



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 17_042 (NOLV1)
Scheme: Shepherds Bay
Submission Date: September 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 | 27 |
| C Network operator's licence – technical capacity | 31 |
| D Retail supplier's licence – technical capacity – water supply | 39 |
| E Retail supplier's licence – technical capacity – sewerage services | 41 |

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]:

NORTH SYDNEY

On [date]:

24 / 09 / 2019

In the presence of an authorised witness, who states:

I [insert name of authorised witness]

MARK SARAKIS

a [insert qualification to be authorised witness]

NSW LEGAL PRACTITIONER NO. 37466

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]

N/A

Signature of authorised witness:



Date:

24/09/2019

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 Operations Pty Ltd

Signature of person making the declaration:

Declared at

[place]:

Sydney

On [date]: *25 September 2019*

In the presence of an authorised witness, who states:

I *[insert name of authorised witness]*

Jonathan CM Gunn

a *[insert qualification to be authorised witness]*

Legal practitioner admitted in NSW, PN11246

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.~~ *h*
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~~ *h*

[describe identification document relied on]

Signature of authorised witness:

Date: *25.9.2019*

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.

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:

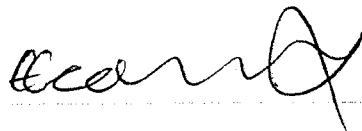
[Director / Company Secretary]

Sole Director, Flow Systems Operations Pty Ltd

On [date]:

24 / 09 / 2019

Signature of person making the acknowledgement:



Name of person making the acknowledgement:

Robert Charles Gittins

Title of person making the acknowledgement:

[Director / Company Secretary]

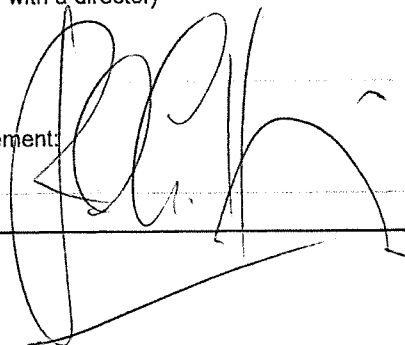
Chief Executive Officer (Acting), Flow Systems Operations Pty Ltd

(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]:

25 / 09 / 2019

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 | Shepherds Bay (Scheme) |

PUBLIC

Location (include local government area, Lot and DPs)

The Scheme is located in the suburb of Meadowbank, 15km north-west of Sydney Central Business District (CBD). The scheme is within the City of Ryde Local Government Area (LGA). The Scheme comprises:

- the construction, operation and maintenance of drinking water, sewerage and recycled water infrastructure within the Development; and
- the delivery of resulting sewerage and drinking water and recycled water supply services to end user customers.

In relation to 1, Flow Systems has established Flow Systems Operations Pty Ltd (**FSO**). Network Operator's Licence number 17_042 (**Existing NOL**) under the *Water Industry Competition Act 2006* (**WICA**) was granted to FSO on the 13th October 2017 to provide recycled water, drinking water and sewerage services to the Shepherds Bay development precinct (the **Development**).

This variation application (**NOLV1 Application**) seeks variation to the construction, operation and maintenance of the water and sewerage infrastructure to include:

- infrastructure to service the Stage 7A precinct of the Development located at 102-104 Bowden Street Meadowbank
- the sewage pumps at each building in the precinct and
- additional authorised purposes.

The lot identifiers for the Stage 7A precinct within which FSO applies to extend sewerage, drinking water and recycled water infrastructure are:

| Lot | Plan |
|-----|-----------|
| 1 | DP 730371 |
| 5 | DP 12534 |

Note that with development of the buildings within the existing NOL, lot identifiers for the Existing NOL area of operations have now changed and may yet continue to change. The current lot identifiers for the Existing NOL area of operations are:

| Lot | Plan |
|-----|------------|
| 7 | DP 1239998 |
| | SP 98936 |
| | SP 95296 |
| | SP 95272 |
| 9 | DP 1239999 |
| 10 | DP 1239999 |
| | SP 98937 |
| 4 | DP 548406 |
| 7 | DP 1242853 |
| 6 | DP 1242853 |
| 17 | DP 7130 |
| | SP 97601 |
| 5 | DP 1242853 |
| | SP 97600 |

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 to extend the provision of sewerage, drinking water and recycled water services to end user customers in the development area proposed in this NOLV1 Application.

