



Independent Pricing and Regulatory Tribunal
New South Wales

Catherine Hill Bay Water Utility Licence Variation

Licence Application Form

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



© 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

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	7
4.1 Network operator’s licence	7
4.2 Retail supplier’s licence	7
A Applicant corporation information	9
B Financial capacity	18
C Network operator’s licence – technical capacity	21
D Retail supplier’s licence – technical capacity – water supply	31
E Retail supplier’s licence – technical capacity – sewerage services	33

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.

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: **Robert Richards**

Title of person making the declaration: **Director**

Signature of person making the declaration:



Declared at **Chinderah**

[place]:

On [date]: **28/11/2019**

In the presence of an authorised witness, who states:

I [*insert name of authorised witness*]

Rhys William Richards,

a [*insert qualification to be authorised witness*]

JP #225034,

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

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

[*describe identification document relied on*]

Signature of authorised witness:



Date: **28/11/2019**

I, do solemnly and sincerely declare that:

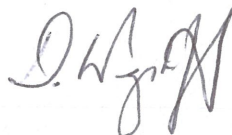
1. I am a director/the Chief Executive Officer/the sole director and Chief Executive Officer [delete as applicable] of the applicant corporation (named in this application form).
2. The information provided in this application is true and correct to the best of my knowledge.
3. I am aware of the requirements 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: **Dean Wagstaff**

Title of person making the declaration: **Director**

Signature of person making the declaration:



Declared at **Chinderah**

[place]:

On [date]: **28/11/2019**

In the presence of an authorised witness, who states:

I [*insert name of authorised witness*]

Rhys William Richards,

a [*insert qualification to be authorised witness*]

JP #225034,

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

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

[*describe identification document relied on*]

Signature of authorised witness:



Date: **28/11/2019**

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: **Robert Richards**

Title of person making the acknowledgement:
[Director / Company Secretary]

On [date]: **28/11/2019**

Signature of person making the acknowledgement:

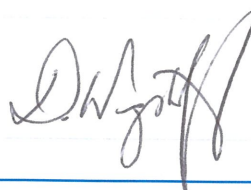


Name of person making the acknowledgement: **Dean Wagstaff**

Title of person making the acknowledgement:
[Director / Company Secretary]

On [date]: **28/11/2019**

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*, [Date of release]. Located on the IPART website, XXXXXXX

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	Catherine Hill Bay Water Utility Pty Ltd
ABN	66 163 381 922
ACN	163 381 922
Address of registered office	
Address of principal place of business	86-88 Chinderah Bay Drive CHINDERAH NSW 2487 PO Box 1427 KINGSCLIFF NSW 2487

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	Brad Irwin Environmental Engineer Planning and New Schemes Manager
Business telephone number	1300 7656 98 (1300 SOLO WU)
Mobile number	
Email	
Postal address	
Secondary Contact	
Full name and position/title	Craig Heiningier Water & Wastewater Utility Engineer Construction and Operations Manager
Business telephone number	1300 7656 98 (1300 SOLO WU)
Mobile number	
Email	
Postal address	

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	Rhys Richards	Robert Richards	Dean Wagstaff
Position title	Director	Director	CFO/Alternative Director
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).

Our corporate structure is as per our existing licence and there are no changes proposed as a result of this licence variation.

A copy of our corporate structure chart is provided in **Appendix A3b** of the confidential version of the application for IPART's information.

-
- 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).

Our key team members are as per our existing licence and there are no changes proposed as a result of this licence variation.

Copies of the CVs and PDs of our key team members are provided in **Appendix A3c** for information. Note that CVs of our staff are provided in the confidential version of the application only.

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

Referees for our CHBWU scheme are independent IPART approved auditors who have undertaken a number of Licence Plan, New Infrastructure and Operational audits at CHB under the WIC Act on behalf of IPART. Contact details for these auditors are provided in **Appendix 3d** of the confidential version of the application.

Table A.4 Scheme summary

Provide scheme details below.

Scheme name Catherine Hill Bay Water Utility (CHBWU)

Location (include local government area, Lot and DPs)

As per the existing licence, the majority of the scheme is located in Lake Macquarie City Council area, with the exception of the section of the Bulk Water Transfer Main and the Bulk Water Pump Station, which is located in Central Coast Council area.

A minor update of the area of operations is required as part of this licence variation to include the proposed Surplus Recycled Water Transfer Main (SRWTM). The SRWTM largely follows the same corridor as the existing bulk water transfer main, with the exception of the last section of the main that runs west along the Kanangra Drive and Summerland Drive Road Reserves and connects to the Gwandalan WWTP site.

