



Independent Pricing and Regulatory Tribunal
New South Wales

Licence Application Form

Network Operator and Retail Supplier Licence
Water Industry Competition Act 2006 (NSW)

Applicant: Flow Systems Operations Pty Ltd
Scope: Variation 1 to Network Operator Licence 16_037 (NOLV1)
Scheme: Box Hill
Submission Date: October 2019
Version: 2
Type: PUBLIC

Application
Water

January 2019

© Independent Pricing and Regulatory Tribunal (2018)

With the exception of any:

- (a) coat of arms, logo, trade mark or other branding;
- (b) third party intellectual property; and
- (c) 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:
<https://creativecommons.org/licenses/by-nc-nd/3.0/au/legalcode>

IPART requires that it be attributed as creator of the licensed material in the following manner: © Independent Pricing and Regulatory Tribunal (2018).

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 does not guarantee or warrant, and accepts no legal liability whatsoever arising from or connected to, the accuracy, reliability, currency or completeness of any material contained in this publication.

Information in this publication is provided as general information only and is not intended as a substitute for advice from a qualified professional. IPART recommends that users exercise care and use their own skill and judgment in using information from this publication and that users carefully evaluate the accuracy, currency, completeness and relevance of such information. Users should take steps to independently verify the information in this publication and, where appropriate, seek professional advice.

Nothing in this publication should be taken to indicate IPART's or the NSW Government's commitment to a particular course of action.

ISBN 978-1-76049-284-7

The Independent Pricing and Regulatory Tribunal (IPART)

IPART provides independent regulatory decisions and advice to protect and promote the ongoing interests of the consumers, taxpayers and citizens of NSW. IPART's independence is underpinned by an Act of Parliament. Further information on IPART can be obtained from IPART's website: <https://www.ipart.nsw.gov.au/Home>.

Tribunal Members

The Tribunal members are:

Dr Peter J Boxall AO, Chair

Mr Ed Willett

Ms Deborah Cope

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

Erin Cini (02) 9113 7778

Robert Aposhian (02) 9290 8406

PUBLIC

Contents

Tribunal Members	iii
1 Introduction	1
1.1 Who should complete this form?	1
1.2 How this form is structured	1
2 Statutory declaration	3
3 Acknowledgement	5
4 Licence application form schedules	8
4.1 Network operator's licence	8
4.2 Retail supplier's licence	8
A Applicant corporation information	10
B Financial capacity	20
C Network operator's licence – technical capacity	24
D Retail supplier's licence – technical capacity – water supply	34
E Retail supplier's licence – technical capacity – sewerage services	36

1 Introduction

The *Water Industry Competition Act 2006* (NSW) (WIC Act) came into force on 8 August 2008 and includes provisions for the licensing of private sector water utilities.

Under the WIC Act, the responsible portfolio Minister¹ (the Minister) is in charge of making decisions on granting or refusing the following licences:

- ▼ A **network operator's licence** for constructing, maintaining and operating water industry infrastructure
- ▼ A **retail supplier's licence** to supply water or provide sewerage services, by means of water industry infrastructure.

The Independent Pricing and Regulatory Tribunal of NSW (IPART) is responsible for receiving and assessing licence applications for these licences. It is also responsible for the ongoing administration and enforcement of these licences.

1.1 Who should complete this form?

This form is for corporations applying to become licensees under the WIC Act. Under section 8(1) of the WIC Act, an application for a licence can only be made by, or on behalf of, a corporation.

A copy of the WIC Act and the Water Industry Competition (General) Regulation 2008 (WIC Regulation) are available on the NSW Government's legislation website at www.legislation.nsw.gov.au.

You should complete this form according to the instructions outlined in the Application Form Guidance Document: Network Operator and Retail Supplier Licence, Water Industry Competition Act 2006 (NSW) (the Guidance Document). The Guidance Document and the Application Form are available on our website at www.ipart.nsw.gov.au.

Direct any questions to the Director, Regulation and Compliance via email, wica@ipart.nsw.gov.au or telephone, (02) 9113 7778.

1.2 How this form is structured

This form is structured into the following parts:

- ▼ Part 1 provides an introduction to the form
- ▼ Part 2 contains the Statutory Declaration that must accompany the application form
- ▼ Part 3 contains the Acknowledgement that must accompany the application form

¹ Currently the Minister for Energy and Utilities, December 2018.

-
- ▼ Part 4 contains the licence application form schedules. These schedules are:
 - A) Applicant corporation information (to be completed by all applicants corporation)
 - B) Financial capacity (to be completed by all applicant corporations)
 - C) Network operator's licence - technical capacity
 - D) Retail supplier's licence - technical capacity - water supply
 - E) Retail supplier's licence - technical capacity - sewerage services.

PUBLIC

2 Statutory declaration

A statutory declaration must be completed by all applicant corporations and submitted with their application.

Statutory declaration

Provide a statutory declaration from:

- a) The Chief Executive Officer and a director of the applicant corporation (each must complete a separate declaration); or
- b) The sole director and Chief Executive Officer of the applicant corporation; or
- c) Such other person that IPART agrees may provide the statutory declaration(s); to the effect that the information provided in the application is true and correct.

For the purposes of Part 3 of this application form, the statutory declaration should also state that the applicant corporation is neither:

- ▼ A disqualified corporation for the purpose of section 10(3)(a) of the *Water Industry Competition Act 2006 (NSW) (WIC Act)*, nor
- ▼ A related entity of a disqualified corporation that would have a direct or indirect interest in, or influence on, the carrying out of the activities that the licence (the subject of the application in relation to which this declaration is made), if granted, would authorise, for the purpose of section 10(3)(b) of the WIC Act.

A statutory declaration must be certified by a NSW authorised witness from the following list:

- ▼ a justice of the peace
- ▼ a solicitor or barrister with a current New South Wales or interstate practising certificate
- ▼ a commissioner of the court for taking affidavits
- ▼ a notary public, or
- ▼ a person by law authorised to administer an oath (eg, authorised witnesses in other jurisdictions).

I, do solemnly and sincerely declare that:

1. I am ~~a director/the Chief Executive Officer/the sole director and Chief Executive Officer [delete as applicable]~~ of the applicant corporation (named in this application form).
2. The information provided in this application is true and correct to the best of my knowledge.
3. I am aware of the requirements under the *Water Industry Competition Act 2006* (NSW) (WIC Act) for the licence being applied for.
4. The applicant corporation is not, for the purpose of section 10(3)(a) of the WIC Act, a disqualified corporation (as defined in the Dictionary of the WIC Act).
5. The applicant corporation is not, for the purpose of section 10(3)(b) of the WIC Act, a related entity of a disqualified corporation (as defined in the Dictionary of the WIC Act) that would have a direct or indirect interest in, or influence on, the carrying out of the activities that the licence (the subject of the application in relation to which this declaration is made), if granted, would authorise.
6. I have the authority to make this application on behalf of the applicant corporation (named in this application form).

I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the *Oaths Act 1900* (NSW).

Name of person making the declaration:

Cameron Renwick Evans

Title of person making the declaration:

Sole Director, Flow Systems Operations Pty Ltd

Signature of person making the declaration:

Declared at

[place]: _____

On [date]: _____

In the presence of an authorised witness, who states:

I [*insert name of authorised witness*]

a [*insert qualification to be authorised witness*]

certify the following matters concerning the making of this statutory declaration by the person who made it:
[*cross out any text that does not apply]

1. *I saw the face of the person or *I did not see the face of the person because the person was wearing a face covering, but I am satisfied that the person had a special justification for not removing the covering.
2. *I have known the person for at least 12 months or *I have confirmed the person's identity using an identification document and the document I relied on was

[*describe identification document relied on*] _____

Signature of authorised witness: _____

Date: _____

I, do solemnly and sincerely declare that:

1. I am a ~~director~~/the Chief Executive Officer (Acting)/~~the sole director and Chief Executive Officer~~ ~~[delete as applicable]~~ of the applicant corporation (named in this application form).
2. The information provided in this application is true and correct to the best of my knowledge.
3. I am aware of the requirements under the *Water Industry Competition Act 2006* (NSW) (WIC Act) for the licence being applied for.
4. The applicant corporation is not, for the purpose of section 10(3)(a) of the WIC Act, a disqualified corporation (as defined in the Dictionary of the WIC Act).
5. The applicant corporation is not, for the purpose of section 10(3)(b) of the WIC Act, a related entity of a disqualified corporation (as defined in the Dictionary of the WIC Act) that would have a direct or indirect interest in, or influence on, the carrying out of the activities that the licence (the subject of the application in relation to which this declaration is made), if granted, would authorise.
6. I have the authority to make this application on behalf of the applicant corporation (named in this application form).

