



Independent Pricing and Regulatory Tribunal
New South Wales

Licence Application Form

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

Applicant: Green Square Water Pty Ltd
Scope: Variation 1 to Network Operator Licence 15_031 (NOLV1)
Scheme: Green Square Town Centre
Submission Date: October 2019
Version: 2
Type: PUBLIC

Application
Water

January 2019

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ISBN 978-1-76049-284-7

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Tribunal Members

The Tribunal members are:

Dr Peter J Boxall AO, Chair
Mr Ed Willett
Ms Deborah Cope

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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.

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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, **Green Square Water Pty Ltd**).
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, Green Square Water Pty Ltd

Signature of person making the declaration:

Declared at

[place]:

NORTH SYDNEY

On [date]:

17 / 10 / 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:

17 / 10 / 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~~ ⁿ ~~[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), Green Square Water Pty Ltd

Signature of person making the declaration:



Declared at
[place]:

Sydney

On [date]:

8 October 2019

In the presence of an authorised witness, who states:

I *[insert name of authorised witness]*

Jonathan C.M. Gunn

a *[insert qualification to be authorised witness]*

legal practitioner admitted in NSW, PN 2246

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.~~ ⁿ
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~~ ²

[describe identification document relied on]

Signature of authorised witness:



Date:

8 October 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.

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Acknowledgement

The applicant corporation (as named in the application form accompanying this acknowledgement, **Green Square Water Pty Ltd**) 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, Green Square Water Pty Ltd

On [date]:

17/10/19

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), Green Square Water 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]:

17/10/19

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	Green Square Water Pty Ltd (GSW)
ABN	57 163 432 906
ACN	163 432 906
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	Green Square Town Centre (GSTC, Scheme)
Location (include local government area, Lot and DPs)	<p>The Scheme is centred in the suburb of Zetland, Sydney. The scheme is within the City of Sydney Local Government Area. The Scheme comprises:</p> <ol style="list-style-type: none">1. the construction, operation and maintenance of recycled water infrastructure within the Development; and2. the delivery of resulting recycled water supply services to end user customers. <p>In relation to 1, Flow Systems has established Green Square Water Pty Ltd (GSW). Network Operator's Licence number 15_031 (Existing NOL) under the <i>Water Industry Competition Act 2006 (WICA)</i> was granted to GSW on the 25th September 2015 to provide recycled water services to the Green Square Town Centre development precinct (the Development).</p> <p>This variation application (NOLV1 Application) seeks variation to the construction, operation and maintenance of the recycled water infrastructure to include:</p> <ul style="list-style-type: none">• an additional stormwater connection point as a separate source• recycled water infrastructure to service the Gunyama Park Aquatic and Recreation Centre (GPARC) located to the east of the Existing NOL area• additional authorised purposes. <p>Note that with subdivision and development of the lots within the Existing NOL area, lot identifiers for the Existing NOL area of operations have now changed and will continue to change. The address and lot identifiers for the GPARC within which GSW applies to extend recycled water infrastructure are:</p> <ul style="list-style-type: none">• 130 Joynton Avenue, Zetland - Lot 1 DP850686 (partial).• 132-140 Joynton Avenue, Zetland - Lot 1 DP1239679• 94-104 Epsom Road, Zetland – Lot 2 DP1239679• 106-116 Epsom Road, Zetland – Lot 100 DP1220949 (partial) <p>The Existing NOL area of operations includes:</p> <ul style="list-style-type: none">• The areas identified in the map at Attachment A to the Existing NOL as Green Square Town Centre; and• the section of Joynton Avenue, Zetland situated between the intersection of:<ul style="list-style-type: none">○ Joynton Avenue and Elizabeth Street, Zetland; and○ Joynton Avenue and Hansard Street, Zetland. <p>In relation to 2, Flow Systems holds a retail supplier's licence (Licence No. 13_001R most recently amended 13th October 2017, RSL) and makes application alongside this NOLV1 Application to vary its RSL to extend the provision of recycled water services to end user customers in the Development area proposed in this NOLV1 Application.</p>
APPENDICES	<ul style="list-style-type: none">• Appendix A4(a) Proposed NOLV and RSLV area• Appendix A4(b) Reticulation masterplan
Describe the scheme:	<p>Provide a summary of each type of product to be captured by the scheme (eg, drinking water, recycled water, sewage, stormwater), the volumes generated and the treatment process to be used, including average and maximum capacity.</p> <p>GSW will be constructing, operating and maintaining recycled water infrastructure and Flow Systems will provide the services.</p>
Recycled Water	

Provide scheme details below.