The area of operations is already described in the current licence in Table 2.4b) for the area of the bulk water main, however these same location descriptors need to be copied into Table 1.4 and Table 3.4 of the revised licence, as well as the Summerland Drive Road Reserve, to cover the surplus recycled water main.

This SRWTM is applicable to both the sewerage and recycled water sections of the licence because surplus recycled water is applicable to the sewerage system, because all sewerage systems require a management strategy for 100% of the wastewater collected, and it is applicable to the recycled water system, because what is being transferred in the SRWTM is surplus recycled water. To avoid any doubt, it is not proposed, nor would it be possible, to transfer raw sewage in the SRWTM.

Layout plans showing the location of the SRWTM is provided in **Appendix C1**.

An Area of Operations Plan is provided in **Appendix C3** that shows the current extent of our area of operations and the minor expansion to the area of operations required for the SRWTM.

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.

CHB is an existing staged scheme that is approved to service 470 ET and is currently servicing 397 ET with drinking water, sewerage and recycled water services. The existing approved scheme is described in the approved Review of Environmental Factors (REF) presented in Appendix C14b.

The following infrastructure has already been constructed to its ultimate design capacity and is therefore not subject to the current licence variation:

- Bulk water transfer main and pump station
- Reticulation systems for drinking water, pressure sewer and recycled water.
- Recycled water treatment plant
- Drinking water storage tank
- Recycled water storage tank
- Surplus recycled water/wet weather storage tanks
- Surplus recycled water irrigation main and pump station.

As outlined in the existing REF and licence, the CHB scheme was limited to service the first 470 ET of the Beaches subdivision, with surplus recycled water being managed via land irrigation. To increase the scheme to 550 ET required to service the entire Beaches subdivision, required an expansion of the surplus recycled water management system.

Provide scheme details below.

This licence variation is proposing to expand the capacity of the surplus recycled water system to greater than 550 ET by constructing the Surplus Recycled Water Transfer Main (SRWTM). This involves a simple repurposing of the existing surplus recycled water irrigation main and converting it into the SRWTM by extending the main around 7 km from CHB to the Gwandalan WWTP. With this minor change the surplus recycled water system has a capacity exceeding 550 ET required for this licence variation.

The design capacity of the SRWTM is conservatively sized based on transferring the entire daily recycled water production volume over a 12 hour period, which is approximately 7.4 L/s. The SRWTM design capacity is conservatively designed based on a worst case scenario when the recycled water plant is off line for maintenance. To avoid any doubt, it is not proposed, nor would it be possible, to transfer raw sewage in the SRWTM.

This is described in the SRWTM design report in **Appendix C1**.

Describe end uses:

This Licence Variation application is only in relation to the SRWTM that will transfer surplus recycled water from the CHB RWTP to Gwandalan WWTP. To facilitate this please update Table 3.3 and Table 1.3 to also include "transfer to Gwandalan WWTP" or similar.

We would also like to update the approved uses on our current licence to be consistent the documentation provided for our existing licence during the original licence application phase. Construction related recycled water uses were included in the original REF approved under our current licence, however these uses were not listed onto the final licence (15_036) when it was issued.

We would now like to update our licence under this variation to include approved construction and maintenance related uses of recycled water. Examples of such uses would include construction dust suppression and maintenance jet cleaning of gravity sewers for example. These uses are compliant with the Australian Guidelines for Water Recycling (2006) and have previously been assessed to be compliant by IPART auditors. Given the current state of drought it is important that we have the ability to supply recycled water for such uses.

To facilitate this please update Table 1.3 of the licence to also include:

- Approved construction related uses.
- Approved maintenance related uses.

All future users of recycled water for construction or maintenance related uses will be required to provide Solo Water with a Recycled Water Management Plan/Procedures to address the specific risks associated with the specific construction and maintenance related uses. Once we assess this as being compliant to the guidelines we will permit the use and commence supply.

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

The proposal will reduce the volume and concentration of waste produced in the existing scheme and will avoid the following approved waste streams:

- Reverse Osmosis reject/concentrate
- Used RO membranes, chemical containers and process equipment etc
- Green waste from the surplus recycled water irrigation area
- Used and damaged irrigation infrastructure and equipment.

All other waste products are as per the existing licence.

Provide scheme details below.

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

Under the current licence and REF the following components of the SRWTM have already been constructed:

- 2 ML surplus recycled water storage tanks (irrigation wet weather storage)
- Surplus recycled water pump station (irrigation pump station)
- Approximately 500 m of Surplus Recycled Water Main (irrigation main).