Provide scheme details below.

APPENDICES

- Appendix A4(a) Proposed NOLV and RSLV area
- Appendix A4(b) Shepherds Bay Development Masterplan
- Appendix A4(c) Reticulation masterplan

Describe the scheme:

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.

FSO will be constructing, operating and maintaining drinking water, recycled water and sewerage infrastructure and Flow Systems will provide the services.

Drinking Water

FSO will source treated drinking water from Sydney Water. Sydney Water has identified (via its issue of Notices of Requirements to the Developer) that there is adequate capacity in the drinking water system to service both drinking water and recycled water end uses.

Using the more conservative, WSAA Code demands, the ultimate drinking water needs of the Development to be drawn from Sydney Water's supply network are as follows.

| Parameter | Without Stage 7A | | | Stage 7A | | | Proposed | | |
|---------------------------|------------------|------|--------|----------|------|-------|----------|------|--------|
| | Resi | Comm | Total | Resi | Comm | Total | Resi | Comm | Total |
| Connections | 1742 | 9 | 1751 | 43 | 0 | 43 | 1785 | 9 | 1794 |
| Average Day Demand (kL/d) | 652.9 | 7.0 | 659.9 | 16.1 | 0.0 | 16.1 | 669.0 | 7.0 | 676.0 |
| Max Day Demand (kL/d) | 1045.2 | 15.4 | 1060.6 | 25.8 | 0.0 | 25.8 | 1071.0 | 15.4 | 1086.4 |

To service the recycled water needs of the Development before the water recycling facility is constructed and commissioned, additional drinking water according to the demands in the Recycled Water section below will also be drawn from Sydney Water's supply network.

FSO can receive up to 1,000kL/d of drinking water from Sydney Water for servicing Shepherds Bay development. About 650kL/d of drinking water will be supplied to Shepherds Bay customers and drinking water top up (100% replacement) for recycled water will also be supplied, about 380KL/day. Sydney Water Notices of Requirements for all stages including stage 7A have been provided for the development without any requirement for drinking water infrastructure augmentation.

Recycled Water

The recycled water catchment is the Development area. Wastewater collected from predominantly residential households will be delivered into a water recycling facility to be known as the Shepherds Bay Local Water Centre (LWC) via 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 by this NOLV1 Application.

Additional recycled water infrastructure proposed under this licence variation

Additional recycled water reticulation systems works to service Stage 7A within 102 and 104 Bowden Street (Lot 1 DP 730371 and Lot 5 DP 12534) are proposed as part of this NOL variation application. This will entail the construction and operation of a 150mm diameter recycled water main connecting Stage 7 to Stage 7A of the Shepherds Bay development.

The Stage 7A transfer pump station will be fitted with an overflow connection which will divert excess flows to Sydney Water's wastewater main in Nancarrow Avenue. The LWC has the capacity to top up recycled water storage with drinking water when recycled water demand exceeds that available.

The impact on recycled water demand of the addition of Stage 7A is as follows:

| Parameter | Without Stage 7A | | | Stage 7A | | | Proposed | | |
|-------------|------------------|------|-------|----------|------|-------|----------|------|-------|
| | Resi | Comm | Total | Resi | Comm | Total | Resi | Comm | Total |
| Connections | 1742* | 9 | 1751 | 43* | 0 | 43 | 1785* | 9 | 1794 |

Provide scheme details below.

| | | | | | | | | | |
|---------------------------|-------|------|-------|------|-----|------|-------|------|-------|
| Average Day Demand (kL/d) | 383.5 | 38.4 | 421.9 | 9.5 | 0.0 | 9.5 | 393.0 | 38.4 | 431.4 |
| Max Day Demand (kL/d) | 696.8 | 84.5 | 781.3 | 17.2 | 0.0 | 17.2 | 714.0 | 84.5 | 798.5 |

Once the LWC is constructed and operational, there will be two available sources of water for the recycled water:

- Sewage is collected from each building's sewage pump station (SPS) and transferred via sewage rising mains to the Local Water Centre (LWC) to be located in the basement of Stage 3 of the Development at 12 Nancarrow Avenue, Ryde (SP97601). The conversion of raw sewage to recycled water is approximately 80% when reverse osmosis is used.
- Once recycled water is being produced and supplied by the LWC, if recycled water demand exceeds the supply of raw sewage and prolonged use depletes the recycled water storages, then top up with drinking water will be used to supplement supply.

