043 granted to Flow Systems Operations Pty Ltd (ACN 603 106 305) (as varied by the Minister from time to time).

Green Square Water Network Operator's Licence means network operator's licence no. 15_031 granted to Green Square Water Pty Ltd (ACN 163 432 906) (as varied by the Minister from time to time).

Huntlee Water Network Operator's Licence	means network operator's licence no. 15_030 granted to Huntlee Water Pty Ltd (ACN 167 418 608) (as varied by the Minister from time to time).
Insurance Expert	means an insurance broker which holds an Australian financial services licence under Part 7.6 of the <i>Corporations Act 2001</i> (Cth) that authorises the broker to provide financial product advice for, and deal in, contracts of insurance within the meaning of Chapter 7 of that Act.
IPART	means the Independent Pricing and Regulatory Tribunal of New South Wales established under the <i>Independent Pricing and Regulatory Tribunal Act 1992</i> (NSW).
Licence	means this retail supplier's licence granted under section 10 of the Act.
Licensed Water Industry Infrastructure	means the water industry infrastructure by means of which the non-potable water, drinking water and/or sewerage services (as applicable) under this Licence are supplied.
Licensee	means Flow Systems Pty Ltd (ACN 136 272 298).
Licensee's Code of Conduct	has the meaning given in Schedule B, clause 7.1.
Minister	means the Minister responsible for Part 2 of the Act.
NSW Health	means the Water Unit of NSW Ministry of Health and any of the local health districts as defined by the NSW Ministry of Health.
Pitt Town Water Network Operator's Licence	means network operator's licence no. 10_014 granted to Pitt Town Water Factory Pty Ltd (ACN 141 705 660) (as varied by the Minister from time to time).
Plan	means the retail supply management plan that the Licensee is required to prepare under the Regulation.

Regulation	means the <i>Water Industry Competition (General) Regulation 2008</i> (NSW).
Reporting Manual	means the document titled “Retail Supplier’s Reporting Manual”, which is prepared by IPART and is available on IPART’s website at www.ipart.nsw.gov.au .
Shepherds Bay Network Operator's Licence	means network operator's licence no. 17_042 granted to Flow Systems Operations Pty Ltd (ACN 603 106 305) (as varied by the Minister from time to time).
Small Retail Customer	has the meaning given to that term in the Regulation.
Water Industry Infrastructure	means the water industry infrastructure specified in, as applicable: <ul style="list-style-type: none"> a) section 1, Table 1.2 b) section 2, Table 2.2, and c) section 3, Table 3.2.
Wyee Water Network Operator's Licence	means network operator's licence no. 14_026 granted to Wyee Water Pty Ltd (ACN 160 953 775) (as varied by the Minister from time to time).

B Detailed capacity analysis of FSO's and Flow Systems' applications

We considered the following as part of our assessment:

B.1 Evidence of technical capacity with respect to the Network Operator Licence Application

From our assessment, we consider that FSO, with the support of Flow Systems, has the relevant technical capacity to carry out the activities that the varied licence (if granted) would authorise.

- ▼ **Compliance history and understanding of relevant legislative frameworks:** FSO holds three network operator licences under the WIC Act. An operational audit conducted in 2020 for the Box Hill North scheme identified two non-material non-compliances on full implementation of management plans. Separately, FSO was non-compliant (material) for the same scheme due to an incident on implementation of its management plan.⁵⁰ However, the non-compliances did not result in a failure of treatment processes and FSO is working to fix these issues.
- ▼ **Risk assessment for the non-potable water infrastructure:**⁵¹ The risk assessment identifies key hazards and risks related to the scheme's non-potable water infrastructure and business systems, and identifies control measures to manage these risks. FSO is working with NSW Health to further develop the risk assessment to address shortcomings.⁵² For the purposes of this variation, we consider that the current risk assessment demonstrates FSO's technical capacity to ensure its infrastructure is operated in a safe and reliable manner.
- ▼ **Flow Systems recycled water quality plan (WQP):**⁵³ The WQP describes how the operation and maintenance of infrastructure for Flow Systems' schemes (including at Box Hill North) would be consistent with the *Australian Guidelines for Water Recycling (AGWR)*. The WQP is a generic document intended to cover all of Flow Systems' schemes. Scheme specific information is included in the Scheme Management Plan. The WQP demonstrates FSO's capacity in developing appropriate documentation, consistent with the AGWR, to supply recycled water at the scheme.

⁵⁰ Enforcement Action Notice 07/2020, 5 June 2020.

⁵¹ Flow Systems, *Box Hill Scheme Risk Register*, version 3.3, 20 October 2020.

⁵² IPART and Flow Systems monthly compliance meeting minutes, April to August 2020.

⁵³ Flow Systems, *Recycled Water Quality Plan*, revision 12, 11 December 2018.