Extension of the SRWTM to Gwandalan under this proposal required the following planning approvals that have already been attained:

- Part 5 Approval under the EP&A Act from National Parks and Wildlife Service (NPWS) for the section of the surplus recycled water transfer main (SRWTM) that runs through the national park. This approval covers the section of main from the connection point on the existing SRWTM through the National Park to Kanangra Drive. This section of main is already in our area of operations for the Bulk Water Transfer Main.
- Part 4 Approval under the EP&A Act from Central Coast Council for the section of the surplus recycled water main that runs up Kanangra Drive, Summerland Drive and into Gwandalan WWTP. The application number for this Development Application with CCC is DA/1385/2018. This approval covers the section of main from where the main leaves the National Park all the way to the Gwandalan WWTP. This is the area of the main that requires the expansion to the existing Area of Operations.

The above applications were submitted in early 2019 and have now been approved. Copies of the NPWS and CCC approvals and determination letters are provided in **Appendix C12** for information.

IPART is not required to undertake the above planning approvals already completed by others. IPART only needs to approve the minor changes to the SP2 zoned CHB Recycled Water Treatment Plant (RWTP) Site to include the revised operation and minor site modifications. The minor site works include filling the existing pond area, stabilising the area with revegetation/hardstand and installing ultimate stormwater drainage to the area formerly occupied by the ponds by way of grassed/vegetated swales to connect into the existing stormwater system. These basic site works are described in the REF in Appendix C14a and are compliant with the overall subdivision approval.

IPART also need to provide a revised WICA licence to account for this minor licence variation to include the SRWTM.

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

It is expected that construction of the SRWTM will commence in early 2020 and will take approximately 6 months to construct, subject to confirmation by the civil contractor responsible for the works.

Once the civil works are constructed CHBWU will undertake testing, commissioning and operational testing of the pipeline system in consultation with CCC prior to commencing operation.

List the total number and type of customers to be serviced

This licence variation is proposing an increase in the number of lots serviced under the CHB scheme from 470 ET in the current licence, up to the 550 ET to include the entire beaches subdivision. As outlined in the existing approved REF, 550 ET is the planned ultimate capacity of the CHB scheme required to service the Beaches subdivision.

To facilitate this expansion in the licence the SRWTM was proposed and has already received planning approval. When operational, the SRWTM will increase the design capacity of the surplus recycled water management system from 470 ET with onsite irrigation, up to 650 ET via the SRWTM disposing surplus water to Gwandalan STP.. The ultimate capacity of 650 ET includes 550 ET from the Beaches subdivision as well as 100 ET for the existing villages at CHB and Middle Camp. This is consistent with the design capacity provided in the existing Bulk Water Transfer Main (BWTM) covered under the existing licence. This licence variation is only applicable to servicing the Beaches subdivision up to 550 ET. Expanding the scheme beyond this would require a separate licence variation, e.g. if the existing villages at CHB and

Provide scheme details below.

Middle Camp were to connect.

The types of customers are as per the existing licence and are all small residential customers with minor commercial customers for a small shop located in the subdivision.

Headworks capacity for the existing village of CHB and Middle Camp is provided in the SRWTM, just like the existing BWTM, however the actual connection of these villages is not included in this application as connection of these existing backlog villages will require the support of local residents, LMCC, Hunter Water and the State Government.

With government support, Solo Water is keen to connect these villages as it will provide environmental and public health benefits in the locality as the existing villages currently rely on unsustainable onsite wastewater disposal systems and rainwater tanks. . To connect these villages would require a further licence variation to expand the area of operations.

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

Construction of the SRWTM needs to commence in early 2020 and the revised licence needs to be in place as soon as possible.

This the final stage of licencing required for the Beaches subdivision that will allow connection up to their approved ultimate development of 550 ET. Future stages of licencing will allow connection of the existing villages will be undertaken separately at a later date once government and community support is provided.