Any sewage not required to be treated to maintain the recycled water demand will bypass the LWC and be discharged to Sydney Water's sewerage system at a single discharge point on Rothesay Avenue.

Sewerage

The licensed sewerage infrastructure within the boundary of the Existing NOL area of operations is constructed and operational for stages 2, 3, 4, 5, 6, 7, 8 and 9.

The total Development sewerage infrastructure for stages 2, 3, 4, 5, 6, 7, 8 and 9 approved under the Existing NOL consists of:

- pressure sewage reticulation system connecting each building to the LWC
- gravity sewer overflow pipes from each building to Sydney Water's gravity sewerage network.

Additional sewerage infrastructure proposed under this licence variation

- installation and operation of dual sewer pumps and sewage transfer tanks in the basements of the buildings of Stages 2 to 7, 7A, 8 and 9 within the Shepherds Bay development
 - the sewage transfer tanks would have 10kL capacity with pump capacity of 2L/s
- pressure sewage reticulation system connecting Stage 7A to Stage 7:
 - This will entail the construction and operation of a dedicated pressurised 150mm diameter sewer main connecting a basement located transfer tank and sewer pump to Stage 7 of the Shepherds Bay development which in turn is connected to the Flow Systems LWC
- gravity sewer overflow pipes from Stage 7A to Sydney Water's gravity sewerage network.

Phase 1 – Until the LWC in Stage 3 is constructed, commissioned and approved for operation, the buildings in the Development will discharge their sewage into the Sydney Water sewerage system at their closest discharge point.

Phase 2 – There are two possible scenarios: Either the entire Development area will deliver sewage to the LWC's flow balance tank where peaks will be buffered and odour scrubbed before discharging into a single point of Sydney Water's sewerage system on Rothesay Avenue or flows will continue to discharge to their closest discharge point into the Sydney Water sewerage system.

Phase 3 – Sewage collected from the Development will pass through the membrane bioreactor, disinfection and reverse osmosis treatment process units to be redistributed as recycled water for reuse within the Development area. The biological treatment capacity will ultimately be 600 kL/day. Any sewage not required to be treated to maintain the recycled water demand will bypass the LWC and be discharged to Sydney Water's sewerage system at a single discharge point on Rothesay Avenue or discharged at each building's closest discharge point to the Sydney Water sewerage system.

FSO will own, operate and maintain the estate sewage collection reticulation infrastructure in the street. Pipes owned by the Owners Corporation but operated and maintained by FSO will transport sewage from the Customer Connection Points to FSO's sewage reticulation main inside the Development area and/or Sydney Water's sewage reticulation main outside the Development area as applicable under the relevant phase above.

The Developer will construct all sewerage pipework in the Development area and has already constructed the tanks and plantroom that will house the proposed LWC, all to FSO's specification and QA procedures. FSO will install and commission the mechanical and electrical equipment that forms the water recycling facility. FSO will own, operate and maintain the water recycling facility.

Through this licence variation, FSO seeks to licence all of the additional sewerage infrastructure which it proposes to own, operate or maintain, as proposed under this licence variation to include:

- the dual sewer pumps and sewage transfer tanks in the basements of the buildings of Stages 2 to 7, 7A, 8 and 9, within the Shepherds Bay development
- pressure sewage reticulation system connecting Stage 7A to the LWC
- gravity sewer overflow pipes from Stage 7A to Sydney Water's gravity sewerage network.

Sewage flows available from this source are as follows:

| Parameter | Without Stage 7A | | | Stage 7A | | | Proposed | | |
|-------------|------------------|------|-------|----------|------|-------|----------|------|-------|
| | Resi | Comm | Total | Resi | Comm | Total | Resi | Comm | Total |
| Connections | 1742 | 9 | 1751 | 43 | 0 | 43 | 1785 | 9 | 1794 |

Provide scheme details below.

| | | | | | | | | | |
|--------------------------------|-------|-----|-------|------|-----|------|-------|-----|-------|
| Average Dry Weather Flow (L/s) | 5.22 | 0.1 | 5.23 | 0.1 | 0.0 | 0.1 | 5.23 | 0.1 | 5.24 |
| Peak Dry Weather Flow (L/s) | 10.7 | 0.2 | 10.9 | 0.3 | 0.0 | 0.3 | 11.0 | 0.2 | 11.2 |
| Total Flow (kL/day) | 439.0 | 9.0 | 448.0 | 12.0 | 0.0 | 12.0 | 451.0 | 9.0 | 460.0 |

This source could provide at ultimate development an average of 460 kL/day of raw sewage. The conversion of raw sewage to recycled water is approximately 80% when reverse osmosis is used so 460kL/day of sewage can produce 368kL/day of recycled water. The biological treatment capacity of the LWC will ultimately be 600 kL/day.

