

# **ASSESSMENT OF** Catherine Hill Bay Water Utility Pty Ltd's

LICENCE VARIATION APPLICATION

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Report to the  
Minister for Water, Property and Housing

May **2020**

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

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# 1 Executive Summary

We recommend that the Minister for Water, Property and Housing<sup>1</sup> (Minister) grants Catherine Hill Bay Water Utility Pty Ltd (CHBWU) a varied network operator's licence.<sup>2</sup>

CHBWU currently provides sewerage services and drinking water for residents and businesses at Catherine Hill Bay within the Lake Macquarie City Council local government area, and recycles sewage to also provide non-potable water for specific end-uses.

The effect of this variation would allow CHBWU to construct, operate and maintain a transfer pipeline to transfer excess non-potable water to Central Coast Council's Gwandalan wastewater treatment plant for disposal, and authorise CHBWU to provide non-potable water to its customers for two new end-uses: construction and maintenance related purposes.

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

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

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

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

## 2 Recommendations

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

- 1 Grant a varied network operator's licence to CHBWU (licence number 16\_035) for the Catherine Hill Bay scheme, subject to the conditions as set out in the attached draft licence.

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

The Minister is required to provide us with a notice of the decision and the reasons for the decision when deciding whether or not to grant the licence.<sup>4</sup> We would then publish the notice on our website, in accordance with requirements of the WIC Act.<sup>5</sup>

### 2.1 The applicant and parent organisation

CHBWU has no employees and relies on the full support of Solo Water Pty Ltd (Solo Water) to provide technical and organisational capacity. Solo Water is the parent company of CHBWU. Solo Water holds the retail supplier licence for the Catherine Hill Bay scheme. Solo Water is named on the proposed network operator's licence as an Authorised Person to construct, operate and maintain non-potable, drinking water and sewerage infrastructure.

Financial capacity for CHBWU is provided by a family trust which provides financial support via a Deed of Financial Capacity and Guarantee and bank guarantee.

### 2.2 The Catherine Hill Bay scheme

The Catherine Hill Bay scheme (Beaches development) is located at Catherine Hill Bay, on the central coast of NSW, within the Lake Macquarie City Council local government area.

CHBWU has constructed, and currently operates and maintains, the drinking water, non-potable water and sewage reticulation infrastructure and non-potable water treatment plant, within its licensed area of operations. Drinking water is sourced from the Central Coast Council's network.

CHBWU is servicing the scheme in three stages, as summarised in Table 2.1.

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<sup>3</sup> WIC Act, section 10(2).

<sup>4</sup> WIC Act, section 10(5).

<sup>5</sup> WIC Act, section 10(6).

**Table 2.1 Services provided in the different stages at the Catherine Hill Bay scheme**

Stage	Drinking water	Non-potable water	Sewerage
<b>1 (Current licence)</b>  Up to 112 lots	Drinking water reticulation network connected to Central Coast Council's drinking water supply via a bulk water meter off Kanangra Drive.	Non-potable water reticulation network supplied with drinking water as an interim measure while the treatment infrastructure was under construction.	Sewage collected via CHBWU's pressure sewerage system and tankered to a suitable facility.
<b>2 (Current licence)</b>  Up to 470 lots	As per Stage 1.	Non-potable water reticulation network supplied with non-potable water from the treatment plant on site. Excess recycled water is trucked to a suitable facility.	Sewage collected via CHBWU's pressure sewerage system and treated at the treatment plant on site.
<b>3 (Proposed variation)</b>  Entire 550 lots subdivision	As per Stage 1.	Non-potable water reticulation network supplied with non-potable water as per Stage 2. Excess recycled water is proposed to be transferred to Central Coast Council's treatment plant via a transfer pipeline.	As per Stage 2.

**Note:** The treatment capacity of the non-potable water treatment plant allows for potential future connection of the existing villages at Catherine Hill Bay and Middle Camp. A separate licence variation application would be required to include them.

CHBWU estimates completion of Stage 3 in late 2020, as the proposed transfer pipeline is expected to take 6 months to construct.<sup>6</sup> We consider the transfer pipeline will be a new infrastructure, and an approval for commercial operation will be required before the transfer pipeline can be operated.