Table A.5.1 Experience – Network Operator

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

<p>a) Describe the applicant corporation’s current experience in (and, where relevant, the nominated third parties’ experience in):</p> <ul style="list-style-type: none"> - 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. 	<p>Provide full and complete details in Appendix A5.1(a).</p> <p>Our organisational experience and capacity is as per our current Licence and this has been audited by IPART auditors on a number of occasions since we commenced operation in October 2017.</p> <p>Extracts from recent from recent IPART audits and ISO management system certifications from CHB that demonstrate our organisational experience are provided in Appendix A5.1a.</p>
<p>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:</p> <ul style="list-style-type: none"> - Construction, operations and maintenance - Environmental management. 	<p>Provide full and complete details for relevant personnel in Appendix A5.1(b).</p> <p>Our key team members are as per our current Licence and this has been audited by IPART auditors on a number of occasions since we commenced operation in October 2017.</p> <p>Copies of the CVs and PDs of our key team members are provided in Appendix A5.1b. Note that the CVs of our staff are only provided in the confidential version of the application.</p>

Table A.5.2 Experience – Retail Supplier

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

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>a) Describe the applicant corporation’s current experience in (and, where relevant, the nominated third parties’ experience in):</p> <ul style="list-style-type: none"> – 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. | <p>Provide full and complete details in Appendix A5.2(a).</p> <p>Solo Water already provides these services at CHB.
N/A to Network Operator licence variation.</p> |
| <p>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:</p> <ul style="list-style-type: none"> – Retailing activities relevant to operating a utility. | <p>Provide full and complete details for relevant personnel in Appendix A5.2(b).</p> <p>Solo Water already provides these services at CHB.
N/A to Network Operator licence variation.</p> |

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.

Corporate structure is as per our existing licence.

Refer to the organisational chart provided in **Appendix A6a** of the confidential version of the application.

Refer to the corporate structure chart reproduced in **Appendix A6b** of the confidential version of the application.

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.

Refer to the related entities table in **Appendix A7** of the confidential version of the application.

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

Insurance arrangements are as per our existing licence and operation that has been previously endorsed by IPART and IPART approved auditors on numerous occasions. Refer to Insurance Expert Report provided in **Appendix A8** of the confidential version of this application that is applicable to the scope of this licence variation.

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.

Our corporate management systems are as per our existing licence and operations at CHB.

CHBWU and Solo Water operate under an Integrated Management System accredited to ISO9001, ISO14001 and ISO18001. Our drinking water management system also complies with the 12 elements of the ADWG (2011) and our recycled water and sewage management systems comply with the 12 elements in the AGWR (2006) respectively.

CHBWU and Solo Water's management systems have undergone a number of successful IPART Licence Plan, New Infrastructure and Operational Audits since commencing operations at CHB. Extracts from these IPART audit reports are provided in **Appendix A9**. This demonstrates our management systems are satisfactory and comply with WICA.

The CHB scheme has also been undergone external audit and is certified to ISO9001-Quality Management and ISO14001-Environmental Management, for the provision of drinking water, sewerage and recycled water services at CHB. Solo Water is also covered under the Solo Group Wide Safety Management System that has been externally audited and is certified to AS4801 and ISO18001 - Safety Management Systems. Copies of Solo Water and Solo Group Management System certification certificates are provided in **Appendix A9**.

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: Solo Water Pty Ltd

ABN/ARBN

ACN

11 160 013 614

160 013 614

Corporation's registered office address

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

As per the existing licence Solo Water performs all services on behalf of CHBWU and there is no change to the current arrangement as a result of this licence variation.

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:

- ▼ 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):

- ▼ The latest three years of historical financial statements, including:
 - 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:
 - 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.

The financial capacity of our organisation is as per our existing licences at CHB, which has previously been assessed by IPART, including in early 2019 during their most recent financial capacity assessment of our organisation. The financial information requested above in Table B.1 is included in **Appendix B1** of the confidential version of the application for information.

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.

The financial viability of the scheme will be improved as a result of this licence variation compared to the existing licence because this licence variation will allow for an additional 80 ET of connections to the scheme. This licence variation will allow the scheme to reach the planned ultimate capacity and financial efficiency.

The information requested above in relation to the financial viability of the scheme is provided in **Appendix B2** of the confidential version of the application for information.

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.

Financial Capacity is as per the existing licence by way of a Deed and a Bank Guarantee.

Copies of the existing Deed and Bank Guarantees are provided in **Appendix B3** in the confidential version of the application for IPART information. These will be maintained following this licence variation.

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.

N/A to a Network Operator licence variation application.
There will be no increase in pricing as a result of this licence variation.

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.

Refer to confidential version of the application.

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

No

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

No, please direct all contact and communication to Solo Water's Chief Financial Officer via Solo Water's main IPART contact Brad Irwin.

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.

A copy of the superannuation ledger for the requested period is provided in **Appendix B6** of the confidential version of the application.

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.