I make this solemn declaration conscientiously believing the same to be true and by virtue of the provisions of the *Oaths Act 1900* (NSW).

Name of person making the declaration:

Robert Charles Gittins

Title of person making the declaration:

Chief Executive Officer (Acting), Flow Systems Pty Ltd

Signature of person making the declaration:

Declared at

[place]: _____

On [date]: _____

In the presence of an authorised witness, who states:

I *[insert name of authorised witness]*

a *[insert qualification to be authorised witness]*

certify the following matters concerning the making of this statutory declaration by the person who made it:
[*cross out any text that does not apply]

1. *I saw the face of the person or *I did not see the face of the person because the person was wearing a face covering, but I am satisfied that the person had a special justification for not removing the covering.
2. *I have known the person for at least 12 months or *I have confirmed the person's identity using an identification document and the document I relied on was

[describe identification document relied on] _____

Signature of authorised witness: _____

Date: _____

3 Acknowledgement

All applicant corporations must sign an acknowledgement of IPART's intention to give copies of the application to relevant stakeholders.

An acknowledgement should be provided by:

- ▼ Company secretary and a director
- ▼ Two directors
- ▼ In the case of a sole director, the sole director, or
- ▼ Such other person that IPART agrees may provide the acknowledgement.

PUBLIC

Acknowledgement

The applicant corporation (as named in the application form accompanying this acknowledgement) acknowledges that IPART will give a copy of the applicant corporation's completed application form, including any confidential information contained in that application form, to the:

- ▼ Minister administering the *Water Industry Competition Act 2006* (NSW) (except Part 3)
- ▼ Minister administering the *Public Health Act 2010* (NSW)
- ▼ Minister administering Chapter 2 of the *Water Management Act 2000* (NSW)
- ▼ Minister administering the *Environmental Planning and Assessment Act 1979* (NSW)
- ▼ Minister administering the *Protection of the Environment Operations Act 1997* (NSW),

in accordance with section 9(1) of the *Water Industry Competition Act 2006* (NSW) and clause 17 of the *Water Industry Competition (General) Regulation 2008* (NSW).

In the interest of streamlining the processing of your application, indicate below whether or not you agree to a copy of your completed application form (including any confidential information contained in that application form) being provided on a confidential basis directly to relevant departmental staff who have the responsibility to advise the Ministers named above on issues relating to the provision of water and sewerage services.

I agree that a copy of my completed application form (including any confidential information contained in that application form) may be provided to relevant departmental staff as outlined above.

I do not agree that a copy of my completed application form (including any confidential information contained in that application form) may be provided to relevant departmental staff as outlined above.

Name of person making the acknowledgement:

Cameron Renwick Evans

Title of person making the acknowledgement:

[Director / Company Secretary]

Sole Director, Flow Systems Operations Pty Ltd

On [date]: _____

Signature of person making the acknowledgement:

Name of person making the acknowledgement:

Robert Charles Gittins

Title of person making the acknowledgement:

[Director / Company Secretary]

Chief Executive Officer (Acting), Flow Systems Pty Ltd

(pursuant to an email from IPART Director dated 6 June 2019, agreeing to this acknowledgement being provided by the Chief Executive Officer along with a director)

On [date]: _____

Signature of person making the acknowledgement:

4 Licence application form schedules

All applicant corporations must complete the licence application form schedules relevant to its application for a licence.

Template documents to assist applicant corporations in completing the licence application form schedules are available in the Guidance Document.²

There are two types of licence covered by the licence application form schedules:

- ▼ A network operator's licence
- ▼ A retail supplier's licence.

4.1 Network operator's licence

Under the WIC Act, a network operator's licence is required by proponents who wish to construct, maintain and operate water industry infrastructure. This includes all infrastructure required to produce, filter, store, convey, reticulate or treat water and sewage, and to dispose of any waste produced. Water includes potable (drinking) water and non-potable (recycled) water.

Applicant corporations applying for a network operator's licence must complete the following schedules (see Table 4.1):

- A. Applicant corporation information**
- B. Financial capacity**
- C. Network operator's licence - technical capacity.**

4.2 Retail supplier's licence

Under the WIC Act a retail supplier's licence is required by proponents who wish to supply water or provide sewerage retailing services.

Applicant corporations applying for a retail supplier's licence must complete the following schedules (see Table 4.1):

- A. Applicant corporation information**
- B. Financial capacity.**

² IPART, *Application Form – Guidance Document*, [March 2019]. Located on the IPART website, <https://www.ipart.nsw.gov.au/files/sharedassets/website/shared-files/licensing-administrative-wica-licence-assessment-improvement-project/working-papers-process-general/wic-act-licence-application-form-%E2%80%93-guidance-document-%E2%80%93-march-2019.pdf>

Applicant corporations applying for a retail supplier’s licence that will supply water (including drinking water and/or non-potable water) must also complete the following schedule (see Table 4.1):














D. Retail supplier’s licence – technical capacity – water supply.

Applicant corporations applying for a retail supplier’s licence that will supply sewerage services must also complete the following schedule (see Table 4.1):

E. Retail supplier’s licence – technical capacity – sewerage supply.

Applicant corporations applying for a retail supplier’s licence that will supply both water and sewerage services must also complete both of schedules D and E (see Table 4.1).

Table 4.1 Completing the licence application form schedules

Applies to	Licence application form schedule				
	A	B	C	D	E
Network operator’s licence					
Retail supplier’s licence					
Water supply (drinking water and/or non-potable water)					
Sewerage services					
Both water supply and sewerage services					

A Applicant corporation information

Table A.1 Corporation details

Provide applicant corporation's name, ABN/ACN, registered and business addresses.	
Corporation name	Flow Systems Operations Pty Ltd (FSO)
ABN	11 603 106 306
ACN	603 106 305
Address of registered office	Suite 2, Level 40 259 George Street, Sydney NSW, 2000
Address of principal place of business	Suite 2, Level 40 259 George Street, Sydney NSW, 2000

Table A.2 Contact details

Provide primary and secondary contacts, with all relevant details (ie, names, addresses, email and telephone/mobile phone contacts).	
Primary Contact	
Full name and position/title	Kirsten Evans Executive Manager, Risk and Compliance
Business telephone number	
Mobile number	
Email	
Postal address	PO Box R455, Royal Exchange, Sydney NSW, 1225
Secondary Contact	
Full name and position/title	Darren Wharton Executive Manager, Project Delivery
Business telephone number	
Mobile number	
Email	
Postal address	PO Box R455, Royal Exchange, Sydney NSW, 1225

Table A.3 Directors

Provide the following information (details may be included in an Appendix A3).

- a) The names, position title, date of birth and address of the Chief Financial Officer, Chief Executive Officer and any other persons concerned in the management of the applicant corporation.

For each person

Full name Cameron Renwick Evans

Position title Sole Director

Date of birth

Residential address

Full name Robert Charles Gittins

Position title Chief Executive Officer (Acting)

Date of birth

Residential address

- b) A chart outlining the relationship between the applicant corporation and its ultimate Australian holding company, including the names of any intermediate holding companies.