Any sewage not required to be treated to maintain the recycled water demand will bypass the LWC and be discharged to Sydney Water's sewerage system at a single discharge point on Rothesay Avenue.

APPENDICES

- Appendix A4(h) Shepherds Bay Scheme Management Plan (Table of Contents)
- Appendix A4(j) Existing NOL
- Appendix A4(k) Approval for commercial operation
- Appendix A4(l) Process flow diagrams

Describe end uses

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

- Toilet flushing
- Clothes washing
- Cooling tower top up
- Car washing
- Water features
- Irrigation (including public open space irrigation).

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

- General wash down (for residential and industrial use on hard surfaces)
- Dust suppression
- Street cleaning
- Process water at the 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)

Provide scheme details below.

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.

FSO is not proposing to treat the drinking water which will be bulk supplied to FSO by Sydney Water and therefore there are no waste products / disposal options associated with drinking water.

There will be three waste streams generated by the LWC in the process of converting sewage to recycled water, namely:

- Dewatered screenings – collected and disposed off-site via an approved waste management contractor.
- Waste activated sludge (WAS) – collected and disposed offsite via an approved waste management contractor or discharged into the Sydney Water sewerage system under a trade waste agreement.
- Brine – highly salinated water resulting from the reverse osmosis treatment process. This is proposed to be discharged to Sydney Water's licensed public sewerage system through a trade waste agreement between FSO and Sydney Water.

The water servicing strategy and its Stage 7A addendum, indicate that Stage 7A would add 12kL/day of sewage for a total of 460kL/day of raw sewage to be provided by the Development. Using reverse osmosis, approximately 20% is lost through waste in treating the sewage to recycled water and so 2.4kL/day of brine waste will be added by Stage 7A.

Shepherd Bay's LWC is designed to treat up to 600 kilolitres per day of sewage with about 20% lost through waste. This is equal to up to approximately 120 kilolitres per day of generated waste at maximum capacity.

During operation of the LWC, screening debris is collected and disposed off-site via a licensed waste disposal contractor.

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

Development

The Developer was granted Part 3A Concept Plan Approval (ref: MP09_0216) for the Shepherds Bay development on 6 March 2013 pursuant to section 75O of the EP&A Act and this was amended on 16 October 2014.

The Developer completed Stage 1 of the development, which sits outside of the scope of this licence application, in mid-2015. For stages 2-9, the Developer has been granted staged development consent by City of Ryde Council following public exhibition and consultation pursuant to Part 4 of the EP&A Act, complete with accompanying Statements of Environmental Effects. This was assessed by IPART in respect of its assessment of the application for the Existing NOL.

The developer has since received development consent for Stage 7A complete with a Statement of Environment Effects. The stages and their regulatory approvals are as follows:

| Stage | DA number | Status | Date | Properties | NOL |
|-----------|--------------|-------------------------------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| Stage 2-3 | LDA2015/0018 | Approved | 20/10/2015 | 6 Nancarrow Ave, RYDE 41 Belmore St, RYDE | Existing NOL |
| Stage 4-5 | LDA2015/0019 | Approved | 18/09/2015 | 2 Constitution Rd, RYDE 4 - 6 Constitution Rd, RYDE 8 - 14 Constitution Rd, RYDE 16 Constitution Rd, RYDE 18 Constitution Rd, RYDE 7 Hamilton Cr, RYDE | Existing NOL |
| Stage 6-7 | LDA2015/0032 | Approved | 15/12/2015 | 37 Nancarrow Ave, RYDE 33 Nancarrow Ave, RYDE | Existing NOL |
| Stage 8-9 | LDA2015/0031 | Approved | 15/12/2015 | 116 Bowden St, MEADOWBANK | Existing NOL |
| Stage 7A | LDA2018/0048 | Deferred Commencement Consent | 13/12/2018 | 102-104 Bowden Street, MEADOWBANK | NOLV1 |

Reticulation including Stage 7A

The Developer's approved development applications and their associated statements of environmental effects for each development stage cover the development footprint and therefore impact of the construction of the parts of the licensed reticulation network that are located within the footprint of the buildings (including Stage 7A).