## 2.3 Current licence

CHBWU currently holds a network operator's licence which authorises it to construct, operate and maintain drinking water, non-potable water and sewerage infrastructure at the Beaches development in Catherine Hill Bay with the support of Solo Water.

The Minister administering the WIC Act granted CHBWU a network operator's licence on 22 March 2016<sup>7</sup> and subsequently approved commercial operation of Stage 1 infrastructure on 27 October 2017, Stage 2 infrastructure on 13 December 2018 and 18 January 2019.

The current licence limits the scheme from servicing more than 470 lots as the strategy for disposal of excess non-potable water had not been resolved.

<sup>6</sup> Table C.2 of the Network Operator Licence Variation Application.

<sup>7</sup> The then Minister for Lands and Water was the Minister administering the WIC Act when the network operator's licence was granted.

## 2.4 Scope of variation application

The Network Operator Licence Variation Application seeks to:

- ▼ Include the proposed transfer pipeline as approved water industry infrastructure, to transfer excess non-potable water to Central Coast Council's Gwandalan wastewater treatment plant for disposal.
- ▼ Expand the area of operations for the non-potable water infrastructure, to allow CHBWU to construct, operate and maintain the proposed transfer pipeline.
- ▼ Authorise CHBWU to provide non-potable water to its customers for two new end-uses. The new end-uses are for construction and maintenance related purposes, such as dust suppression and maintenance jet cleaning of gravity sewers.<sup>8</sup>

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<sup>8</sup> We note that the current licence approved, but CHBWU has not commenced, the use of non-potable water for on-site irrigation and the construction of a reverse osmosis plant. This variation, if approved, would authorise CHBWU to supply non-potable water for construction and maintenance related purposes to its customers, in addition to its own use.



### 3 Consultation and submissions

On 11 December 2019, we provided the Network Operator Licence Application to, and invited submissions from, the following Ministers and their relevant departments:

- ▼ Minister administering the WIC Act and Chapter 2 of *Water Management Act 2000* (NSW) (Minister for Water, Property and Housing)
- ▼ Minister administering the *Public Health Act 2010* (NSW) (Minister for Health and Medical Research)
- ▼ Minister administering the *Protection of the Environment Operations Act 1997* (NSW) (POEO Act) (Minister for Energy and Environment)
- ▼ Minister administering the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act) (Minister for Planning and Public Spaces).<sup>9</sup>

At the same time, we also provided copies of the licence application to Hunter Water, Central Coast Council and Lake Macquarie City Council. Lake Macquarie City Council is the relevant consent authority under the POEO Act for activities at the Beaches development. Central Coast Council is the relevant consent authority under the POEO Act for the part of the transfer main that runs through their local government area.

CHBWU proposes to use Central Coast Council's water industry infrastructure (as defined in the WIC Act), as part of the activities under the licence application.

We notified Hunter Water of the licence application because the Beaches development is within their area of operations.

We also called for submissions on the application from the public.<sup>10</sup> The closing date for submissions was 12 February 2020.

#### **We considered all submissions**

We received three submissions in total from NSW Health, NSW Environment Protection Authority (EPA) and Central Coast Council.<sup>11</sup>

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

A summary of all the submissions we received is presented in Appendix C (Table C.1).

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

<sup>10</sup> WIC Act, section 9(1)(c).

<sup>11</sup> The submissions are available on our website at:  
<https://www.ipart.nsw.gov.au/Home/Industries/Water/Alternate-water-utilities-WICA/WICA-Licenses-Listing-pages/Applications-licences/Catherine-Hill-Bay-Water-Utility-Pty-Ltd/Catherine-Hill-Bay-%e2%80%93-Network-variation-2019?qDh=2>

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Our recommended licence conditions are summarised in Chapter 4.

In addition to inviting submissions, we sought expert advice from Insurance and Care NSW (icare, formerly NSW Self Insurance Corporation SICorp) to inform our assessment of appropriate insurance arrangements (see Chapter 4).

## 4 Assessment of application

The WIC Act sets out licensing principles which the Minister must have regard to in considering whether or not to grant a licence.<sup>12</sup> The WIC Act also prohibits a licence from being granted to a disqualified corporation or related entity<sup>13</sup> and requires the Minister to be satisfied that the applicant meets specific criteria set out in the WIC Act or the regulations in order to grant a licence.<sup>14</sup> The Minister can consider other relevant matters, having regard to the public interest.<sup>15</sup>

This section of our report contains our assessment of the Network Operator Licence Variation Application against:

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

This section also includes reasons for our recommendations.