The recycled water catchment is the Development area. Stormwater collected at the recently diverted Shea's Creek stormwater pipe is being delivered into a water recycling facility known as the Green Square Local Water Centre (**LWC**). This LWC was described and approved under the Existing NOL and no changes to the treatment process are proposed by this NOLV1 Application. The LWC and much of the recycled water network infrastructure within the boundary of GSW's Existing NOL area of operations is constructed and is currently operational.

Expansion of the Existing NOL area to include GPARC will require construction of pipework connecting the LWC across Joynton Avenue to GPARC which is to be constructed under D/2016/824. Joynton Avenue between Elizabeth Street and Hansard Street, Zetland is within the Existing NOL area of operations.

The impact on recycled water demand of the addition of GPARC is as follows:

Parameter	Without GPARC			GPARC			Proposed		
	Resi	Comm	Total	Resi	Comm	Total	Resi	Comm	Total
Peak Daily Demand (kL/d)	677	358	1035	-	9.8	9.8	677	367.8	1044.8

An additional stormwater connection is also proposed to the east of Joynton Avenue. This will assist with security of supply of source water.

There are two available sources of water for the treatment and production of recycled water:

- **Stormwater** – Based on a design capacity to supply 32 development sites (containing residential, commercial and retail end users) across the GSTC precinct, the Scheme is proposing to ultimately extract stormwater from the source at a rate of 900kL/day (equivalent to approx. 10L/s) and up to 20L/s at peak times.
- **Drinking water supply** – Where recycled water demand exceeds the available supply of stormwater, drinking water will be used to supplement the recycled water supply. GSW has access to The Council of the City of Sydney's drinking water connection to the LWC site (owned by Council) such that drinking water may be used for top-up of recycled water storages and/or supply.

The Scheme will have the capacity to treat average daily flows of approx. 620kL/day and peak daily flows of approx. 900kL/day. The volume of recycled water produced will be 620kL/day (average) and 900kL/day (peak), however average volume of recycled water supplied to end users will vary with time of year due to irrigation and cooling tower demands. A total of 1ML recycled water storage is available to buffer peak demands, and a drinking water top-up supply may also be used to meet consecutive peak daily demands greater than 900 kL/day. As outlined above, drinking water top-up will be used should recycled water demand temporarily exceed recycled water production.

GSW is responsible for the design, construction, operation and maintenance of all recycled water infrastructure for the initial five plus five years as set out in the Combined Design, Construct & Services Contract (AS4902) between The Council of the City of Sydney and Flow Systems Pty Ltd and the subsequent Amended Major Services Agreement (MSA).

The detailed design and construction of the recycled water infrastructure from the source water offtake up to and including the recycled water meter at the boundary of each development lot has been undertaken by GSW (addressed in NOL 15_031 application).

Each end user/customer within the NOLV area will be responsible for the construction, operation and maintenance of the recycled water infrastructure downstream of the recycled water meter (connection point).

NSW Fair Trading is responsible for inspection and review of the Developer's recycled water plumbing infrastructure.

APPENDICES

Provide scheme details below.

- Appendix A4(c) GSTC Water Balance Report (Summary)
- Appendix A4(d) GSTC Technical Note – GPARC Impact on Green Square Water Balance Model
- Appendix A4(e) GSTC Recycled Water Feasibility Analysis
- Appendix A4(f) Infrastructure Responsibility Schematics
- Appendix A4(g) GSTC Scheme Management Plan (Table of Contents)
- Appendix A4(h) Process Flow Diagrams
- Appendix A4(i) Existing NOL
- Appendix A4(j) Approval for commercial operation
- Appendix A4(p) Sydney Water drinking water connection approval

Describe end uses

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

- Toilet flushing
- Washing machines (cold water tap)
- Cooling tower make up water
- Water features
- Irrigation
- Street cleaning

This NOLV1 Application and the accompanying 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)
- Car washing
- Dust suppression
- 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.