This licence variation is in relation to the minor changes to the scheme that are required in relation to the SRWTM, the remainder of the scheme is per the existing licence and existing operations on site. The following technical changes are occurring under this licence variation:

- Remove irrigation of surplus recycled water irrigation.
- Include the SRWTM to enable transfer of surplus recycled water from the 2 ML permeate storage at the CHB RWTP to the Gwandalan WWTP.
- Remove the RO system and associated RO reject evaporation ponds from the scheme design.
- Add recycled water end uses for construction and maintenance related activities to the licence that were left off the current licence but are suitable uses compliant with the AGWR (2006).

The proposed changes represent a reduction in the potential and actual environmental impacts of the scheme and will allow the scheme to operate more efficiently with less operational risk.

These proposed changes under the licence variation are described in the following documentation provided in **Appendix C1**:

- Process Flow Diagram
- SRWTM Layout Plans and Long Sections
- SRWTM Design Report
- RWTP Revised Site Layout Plans

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.*

Provide all relevant documents and information in Appendix C2.

The CHBWU scheme is currently operational and servicing customers under the existing licence. Surplus recycled water from the scheme is currently managed via road tanker pump out and offsite disposal to council sewer.

CHB is an existing staged scheme that is approved to service 470 ET and is currently servicing 397 ET with drinking water, sewerage and recycled water services. The existing approved scheme is described in the approved Review of Environmental Factors (REF) presented in Appendix C14b.

The following infrastructure has already been constructed to its ultimate design capacity and operational and therefore not subject to the current licence variation:

- Bulk water transfer main and pump station
- Reticulation systems for drinking water, pressure sewer and recycled water.
- Recycled water treatment plant
- Drinking water storage tank
- Recycled water storage tank
- Surplus recycled water/wet weather storage tanks
- Surplus recycled water irrigation main and pump station.

As outlined in the existing REF and licence, the CHB scheme was limited to service the first 470 ET of the Beaches subdivision, with surplus recycled water being managed via land irrigation. To increase the scheme to 550 ET required to service the entire Beaches subdivision, required an expansion of the surplus recycled water management system.

This licence variation is proposing to expand the capacity of the surplus recycled water system to greater than 550 ET by constructing the Surplus Recycled Water Transfer Main (SRWTM). This involves a simple repurposing of the existing surplus recycled water irrigation main and converting it into the SRWTM by extending the main around 7 km from CHB to the Gwandalan WWTP. With this minor change the surplus recycled water system has a capacity exceeding 550 ET required for this licence variation.

Copies of our previous Minister's Approval for Commercial Operations as well as our existing WICA Licence are provided in **Appendix C2** that outlines the scope of our current operations and activities at CHB.

Approval of this licence variation is required asap and construction of the surplus recycled water transfer main needs to commence in early 2020 with operation of the pipeline commencing in around mid 2020.

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.

The area of operations on the current licence needs to be updated to include the footprint of the surplus recycled water transfer main, which largely follows the same corridor as the bulk water main. Refer to **Appendix C1** for the design report, layout plans and long sections of the surplus recycled water main that shows the area of operations for the SRWTM. A layout plan showing the overall location of the SRWTM is reproduced in **Appendix C3**.

An Area of Operations Plan is provided in **Appendix C3** that shows the current extent of our area of operations and the minor expansion to the area of operations required for the SRWTM.

To include the footprint of the surplus recycled water transfer main on the licence please add the following location descriptors to the bottom of both Table 1.4 and Table 3.4, similar to how the BWTM is currently described in Table 2.4 of the existing licence:

“The area of the surplus recycled water transfer main on Lot 649 DP1027231, Lot 204 DP1164883, Lot 12 DP1180296, Lot 145 DP755266, Lot 105 DP1129872, Lot 100 DP1129872, Lot 101 DP1129872, Kanangra Drive Road Reserve, Summerland Drive Road Reserve, Pacific Highway Road Reserve, Montefiore Street Road Reserve, Catherine Hill Bay, Gwandalan WWTP Lot 52 DP785458”

This SRWTM is applicable to both the sewerage and recycled water sections of the licence because surplus recycled water is applicable to the sewerage system, because all sewerage systems require an effluent management strategy for 100% of the wastewater collected, and it is applicable to the recycled water system, because what is being transferred in the SRWTM is recycled water, not raw sewage. To avoid any doubt, it is not proposed, nor would it be possible, to transfer raw sewage in the SRWTM.

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.

The proposed surplus recycled water transfer main interconnects with Central Coast Council sewerage infrastructure at the Gwandalan WWTP inlet works. The point of interconnect is shown on the Process Flow Diagram and the SRWTM layout plans and long sections presented in **Appendix C1**. Copies of the plans showing the point of interconnect at the Gwandalan WWTP inlet works and the line of delineation between CCC and CHBWU ownership at the Gwandalan WWTP front boundary are reproduced in **Appendix C4**.