Attach the organisation chart as Appendix A3(b).

APPENDICES

- Appendix A3(b) Flow Systems Ownership Structure (public)

- c) Resumes for CEO (or equivalent) and relevant key managers outlining relevant local and international experience in the water industry and matching role descriptions.

Attach resumes/CVs/experience and role descriptions as Appendix A3(c).

APPENDICES

- Appendix A3(c) Position Descriptions

- d) Referees for relevant schemes. **Attach the list of referees/schemes as Appendix A3(d).**

APPENDICES

- Appendix A3(d) Scheme overview and network operator experience

Table A.4 Scheme summary

Provide scheme details below.	
Scheme name	Box Hill North (Scheme)
Location (include local government area, Lot and DPs)	<p>The Scheme is located in the suburb of Box Hill, approximately 40km north-west of Sydney Central Business District (CBD). The scheme is within The Hills Local Government Area (LGA). The Scheme comprises:</p> <ul style="list-style-type: none">• the construction, operation and maintenance of sewerage and recycled water infrastructure within the Development• the delivery of resulting sewerage and recycled water supply services to end user customers.
	<p>In relation to 1, Flow Systems has established Flow Systems Operations Pty Ltd (FSO). Network Operator's Licence number 16_037 (Existing NOL) under the <i>Water Industry Competition Act 2006</i> (WICA) was granted to FSO on the 12th May 2016 to provide recycled water and sewerage services to the Box Hill North urban release area (the Development).</p> <p>This variation application (NOLV1 Application) seeks variation to the Existing NOL to include additional authorised purposes for the recycled water.</p> <p>The area of operations remains consistent with that identified in Table 1.4 Area of Operations in the Existing NOL. Note that with subdivision and development of the lots within the Existing NOL, lot identifiers for the Existing NOL area of operations have now changed and will continue to change.</p> <p>In relation to 2, Flow Systems holds a retail supplier's licence (Licence No. 13_001R most recently amended 13th October 2017, RSL) and makes application alongside this NOLV1 Application to vary its RSL (RSLV Application) to include additional authorised purposes for recycled water and extend the provision of recycled water (only) services to the Scheme's adjacent lots.</p>
APPENDICES	<ul style="list-style-type: none">• Appendix A4(a) Existing NOL area
Describe the scheme:	<p>Provide a summary of each type of product to be captured by the scheme (eg, drinking water, recycled water, sewage, stormwater), the volumes generated and the treatment process to be used, including average and maximum capacity.</p> <p>FSO will not be constructing, operating and maintaining any additional recycled water and sewerage infrastructure to that already approved in the Existing NOL. For the additional recycled water servicing as part of the RSLV application, Flow will have connection points at the lot boundaries of the additional lots. Any plumbing within these lots to serve recycled water will be downstream of the connection point and therefore no additional water industry infrastructure subject of this NOLV1 application.</p> <p>Flow Systems will continue to provide the recycled water and sewerage services approved in the Existing NOL within the existing area of operations, with additional authorised purposes for the recycled water.</p>
Recycled Water	<p>The recycled water catchment is the Existing NOL area of operations. Wastewater collected from predominantly residential households is already being delivered into an interim collection facility at the site of the proposed water recycling facility to be known as the Box Hill Local Water Centre (LWC). Once operational, sewage flows will be diverted to a flow balance tank which forms an integral part of the LWC itself. This LWC was described and approved under the Existing NOL and no changes to the treatment process are proposed under this NOLV1 Application.</p>

Provide scheme details below.**Sewerage**

The licensed sewerage infrastructure within the Existing NOL area of operations is being constructed under the Existing NOL. It is anticipated that the LWC will be approved for commercial operation in late 2019.

Sewerage reticulation infrastructure is being delivered consistent with the Existing NOL and this licence variation does not propose any additional sewerage infrastructure.

For more information on the scheme infrastructure, please refer to Table C1.

APPENDICES

- Appendix A4(b) Box Hill Scheme Management Plan (Table of Contents)
- Appendix A4(c) Existing NOL
- Appendix A4(d) Approval for commercial operation (sewerage)
- Appendix A4(e) Approval for commercial operation (sewerage and recycled water)

Describe end uses

The authorised purposes / end uses for the recycled water licensed under the Existing NOL and RSL are:

- Toilet flushing
- Clothes washing
- Water features
- Irrigation
- Dust suppression

This NOLV1 Application and the RSLV Application seek an expansion of those authorised purposes / end uses for the recycled water to also include:

- Car washing
- General wash down (for residential and industrial use on hard surfaces)
- Street cleaning
- Process water at recycled water treatment plant (process water would not be provided to or retailed to any end user customers).

Describe effluent/ waste products and disposal options (include volumes generated)

The treatment infrastructure is already licensed within the Existing NOL and no further treatment processes or waste streams from the treatment process are relevant to this NOLV1 Application.

List of all planning, environmental and other legislative approvals already obtained and those that are still required

All planning, environmental and other legislative approvals have already been considered under the Existing NOL. No further infrastructure is required under this NOLV1 Application.

List the staging of works, including a program of the main stages

The reticulation for the Box Hill area is already licensed and approved for commercial operation and services within the Existing NOL. It is anticipated that the LWC will be approved for commercial operation in late 2019.

No further treatment infrastructure and reticulation is proposed under this NOLV1 Application.

The additional end uses once approved as authorised purposes for recycled water would be promoted as such throughout the RSL area of operations once this NOLV1 Application and the RSLV have been granted for these additional purposes.

List the total number and type of customers to be serviced

Provide scheme details below.

Flow Systems separately holds the RSL that covers the Existing NOL and RSL area. The Scheme as approved has an ultimate capacity to provide sewerage and recycled water services to residential, retail and commercial customers equivalent to 5,000 residential customers (or equivalent tenements, ET), with sewage treatment capacity delivered in a staged manner if/as required and priority given to the foundation developer which is developing 4,100 ET plus ancillary facilities such as the town centre and school.

The RSLV Application proposes that the Proposed RSLV RW-only Extension area provide the opportunity for up to 38 additional customers with an aggregate of 330 hectares of land to be serviced by recycled water from the scheme. No agreements are yet in place with any of these potential additional customers, as Flow Systems first needs the regulatory basis (ie the RSLV Application to be granted) on which to offer this service.

Recycled water only services would be provided to these additional customers via recycled water infrastructure approved in the Existing NOL and to the boundary of the relevant lot and therefore this NOLV1 Application does not request expansion of the area of operations beyond the approved area in the Existing NOL.

Describe the preferred timeline for the licensing of each stage of the work

Variation of FSO's NOL to include additional end uses for recycled water is required by late 2019 or in any case as soon as practicable to allow customers of the recycled water to utilise the recycled water for the additional end uses where otherwise potable water restrictions are in place.

Table A.5.1 Experience – Network Operator

PUBLIC

Provide the following information (details may be included in Appendices A5.1(a) and A5.1(b)).

- a) Describe the applicant corporation’s current experience in (and, where relevant, the nominated third parties’ experience in):
- Construction, maintenance and operation of water and/or other utility infrastructure such as gas, electricity or telecommunications
 - Environmental management activities relevant to the construction of water infrastructure. Evidence may include: extracts from environmental impact assessments, construction environmental management plans, operational environmental management plans, environmental management systems. This can include interstate and international experience.

Provide full and complete details in Appendix A5.1(a).

FSO is a wholly-owned subsidiary of Flow Systems. FSO does not have any direct employees and will rely upon employees from its parent company Flow Systems, pursuant to a Corporate Services Agreement. Flow Systems has the benefit of significant additional resourcing and support from its parent, Enwave Australia, part of the Brookfield Infrastructure Group.

FSO’s experience is based on the collective experience of Flow Systems’ management and staff who are integral members of the FSO project delivery and operations team. This experience includes finance, equity, insurance, procurement, legal, equipment supply, design, construction, operation and maintenance.