The following waste streams as described in the Process Flow Diagram (PFD) are generated by the LWC and considered in the Existing NOL namely:

- **Strainer Reject** – The strainer will “protect” the membranes from oversized material. The reject from the strainers will be diverted back to the stormwater system subject to meeting quality requirements. If quality requirements cannot be achieved then the strainer reject will be sent to the Sydney Water sewer system under a trade waste agreement.
- **Ultrafiltration Reject** – The reject from the ultrafiltration membranes will be diverted back to the stormwater system subject to meeting quality requirements. If quality requirements cannot be achieved then the reject from the ultrafiltration membranes will be sent to the Sydney Water sewer system under a trade waste agreement.
- **Neutralised Membrane Cleaning Waste** – Neutralised membrane cleaning waste will be diverted back to the stormwater system subject to meeting quality requirements. If quality requirements cannot be achieved then the waste will be appropriately disposed of via Sydney Water’s sewer main in compliance with its trade waste requirements.
- **Reverse Osmosis Reject** – The reject from the reverse osmosis membranes will be diverted back to the to the stormwater system subject to meeting quality requirements. If quality requirements cannot be achieved then the reject from the reverse osmosis membranes will be sent to the Sydney Water sewer system under a trade waste agreement.
- **Excess recycled water** – Due to the nature of the source water (ie. stormwater baseflow harvesting), recycled water production will be balanced with the end user demand to ensure that surplus water is not unnecessarily extracted and treated.
- **Off-specification water** – Source water will be tested for key quality parameters. If these parameters exceed the quality criteria for the treatment train then the source water will bypass the LWC and be discharged directly to the Council stormwater system.

Waste streams resulting from the treatment process, such as backwashing filters, will be blended in a common mixing tank prior to discharge to sewer as trade waste. Flow Systems has an agreement with Sydney Water to discharge up to 600kL/day at a rate of 7L/s.

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

Provide scheme details below.Development

For the addition of GPARC, The Council of the City of Sydney lodged a DA for development consent on 22/06/2016 (D/2016/824) from City of Sydney Council pursuant to Section 4.12 of the *Environmental Planning and Assessment Act 1979* for the construction of an aquatic and recreation centre and regional park known as Gunyama Park Aquatic and Recreation Centre. The aquatic and recreation centre comprises indoor and outdoor pools, crèche, café and health and fitness centre. The regional park comprises outdoor playground, sports field, skate park, fitness station, amenities, BBQ areas and landscaping. The application is classified as Integrated Development as the works required approval under the *Water Management Act 2000*. General terms of approval were issued by the WaterNSW on 14 September 2016. The application was determined on 24 May 2017.

Reticulation

Approval for construction of the recycled water network reticulation infrastructure and the infrastructure associated with the source water offtake (offtake structure, gross pollutant trap, source water pump station and rising main) was obtained via Development Application D/2012/1175 and D/2012/1175A (Section 96 Modification of Application) supported by Statement of Environmental Effects - Green Square Town Centre Essential Infrastructure prepared by The Council of the City of Sydney. Recycled water will be supplied from GSW's Local Water Centre (LWC), which is located in the basement of the Green Infrastructure Centre (GIC) Development.

This will require construction of pipework connecting the Developments LWC across Joynton Avenue to GPARC (constructed under Development Application D/2008/1195 for essential infrastructure lodged on the 24/11/08). Joynton Avenue between Elizabeth Street and Hansard Street, Zetland is within the Existing NOL area of operations.

Reticulation including GPARC

The Developer's approved development applications and their associated statements of environmental effects 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 development. .

Local Water Centre

The Council of the City of Sydney as the "determining authority" for the Review of Environmental Factors (REF) under Part 5 of the NSW *Environmental Planning & Assessment Act 1979*, approved the REF report which assesses the environmental impacts of the LWC and associated infrastructure (storage tanks and recycled water pump station). This has been previously assessed under the Existing NOL application and the LWC has subsequently been constructed and approved for commercial operation.

APPENDICES

- Appendix A4(k) Environmental Approvals Summary Table
- Appendix A4(l) GPARC Statement of Environmental Effects
- Appendix A4(m) DA Approved Conditions – GPARC
- Appendix A4(n) Green Square Essential Infrastructure - Joynton Ave Statement of Environmental Effects
- Appendix A4(o) Green Square Essential Infrastructure – Joynton Ave DA Approved Conditions

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 GPARC, located to the east of the Existing NOL area. The NOLV1 area is therefore generally referred to as 'GPARC'.