The scope of the sewerage and recycled water reticulation network is defined in the Existing NOL in Point 2 of Schedule A as follows:

2. Limits of Approval

2.1. The Licensee must only construct, maintain and operate, and must ensure that any Authorised Person only constructs, maintains and operates, the water industry infrastructure specified in paragraph 2) of Table 1.2 or paragraph 2) of Table 3.2 to the extent that such construction, maintenance or operation:

- a) has been granted development consent under the EP&A Act as at the date this Licence is granted; or
- b) is exempt development under the EP&A Act and may be carried out without development consent under section 76(3)(a) of the EP&A Act; or
- c) is the subject of the REF.

2.2. The Licensee must undertake, and must ensure that any Authorised Person undertakes, the activities set out in the REF that is approved by the Minister, that are authorised by the Licence, in a manner that is substantially consistent with the REF, if applicable. Those activities include, but are not limited to, the environmental mitigation measures set out in the REF.

Where REF means:

the document titled "REF for proposed sewage and recycled water reticulation systems. Shepherds Bay, New South Wales", version 3, prepared by RPS Australia East Pty Ltd, version 3, and

Provide scheme details below.

dated 2 June 2017 and does not include any modified version of that document or any other document replacing it.

Accompanying this NOLV1 Application is an addendum to that REF (REF Addendum) which primarily covers the following scope:

- Sewage pumps in each building within the Existing NOL area as well as Stage 7A
- Extension of the sewer rising main to Stage 7A
- Extension of the recycled water main to Stage 7A

This REF Addendum is submitted for review and determination under Part 5 of the EP&A Act.

Local Water Centre

City of Ryde Council granted development consent for the LWC on 13 March 2018 under Part 4 of the EP&A Act (LDA2017/0426). FSO's development application was accompanied by a Statement of Environmental Effects.

Environmental Protection Licence

FSO does not require an environmental protection licence ("EPL") pursuant to Schedule 1 Part 1 section 36(1) of the *Protection of the Environment Operations Act 1997* (NSW) ("POEO Act") as:

- it is proposed that excess sewage and wastes be discharged to a licensed public water authority sewer and
- the proposed treatment capacity does not exceed the threshold trigger in Schedule 1 of the POEO Act.

APPENDICES

- Appendix A4(l) Environmental Approvals Summary Table
- Appendix A4(m) Stage 7A Statement of Environmental Effects
- Appendix A4(n) DA Approved Conditions – Stage 7A
- Appendix A4(o) Local Water Centre Development Consent
- Appendix A4(p) REF Addendum

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

This NOLV1 Application seeks expansion of the Existing NOL to include infrastructure to service Stage 7A, located at 102-104 Bowden Street, Meadowbank, to the west of the approved Concept Plan MP09-216 (Mod 2) area. The land located at 37-53 Nancarrow Avenue, Meadowbank to the east of the NOLV area, forms the approved Stages 6 and 7 of the approved Concept Plan. The NOLV area is therefore generally referred to as 'Stage 7A', notwithstanding that it does not form part of the approved Concept Plan.

Recycled water will be supplied from the LWC, which will be located in the basement of Stage 3 of the Development. The LWC is proposed to be constructed in 2020 and commissioned for operation in 2021 under the Existing NOL and DA approvals.

Services will be provided to the new Stage 7A residential lots which will be under construction in late 2019 and expected to be occupied in early 2020. Commencement of service supply is also expected to commence at the date of occupation of the building in late 2019.

During the interim servicing period, it is proposed that sewage be discharged to two local discharge points in Sydney Water's sewerage system in Belmore Street and Rothesay Avenue.

Provide scheme details below.

The drinking water reticulation network would be connected to Sydney Water's drinking water supply. Recycled water reticulation in Stage 7A will be constructed in 2019 but will be initially serviced by drinking water until the LWC is operational.