Eight of Flow’s wholly-owned subsidiaries (Pitt Town Water Pty Ltd, Central Park Water Pty Ltd, Discovery Point Water Pty Ltd, Wyee Water Pty Ltd, Huntlee Water Pty Ltd, Cooranbong Water Pty Ltd, Green Square Water Pty Ltd and Flow Systems Operations Pty Ltd, FSO) hold nine network operator licences (FSO holds two NOLs for the Box Hill and Shepherds Bay schemes).

Flow or its wholly-owned subsidiaries have delivered fully commissioned, verified and validated water recycling facilities and received approval to commence the commercial operation at Pitt Town, Central Park, Discovery Point, Green Square Water, and Huntlee.

Flow or its wholly-owned subsidiaries have delivered or facilitated the delivery of fully commissioned and received approval to commence the commercial operation of reticulation networks at the following schemes:

Scheme	Drinking Water	Recycled Water	Sewerage
Pitt Town	N/A	✓	✓
Central Park	✓	✓	✓
Discovery Point	✓	✓	✓
Huntlee	✓	✓	✓
Cooranbong	✓	✓	✓
Green Square	N/A	✓	N/A
Box Hill	N/A	✓	✓
Shepherds Bay	✓	✓	✓

APPENDICES

- Appendix A3(d) Flow Systems Schemes and Network Operator Experience

Provide the following information (details may be included in Appendices A5.1(a) and A5.1(b)).

- b) Provide resumes/CVs for key personnel (including nominated third parties) outlining relevant local and international experience and necessary skills for each of the following activities:
- Construction, operations and maintenance
 - Environmental management.

Provide full and complete details for relevant personnel in Appendix A5.1(b).

APPENDICES

- Appendix A3(c) Position Descriptions

Table A.5.2 Experience – Retail Supplier

Provide the following information (details may be included in Appendices A5.2(a) and A5.2(b)).

- a) Describe the applicant corporation's current experience in (and, where relevant, the nominated third parties' experience in):
- the supply of water or the provision of sewerage services. Also outline any previous experience in the retailing of other services such as gas, electricity or telecommunications.

Provide full and complete details in Appendix A5.2(a).
Not applicable to this network operator licence application

- b) Provide resumes/CVs for key personnel (including nominated third parties) outlining relevant local and international experience and necessary skills for each of the activities to be licensed:
- Retailing activities relevant to operating a utility.

Provide full and complete details for relevant personnel in Appendix A5.2(b).

Not applicable to this network operator licence application

Table A.6 Corporate structure

Provide an organisational management chart and an ownership chart in Appendix A6.

Describe the structure of the applicant corporation, including a list of the entities that have an ownership interest in the applicant corporation, whether legal or equitable. The charts should clearly show how the corporation is managed, and all entities that have an ownership interest in the applicant corporation.

APPENDICES

- Appendix A3(b) Flow Systems Ownership Structure (public).
-

Table A.7 Disqualified corporations

Provide the completed disqualified corporations and related entities chart in Appendix A7.

Provide additional information, **as described in Appendix B of the Guidance Document**, to allow a search for and assessment of each Director, the applicant corporation, and any related entities that would have a direct or indirect interest in, or influence on, the carrying out of the activities that the licence would authorise, if granted.

APPENDICES

-

Table A.8 Insurances

Attach copies of all relevant insurance certificates and relevant policy schedules and policy wording (eg, Product Disclosure Statements) in Appendix A8.

- a) Describe the types of insurance the applicant corporation has or intends to obtain for the activities to be licensed (including the level of cover (amount) the applicant corporation has or intends to have) for the:
- Construction phase
 - Operations phase.

Commercial in confidence

•

- b) Where available, provide:

- Certificates of currency for all existing insurance policies
- Relevant policy schedules and policy wording for current and future policies. Ensure the inclusions and exclusions of the policies are mentioned.

Commercial in confidence

APPENDICES

•

- c) Include a summary of itemised inclusions and exclusions for each type of insurance the applicant corporation holds.

Commercial in confidence

- d) Explain why the type and level of cover provided or proposed by the applicant corporation's insurer is sufficient and appropriate for the size and nature of the applicant corporation's proposed activities across all phases of the scheme. Your explanation should show how the proposed insurance policies appropriately cover the risks of the applicant corporation's risk assessment. You should also obtain a letter or report from an insurance broker to support your explanation on the appropriate level of cover for the applicant corporation's scheme.

Arthur J. Gallagher (Aus) Limited (Gallagher) (formerly The Protectors Insurance Brokers Pty Ltd) has reviewed all insurances required by the Flow Systems group of utilities in connection with its business and has arranged the above insurance cover to match the business requirements. Flow Systems reviews its insurances annually with Gallagher to ensure that its insurance arrangements are adequate for its requirements

Also, a comprehensive whole-of-business and project-specific insurance risk assessment for the Scheme has been conducted in satisfaction of IPART's standard licensing condition, prior to the Minister's approval for commercial operation for FSO to operate the scheme in 2017.

APPENDICES

•

- e) If the corporation applying for a licence is a subsidiary of another corporation and is covered by the parent corporation's insurance policy/ies, provide certificates of currency and relevant policy schedules and policy wording demonstrating that the subsidiary will be covered by the parent company's policies.

APPENDICES

•

Table A.9 Other relevant information

Provide any additional relevant information in Appendix A9.

Provide other relevant information to outline the applicant corporation's organisational capacity to undertake the activities that the licence will authorise. These may include:

- ▼ Business and management systems, and whether they are certified or consistent with an appropriate standard
- ▼ Business risk assessments
- ▼ Cross-organisational guarantees and third party agreements.

APPENDICES

- Appendix A9(c) ISO verification
-

Table A.10 Third party activities

If the applicant corporation intends to use third parties to undertake any **significant** activities for which the applicant corporation is seeking a licence, (eg, construction of the reticulation network, management of the billing system), provide their details below. If there are multiple third parties, provide the details for each party as well as an explanation of the activities it will be undertaking.

Corporation name

Flow Systems Pty Ltd

ABN/ARBN

28 136 272 298

ACN

136 272 298

Corporation's registered office address

Level 40, 259 George Street, NSW, 2000

Provide a detailed description of the activities that the third party, named above, will undertake on the applicant corporation's behalf.

Flow Systems is the parent company of FSO, which in turn is a special-purpose wholly-owned subsidiary, established for the delivery and operation of local water utility schemes including the Box Hill scheme. Full business support (including all technical, financial, administrative and retail services) is provided by Flow Systems.

Corporation name

Celestino Developments Pty Ltd (**Developer**)

ABN/ARBN

70 603 180 712

ACN

603 180 712

Corporation's registered office address

642 Great Western Highway, Pendle Hill

Provide a detailed description of the activities that the third party, named above, will undertake on the applicant corporation's behalf.

. Amongst other things, the Developer will provide the sewerage and recycled water reticulation infrastructure in the Scheme. The Developer will also be providing land, tanks and access to all other areas within the Development for the purposes of FSO delivering the Scheme.

B Financial capacity

The responses to the following questions will be used to assess the applicant corporation's financial capacity to undertake the activities the licence will approve (WIC Act section 10(4)(a)).

See the Guidance Document for further information on our assessment of financial capacity.