### 4.1 The applicant is eligible for a licence

**We consider that CHBWU is not a disqualified corporation or a corporation that is a related entity of a relevant<sup>16</sup> disqualified corporation**

We relied on the following information:

- ▼ ASIC reports that we obtained for CHBWU, and for any relevant related entities, confirmed that these companies are not disqualified nor are their directors or persons concerned in the management disqualified individuals.<sup>17</sup>
- ▼ Information provided by CHBWU regarding the details of the:
  - Relevant related entities, and
  - Names of the Directors, Chief Financial Officer and Chief Executive Officer for each of CHBWU's relevant related entities (subsidiary companies and holding companies within Australia).
- ▼ Statutory declarations<sup>18</sup> signed by CHBWU's Director and Chief Financial Officer, stating that:
  - CHBWU is not a disqualified corporation within the meaning of the WIC Act, and

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<sup>12</sup> WIC Act, section 7.

<sup>13</sup> WIC Act, section 10(3).

<sup>14</sup> WIC Act, section 10(4)(a) to 10(4)(e).

<sup>15</sup> WIC Act, section 10(4)(f).

<sup>16</sup> A related entity that would have a direct or indirect interest in, or influence on, the carrying out of the activities that the licence would authorise: WIC Act, section 10(3)(b).

<sup>17</sup> The relevant searches were completed on 17 April 2020.

<sup>18</sup> Signed statutory declarations dated 28 November 2019.

- CHBWU is not a related entity of a disqualified corporation that would have a direct or indirect interest in, or influence on, the carrying out of activities that the licence would authorise if granted<sup>19</sup>.

## 4.2 The Network Operator Licence Variation Application is consistent with the licensing principles

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

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

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

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

We consider that the proposed extension of the scheme to include a transfer pipeline to Central Coast Council's Gwandalan wastewater treatment plant to dispose of excess non-potable water, and the addition of two new non-potable water end-uses, are consistent with each of the licensing principles set out in the WIC Act.

We analysed the information in the Network Operator Licence Variation Application, and considered our assessment undertaken for the original network operator licence application in 2015. We conclude that there have not been any material changes to how licensing principles (b) and (d)-(g) apply, and that our analysis contained in the report provided to the Minister in 2015,<sup>20</sup> in which we recommended that CHBWU be granted a network operator licence, continue to apply.

<sup>19</sup> WIC Act, section 10(3)(b).

<sup>20</sup> IPART, *Report to the Minister, Assessment of Catherine Hill Bay Water Utility's network operator's licence application*, September 2015, available at [Report to the Minister-Assessment of Catherine Hill Bay Water Utility's network operators licence application](#).

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

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

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

#### **Protection of public health**

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

#### **Protection of the environment**

We assessed CHBWU's capacity to construct, operate and maintain the new non-potable water infrastructure for the Catherine Hill Bay scheme in a manner that does not present a significant risk of harm to the environment.

Under the authority of the current licence, CHBWU has constructed and commenced operation of infrastructure required to service Stages 1 and 2 of the scheme (see Table 2.1). The current licence also approved, but CHBWU has not commenced, the use of non-potable water for on-site irrigation and the construction of a reverse osmosis plant.

We considered the following:

- ▼ **Capacity to comply with environmental regulations** - A search of EPA's public registers did not identify any notices, convictions or civil proceedings, enforceable undertakings or penalties issued under the POEO Act for CHBWU.<sup>21</sup> The EPA confirmed in its submission that it has no record of CHBWU breaching the POEO Act.
- ▼ **Capacity to implement environmental management processes in relation to the activities to be licensed** - CHBWU has provided a preliminary risk assessment for Stage 3 of the scheme that includes operational impacts on the environment and Solo Water's ISO 14001 certification (Environmental Management Systems).<sup>22</sup>

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<sup>21</sup> EPA is required to maintain several public registers under section 308 of the POEO Act. We searched the register for any notices of conviction and civil proceedings, enforceable undertakings, and penalties on 17 April 2020. Available at: <https://www.epa.nsw.gov.au/licensing-and-regulation/public-registers>.