Recycled water will be supplied from the LWC, which is located in the basement of the GIC Development. The LWC is constructed and operational under the Existing NOL.

Provide scheme details below.

Services will be provided to the GPARC which began construction in 2018 and expected to be completed by early 2020. Commencement of recycled water service supply is expected to commence at the date of completion of the development in early 2020.

Variation of the Existing NOL to expand its current area of operations is required by 31 March 2020 to allow commencement of services supply to GPARC development when required. The treatment infrastructure and reticulation for the Development 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 Existing NOL area. It is estimated that the total number of residential apartments expected to be serviced is 4,100 plus a number of commercial premises and retail outlets. Recycled water is not metered at the individual apartments and so service and usage is charged to each owners corporation as a commercial customer.

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

Variation of the Existing NOL to expand its current area of operations is required by 31 March 2020 to allow commencement of services supply to GPARC when Stage 1 construction is completed then.

PUBLIC

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).

GSW is a wholly-owned subsidiary of Flow Systems. GSW 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.

GSW’s experience is based on the collective experience of Flow Systems’ management and staff who are integral members of the GSW 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	✓	✓	✓
GSTC	N/A	✓	N/A
Box Hill	N/A	✓	✓
Shepherds Bay	✓	✓	✓

APPENDICES

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

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

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

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

APPENDICES

- Appendix A3(c) Position Descriptions

Table A.5.2 Experience – Retail Supplier

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

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

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

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

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

Not applicable to this network operator licence application

Table A.6 Corporate structure

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

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

APPENDICES

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

Table A.7 Disqualified corporations

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

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

APPENDICES

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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.

APPENDICES

- 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.

APPENDICES

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

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

Also, a comprehensive whole-of-business and project-specific insurance risk assessment for the Scheme has been conducted in satisfaction of IPART's standard licensing condition, prior to the Minister's approval for commercial operation for GSW to operate the scheme in May 2018.

APPENDICES

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- 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

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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 GSW, which in turn is a special-purpose wholly-owned subsidiary, established for the delivery and operation of local water utility schemes including the Green Square scheme.

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

Corporation name

The Council of the City of Sydney (**Developer**)

ABN/ARBN

22 636 550 790

ACN

636 550 790

Corporation's registered office address

Town Hall House, 456 Kent Street, Sydney NSW 2000

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 recycled water reticulation infrastructure in the Scheme. The Developer will also be providing land and access to all other areas within the Development for the purposes of GSW 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?
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).
If the applicant corporation is a newly formed corporation (ie, without financial history), provide the following: <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.
For all applications provide (for the applicant corporation or a guarantor): <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.

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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

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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.

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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.

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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.

- Water infrastructure – drinking water
- Water infrastructure – non potable water (including recycled water)
- 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 25th September 2015 and commercial operations commenced to the first building in the Scheme in June 2016 following Ministerial approval. It is intended that Services will be provided to GPARC at the completion of its construction in March 2020. The LWC is constructed and operational pursuant to its approval for commercial operations granted in May 2018.

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.

Recycled Water

The recycled water catchment is the Development area. Stormwater collected at the Shea's Creek stormwater culvert which runs through the GSTC is delivered into the LWC.

GSW has access to The Council of the City of Sydney's drinking water connection to the LWC site (owned by Council) such that drinking water may be used for top-up of recycled water storages and/or supply.

GSW 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 recycled water booster pumps, usually located in the building basement. The Council of the City of Sydney retains ownership of the recycled water reticulation main and the bulk water meter at each building.

Local Water Centre

GSW has already constructed the LWC. GSW operates and maintains the LWC.

-
- **APPENDICES** Appendix A4(f) Infrastructure Responsibility Schematics
 - Appendix A4(h) Process Flow Diagram
-

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.

PUBLIC

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

The treatment infrastructure is already licensed and approved for construction, operation and maintenance within the Existing NOL area and no further treatment processes or waste streams from the treatment process are relevant to this NOLV1 Application.