-
- ▼ **Flow Systems infrastructure operating plan (IOP):**⁵⁴ The IOP describes the asset lifecycle planning, system redundancy, contingency plans and condition monitoring for water industry infrastructure, amongst other infrastructure management considerations. The IOP is a generic document intended to cover all of Flow Systems' schemes. Scheme specific information is included in the Scheme Management Plan. The IOP demonstrates FSO's capacity to operate and maintain the recycled water infrastructure at the scheme.
 - ▼ **Flow Systems sewage management plan (SMP):**⁵⁵ The SMP describes the framework for the management of the (existing) scheme. The SMP is intended to supplement the WQP, IOP, asset management plan, and incident management plan with scheme specific information. It includes scheme-specific details from relevant Flow Systems' plans (e.g. WQP and IOP) for the scheme non-potable water infrastructure. It also addresses the requirements of Element 2 of the AGWR for the scheme specifically. The SMP demonstrates FSO's capacity to ensure safe and reliable performance of the scheme.
 - ▼ **Water balance report:**⁵⁶ This report considers the non-potable water demand, drinking water demand and sewage production for the proposed expanded scheme. It includes consideration of weather patterns, project staging, sensitivity analysis, peak week demand analysis and modelling assumptions. The water balance demonstrates that, at average demand periods, there will be sufficient water available to meet non-potable water customer demands. At full build out, the scheme will have sufficient water available for most of the time except at prolonged peak demand periods (such as in summer months). The water balance report demonstrates that FSO will be able meet non-potable water demands during this time by introducing a non-potable water restriction (expected to achieve 15% non-potable water volume reduction) on some non-residential irrigation customers through non-standard customer contracts. This report demonstrates FSO's capacity to manage fluctuation in non-potable supply and demand from the proposed expanded scheme.
 - ▼ **Process flow diagram:**⁵⁷ The process flow diagram (PFD) describes the scheme and identifies water sources, the treatment processes, critical control points and quality control points, water storage and authorised purposes for the scheme. It also identifies the interconnection point with the Sydney Water's assets and area of responsibility between FSO, Sydney Water, customers and waste disposal contractors. The PFD demonstrates FSO's capacity to design and manage the scheme.
 - ▼ **Sydney Water drinking water connection approval:**⁵⁸ FSO is able to access drinking water for top-up of non-potable water supply through land owner's connection to the Sydney Water infrastructure at the treatment plant. The extract from the Sydney Water detailed planning report for Box Hill North showed a maximum rate of 28L/s of drinking water can be supplied through the connection. The approval demonstrates FSO's capacity to obtain sufficient drinking water for top-up to balance the non-potable water demand for the proposed expanded scheme.

⁵⁴ Flow Systems, *Infrastructure Operating Plan*, revision 12, 20 December 2018.

⁵⁵ Flow Systems, *Sewage Management Plan*, revision 7, 28 December 2018.

⁵⁶ *Box Hill North Water Balance Report*, prepared by Kinesis for Flow Systems, 8 September 2020.

⁵⁷ Flow Systems, *Box Hill Water, Process Flow Diagram – Recycled Water & Sewerage*, revision A2, 16 September 2019.

⁵⁸ Box Hill Services Brief Document and related communications with Sydney Water, 11 October 2016 to 4 November 2016.

B.2 Evidence of technical capacity with respect to the Retail Supplier Licence Application

From our assessment, we consider that Flow Systems has the relevant technical capacity to carry out the activities that the varied licence (if granted) would authorise.

- ▼ **Retail Supply Management Plan (RSMP):** The RSMP describes the retailing activities to supply drinking water, non-potable water and provide sewerage services to retail customers.⁵⁹
- ▼ **Customer contract:** The contract provides the standard terms under which Flow Systems would supply water and provide sewerage services and describes Flow Systems' responsibilities and its customers' responsibilities on administration of accounts, disputes and levels of service.⁶⁰
- ▼ **Non-standard customer contract:** As the Box Hill North schemes reaches full capacity Flow Systems proposes that Tier 3 customers will:
 - be provided non-potable water at reduced cost during low demand periods (winter months) to offload excess recycled water from the scheme, and
 - have restrictions on non-potable water supply by 15% during high demand periods (summer months).

Flow Systems proposes to restrict supply by communicating restrictions to Tier 3 customers and rely upon those customers to voluntarily restrict their consumption on irrigation.⁶¹ Flow Systems has not provided a final RSMP or non-standard customer contract for Tier 3 customers. IPART will monitor Flow Systems' management of Tier 3 customers through our compliance activities for the proposed licence, if granted.

- ▼ **Code of practice for customer complaints:** The Code of Practice describes the processes Flow Systems uses to respond to complaints by customers (including owners, tenants and customers) for the services provided. Flow Systems' code of practice for customer complaints has been developed to be consistent with the Australian Standard AS ISO 10002-2006 and addresses complaints handling, including complaint definition, contact details to make a complaint, tracking of complaints, assessment of complaints, response to complaints, escalation of complaints to the Energy and Water Ombudsman NSW, compliance and continuous improvement.⁶²
- ▼ **Missed Payments Policy:** The policy outlines how Flow Systems responds when customers (e.g. tenants or businesses) have missed one or more payments, and outlines Flow Systems' approach to customers who are having difficulty paying or are concerned about not being able to pay on time. In situations of financial hardship, (i.e. where a customer does not pay its water bill), FSO would continue to provide non-potable water at a reasonable flow for basic health and hygiene purposes. Flow Systems, as the retail supplier, would give reasonable notice to its customers if it intended to restrict supply.⁶³

⁵⁹ Flow Systems, *Retail Supply Management Plan*, version 4, 11 February 2016.

⁶⁰ Flow Systems, *Customer Contract*, 30 October 2015, see [Flow Systems Customer Contract](#), accessed on 22 October 2020.

⁶¹ Flow Systems, *Box Hill Scheme Risk Register*, revision 3.3, 20 October 2020. (RD1.9a and RD1.9b), and *Box Hill North Water Balance Report*, prepared by Kinesis for Flow Systems, 8 September 2020, p 4

⁶² Flow Systems, *Complaints and Dispute Resolution Policy*, revision 4, 14 March 2018.

⁶³ Flow Systems, *Missed Payments*, version 1.