The supply of drinking water and sewage services would be via local 'pass-through' arrangement to Sydney Water's drinking water and sewer network infrastructure pursuant to an extension to the existing USA between Sydney Water and Flow Systems for the Shepherds Bay scheme.

Variation of the Existing NOL to expand its current area of operations is required by late 2019 to allow commencement of services supply to the Stage 7A development in early 2020. The treatment infrastructure and reticulation for the Shepherds Bay area is already licensed and approved for commercial operation and services within the Existing NOL area of operations.

List the total number and type of customers to be serviced

Flow Systems separately holds retail supplier's licence 13_001R that covers the Shepherds Bay NOL area. It is estimated that the total number of residential apartments expected to be serviced is 1,785 plus 9 retail/commercial customers. Recycled water is not metered at the individual apartments. Residential customers (apartment owners) will see itemised charges on their bill for:

- Drinking water service fee
- Drinking water usage
- Recycled water service fee
- Recycled water usage – prorated, based on drinking water usage
- Wastewater service fee

Customers in the proposed Stage 7A will receive the same service as those in the existing part of the Shepherds Bay Development.

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

Variation of FSO's NOL to expand its current area of operations is required by late 2019 to allow commencement of services supply to Stage 7A when it is being occupied in early 2020.

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) 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 NOLV 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 NOLV 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

i

•

- 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 The Protectors Insurance Brokers Pty Ltd 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

(Note: Flow Systems' insurances are currently being comprehensively reviewed in preparation for renewal beyond their current 30 June 2019 expiry. An Insurance Expert's Report will be provided to IPART following this review and renewal.)

- 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 Shepherds Bay scheme.

Full business support (including all technical, financial, administrative and retail services) is provided by Flow Systems.

Corporation name

Shepherds Bay Infrastructure Management Pty Ltd (**Developer**)

ABN/ARBN

77 257 686 961

ACN

257 686 961

Corporation's registered office address

2/2-4 Giffnock Avenue, Macquarie Park NSW 2113

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 drinking water, 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 Shepherds Bay Water website at:

Homeowners:

https://flowsystems.com.au/governance/Shepherds_Bay/Shepherds_Bay_Fees_and_Charges_Homeowners.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 checked="" 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.

See the applicant's response above under Table A.4.

Table C.2 Existing activities

Has the corporation commenced any of the activities for which it is seeking a licence?

☐ YES ☒ NO

If yes:

- ▼ 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 *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.*
- ▼ 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. *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.*

The Existing NOL was granted on 17th October 2017 and commercial operations commenced to the first building in the Scheme (Stages 4/5) in November 2017 following Ministerial approval for the same. Services will be provided to the new Stage 7A residential lots which will be under construction in late 2019 and expected to be occupied in early 2020. Commencement of service supply is also expected to commence at the date of occupation of the building in early 2020.

The LWC is proposed to be constructed in 2020 and commissioned for operation in 2021 under the Existing NOL and DA approvals.

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.

Please refer to the 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.

Drinking Water

All drinking water will be sourced from Sydney Water's drinking water system via infrastructure licensed to FSO.

All of the Scheme's drinking water infrastructure will connect to Sydney Water infrastructure within the boundary of the Development area.

The drinking water infrastructure will supply the Initial Stages with top-up at each building to the recycled water plumbing until the LWC becomes fully operational.

The detailed design and construction of the drinking water plumbing either side of the drinking water meter inside meter cupboards on each floor of each building will be undertaken by the Developer and it will be owned by the relevant Owners Corporation.

FSO will not be responsible for the operation and maintenance of the drinking water plumbing owned by the Owners Corporation which transports drinking water downstream from the Customer Connection Point, which is the upstream face of the flange at the domestic drinking water booster pumps, usually located in the building basement. FSO will not own any drinking water infrastructure except for a drinking water meter between the Sydney Water bulk water meter and the domestic drinking water boost pumps and storage tank and the sub-meters located on the internal building plumbing to each apartment.

FSO will operate and maintain the Owners Corporation-owned section of drinking water pipe between the Sydney Water water main and the Customer Connection Point.

A commercial agreement (USA) between Sydney Water and FSO's parent company, Flow Systems Pty Ltd clearly outlines the parties' respective responsibilities. The USA for the Shepherds Bay scheme was executed on 18th October 2017 and it is proposed that this be extended to include Stage 7A.