The drawing showing the line of delineation between CCC and CHBWU will be included in the revised Code of Conduct between the parties when it is updated to include the SRWTM. The existing Code of Conduct for the bulk water transfer main will be updated to include the scope of the SRWTM after this licence variation is approved and will be completed within 6 months from the commencement of operations of the SRWTM.

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.

The CHB scheme is already operational and is supplying high quality recycled water for the following uses as permitted under the current licence:

- Toilet flushing
- Laundry washing machine cold water tap
- Irrigation
- Outdoor cleaning including car and bin washing.

The above uses are not subject to this licence variation.

This Licence Variation application is in relation to the surplus recycled water main that will transfer surplus recycled water from CHB to Gwandalan WWTP. To facilitate this please update Table 3.3 and Table 1.3 to also include "Transfer to Gwandalan WWTP".

The volumes of surplus recycled water will vary with season based on the demand for recycled water. The volume and design flow for the SRWTM is presented in the design report in **Appendix C1** and is based around the worst case scenario where the entire daily wastewater inflow can be transferred in 12 hours, which is around 7.4 L/s.

We would also like to update the approved uses on our current licence to be consistent the documentation provided for our current licence during the original licence application phase. Construction related recycled water uses were included in the original REF approved under our current licence, however these uses were not listed on the final licence (15_036) when it was issued..

We would now like to update our licence under this variation to include approved construction and maintenance related uses of recycled water. Examples of such uses would include construction dust suppression and maintenance jet cleaning of gravity sewers for example.

These uses are compliant with the Australian Guidelines for Water Recycling (2006) and have previously been assessed to be compliant by IPART auditors. Given the current state of drought it is important that we have the ability to supply recycled water for such uses.

To facilitate this please update Table 1.3 of the licence to also include:

- Approved construction related uses.
- Approved maintenance related uses.

All users of recycled water for construction or maintenance related uses will be required to provide Solo Water with a Recycled Water Management Plan/Procedures to address the specific risks associated with the specific construction and maintenance related uses. Once we assess this as being compliant to the guidelines we will permit the use and commence supply.

These are all typical uses of recycled water that are compliant with the existing recycled water quality in the scheme and it is not appropriate for drinking water to be supplied for these types of uses when recycled water is available, especially during period of drought like we are currently experiencing.

Provide additional information in Appendix C5.

Table C.6 Water balance

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

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

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

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

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

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

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

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

The surplus recycled water transfer main was designed on the worst case scenario to transfer the entire daily wastewater inflow over a 12 hour period. Consistent with the bulk potable water main, the surplus recycled water main was sized for 650 ET to include the adjacent villages of CHB and Middle Camp.

Note the above 650 ET is the design capacity of the SRWTM and includes the existing villages of CHB and Middle Camp, however this licence variation is only in relation to 550 ET required for servicing the Beaches subdivision. An additional licence variation would be required in the future to expand the area of operations to include the existing villages should these ever connect.

Solo Water has ultimate plans to connect these villages to the scheme if there is sufficient community and government support, as these villages are located in an environmentally sensitive area and currently rely on unsustainable onsite wastewater management systems, pump out and rainwater tanks.

Consistent with the design basis of the current operational scheme, the design basis for the surplus recycled water main is outlined below:

- Daily wastewater inflow = 0.5 kL/ET/day x 650 ET = 325 kL/day.
- Average Recycled Water Demand = 0.35 kL/ET/day = 227.5 kL/day.
- Average Surplus Recycled Water = 97.5 kL/day.
- Design flow of surplus recycled water transfer system = 7.4 L/s over 12 hours = 325 kL/day.

As indicated above, the surplus recycled water transfer main is conservatively sized on a worst case scenario to transfer the volume equivalent to the full daily wastewater inflow, assuming no recycling, over a 12 hour period. Hence even under the worst case scenario there is time available each day to undertake emergency repairs if required. Under normal operation, with water recycling, the system is only expected to operate for around 4 hours per day depending on climatic conditions.

The above is also discussed in the design report presented in **Appendix C1**.

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

Describe the volume of water available from the proposed source.

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.

As indicated above, the surplus recycled water transfer main has been designed on a worst case scenario to transfer the total daily wastewater inflow volume of 325 kL/day over a 12 hour period, which equates to a peak design flow of around 7.4 L/s. The actual volume transferred each day is dependant on climatic conditions and customer behaviour and will vary dramatically throughout the year. During operation we will utilise the substantial 2 ML of available permeate storage to minimise the volume of surplus recycled water requiring disposal.