-
- ▼ **Incident Management Plan:** The plan addresses continuity of service during interruptions due to incidents or operational problems, including interruptions to non-potable water supply and disruptions to the customer centre.⁶⁴
 - ▼ **Compliance management procedure:** which describes at a high level the compliance management within Flow Systems' organisation.⁶⁵
 - ▼ **Technical performance and previous retail experience:** Flow Systems has experience in the Australian water industry, preparing and implementing retail systems and procedures at existing operational schemes, including at Box Hill North.⁶⁶ Flow Systems will continue to use the same systems, procedures and resources to supply its intended non-potable water customers under a varied licence at the Box Hill North Scheme.⁶⁷
 - ▼ **Compliance history.** Flow Systems' RSMP was last audited in August 2016. The audit report on the RSMP provided to IPART did not find any non-compliances or any opportunities for improvement.⁶⁸

B.3 Evidence of financial capacity with respect to the network operator and retail supplier licence applications

From our assessment, we consider that both FSO and Flow Systems have the relevant financial capacity to carry out the activities that the varied licences (if granted) would authorise.

We have reviewed information provided by Flow Systems regarding the changed ownership structure for the Flow Systems group.⁶⁹ We conclude that FSO (the applicant for the network operator licence) and Flow Systems (the applicant for the retail supply licence) have, and will continue to have, financial capacity to carry out the activities that would be carried out under the respective licences for the Box Hill North scheme through the new ownership structure. We considered:

- ▼ The Flow Systems group's owners include large superannuation and sovereign wealth funds that injected equity into the Flow Systems business and imposed increased financial reporting on Flow Systems.
- ▼ An agreement facilitating the funding of the day-to-day operations of FSO and Flow Systems.
- ▼ The Flow Systems group has improving levels of solvency (i.e. Net Assets) and working capital.
- ▼ Flow Systems' financial forecasts indicate profitability for the Flow Systems group and individual schemes.

⁶⁴ Flow Systems, *Incident Management Plan*, revision 8, 30 December 2018.

⁶⁵ Flow Systems, *Compliance Management Policy and Procedure*, revision 3, 29 August 2017.

⁶⁶ Existing operational schemes are Box Hill North, Central Park, Discovery Point, Green Square, Huntlee, North Cooranbong, Pitt Town, Shepherds Bay and Wyee schemes.

⁶⁷ The RSMP, codes and compliance procedures are standard documents that apply across all of Flow Systems' schemes.

⁶⁸ Water Futures, *Report on the Retail Supply Management Plan Audit of Flow Systems*, Final Report (revision 1), 5 August 2016.

⁶⁹ Information provided includes copies of a Securityholder's Agreement, Subscription Agreement and a Trust Deed for the applicant's holding company, A Directors' Declaration, replies to our formal requests for information and informal correspondence with the applicant.

Further confidential information relating to financial capacity of the licensees is included in the Briefing to the Minister accompanying this report.

B.4 Evidence of organisational capacity with respect to the network operator and retail supplier licence applications

From our assessment, we consider that both FSO and Flow Systems have the relevant organisational capacity to carry out the activities that the varied licences (if granted) would authorise.

- ▼ **Organisational structure:** Flow Systems owns and manages its subsidiaries, including FSO. Flow Systems and FSO manage third parties to deliver the proposed works based on contractual arrangements and agreements.⁷⁰
- ▼ **Organisational chart:** key personnel for areas such as business development, project delivery, operations, retail, finance technology, legal, risk and compliance are shared across the subsidiaries as required.⁷¹
- ▼ **An outline of the experience of key personnel:** namely the Directors, Chief Executive Officer, Executive Manager Project Delivery, Executive Manager Scheme Operations and Executive Manager Risk and Compliance, which match the role descriptions.⁷²
- ▼ **Key personnel curricula vitae:** which outlines relevant experience in the water industry and specific personnel nominated to the Box Hill North scheme.⁷³

B.5 Capacity to carry out those activities in a manner that does not present a risk to public health with respect to the network operator and retail supplier licence applications

From our assessment, we consider that both FSO and Flow Systems have the capacity to carry out the activities that the varied licences (if granted) would authorise in a manner that does not present a risk to public health.

- ▼ **Risk management method:** We reviewed FSO/Flow Systems' risk assessment, including Flow Systems' proposed management of end uses for Tier 3 customers. We consider that FSO and Flow Systems have demonstrated capacity to identify and manage key hazards and risks related to non-potable water components of an amended scheme, to acceptable levels of risk, and would have in place reasonable control and mitigation measures as discussed in Chapters 4.3 and 5 of this report.⁷⁴

⁷⁰ Flow Systems Operations Ownership Structure, as at 20 May 2019.

⁷¹ We consider the slight changes to organisational chart from the application package that was consulted on does not impact our assessment that FSO has organisational capacity. Flow Systems Organisational Chart, 20 May 2019.

⁷² Appendix A3(c) *Biographies and Position Descriptions* of the Network Operator and Retail Supplier Licence Applications.

⁷³ *ibid*

⁷⁴ Flow Systems, *Box Hill Scheme Risk Register*, 20 October 2020. End use by Tier 3 customers is considered at Risk ID RI 1.7b.