Table B.1 Financial capacity of the applicant corporation

How will the applicant corporation's activities be financed?
<p>Is the applicant corporation a new corporation, or does it have a financial history? (An applicant corporation may not have a financial history if it is a newly formed corporation).</p>
<p>If the applicant corporation is a newly formed corporation (ie, without financial history), provide the following:</p> <ul style="list-style-type: none">▼ Copies of any financial guarantee, deed of indemnity or any other instrument that supports the applicant corporation's financial capacity.▼ If a guarantee is to be provided by a parent or related entity, provide financial statements for the guarantor entity for the latest three financial reporting years.▼ If the applicant corporation is a new corporation financed through alternative arrangements (eg, debt or equity), provide a letter from a financial institution (eg, bank, credit union or the government) certifying an existing or proposed line of credit or financial support. Also provide a copy of any guarantee or deed of indemnity provided by an entity, such as a holding company or Director. Provide financial statements for the latest three financial reporting years demonstrating the financial viability of the guarantor.
<p>For all applications provide (for the applicant corporation or a guarantor):</p> <ul style="list-style-type: none">▼ The latest three years of historical financial statements, including:<ul style="list-style-type: none">– Profit and Loss Statement, also called the Statement of Financial Performance– Balance Sheet, also called the Statement of Financial Position– Cash Flow Statement, also called the Statement of Cash Flows.▼ To ensure that financial reports are accurate the accounts should be accompanied by:<ul style="list-style-type: none">– A registered company auditor's report confirming the accounts are accurate, and/or– Tax return documents for the last three years which can be used to verify the income and expenses in the financial statements.▼ Where the reporting date of the most recent financial statements is more than three months prior to the application date, provide management accounts (eg, a profit and loss statement, trial balance or trading statement). These should be supported by the most recent bank reconciliation and a copy of the relevant bank statement.▼ From the most recent accounts, an aged creditors report.▼ From the most recent accounts, an aged debtors report.▼ A list of suppliers, identifying any major or critical suppliers.▼ A list of customers, identifying any major or critical customers.▼ A three year forecast of profitability for the applicant corporation, including a forecast Profit and Loss Statement, Balance Sheet and Cash Flow Statement.

Provide all requested information in Appendix B1.

APPENDICES

•

Table B.2 Financial viability of the scheme

What is the projected financial performance of the scheme?

For the scheme, provide at least ten years of detailed forecast cash flows. The cash flow forecast should include:

- ▼ Major income and expense items including (as relevant):
 - Customer fees and charges income
 - Connection fees income
 - Developer contributions/subsidies
 - Capital expenditure
 - Operating and management costs
 - Bulk services charges and/or network operator fees and charges
 - Overheads and management fees
 - Sinking funds/contingency
 - Compliance costs.
- ▼ If the scheme is to be conducted in stages, the cash flow forecast should reflect this.
- ▼ Any provisions made for unexpected operational costs or non-planned maintenance.
- ▼ Key assumptions, including forecast (as relevant):
 - Lot sales
 - Occupancy rates or any other drivers of cash inflows
 - Rates paid for bulk services (eg, bulk water or sewerage)
 - Waste disposal fees, and/or
 - Any other relevant key assumptions.

Provide the information in spreadsheet form (eg, Excel spreadsheet) in Appendix B2.

APPENDICES

-

Table B.3 Contextual information

Provide other relevant information that may inform the assessment of financial capacity of the applicant corporation.

For the applicant corporation, in addition to information already provided regarding financial support (eg, guarantees, debt and equity), provide:

- ▼ Where the licensee is a part of a corporate group, the corporate group structure (including parent corporate group and details of ownership)
- ▼ Equity structure (ie, equity holders, types of shares, options, quantities of shares and options etc)
- ▼ Agreements, contracts or covenants that may impact the financial capability of the licensee, and/or
- ▼ Any other information that may inform the assessment of financial capacity of the applicant corporation.

Provide all requested information in Appendix B3.

APPENDICES

- Appendix A3(b) Flow Systems ownership structure (public)

Table B.4 Estimated price for services

For retail supplier licence applications, how much will the applicant corporation charge for its services?

Where the applicant corporation is applying for a **retail supplier's licence to supply water or provide sewerage service to residential households**, provide:

- ▼ Ten year forecasts of the cost to the licensee, per household, per year, to supply water and/or provide sewerage services (as is relevant).
- ▼ Details of how this cost would be recovered - that is, what are the details of who is expected to pay fees and charges (eg, customers, developers and/or grants and subsidies)?
- ▼ The proposed price levels and structure for the first ten years of operation.

Provide all requested information in Appendix B4.

Current pricing is available via the Box Hill Water website at:

Homeowners:

https://flowsystems.com.au/governance/Box_Hill/Box_Hill_Residential_Service_Usage_Pricing.pdf

APPENDICES

•

Table B.5 Contacts

For all applications, provide contact details for an authorised representative to clarify financial information provided in the application.

Does the applicant corporation have an accountant? If yes, provide the accountant's contact details.

No, accounting is managed internally

Does the applicant corporation have an external auditor? If yes, provide the external auditor's contact details.

Yes. Deloitte.

If required, may we contact the accountant and/or external auditor to clarify any information provided?

Table B.6 Other information

Provide superannuation information as noted below.

For the applicant corporation, provide an extract of the superannuation payable ledger for the:

- ▼ 12 months ending on the date of the latest annual financial statements
- ▼ Period commencing on the date of the latest annual financial statements and ending on the date of the latest management accounting reports (if applicable).

Provide all requested information in Appendix B6.

APPENDICES

•



PUBLIC

C Network operator's licence – technical capacity

The responses to the following questions will be used to assess the applicant corporation's technical capacity to undertake the activities the licence will approve (Act s.10(4)(a)).

See the Guidance Document for further information on our assessment of technical capacity.

Select the appropriate boxes for the infrastructure the corporation is applying for.

- | | |
|-------------------------------------|---|
| <input type="checkbox"/> | Water infrastructure – drinking water |
| <input checked="" type="checkbox"/> | Water infrastructure – non potable water (including recycled water) |
| <input checked="" type="checkbox"/> | Sewerage infrastructure |

Table C.1 Scheme description

Describe the proposed scheme in detail.

Include all infrastructure from catchment/treatment plant to tap/end user. You must:

- ▼ Include a full description of any infrastructure used in the capture, storage, conveyance/reticulation, and treatment of water and/or sewage.
- ▼ Provide a full description of all end uses (including irrigation, dust suppression and other broad-acre uses), waste disposal streams and disposal options, and any end uses requiring Environment Protection Licences (EPLs) or other regulatory approvals or licences.
- ▼ Describe any staging requirements for the proposed scheme with a supporting works program.
- ▼ Provide relevant water source type, identification and characterisation studies.

Your description should include the relevant concept design drawings, site plans, process flow diagrams and general arrangement drawings.

Provide all relevant documents in Appendix C1.

Scheme Infrastructure

Flow Systems has established Flow Systems Operations Pty Ltd (**FSO**). Network Operator's Licence number 16_037 (Existing NOL) under the *Water Industry Competition Act 2006* (WICA) was granted to FSO on the 12th May 2016 to provide recycled water and sewerage services to the Box Hill North development precinct (the Development). A Network Operating Licence granted under WICA enables:

- the construction, operation and maintenance of sewerage and recycled water infrastructure within the Development

Scheme infrastructure to be constructed, operated and maintained under the existing NOL16_037 includes the following infrastructure and staging.

Phase 1

Sewerage

To enable servicing of up to the initial 300 lots ("Initial Lots") during the interim servicing period, sewage is collected via FSO's pressure sewerage system and discharged to interim sewage servicing tanks and their associated mechanical and electrical equipment (an extension of the sewage reticulation network, "ISST"). The location of the ISST is at the Local Water Centre ("LWC") site.

Recycled water

Before the LWC is built, commissioned and producing recycled water, the recycled water reticulation network is charged with drinking water via a temporary cross-connection to Sydney Water's drinking water

reticulation network, complete with isolation valve, check valve and a removable spool piece. This spool piece will be removed once the recycled water storage tank top-up facility is commissioned and recycled water reticulation is connected to the LWC.

Recycled water reticulation has been constructed in Phase 1 but is currently serviced by drinking water. FSO has received ministerial approval to bring new water industry infrastructure (for the reticulation) into commercial operation.