<sup>22</sup> Appendix C8 and A9 to the Network Operator Licence Variation Application.

- ▼ **Previous experience** – CHBWU relies on Solo Water for capacity. Solo Water has previous experience in preparing environmental assessment reports and providing appropriate mitigation measures for Stages 1 and 2 of the Catherine Hill Bay scheme.<sup>23</sup> This demonstrates that CHBWU, supported by Solo Water has the capacity to implement the appropriate management systems that document and implement preventive measures to not cause significant harm to the environment during the construction, operation and maintenance of sewerage and water infrastructure.

We also assessed whether CHBWU has met the requirements for determination under Part 5 of the EP&A Act in relation to the proposed activities in Chapter 5 of this report.

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

**Table 4.1 Recommended licence conditions for protection of the environment**

Licence condition	Condition details
Schedule A 2.1	Where the Licensee carries out any activities authorised by this Licence, the Licensee must: <ul style="list-style-type: none"> <li>a) implement environmental risk mitigation measures substantially consistent with the environmental risk mitigation measures identified in the REF; and</li> <li>b) specify, in any Plan or combination of Plans, how the Licensee will implement environmental risk mitigation measures substantially consistent with the environmental risk mitigation measures identified in the REF.</li> </ul>
Schedule A 3.1	The Licensee must not commence, or authorise the commencement of, the construction of any Specified Water Industry Infrastructure until after the Licensee has provided a Construction Environmental Management Plan to IPART, and IPART has provided written approval of the Construction Environmental Management Plan to the Licensee.
Schedule A 3.2	The Licensee must ensure that the construction of any Specified Water Industry Infrastructure is carried out in accordance with the approved Construction Environmental Management Plan.

**Note:** Schedule A lists special licence conditions.

### Protection of public safety

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

<sup>23</sup> In accordance with conditions for the protection of the environment in Schedule A of the current licence (conditions A2 to A5, A8 and A9), CHBWU has implemented environmental mitigation measures substantially consistent with the mitigation measures identified in the Review of Environmental Factors, prepared a Construction Environmental Management Plan, prepared an Operational Environmental Management Plan (OEMP), operated and maintained infrastructure consistently with the OEMP, prepared a strategy of tankering out excess non-potable water and provided detailed information on Appropriate Facilities that have the capacity to accept excess sewage.

## Protection of consumers generally

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

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

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

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

We had regard to CHBWU's ability to reduce demand on Central Coast Council's drinking water by sourcing sewage from the Catherine Hill Bay development to produce non-potable water to replace drinking water for the proposed additional end-uses and for the proposed additional residential lots within the development.

### 4.3 The applicant would continue to meet the licensing criteria

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

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

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

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

#### 4.3.1 CHBWU meets the licensing criteria

We consider that the application to vary the current licence, (ie, the proposed extension of the scheme to Central Coast Council's Gwandalan wastewater treatment plant, to include the transfer pipeline, and the addition of two new end-uses) meets the requirements to satisfy the licensing criteria set out in the WIC Act. Our analysis of the new activities against licensing criteria (a), (b) and (c) is set out below.



We consider that licensing criteria (d) relates to the supply of water which is an activity authorised under a retail supply licence and we have not considered it in the context of the current network operator licence variation application.

We analysed the information in the Network Operator Licence Variation Application, and considered our assessment undertaken for the original network operator's licence application in 2015. We conclude that there have not been any material changes to our assessment on licensing criteria (e). We have not identified any other matters to be considered against licensing criteria (f).

### **Technical capacity (licensing criteria (a))**

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

CHBWU relies on the full support of Solo Water staff and its systems for its technical capacity. Solo Water provides technical services to CHBWU under a Corporate Services Agreement<sup>24</sup> between the parties. Therefore, we consider that Solo Water's expertise is critical to CHBWU's technical capacity. Where necessary we have considered information and evidence relevant to both Solo Water and CHBWU for the purpose of establishing CHBWU's capacity. We note that Solo Water will remain named as an Authorised Person on the proposed varied licence.

#### **Evidence of technical capacity**

CHBWU demonstrated its technical capacity by providing plans and documents developed by Solo Water for the Catherine Hill Bay scheme which show an understanding of design, operation and maintenance of drinking water, non-potable water and sewerage infrastructure.