-
- ▼ **Source water quality:** FSO will continue to source non-potable water from the licensed Box Hill North recycled water treatment plant. Drinking water top-up for the recycled water network would be sourced from Sydney Water as per the existing scheme.
 - ▼ **Fit for purpose recycled water quality:** FSO operates water industry infrastructure at the Box Hill North scheme under its existing licence. FSO and Flow Systems have demonstrated its capacity to treat sewage and provide fit for purpose non-potable water, consistent with the requirements of the AGWR, at its licensed schemes. We consider that FSO is likely to need to further revise its risk assessment with NSW Health to adequately manage risks posed by the proposed activities including new end-uses under the varied licence.
 - ▼ **Cross connection mitigation measures:** FSO has identified appropriate controls to ensure the risks of cross connections are minimised. In addition, FSO will continue to conduct quality assurance inspections of non-potable water connections prior to commercial operation of new infrastructure and would follow a specific notification protocol in the case of possible cross connection incidents.
 - ▼ **Non-potable water supply interruption:** Any temporary interruption to the provision of non-potable water at the treatment plant should pose a limited risk to public health because drinking water top-up for non-potable water is available from Sydney Water. In situations of financial hardship, (i.e. where a customer does not pay its water bill), FSO would continue to provide non-potable water at a reasonable flow for basic health and hygiene purposes. Flow Systems, as the retail supplier, would give reasonable notice to its customers if it intended to restrict supply.

B.6 Appropriate arrangements with respect to insurance for the network operator and retail supplier licence applications

From our assessment, we consider that both FSO and Flow Systems have appropriate insurance arrangements.

- ▼ **Insurance information for Flow Systems and all its subsidiaries (including FSO) was provided:**
 - Insurance certificates of currency - FSO and Flow Systems are named on each relevant insurance certificate
 - Contract works and legal liability insurance policy
 - Industrial special risk insurance policy
 - Insurance expert report detailing the following insurances:
 - Workers compensation
 - Contractors pollution liability
 - Industrial special risks
 - Combined public and products liability and professional indemnity
 - Contract works
 - Cyber risk
 - General business
 - Management liability
 - Portable equipment property.

We note that Flow Systems also holds other insurances including construction insurance, contractors' pollution insurance, equipment insurance and cyber enterprise risk management insurance.

- ▼ **icare review:** We sought advice from the NSW government-owned insurance provider icare which concluded that FSO and Flow Systems have appropriate and adequate insurance cover for the proposed licensed activities. As part of its review, icare examined:
 - FSO's and Flow Systems' proposal under the varied licences
 - The scheme risk assessment
 - Insurance coverage details, certificates of currency and the insurance policies listed above
 - A Deed of Guarantee and Indemnity between FSO and its Guarantor, Flow Systems⁷⁵
 - Insurance expert's report.⁷⁶

⁷⁵ Dated 17 June 2016.

⁷⁶ Prepared by Arthur J. Gallagher & Co. (Aus) Limited, 30 July 2019.

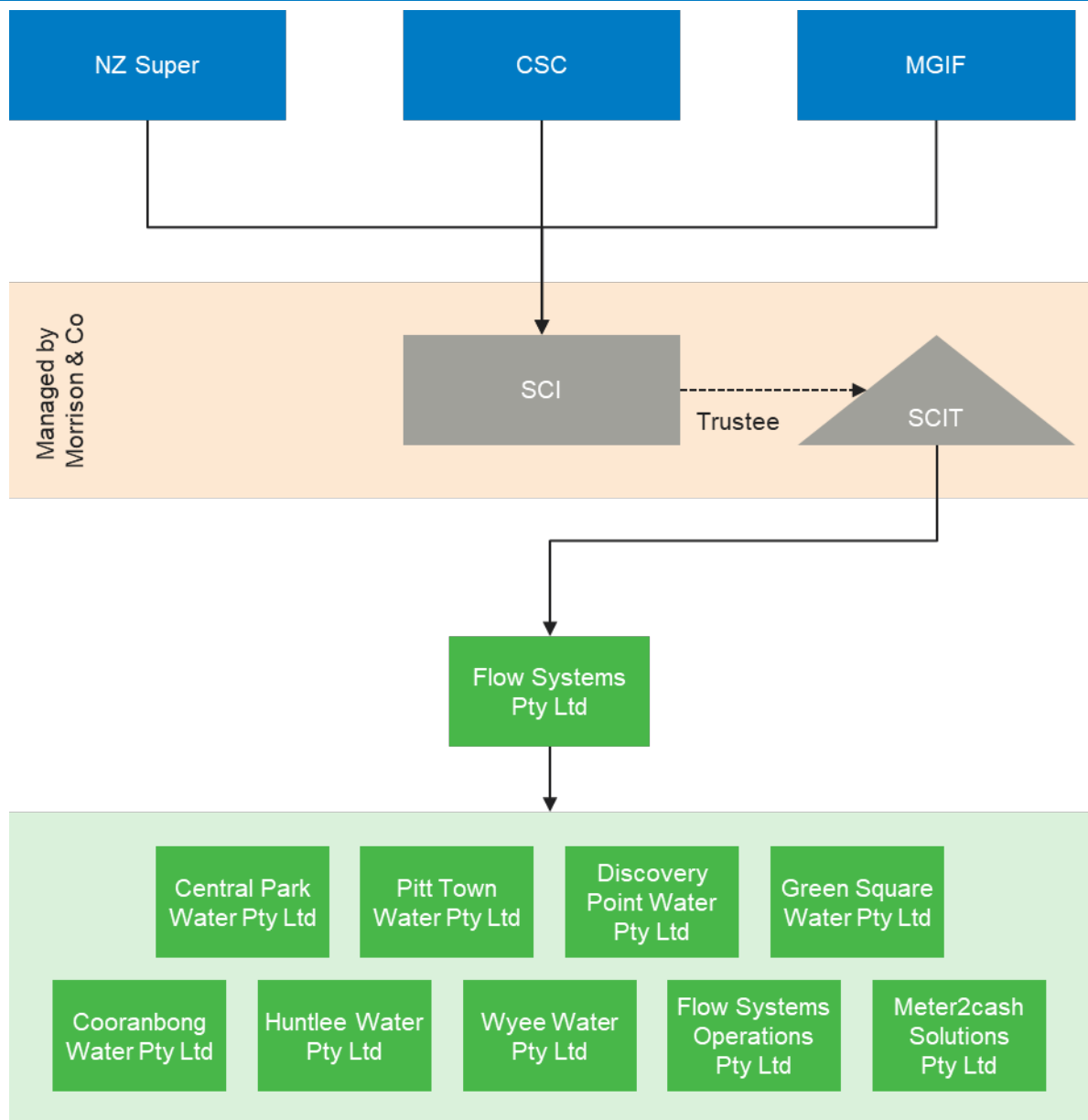
C Flow Systems Operations' ownership structure and related licensees