Phase 2

To enable servicing of the Scheme, construction of a LWC has commenced which includes construction of the operations building and a water recycling facility comprising membrane bioreactor, UV and chlorination treatment processes, tanks and equipment, recycled water storage tanks and recycled water distribution pumps and storage and boosting. Wastewater collected from predominantly residential households will be delivered into the LWC via a flow balance tank which forms an integral part of the LWC itself. Provision is made for the recycled water storage system to be topped up via an air-gap by FSO's own drinking water connection at the LWC.

FSO is currently seeking approval to commence commercial operation for the LWC on the basis of an audit report prepared by an approved auditor for the purpose of clause 2 Schedule 1 of the *Water Industry Competition (General) Regulation 2008*. The location of the LWC is Lot 10 DP 593517. This LWC was described and approved under the Existing NOL and no changes to the treatment process are proposed by this NOLV1 Application.

Following developer infrastructure works practical completion, FSO is responsible for the operation and maintenance of all recycled water infrastructure up to and including the recycled water meter inside each customer's property.

Each individual customer will be responsible for the construction, operation and maintenance of the recycled water infrastructure downstream of the recycled water meter.

NSW Office of Fair Trading is responsible for inspection and review of the customer's recycled water infrastructure. FSO liaises with NSW Office of Fair Trading (or its delegate) to ensure that compliance has been achieved.

LWC

Infrastructure involved, and key steps, in the treatment process for recycled water are as follows:

- Flow balance tank – Used to buffer incoming supply vs. treatment capacity.
- Inlet screening – Material greater than 2mm will be removed from the raw sewage to protect the downstream equipment. Dewatered screenings will be collected and disposed off-site via an approved waste management contractor.
- Membrane bioreactor – A membrane bioreactor will form the core treatment process for the LWC. The biological reactor will be designed to achieve the required levels of BOD and nutrient reduction. Nitrogen will be removed biologically whereas phosphorus will be precipitated with alum and subsequently form part of the biomass. The membranes will separate the biomass from the treated water and provide the first disinfection barrier. The biomass is sent back to the start of the biological reactor and the treated water is sent onto further disinfection. Excess biomass is periodically wasted from the membrane zone. The bioreactor is configured into distinct zones via baffles to minimise short-circuiting.
- UV Disinfection – UV disinfection provides the second disinfection barrier. Importantly, the low turbidity water (typically ~0.2NTU) produced from membrane filtration is well suited to UV disinfection.
- Chlorination – A chlorine contact time provides the third disinfection barrier. Importantly, the low turbidity water (typically ~0.2NTU) produced from membrane filtration is well suited to chlorine disinfection.
- Chemical storage and dosing – A variety of chemicals including magnesium hydroxide, hypochlorite and citric acid will be used for treatment process purposes, disinfection and membrane cleaning.
- Recycled water storage – Used to provide a buffer between production capacity and recycled water demand.
- Recycled water network reticulation infrastructure – Recycled water will be supplied to end use customers through a pressurised distribution network. A pressure pump set will boost recycled

water from the recycled water storage tanks to the distribution network to achieve a minimum pressure of 15 metres static head at each property boundary measured for a continuous 30 minute period during normal system operation. The FSO recycled water infrastructure includes the recycled water meters on each lot.

- WAS Dewatering – The Waste Activated Sludge (WAS) from the membrane zone will be dewatered from 0.6% w/w solids to ~12% w/w solids using a belt filter press. The filter cake will be collected and disposed off-site via an approved waste management contractor.
- Odour scrubbing – Foul air from the inlet screens and flow balance tank will be collected and processed via an odour scrubbing. The primary treatment process for odour will be biological followed by activated carbon
- Control System – The control and operation of the overall scheme is based on a PLC/SCADA system which will be designed to ensure safe and correct functional operation of the LWC and associated ancillary components.
 - The PLC follows specific steps to automatically control valves, pumps, etc. during the operating states for the scheme and provides automated control of the equipment. All the programming for the control of the scheme is stored in the PLC.
 - The SCADA system software allows the full and complete interaction between the Scheme operators and the scheme. It supplies all the data from field transmitters and displays the values and statuses by the animation of graphic objects and colours in the required number of graphic pages.
- Provision is also made on the LWC site for a future reverse osmosis treatment train should the colour or end use of the recycled water require it.

The end use for recycled water is described in section C5 below.

NOLV application

This variation application (NOLV1 Application) seeks variation to the Existing NOL to include additional authorised purposes (i.e. end uses for recycled water). This includes the addition of:

- Car washing (for residential and commercial customers)
- General wash down (for residential and industrial use on hard surfaces)
- Street cleaning
- Process water at recycled water treatment plant (process water would not be provided to or retailed to any end user customers).

The area of operations remains consistent with that identified in Table 1.4 Area of Operations in the Existing NOL. Note that with subdivision and development of the lots within the Existing NOL, lot identifiers for the Existing NOL area of operations have now changed and will continue to change.

•

Table C.2 Existing activities

Has the corporation commenced any of the activities for which it is seeking a licence?
<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
If yes: <ul style="list-style-type: none"> ▼ Briefly describe the activities that the applicant corporation has commenced (ie, built and/or operating) including the date(s) on which the activities commenced, and the customers being serviced <i>eg, construction of the network infrastructure July 2015, construction of the water treatment plant December 2015, operation of the water treatment plant June 2016, supply to small retail customers August 2016.</i> ▼ Provide an indicative timeline outlining the dates for the commencement of any other activities for which the applicant corporation is seeking a licence.
If no , provide an indicative timeline outlining the major development milestones and dates for the commencement of the activities for which the applicant corporation is seeking a licence, if they have not yet commenced. <i>Eg, construction of the network infrastructure July 2020, construction of the water treatment plant December 2020, operation of the water treatment plant June 2021, supply to small retail customers August 2021.</i>

The Existing NOL was granted on 12th May 2016 and commercial operations commenced following Ministerial approval on the 23rd May 2017 for network reticulation and the 27th November 2017 for the interim sewage servicing tanks. Sewerage and recycled water reticulation infrastructure is being constructed in a staged manner as an expansion of existing infrastructure in line with staging of the Development.

Construction of the approved LWC is well progressed and it is anticipated that it will be approved for commercial operation in late 2019.

Table C.3 Area of operations

Describe the location of the proposed infrastructure.

This description should include:

- ▼ Specific lot descriptors (eg, lot and DP numbers) that identify the location of the production, treatment, filtration and/or storage infrastructure.
- ▼ The location of infrastructure for the conveyance and/or reticulation of water by street name, local government area or other description as appropriate to the size of the scheme.
- ▼ The location of identified irrigation areas for disposal of recycled water.

You should provide detailed maps to support the description of the area of operations. The map(s) should show the location of the proposed infrastructure from source to end use. Also provide any maps approved by the relevant planning authority.

Provide these maps and descriptions in Appendix C3.

This NOLV1 Application does not propose to change the area of operations from that approved by the Existing NOL. Whilst the accompanying RSLV Application seeks an expanded area for servicing recycled water (only) to an increased number of customers, these customers will be serviced by infrastructure within the Existing NOL area.

No additional infrastructure is required to service recycled water for the additional authorised purposes sought.

Please also refer to the applicant's response above in Table A.4.

Table C.4 Interconnections

Describe any interconnections between the proposed water infrastructure and other infrastructure not part of this scheme (eg, interconnections with other licensed network operators or public utilities)

In your description, identify who is responsible for the construction, operation and maintenance of which infrastructure.

Where applicable, describe the connection point to customers or end users (eg, the customer connection point may be a water meter). In your description, identify who is responsible for the construction, operation and maintenance of each piece of infrastructure.

Identify all interconnections with other infrastructure and/or end users on the process flow diagram.

Provide all relevant documents in Appendix C4.

There are no further permanent interconnections required between the proposed recycled water infrastructure and other infrastructure not part of this scheme. No further treatment processes are required for the additional authorised purposes.

Table C.5 End uses

Identify all intended end uses for each product supplied and waste products generated.