On average there is expected to be a surplus in the order of 97 kL/day, however during dry weather and peak irrigation demands there is likely to be no surplus at all and during winter this is expected to be higher.

The Gwandalan WWTP has capacity to accept the full 325 kL/day over a 12 hour period and CCC have approved this strategy.

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.

A preliminary risk assessment SRWTM has been undertaken and updated in CHBWU's risk register format. The risk register for our existing operations is not included as this is not subject to this licence variation; only the risks that specifically relate to the operation of SRWTM have been included in this variation application.

CHBWU's risk register for CHB has been developed in consultation with NSW Health. Once this licence variation is approved the risk register will be updated into CHBWU's operational risk register and management plans documentation prior to commencement of operations. At this point we will again consult NSW Health as required under our licence.

The preliminary risk assessment for the SRWTM is presented in **Appendix C8**.

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.

Solo Water's management systems have undergone a number of successful IPART Licence Plan, New Infrastructure and Operational Audits since commencing operations at CHB. Extracts from these IPART audit reports are provided in **Appendix A9**. This demonstrates our management systems and water quality plans are satisfactory and comply with WICA and address the 12 elements of the guidelines.

The CHB scheme has also been undergone external audit and is certified to ISO9001-Quality Management and ISO14001-Environmental Management, for the provision of drinking water, sewerage and recycled water services at CHB. Solo Water is also covered under the Solo Group Wide Safety Management System that has been externally audited and is certified to AS4801 and ISO18001 - Safety Management Systems. Copies of Solo Water and Solo Group Management System certification certificates are provided in **Appendix A9**.

The Table of Contents from the existing approved and operational Water Quality Plans for CHB are also provided in Appendix C9 to further demonstrate how we will use the 12 elements in the ADWG and AGWR. Note these management plans will be updated to include the scope of the SRWTM after this application is approved and prior to commencing operation of the SRWTM.

The requirements of the SRWTM will be incorporated into our operational management systems prior to commencing operation.

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.

Solo Water’s management systems have undergone a number of successful IPART Licence Plan, New Infrastructure and Operational Audits since commencing operations at CHB. The executive summaries from these IPART audit reports are provided in **Appendix A9**. This demonstrates our management systems are satisfactory and comply with WICA and we have the capacity to develop and implement and IOP.

The CHB scheme has also been undergone external audit and is certified to ISO9001-Quality Management and ISO14001-Environmental Management, for the provision of drinking water, sewerage and recycled water services at CHB. Solo Water is also covered under the Solo Group Wide Safety Management System that has been externally audited and is certified to AS4801 and ISO18001 - Safety Management Systems. Copies of Solo Water and Solo Group Management System certification certificates are provided in **Appendix A9**.

The Table of Contents from the existing approved and operational Sewage Management Plan for CHB are also provided in Appendix C10 to further demonstrate how we will use the 12 elements in the AGWR. Note these management plans will be updated to include the scope of the SRWTM after this application is approved and prior to commencing operation of the SRWTM.

The requirements of the SRWTM will be incorporated into our operational management systems prior to commencing operation.

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.

Contingency has been designed into the surplus recycled water system as follows:

- The worst case scenario pipeline design flow of 7.5 L/s assumes 100% of daily recycled water treatment plant MBR permeate production volume can be transferred over a 12 hour period, i.e. when the recycled water plant is down for maintenance. Hence there is ample time to undertake repairs each day as needed to ensure continuity of services
- Under normal operation when water recycling is occurring the surplus recycled water system will operate for <4 hours per day.
- The existing 2 ML permeate storage provides significant buffer storage that can be utilised during the unlikely event of failure of the surplus recycled water transfer system, or if there are operational issues at Gwandalan WWTP. The 2 ML storage provides around 7 days storage without recycling and around 20 days storage with recycling.
- Plumbing and electrical emergency support contractors are available to undertake emergency repairs at short notice as required.
- If required during the unlikely event of an extended failure of the transfer system that can not be repaired for many days, road tankers can be used to transfer the surplus recycled water from CHB to Gwandalan WWTP if required, as is the current arrangement.

To avoid any doubt or confusion, it is not proposed to transfer raw sewage in the SRWTM under normal operation or under a contingency operational mode. Only recycled water that has passed through the MBR can be transferred. The SRWTM pipeline and pumping system has been designed to carry clean water (MBR permeate) and has not been designed to carry solids or organic matter as would be required if this were a raw sewage transfer system.

We will incorporate contingency planning for the SRWTM into our operational management systems documentation prior to commencing operation.