Table C.1 Flow Systems' subsidiaries and their licensed schemes

Subsidiary	Scheme	Network operator licence	Licensed for		
			DW ^a	NP ^b	S ^c
Pitt Town Water Pty Ltd	Pitt Town scheme, Pitt Town, Sydney	10_014		✓	✓
Central Park Water Factory Pty Ltd	Central Park development, Chippendale, Sydney	12_022	✓	✓	✓
Discovery Point Water Pty Ltd	Discovery Point development, Wollie Creek, Sydney	13_025	✓	✓	✓
Wyee Water Pty Ltd	Wyee residential scheme, Wyee, Lake Macquarie	14_026	✓	✓	✓
Huntlee Water Pty Ltd	Huntlee residential scheme, North Rothbury, Hunter Valley	15_030	✓	✓	✓
Green Square Water Pty Ltd	Green Square Town Centre, Sydney	15_031		✓	
Cooranbong Water Pty Ltd	Cooranbong residential development, Cooranbong, Lake Macquarie	15_033	✓	✓	✓
Flow Systems Operations Pty Ltd	Box Hill North residential development, The Hills Shire Council	16_037		✓	✓
Flow Systems Operations Pty Ltd	Shepherds Bay development, Meadowbank, City of Ryde Council	17_042	✓	✓	✓
Flow Systems Operations Pty Ltd	Glossodia development, the Hawkesbury City Council.	19_043		✓	✓

- a. Drinking water infrastructure
- b. Non-potable water infrastructure
- c. Sewerage infrastructure

Figure C.1 Flow Systems group ownership structure



Legend:
 NZ Super = New Zealand Superannuation Fund
 CSC = Commonwealth Superannuation Corporation
 MGIF = MGIF SCIT PV Pty Ltd
 SCI = Sustainable Communities Infrastructure Pty Ltd
 SCIT = Sustainable Communities Infrastructure Trust

Note: As Trustee Corporation SCI has direct control over SCIT.

Data source: Letters from Flow Systems to IPART, 6 August 2019 and 28 January 2020.

D Summary of submissions

Table D.1 Summary of submissions for FSO's and Flow Systems' applications to vary their network operator and retail supplier licences for the Box Hill North scheme

Agency	Summary of submission	Our response
NSW Health		
1.	<p>NSW Health requested that all new end-uses are subject to a risk assessment to ensure that risks are appropriately managed. NSW Health noted that “an exposure assessment is necessary” to determine log reduction values for end-uses that are not considered in the AGWR.</p> <p>NSW Health also noted that Flow Systems' should update its risk methodology prior to conducting new risk workshops related to the scheme. The updates should address NSW Health's and IPART's feedback on previous risk assessments.</p>	<p>Flow Systems is currently liaising with NSW Health to amend its risk assessment for the scheme.</p>
2.	<p>NSW Health recommended that Flow Systems' customers and other end-users of recycled water are made aware of, and agree to, any requirements to manage the risk.</p>	<p>We agree. Under Schedule 2, clause 9 of the WIC Regulation, Flow Systems must inform customers of the authorised purposes of non-potable water and must not supply non-potable water for any other purpose.</p> <p>In addition, Flow Systems is required to update its water quality plans to include controls to manage the risk to end-users. Audits will assess the adequacy and implementation of the controls.</p>
3.	<p>NSW Health requested that Flow Systems review the risk assessments in consultation with relevant stakeholders including NSW Health, IPART and EPA. NSW Health expects an invitation to attend risk assessments. NSW Health requests that the management plans and incident notification protocols for sewage and recycled water are updated if details of the scheme change.</p>	<p>Our current practices would ensure that FSO consult with NSW Health and the EPA as relevant stakeholders at various stages during the development and auditing of FSO's management plans and incident notification protocols.</p> <p>Standard licence condition (Schedule B, clause 4.1)⁷⁷ requires FSO to comply with requirements of NSW Health. The existing direction from NSW Health requires FSO to consult with NSW Health during the development of all documents identified.⁷⁸</p>

⁷⁷ Schedule B, clause 3.1 of the proposed network operator licence.

⁷⁸ Letter to Flow Systems Operations Pty Ltd from IPART, Notification of NSW Health Requirements under Licence Clause B4, 7 December 2017.