Provide evidence to support the proposed volumes of water expected to be generated and used.

Provide evidence to support the proposed quantity of waste products generated, and how the applicant corporation will dispose of it. Include any agreements with third parties, and regulatory approvals/licences.

Refer to the applicant's response under Table A.4 above.

The treatment infrastructure is already licensed and approved for construction, operation and maintenance within the Existing NOL area and no further treatment processes or waste streams are relevant to this NOLV1 Application. The proposed additional authorised purposes are consistent with the treatment processes already approved under the Existing NOL.

Provide additional information in Appendix C5.

Table C.6 Water balance

Provide a detailed water balance for all products and all scheme stages.

Water balances are required for each stage of works, and must provide (as a minimum):

- ▼ All assumptions used for modelling, and if assumptions do not meet industry standards, you must provide a statement of evidence to support the deviation
- ▼ A sensitivity analysis around end use assumptions, including future disposal pathways, eg, optional take up of recycled use in washing machines
- ▼ Any storage requirements
- ▼ All input and output volumes including peaking factors
- ▼ All waste streams and fate of waste/s

Irrigation models should be run on the median and 95%-tile rainfall scenarios. Irrigation of treated effluent/recycled water should have zero runoff and no more than 15mm deep percolation (inland) or zero (coastal) – as per the *EPA Guideline – Use of Effluent by Irrigation (2004)*.

Ensure that all water/sewage supplied and/or treated is accounted for.

Where relevant, support your assumptions by catchment and/or wastewater characterisation studies.

For all products supplied, provide detailed information on waste products generated and disposal options.

Provide a copy of the detailed water balance and assumptions, as well as any agreements and/or licences to access the source water in Appendix C6.

A detailed water balance, assumptions and agreements were approved under the Existing NOL but this considered only the foundation developer's development. As explained in the Box Hill Scheme Management Plan that appeared in the application for the Existing NOL, the sewage treatment infrastructure is being constructed in a staged manner if/as required but it has been designed to ultimately service 5,000 ET. The water balance report has now been updated and provided as an appendix to this NOLV1 Application to reflect the yield in the entire Development and to include some of the recycled water end uses that were inadvertently left out.

The Proposed RSLV RW-only Extension area provides the opportunity for up to 38 additional customers with an aggregate of 330 hectares of land to be serviced by recycled water from the scheme. No agreements are yet in place with any of these potential additional customers, as Flow Systems first needs the regulatory basis (ie the RSLV Application to be granted) on which to offer this service. The appended water balance report also considers the impact of servicing some of these additional customers with recycled water only.

APPENDICES

- Appendix C6 Water Balance Report

Table C.7 Volume details for services supplied

Describe the volume of water available from the proposed source.

For drinking water provide detailed information regarding the volume of water the applicant corporation will supply, agreements in place with other utilities and how the applicant corporation will ensure continuity of supply.

For recycled/non-potable water provide detailed information regarding the volume of water the applicant corporation will supply through treatment, agreements in place with other utilities and/or other recycled water users, and how the applicant corporation will ensure continuity of supply.

For sewage provide detailed information regarding the volume of sewage the applicant corporation will collect and treat, how the applicant corporation will dispose of waste products, and any agreements in place regarding the collection, storage and treatment of sewage. Also detail how the applicant corporation will ensure continuity of service.

Provide details in a separate Appendix C7.

Describe the volume of water available from the proposed source.

As approved under NOL 16_037, the following sources and volume details include:

1) Sewage – This source can provide at ultimate development an average of 1,729 kL/day of raw sewage. The conversion of raw sewage to recycled water is approximately 99%.

2) Drinking water – As outlined above, the First Development Stage will be supplied by a drinking water connection into the recycled water reticulation network until recycled water becomes available. Once recycled water is being produced and supplied by the LWC (in late 2019), if recycled water demand exceeds the supply of raw sewage and prolonged use depletes the recycled water storages, then drinking water from Sydney Water's supply to the LWC will be used to supplement supply. Current modelling predicts that on average 2 ML/year of drinking water will be required to top up the recycled water system in the area covered by the Existing NOL. Without considering the impact that seasonal pricing may have on recycled water demand in the Proposed RSLV RW-only Extension area, it is modelled that up to 133 ML/year may be required to top up the recycled water system once these additional customers are connected. Sydney Water has agreed to a supply of 35L/s to cover potential peak demands. The Scheme also has the capability to source stormwater for treatment although this does not form part of the Existing NOL or this NOLV1 Application.

(NB: Recycled water will not be supplied until the infrastructure in Phase 2 is completed, existing lots are delivering sewage to the LWC and the LWC is commissioned and FSO has approval for commercial operation for the LWC).

Current water balance modelling shows that during the development roll-out, an average of 19kL/day of top up may be required to meet recycled water demand at or around 2032. This will be minimised through further calibration of the model from observed demands and optimisation of the timing for implementation of new storage in the system.

Variation to existing NOL 16_037 for additional end uses

No changes to the treatment capacity of the LWC or source water flows are proposed under this NOLV1 Application.

As mentioned in Table C6, a detailed water balance, assumptions and agreements were approved under the Existing NOL but this considered only the foundation developer's development. As explained in the Box Hill Scheme Management Plan that appeared in the application for the Existing NOL, the sewage treatment infrastructure is being constructed in a staged manner if/as required but it has been designed to ultimately service 5,000 ET. The water balance report has been updated and provided as an appendix to this NOLV1 Application to reflect the yield in the entire Development and to include some of the recycled water end uses that were inadvertently left out.

The Proposed RSLV RW-only Extension area provides the opportunity for up to 38 additional customers with an aggregate of 330 hectares of land to be serviced by recycled water from the scheme. No agreements are yet in place with any of these potential additional customers, as Flow Systems first needs the regulatory basis (ie the RSLV Application to be granted) on which to offer this service. The appended water balance report also considers the impact of servicing some of these additional customers with recycled water only.

APPENDICES

- Appendix C6 Water Balance Report

Table C.8 Risk assessment

Provide the preliminary risk assessment for the scheme from source to end use.

The preliminary risk assessment should:

Provide the preliminary risk assessment for the scheme from source to end use.

- ▼ Accurately identify any hazards present in the source water or likely to result from the proposed treatment process
- ▼ Address intended, inadvertent and unauthorised end uses (and therefore routes of exposure) to the water
- ▼ Identify any reasonably foreseeable risk event with the potential to expose people or the environment to hazards
- ▼ Outline the broad mitigation measures where the risk of exposure to a hazard is unacceptable to human health or the environment in order to reduce the risk of exposure
- ▼ Identify critical control points (CCPs) and water quality targets.

The preliminary risk assessment should also identify the events and circumstances that could adversely affect the applicant corporation's ability to carry out the activities for which the licence is sought (including any activities undertaken by a nominated third party), the probability of the occurrence of any such event or circumstance, and the measures to be taken by the applicant corporation to prevent or minimise the likelihood of any such event or circumstance.

The preliminary risk assessment should demonstrate the application of a consistent methodology for identifying hazards and assessing potential impacts and risks to health and the environment. We strongly recommend that the applicant corporation utilises an established risk management system, such as outlined in *AS/NZS ISO 31000 (Risk management – Principles and Guidelines)*, which is consistent with the approach outlined in:

- ▼ The *Australian Drinking Water Guidelines (ADWG)*(element 2), for drinking water
- ▼ The *Australian Guidelines for Water Recycling (AGWR)*(element 2), for non-potable water.

The preliminary risk assessment should consider risks specific to the area of operations for which an application is sought. It should also address business and financial risks, and demonstrate/contain a statement that the licensee has consulted with NSW Health and the NSW Environment Protection Authority regarding health and environmental matters. A statement noting that the proposed treatment system meet the water quality targets for the intended end uses should also be included with the preliminary risk assessment.

Provide the preliminary risk assessment in Appendix C8.