The recycled water feasibility analysis and the Green Square Technical note – GPARC impact on Green Square Water Balance Model, indicate that GPARC would add 9.8kL/day demand of recycled water. The Scheme will have the capacity to treat average daily flows of approx. 620kL/day and peak daily flows of approx. 900kL/day. The volume of recycled water produced will be 620kL/day (average) and 900kL/day (peak), however average volume of recycled water supplied to end users will vary with time of year due to irrigation and cooling tower demands. A total of 1ML recycled water storage is available to buffer peak demands, and a drinking water top-up supply may also be used to meet consecutive peak daily demands greater than 900 kL/day. As outlined above, drinking water top-up will be used should recycled water demand temporarily exceed recycled water production.

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.

The following waste streams as described in the Process Flow Diagram (PFD) are generated by the LWC and considered in the Existing NOL namely:

- **Strainer Reject** – The strainer will “protect” the membranes from oversized material. The reject from the strainers will be diverted back to the stormwater system subject to meeting quality requirements. If quality requirements cannot be achieved then the strainer reject will be sent to the Sydney Water sewer system under a trade waste agreement.
- **Ultrafiltration Reject** – The reject from the ultrafiltration membranes will be diverted back to the stormwater system subject to meeting quality requirements. If quality requirements cannot be achieved then the reject from the ultrafiltration membranes will be sent to the Sydney Water sewer system under a trade waste agreement.
- **Neutralised Membrane Cleaning Waste** – Neutralised membrane cleaning waste will be diverted back to the stormwater system subject to meeting quality requirements. If quality requirements cannot be achieved then the waste will be appropriately disposed of via Sydney Water's sewer main in compliance with its trade waste requirements.
- **Reverse Osmosis Reject** – The reject from the reverse osmosis membranes will be diverted back to the to the stormwater system subject to meeting quality requirements. If quality requirements cannot be achieved then the reject from the reverse osmosis membranes will be sent to the Sydney Water sewer system under a trade waste agreement.
- **Excess recycled water** – Due to the nature of the source water (ie. stormwater baseflow harvesting), recycled water production will be balanced with the end user demand to ensure that surplus water is not unnecessarily extracted and treated.
- **Off-specification water** – Source water will be tested for key quality parameters. If these parameters exceed the quality criteria for the treatment train then the source water will bypass the LWC and be discharged directly to the Council stormwater system.

Waste streams resulting from the treatment process, such as backwashing filters, will be blended in a common mixing tank prior to discharge to sewer as trade waste. Flow Systems has an agreement with Sydney Water to discharge up to 600kL/day at a rate of 7L/s.

Provide additional information in Appendix C5.

APPENDICES

- Appendix A4(c) GSTC Water Balance Report (Summary)
- Appendix A4(d) GSTC Technical Note – GPARC Impact on Green Square Water Balance Model
- Appendix A4(e) GSTC Servicing Strategy Letter - Recycled Water Feasibility Analysis
-

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

- Appendix A4(c) GSTC Water Balance Report (Summary)
- Appendix A4(d) GSTC Technical Note – GPARC Impact on Green Square Water Balance Model
- Appendix A4(e) Servicing Strategy Letter - GSTC Recycled Water Feasibility Analysis
-

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.

APPENDICES

- Appendix A4(c) GSTC Water Balance Report (Summary)
- Appendix A4(d) GSTC Technical Note – GPARC Impact on Green Square Water Balance Model
- Appendix A4(e) GSTC Servicing Strategy Letter - Recycled Water Feasibility Analysis

Table C.8 Risk assessment

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

The preliminary risk assessment should:

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

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

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

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

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

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

Provide the preliminary risk assessment in Appendix C8.

APPENDICES

- Appendix C8 GSTC 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 Recycled Water Quality Plan (Table of Contents)
- Appendix C9(b) 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.

Not applicable

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(b) Flow Systems Infrastructure Operating Plan (Table of Contents)
-

Table C.12 Regulatory approvals

List all relevant regulatory approvals.

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

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

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

Such approvals may include:

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

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 *Environmental Planning and Assessment Act 1979* (EP&A Act)? Refer to section 3.2 and Appendix C of the Guidance Document to inform your answer to this question.

Provide details of all relevant details in Appendix C13.

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:

- ▼ **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.

PUBLIC

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.

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