Agency	Summary of submission	Our response
4.	NSW Health considers that IPART’s audit process would confirm adequacy and compliance of the recycled water management plan against the AGWR.	<p>For the proposed additional non-potable water reticulation: FSO would be required to undertake periodic operational audit of the scheme. The operational audit would check the implementation of licence plans against requirements of the AGWR.</p> <p>For already licensed infrastructure with the proposed new end-uses: FSO must notify us of its proposal to supply non-potable water for new end-uses at least three months before commencing such operation (Schedule B, clause 11.1 of the existing network operator licence⁷⁹).</p> <p>FSO is required to update its water quality plan and associated risk assessment to adequately identify risks and controls related to the new end-uses. We consider that the plan will need to be audited for adequacy, as this is a significant change to the plan. Implementation of the updated plan will be audited as part of operational audits of the scheme.</p>
5.	NSW Health noted that a licence under the WIC Act does not automatically exempt FSO from the requirement to develop and adhere to a drinking water management system under the <i>Public Health Act 2010</i> and <i>Public Health Regulation 2012</i> .	Drinking water is not being supplied by Flow Systems at the Box Hill North scheme. However, we note that Flow Systems and FSO may be subject to additional requirements under legislation administered by NSW Health. We expect Flow Systems and FSO to liaise with NSW Health to understand its obligations.

⁷⁹ Schedule B, clause 9.1 of the proposed network operator licence.

Agency	Summary of submission	Our response
The Hills Shire City Council (Council)		
6.	<p>As part of Council's planning proposal assessment, the Council required Flow Systems to demonstrate that the water management facility would have capacity to accommodate the anticipated demand by all future development within the Precinct, including land not controlled by the major developer. The Council noted that the existing RSL does not apply to a number of properties along Red Gables Road / Janpieter Road.</p> <p>The Council recommended that Flow Systems be required to include these additional properties within the RSL area (for both recycled water and sewerage services) to reflect Flow Systems' commitment to reasonably service these properties within a timely manner.</p>	<p>The properties identified in Council's submission as 'not within Flow Systems' Service Agreement' are included in Flow Systems existing retail supplier licence area of operations for sewerage and recycled water services.</p> <p>Flow Systems responded to Council's submission, noting that⁸⁰:</p> <ul style="list-style-type: none"> ▼ The properties identified are included in its retail supplier licence ▼ It is committed to servicing the land within the residential-zoned Box Hill North urban release area when capacity becomes available. ▼ The scope of Flow Systems' 2019 application to vary its retail supplier licence area of operations beyond the residential-zoned urban release area is to permit recycled water services only, and only at times where excess recycled water is available.

⁸⁰ Letter from Flow Systems to the Hills Shire Council, 19 May 2019.

Agency	Summary of submission	Our response
7.	<p>The Council noted that the proposal from Flow Systems appears to be a short term solution to removing excess treated water from the overall system. It does not take into account potential future growth in the area and lots that may require services should they be released in the future. The proposed inclusion of an additional 38 lots would remove the need for Flow Systems to dispose of this excess water through other means without these additional lots gaining the benefit of a sewerage treatment system.</p> <p>The Council identified a potential growth area (land that adjoins the Box Hill North precinct to the west) that may be suitable to accommodate future urban development.</p> <p>The Council recommended that any infrastructure extension of the retail supplier licence consider these potential future residences that may require access to both water and sewerage in the future.</p>	<p>Noted. The merits of the proposed variation have been considered in this Report. IPART has not received an application for Flow Systems to service the new growth area identified in Council's submission and is unable to accommodate Council's request to consider potential future residences in the current licence application assessment.</p> <p>Flow Systems responded to Council's submission, noting that⁸¹:</p> <ul style="list-style-type: none"> ▼ The recent drought conditions showed that reliance on drinking water for non-potable uses is inefficient and short-sighted. Flow Systems wishes to extend the benefits of non-potable water to as many customers as possible in and around its schemes. ▼ The current Flow Systems' local water centre site will not be large enough to service any development outside of the existing residential-zoned land, however given the flexibility and decentralised nature of Flow Systems' service offering it can be custom-designed to service areas of suitable scale. ▼ Flow Systems would be happy to review any proposed development plans for the surrounding RU6-zoned land and offer alternative servicing strategies for wastewater, water or energy services.
8.	<p>The Council noted that the map provided by IPART for consultation appears to contain inaccuracies where properties outside of the Box Hill North Precinct south of Old Pitt Town Road have been identified as within the 'existing' licence area.</p>	<p>The area of operations in the existing licence was amended post-consultation during the granting of that licence. It includes lots south of Old Pitt Town Road. We understand that it is difficult to identify the actual area of operations from a long list of lot and DP numbers in the existing licence. We are now using maps and coordinates to define the area of operations in the licence to improve clarity.</p>
Department of Planning, Industry and Environment (DPIE)		
9.	<p>DPIE confirmed that it found no record of enforcement action undertaken or carried out against FSO or Flow Systems under the EP&A Act.</p>	Noted.
10.	<p>DPIE is unaware of any unacceptable risks to the environment posed by the activities to be licensed.</p>	Noted.
11.	<p>DPIE does not recommend any licence conditions in relation to protection of the environment.</p>	Noted. We have not included any additional licence conditions related to the protection of the environment.

⁸¹ Ibid.

Agency	Summary of submission	Our response
Environment Protection Agency (EPA)		
12.	EPA is not aware of any breaches of the <i>Protection of Environment Operations Act 1997</i> (POEO Act) and has not taken any regulatory action against FSO or Flow Systems.	Noted.
13.	EPA considered that FSO does not require an environment protection licence (EPL) under the POEO Act, on the understanding that the proposed variations do not alter current waste disposal methods at the Box Hill North scheme to include discharge to waters or lands. Therefore the current situation remains unchanged and EPLs are not required.	Noted. EPA did not recommend any conditions relating to the environment to be included in the network operator licence. We have not included any additional licence conditions related to the protection of the environment.
14.	EPA noted that it is the responsibility of the proponent to ensure that all relevant environmental legislation is complied with.	Noted.
15.	EPA noted that IPART should not duplicate legislated environmental requirements.	Noted.
Sydney Water		