APPENDICES

- Appendix C8 Box Hill Scheme Risk Register (Summary)

Table C.9 Management systems and processes – water

Describe the systems and processes the applicant corporation will have in place to manage the water infrastructure.

Describe how the 12 elements of the framework for the management of:

- a) Drinking water quality, as detailed in the ADWG, and/or
- b) Recycled water quality, as detailed in the AGWR

have been addressed and will be implemented and maintained. Your response should include a clear description (with supporting evidence) of how and where the risk assessment has informed/will inform your water quality management plans(s).

Provide evidence of the applicant corporation's capacity to develop and implement relevant management plans, including an Infrastructure Operating Plan and Water Quality Management Plan (based on the 12 elements of the relevant framework) in Appendix C9.

APPENDICES

- Appendix C9(a) Flow Systems Drinking Water Quality Plan (Table of Contents)
- Appendix C9(b) Flow Systems Recycled Water Quality Plan (Table of Contents)
- Appendix C9(c) Flow Systems Infrastructure Operating Plan_(Table of Contents)

Table C.10 Management systems and processes - sewerage

Describe the systems and processes that the applicant corporation will have in place to manage the sewerage infrastructure.

Provide evidence of the applicant corporation's capacity to develop and implement an infrastructure operating plan in Appendix C10.

APPENDICES

- Appendix C9(c) Flow Systems Infrastructure Operating Plan (Table of Contents)
- Appendix C10 Flow Systems Sewage Management Plan (Table of Contents)

Table C.11 Contingency plans

How will the applicant corporation ensure the continuity of the supply of water or the provision of sewerage services to customers? What contingency plans are in place in the case of failure of the infrastructure?

Provide a contingency plan in Appendix C11.

APPENDICES

- Appendix C9(c) Flow Systems Infrastructure Operating Plan (Table of Contents)

Table C.12 Regulatory approvals

List all relevant regulatory approvals.

For the activities to be licensed, provide a list of all of the regulatory approvals that have been obtained and/or are required to be obtained under:

- ▼ The *Environmental Planning and Assessment Act 1979*
- ▼ The *Protection of the Environment Operations Act 1997*
- ▼ Any other relevant legislation.

Attach copies of each approval (if granted) and any reports from the approval body.

Such approvals may include:

- ▼ Development consents for a housing development under the *Environmental Planning and Assessment Act 1979*
- ▼ Section 68 approval under the *Local Government Act 1993*
- ▼ Environment Protection Licence under the *Protection of the Environment Operations Act 1997*
- ▼ Any and all subsequent approved modifications.

No further regulatory approvals are applicable to this NOLV1 Application to expand the authorised purposes for recycled water.

Table C.13 Development consents and determinations

Has the scheme been dealt with under either Part 3A (now repealed), Part 4 or Part 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act)? Refer to section 3.2 and Appendix C of the Guidance Document to inform your answer to this question.

Provide details of all relevant details in Appendix C13.

No further development consents or determinations are applicable to this NOLV1 Application to expand the authorised purposes for recycled water.

Table C.14 Environmental impact assessments

Describe the studies that have been completed to investigate any environmental impacts (including water quality, quantity, air, odour, noise, sea level rise, biodiversity and Aboriginal cultural heritage) from the construction and operation of the infrastructure.

Have the studies identified any significant environmental impacts from the scheme? If so, how are the environmental impacts proposed to be managed?

As a minimum, your application must be accompanied by a Review of Environmental Factors (REF) (unless the development is a designated development, Part 5 development, or a major project, in which case either an environmental impact statement (EIS) or comprehensive environmental assessment is required). The REF must identify the environmental impacts of the proposed scheme, and the steps which will be taken to protect the environment or reduce harm to the environment.

Where relevant, what land capability and/or site suitability assessments have been undertaken on the proposed land disposal (including irrigation) area?

Provide a copy of any:

- ▼ **Environmental study**
- ▼ **Land capability or site suitability assessment**
- ▼ **Environmental risk assessment**
- ▼ **Determination reports**

in Appendix C14.

No further environmental impact assessments are applicable to this NOLV1 Application to expand the authorised purposes for recycled water. A land capability assessment has been provided for the existing NOL area of operations.

•

D Retail supplier's licence – technical capacity – water supply

Table D.1 Scheme description

Describe the water infrastructure that the applicant corporation will access to supply water.
Not applicable to this network operator licence application.

Table D.2 Volume of water

What volume of water is available from the proposed source?
Where applicable, provide the capacity of the source and the (allowable) average daily extraction rate from the source. If there is more than one source, provide the requested information for each of the sources.
Where relevant, provide a copy of any agreements and/or licences to access the source water in Appendix D2.
Not applicable to this network operator licence application.

Table D.3 Class of customer

What customers or classes of customers does the applicant corporation propose to supply with water?
Will the applicant corporation be supplying small retail customers with water (ie, less than 15ML/year)?
Not applicable to this network operator licence application.

Table D.4 Risk assessment

Provide the preliminary risk assessment for the retail activities related to the scheme.
The risk assessment must identify the events and circumstances that could adversely affect the applicant corporation's ability to carry out the activities for which the licence is sought (including any activities undertaken by a nominated third party). It must also identify the probability of the occurrence of any such event or circumstance and the measures to be taken by the applicant corporation to prevent or minimise the likelihood of any such event or circumstance.
The preliminary risk assessment should demonstrate the application of a consistent methodology for identifying hazards and assessing potential impacts and risks. We strongly recommend that the applicant corporation utilises an established risk management system such as outlined in <i>AS/NZS ISO 31000 (Risk Management– Principles and Guidelines)</i> .
Provide the risk assessment in Appendix D4.
Not applicable to this network operator licence application.

Table D.5 Contingency plan

How will the applicant corporation ensure continuity of the supply of water to customers?
Not applicable to this network operator licence application.

Table D.6 Management systems and processes

Describe the systems and processes that the applicant corporation will have in place to manage retail activities including billing systems and complaint and debt recovery procedures.

Provide evidence of the applicant corporation's capacity to develop and implement a retail supply management plan in Appendix D6.

Not applicable to this network operator licence application.

PUBLIC

E Retail supplier's licence – technical capacity – sewerage services

For applicant corporations applying for a retail supplier's licence for supply of sewerage services.

Table E.1 Scheme description

Describe the sewerage infrastructure that the applicant corporation will access to provide sewerage services.

Not applicable to this network operator licence application.

Table E.2 Class of customer

What customers or classes of customers does the applicant corporation propose to supply with sewerage services?

Will the applicant corporation be supplying small retail customers with sewerage services (ie, less than 10.5 ML/yr)?

Not applicable to this network operator licence application.

Table E.3 Risk assessment

Provide the preliminary risk assessment for the retail activities related to the scheme.

The risk assessment **must identify the events and circumstances** that could adversely affect the applicant corporation's ability to carry out the activities for which the licence is sought (including any activities undertaken by a nominated third party). It must also identify the probability of the occurrence of any such event or circumstance and the measures to be taken by the applicant corporation to prevent or minimise the likelihood of any such event or circumstance.

The preliminary risk assessment should demonstrate the application of a consistent methodology for identifying hazards and assessing potential impacts and risks. We strongly recommend that the applicant corporation utilises an established risk management system such as outlined in *AS/NZS ISO 31000 (Risk Management– Principles and Guidelines)*.

Provide the risk assessment in Appendix E3.

Not applicable to this network operator licence application.

Table E.4 Contingency plan**What contingency plans are in place in the case of failure of the infrastructure?**

How will the applicant corporation ensure continuity of the provision of sewerage services to customers?
Not applicable to this network operator licence application.

Table E.5 Management systems and processes**Describe the systems and processes that the applicant corporation will have in place to manage retail activities including billing systems, and complaint and debt recovery procedures.**

Provide evidence of the applicant corporation's capacity to develop and implement a retail supply management plan in Appendix E5.

Not applicable to this network operator licence application.

PUBLIC