Recycled Water

There are no permanent interconnections required between the proposed recycled water infrastructure and other infrastructure not part of this scheme.

FSO will not be treating wastewater from outside the Scheme area under this licence application.

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.

Before the LWC is built, commissioned and producing recycled water, there will be a drinking water top-up at each building to the recycled water plumbing.

FSO will not be responsible for the operation and maintenance of the recycled water plumbing owned by the Owners Corporation which transports recycled water downstream from the Customer Connection Point, which is the upstream face of the flange at the domestic recycled water booster pumps, usually located in the building basement. FSO will own the recycled water reticulation main and the bulk water meter at each building.

FSO will operate and maintain the Owners Corporation-owned section of recycled water pipe between the FSO recycled water reticulation main and the Customer Connection Point.

Sewerage

Phase 1 – Until the LWC in Stage 3 is constructed, commissioned and approved for operation, the buildings in the Development will discharge their sewage into the Sydney Water sewerage system at their closest discharge point.

Phase 2 – There are two possible scenarios: Either the entire Development area will deliver sewage to the LWC's flow balance tank where peaks will be buffered and odour scrubbed before discharging into a single point of Sydney Water's sewerage system on Rothesay Avenue or flows will continue to discharge to their closest discharge point into the Sydney Water sewerage system.

Phase 3 – Sewage collected from the Development will pass through the membrane bioreactor, disinfection and reverse osmosis treatment process units to be redistributed as recycled water for reuse within the Development area. The biological treatment capacity will ultimately be 600 kL/day. Any sewage not required to be treated to maintain the recycled water demand will bypass the LWC and be discharged to Sydney Water's sewerage system at a single discharge point on Rothesay Avenue or discharged at each building's closest discharge point to the Sydney Water sewerage system.

FSO will own, operate and maintain the estate sewage collection reticulation infrastructure. Pipes owned by the Owners Corporation but operated and maintained by FSO will transport sewage from the Customer Connection Points to FSO's sewage reticulation main inside the Development area and/or Sydney Water's sewage reticulation main outside the Development area as applicable under the relevant phase above. This NOLV1 Application proposes that FSO takes ownership, operation and maintenance responsibility for the sewer pumps at each building.

The Developer will construct all sewerage pipework in the Development area.

Local Water Centre

The Developer has already constructed the tanks and plantroom that will house the proposed LWC, all to FSO's specification and QA procedures. FSO will install and commission the mechanical and electrical equipment that forms the LWC. FSO will own, operate and maintain the LWC.

FSO seeks to licence all of the sewerage infrastructure which it proposes to own, operate or maintain extended to also include the sewage pumps at each building.

APPENDICES

•

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 A4 above.

FSO is not proposing to treat the drinking water which will be bulk supplied to FSO by Sydney Water and therefore there are no waste products / disposal options associated with drinking water.

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 from the treatment process are relevant to this NOLV1 Application.

There will be three waste streams generated by the LWC in the process of converting sewage to recycled water, namely:

- Dewatered screenings – collected and disposed off-site via an approved waste management contractor.
- Waste activated sludge (WAS) – collected and disposed offsite via an approved waste management contractor or discharged into the Sydney Water sewerage system under a trade waste agreement.
- Brine – highly salinated water resulting from the reverse osmosis treatment process. This is proposed to be discharged to Sydney Water's licensed public sewerage system through a trade waste agreement between FSO and Sydney Water.

The water servicing strategy and its Stage 7A addendum, indicate that Stage 7A would add 12kL/day of sewage for a total of 460kL/day of raw sewage to be provided by the Development. Using reverse osmosis, approximately 20% is lost through waste in treating the sewage to recycled water and so 2.4kL/day of brine waste will be added by Stage 7A.

Shepherd Bay's LWC is designed to treat up to 600 kilolitres per day of sewage with about 20% lost through waste. This is equal to up to approximately 120 kilolitres per day of generated waste at maximum capacity.

Provide additional information in Appendix C5.

APPENDICES

•

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.

APPENDICES

•

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.

Drinking Water

FSO will source treated drinking water from Sydney Water. Sydney Water has identified (via its issue of Notices of Requirements to the Developer) that there is adequate capacity in the drinking water system to service both drinking water and recycled water end uses.