Agency	Summary of submission	Our response
16.	<p>Sydney Water supports measures that help to reduce the demand for drinking water, subject to:</p> <ul style="list-style-type: none"> ▼ Conditions may be needed to assure public health, safety and environmental outcomes (as determined by NSW Health, WorkCover and the Environment Protection Authority). ▼ Consistent definitions being used across licences for the same permitted uses. ▼ An assessment of impacts on the overall water balance for each scheme, including changes to the supply of drinking water for top-up. 	<p>Noted.</p> <p>We consider that no additional licence conditions are required. NSW Health, in its submission, did not recommend additional licence conditions.</p> <p>Conditions of network operator licences prescribed in the WIC Regulation address issues of a safe and reliable network, environmental protection and require that water quality plans consistent with AGWR be developed and implemented.</p> <p>The current FSO licence has a licence condition requiring it to comply with NSW Health's requirements that IPART has agreed to and are notified to the Licensee.</p> <p>We consider consistency across licences whenever we receive a licence variation application. We have attempted to ensure that the definitions used across Flow Systems' and its subsidiaries' licences are consistent. For example, the licences refer to "ornamental water features" rather than simply "water features" to reduce ambiguity about non-potable water use. We have had regard to FSO's water balance report⁸² for the scheme that includes sensitivity analysis, assessed impacts on drinking water top-up and project staging analysis.</p>

⁸² *Box Hill North Water Balance Report*, prepared by Kinesis for Flow Systems, 8 September 2020.

Agency	Summary of submission	Our response
17.	<p>Sydney Water has stated its strong preference that all WIC Act licence holders be required to develop a Code of Conduct (CoC) with any other utility that provides services to or within their area of operations, regardless of whether there is a direct interconnection of infrastructure. As a minimum, the CoC should cover matters such as:</p> <ul style="list-style-type: none"> ▼ Data sharing (for example, water quality) ▼ Incident management ▼ Customer communication and complaint protocols ▼ How the risk of cross connections will be managed/mitigated. 	<p>Noted.</p> <p>FSO is required to establish a CoC in accordance with clause B10 of its current network operator licence for interconnections, if the Minister has not already established a CoC under clause 25 of the WIC Regulation. There is no requirement for a CoC where services are provided within the area of operations but there is no interconnection.</p> <p>As this raises a broader issue that affects all licences and is not related to the variation being sought, we have not sought to address this issue through the licence variation process. We will however consider this issue as part of the next re-make of the WIC Regulation. We intend to consult further with Sydney Water and WIC Act licensees on the issues raised as part of that process.</p>
18.	<p>Sydney Water would welcome the opportunity to work with Flow Systems to ensure the safety of customers is prioritised, including better understanding Flow Systems' approach to communicating with recycled water customers during drought.</p> <p>Sydney Water noted that while historically recycled water has been exempted from water restrictions, demand for recycled water in extended dry periods typically exceeds the available supply requiring significant volumes of drinking water top-up. This may compromise pressure and flow in Sydney Water's drinking water system which may lead to poor service outcomes for customers and could also present public safety risk to the community during incidents (for example, during bushfires).</p>	<p>Noted.</p> <p>We sought clarification from Flow Systems and note that Sydney Water has endorsed the drinking water top-up at maximum day demand at various stages of the scheme.⁸³ We encourage Sydney Water to discuss the terms of provision of top-up potable water supply, during extended dry periods, with the landowner of the local water centre which is a customer of Sydney Water.</p> <p>If necessary, the Minister has the capacity to impose restrictions on recycled water use. FSO proposes to impose non-potable water restrictions in dry summer months to Tier 3 non-residential irrigation customers under non-standard customer contracts. We consider that this is a more appropriate and flexible mechanism than specific licence clauses which are not able to be updated dynamically in response to wet/dry periods.</p>

⁸³ Flow Systems' response to our request for information, item 35, 29 May 2020, p 6.

Agency	Summary of submission	Our response
19.	<p>Sydney Water considered that the proposed expansion of the Box Hill North scheme may not represent a sustainable use of water resources.</p> <p>Sydney Water noted that Flow Systems' water balance for the expanded area does not affect wastewater collection, and so does not change the level of recycled water available. This means some demand will be met through Sydney Water providing additional drinking water to top-up Flow Systems' recycled water facility.</p> <p>Sydney Water considered Flow Systems' servicing strategy does not adequately reflect the water balance for the area resulting in excess volumes of recycled water at various times of the year.</p>	<p>Flow Systems has provided an updated water balance report⁸⁴ for the scheme that includes sensitivity analysis, drinking water top-up usage and project staging analysis.</p> <p>Flow relies on drinking water top-up supply from Sydney Water to meet demand but does not intend to impose additional demands to what has already been agreed. Instead Flow is proposing a tiered customer water servicing strategy to ensure it has adequate supply and disposal mechanisms.</p> <p>Refer to Section 4.3.1 licensing criterion (f) of this report for more detail.</p>
20.	<p>Sydney Water considered that the updated water balance report provides limited evidence to explain or justify the updated assumptions. Sydney Water noted that the original water balance (submitted as part of the original licence application in 2015) assumed significantly higher residential potable water and recycled water demand despite more residential dwellings and a larger area in this variation application.</p> <p>Sydney Water considered extensive tanker movements may be required to dispose of excess sewage / recycled water, and Sydney Water's potable water top-up capacity will need to be sized to meet peak day demand. There may be little or no capacity reduction in other water industry infrastructure due to the servicing strategy for this scheme.</p>	<p>Noted.</p> <p>Flow Systems has provided an updated water balance report⁸⁵ for the scheme that includes sensitivity analysis, drinking water top-up usage and project staging analysis.</p> <p>Flow is proposing a tiered customer water servicing strategy to ensure it has adequate supply and disposal mechanisms.</p> <p>Refer to Section 4.3.1 licensing criterion (f) of this report for more detail.</p>
Individual		
21.	<p>An individual submission by a member of public requested the retail licence variation application be rejected on the following grounds:</p> <ul style="list-style-type: none"> ▼ Flow Systems are refusing to supply sewer and recycled water services to landholders currently on their licence. ▼ The Minister has written to Flow Systems stating that they are in breach of their licence (a letter from the Department of Planning and Environment to the individual, dated 18 June 2019 was attached to the submission). ▼ The Hills Shire Council also has similar concerns as set out above. 	<p>Noted.</p> <p>In July 2019, Flow Systems wrote to DPIE in response to the Minister's view on licence contravention and provided their reasons as to why they are not in breach of their current licence.⁸⁶</p> <p>DPIE is currently considering the servicing of lots owned by the individual. We will cooperate and support DPIE in dealing with this matter.</p>