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.

Provide a copy of any regulatory approvals and/or licences in Appendix C12.

Under the current licence and REF the following components of the SRWTM system have already been constructed:

- 2 ML surplus recycled water storage tanks (irrigation wet weather storage)
- Surplus recycled water pump station (irrigation pump station)
- Approximately 500 m of Surplus Recycled Water Main (irrigation main)

Extension of the SRWTM to Gwandalan under this proposal required the following planning approvals that have already been attained:

- Part 5 Approval under the EP&A Act from National Parks and Wildlife Service (NPWS) for the section of the surplus recycled water transfer main (SRWTM) that runs through the national park. This approval covers the section of main from the connection point on the existing SRWTM through the National Park to Kanangra Drive. This section of main is already in our area of operations for the Bulk Water Transfer Main.
- Part 4 Approval under the EP&A Act from Central Coast Council for the section of the surplus recycled water main that runs up Kanangra Drive, Summerland Drive and into Gwandalan WWTP. The application number for this Development Application with CCC is DA/1385/2018. This approval covers the section of main from where the main leaves the National Park all the way to the Gwandalan WWTP. This is the area of the main that requires the expansion to the existing Area of Operations.

The above applications were submitted in early 2019 and have now been approved. Copies of the NPWS and CCC approvals and determination letters are provided in **Appendix C12** for information.

IPART is not required to undertake the above planning approvals being undertaken by others. IPART only needs to approve the minor changes to the SP2 zoned CHB Recycled Water Treatment Plant (RWTP) Site to include the revised operation and minor site modifications. The minor site works include filling the existing pond area, stabilising the area with revegetation/hardstand and installing ultimate stormwater drainage to the area formerly occupied by the ponds by way of grassed/vegetated swales to connect into the existing stormwater system. These basic site works are described in the REF in Appendix C14a and are compliant with the overall subdivision approval.

IPART also need to provide a revised WICA licence to account for this minor licence variation to include the SRWTM.

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.

The development consents and determinations are as per the existing licence with the exception of the approvals required under this licence variation for the SRWTM and are described in Table A4, Table C12 and Appendix C12.

The minor works on the RWTP including minor earthworks and installation of stormwater drainage system is compliant with the overall subdivision approval MP10_0204 and the subdivisions approved stormwater management plan and no changes to Council downstream street drainage network is proposed.

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.

The following Environmental Assessments have been undertaken for the NPWS and CCC approvals of the surplus recycled water transfer main:

- Statement of Environmental Effects for the CCC Part 4 Development Application;
- Review of Environmental Factors for the Part 5 NPWS determination.

The above environmental reports were submitted in early 2019 and have now been approved. Written consent for these approvals are provided in **Appendix C12**. The determination reports and development consents will be forwarded to IPART for information when received.

An REF has also been prepared to cover the minor works required to be undertaken in the SP2 Recycled Water Treatment Plant (RWTP) Site, which are related to filling and stabilisation of the previously approved RO reject evaporation ponds that are no longer required. These works are minor and will only involve some minor filling of the pond areas, stabilisation with revegetation and hardstand and installing permanent stormwater controls by way of vegetated swale drains connected into existing subdivision stormwater infrastructure. Given these minor works are occurring on the SP2 zoned land, IPART is required to undertake assessment and approval of the REF for these minor works and for the updated scheme licence.

A copy of the REF addendum prepared for this licence variation for IPART approval is provided in **Appendix C14**.

A copy of the original REF for the current licence is also provided in **Appendix C14b** for reference.

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.

N/A to Network Operator Licence Variation.

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.

N/A to Network Operator Licence Variation.

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)?

N/A to Network Operator Licence Variation.

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 *AS/NZS ISO 31000 (Risk Management– Principles and Guidelines)*.

Provide the risk assessment in Appendix D4.

N/A to Network Operator Licence Variation.

Table D.5 Contingency plan

How will the applicant corporation ensure continuity of the supply of water to customers?

What contingency plans are in place in the case of failure of the infrastructure? If the continuity of supply differs between customer classes, explain why, and define how the applicant corporation will maintain the different levels of service.

Provide a contingency plan in Appendix D5.

N/A to Network Operator Licence Variation.

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.

N/A to Network Operator Licence Variation.

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.

N/A to Network Operator Licence Variation.

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)?

N/A to Network Operator Licence Variation.

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.

N/A to Network Operator Licence Variation.

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?
Provide a contingency plan in Appendix E4.

N/A to Network Operator Licence Variation.

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.

N/A to Network Operator Licence Variation.