Using the more conservative, WSAA Code demands, the ultimate drinking water needs of the Development to be drawn from Sydney Water's supply network are as follows.

| Parameter | Without Stage 7A | | | Stage 7A | | | Proposed | | |
|---------------------------|------------------|------|--------|----------|------|-------|----------|------|--------|
| | Resi | Comm | Total | Resi | Comm | Total | Resi | Comm | Total |
| Connections | 1742 | 9 | 1751 | 43 | 0 | 43 | 1785 | 9 | 1794 |
| Average Day Demand (kL/d) | 652.9 | 7.0 | 659.9 | 16.1 | 0.0 | 16.1 | 669.0 | 7.0 | 676.0 |
| Max Day Demand (kL/d) | 1045.2 | 15.4 | 1060.6 | 25.8 | 0.0 | 25.8 | 1071.0 | 15.4 | 1086.4 |

To service the recycled water needs of the Development before the water recycling facility is constructed and commissioned, additional drinking water according to the demands in the Recycled Water section below will also be drawn from Sydney Water's supply network.

Recycled Water

Additional recycled water reticulation systems works to service Stage 7A within 102 and 104 Bowden Street (Lot 1 DP 730371 and Lot 5 DP 12534) are proposed as part of this NOL variation application.

The Stage 7A transfer pump station will be fitted with an overflow connection which will divert excess flows to Sydney Water's wastewater main in Nancarrow Avenue. The LWC has the capacity to top up recycled water storage with drinking water when recycled water demand exceeds that available.

The impact on recycled water demand of the addition of Stage 7A is as follows:

| Parameter | Without Stage 7A | Stage 7A | Proposed |
|-----------|------------------|----------|----------|
|-----------|------------------|----------|----------|

Describe the volume of water available from the proposed source.

| | Resi | Comm | Total | Resi | Comm | Total | Resi | Comm | Total |
|---------------------------|-------|------|-------|------|------|-------|-------|------|-------|
| Connections | 1742* | 9 | 1751 | 43* | 0 | 43 | 1785* | 9 | 1794 |
| Average Day Demand (kL/d) | 383.5 | 38.4 | 421.9 | 9.5 | 0.0 | 9.5 | 393.0 | 38.4 | 431.4 |
| Max Day Demand (kL/d) | 696.8 | 84.5 | 781.3 | 17.2 | 0.0 | 17.2 | 714.0 | 84.5 | 798.5 |

Once the LWC is constructed and operational, there will be two available sources of water for the recycled water:

- Sewage is collected from each building's sewage pump station (SPS) and transferred via sewage rising mains to the Local Water Centre (LWC) to be located in the basement of Stage 3 of the Development at 12 Nancarrow Avenue, Ryde (SP97601). The conversion of raw sewage to recycled water is approximately 80% when reverse osmosis is used.
- Once recycled water is being produced and supplied by the LWC, if recycled water demand exceeds the supply of raw sewage and prolonged use depletes the recycled water storages, then top up with drinking water will be used to supplement supply.

Any sewage not required to be treated to maintain the recycled water demand will bypass the LWC and be discharged to Sydney Water's sewerage system at a single discharge point on Rothesay Avenue.

APPENDICES

•

Table C.8 Risk assessment

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

The preliminary risk assessment should:

- ▼ 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 for the scheme from source to end use.

Provide the preliminary risk assessment in Appendix C8.

APPENDICES

- Appendix C8 Shepherds Bay 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(a) 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: <ul style="list-style-type: none">▼ The <i>Environmental Planning and Assessment Act 1979</i>▼ The <i>Protection of the Environment Operations Act 1997</i>▼ Any other relevant legislation. |
| Attach copies of each approval (if granted) and any reports from the approval body. |
| Such approvals may include: <ul style="list-style-type: none">▼ Development consents for a housing development under the <i>Environmental Planning and Assessment Act 1979</i>▼ Section 68 approval under the <i>Local Government Act 1993</i>▼ Environment Protection Licence under the <i>Protection of the Environment Operations Act 1997</i>▼ Any and all subsequent approved modifications. |
| See the applicant's response above under Table A.4. |

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 <i>Environmental Planning and Assessment Act 1979</i> (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. |
| See the applicant's response above under Table A.4. |

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: <ul style="list-style-type: none">▼ Environmental study▼ Land capability or site suitability assessment▼ Environmental risk assessment▼ Determination reports in Appendix C14. |
| See the applicant's response above under Table A.4. |

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.