⁸⁴ Box Hill North Water Balance Report, prepared by Kinesis for Flow Systems, 8 September 2020.

⁸⁵ Ibid.

⁸⁶ Letter from Flow Systems to the Deputy Secretary, Metropolitan and Regional Water, Department of Planning and Environment, 3 July 2019.

E Assessment of FSO's EIA Checklist

E.1 Purpose

FSO has submitted an application under the WIC Act for a variation of their current network operator licence (licence number 16_037).

FSO prepared an Environmental Impact Assessment (EIA) Checklist⁸⁷ for the proposed activities to satisfy the legal requirements under Part 5 of the EP&A Act and clause 7 of the WIC Regulation.

We assessed the adequacy of the EIA Checklist, in particular by identifying and assessing the potential environmental impacts of the proposed variation, to determine whether adequate consideration has been given to the environment and whether the proposed variation should be approved under Part 5 of the EP&A Act.

To assess whether the EIA Checklist is sufficient to allow the Minister to make a determination under Part 5 of the EP&A Act, we have reviewed the EIA Checklist against the following provisions:

- ▼ Sections 5.5 and 5.7 of the EP&A Act
- ▼ Clause 228 of the *Environmental Planning and Assessment Regulation 2000* (NSW)
- ▼ Section 7(1)(a) and section 10(4)(e) of the WIC Act
- ▼ Clause 7 of the WIC Regulation.

We have also assessed whether other relevant requirements have been identified and considered in the EIA Checklist, including:

- ▼ Other relevant provisions relating to NSW legislation (such as the *Biodiversity Conservation Act 2016* (BC Act) and the *National Parks and Wildlife Act 1974*)
- ▼ Relevant provisions relating to Commonwealth legislation (including the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act))
- ▼ Environmental guidance and good practice relating to construction and operation (such as the *NSW Interim Construction Noise Guideline 2009*)

⁸⁷ Flow Systems, *Box Hill – extension of recycled water reticulation, Environmental Impact Assessment Checklist*, 6 October 2020.

E.2 Proposal

FSO proposes to modify the Box Hill North non-potable water scheme to construct and operate a pipeline to service Lot 17 DP 752047 on Janpieter Road. The proposed works assessed in the EIA Checklist include the following:

- ▼ Construction, operation and maintenance of a non-potable water pipeline to provide non-potable to Lot 17 DP 752047. The proposed pipeline is approximately 25mm in diameter and 250m in length at a shallow depth.
- ▼ Construction activities to be confined in the Janpieter Road corridor, within a six metre buffer east of the lot boundary of Janpieter Road and Lot 8 DP 75204, in the cleared, grassed area of the Janpieter Road corridor.

The proposed works is estimated to take 5 days to complete.

E.3 Findings

The EIA Checklist provides sufficient information on the construction and operational activities of the proposed variation to enable us to examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment.

The key issues found through our assessment are:

- ▼ The EIA Checklist clearly articulates the scope of the proposed modification FSO assess. The scope of work is to include a non-potable pipeline to provide non-potable to Lot 17 DP 752047. Section 3.3 of the EIA Checklist provides detailed descriptions for the proposed modification.
- ▼ Environmental impacts of the proposed extended area of operations have been assessed and are expected to be minor and consistent with the impacts described in the EIA Checklist. Environmental impacts are temporary in nature and mitigation measures have been identified in keeping with standard construction practices.
- ▼ It is unlikely that the proposed activity will have significant impacts on threatened species, populations and ecological communities listed pursuant to the BC Act, the *Fisheries Management Act 1994* or impact on matters of national environmental significance pursuant to the EPBC Act.

E.4 Conclusion

The EIA Checklist has:

1. Examined and taken into account relevant Commonwealth and NSW legislation and policies.
2. Examined and taken into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the proposed activity. Identified environmental impacts are within acceptable parameters, provided the mitigation measures outlined in the EIA Checklist are effectively implemented.

-
3. Been prepared in accordance with Part 5 Division 5.1 of the EP&A Act. FSO have concluded that the proposed activity is unlikely to significantly affect the environment and hence an EIS is not required to be prepared. The proposed activity is also unlikely to affect Commonwealth land or have an impact on any matters of national environmental significance.

We therefore consider that the EIA Checklist meets the requirements for determination under Part 5 Division 5.1 of the EP&A Act and has taken into account to the fullest extent possible all matters affecting or likely to affect the environment associated with the proposed scope of work that is the subject of the variation application for the Box Hill North scheme.