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

**Relevant experience** - CHBWU, supported by Solo Water, operates infrastructure at Catherine Hill Bay under its network operator's licence. Solo Water will continue to provide sufficient technical capacity to CHBWU to operate under a varied licence. We assessed position descriptions and professional experience of specific personnel nominated in the application. We consider that the expertise required by CHBWU/Solo Water' personnel under a varied licence is not different to the expertise required under its current licence.

**Compliance history** - CHBWU has demonstrated its capacity to construct, operate and maintain drinking water, non-potable water and sewerage water industry infrastructure at Catherine Hill Bay since it was licensed in 2016.

A recent operational audit for the Catherine Hill Bay scheme identified no non-compliances.<sup>25</sup>

<sup>24</sup> Executed as an agreement on 28 July 2015.

<sup>25</sup> Water Futures, *Catherine Hill Bay Water Utility Operational Audit (Stage 2)*, Version 4.0, Water Futures, 14 April 2020.



We consider that the operation of the Catherine Hill Bay scheme over the period of the current licence by CHBWU, along with its good compliance history, demonstrates CHBWU's capacity to safely and reliably design, construct, operate and maintain water industry infrastructure.

We recommend that CHBWU should be subject to the standard licence conditions in Schedule B of the licence (refer to Appendix A for the proposed licence) in relation to its technical capacity, if the Minister grants a varied licence.

### **Financial capacity (licensing criteria (a))**

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

CHBWU does not have financial capacity as a stand-alone entity and relies on the support of a family trust for financial capacity. There is a Deed of Financial Capacity and Guarantee between the guarantor and CHBWU. The Board of the parent company has also passed a resolution that they will not be seeking pay out of quarantined pre-December 2009 Unpaid Present Entitlements, as detailed in the financial year ended 30 June 2014 financial statements. The Deed and resolution both currently expire on 22 March 2021.

With this support from the Family Trust and a resolution from the parent company not to call on current loans, CHBWU has adequate financial capacity to undertake licensed activities under the network operator's licence.

Because both these documents are due to expire in less than twelve months, we recommend including a new licence condition that requires CHBWU to have a Deed of Guarantee and resolution of the Board in place (see Table 4.3 below). CHBWU will need to ensure the Deed is renewed and a new resolution made before 22 March 2021 to comply with the licence condition.

We have included more detail of CHBWU's financial capacity assessment in Appendix B.

### **The Minister previously required a bank guarantee in favour of CHBWU**

The current conditions of CHBWU network operator's licence requires CHBWU to have an unconditional bank guarantee executed in its favour for a value of \$2.5 million for five years from the date of issue of the licence. This condition was added to the current licence by the Minister after the Tribunal made its recommendation to grant the licence in September 2015.

To reflect the intent of the current condition, we recommend retaining the licence condition with a hard date of 22 March 2021 for the expiry of the condition (being five years from the date of the current licence).

We recommend that CHBWU should be subject to the following special (Schedule A) licence conditions and standard licence condition 1 in Schedule B (see draft licence in Attachment A), in relation to its financial capacity.

**Table 4.3 Recommended licence conditions for financial capacity**

Licence condition	Condition details
Schedule A 4.1	As at the date of this Licence, the Licensee must have one or more unconditional bank guarantees executed in its favour which are: <ul style="list-style-type: none"> <li>a) for a value of \$2.5 million (two million and five hundred thousand dollars); and</li> <li>b) for a term until 22 March 2021 and such further term as directed in writing by the Minister,</li> </ul> and the Licensee must provide a certified copy of the bank guarantees to the Minister or IPART on request.
Schedule A 4.2	The Licensee must use all reasonable endeavours to procure: <ul style="list-style-type: none"> <li>a) that the Deed of Financial Capacity &amp; Guarantee remains in effect;</li> <li>b) that the Deed of Financial Capacity &amp; Guarantee is not substantively amended without the prior written agreement of the Minister, except for the amendment of the End Date as contemplated by condition 4.2(c);</li> <li>c) the amendment of the End Date from time to time, such that the Deed of Financial Capacity &amp; Guarantee does not expire while the Licence remains in effect; and</li> <li>d) that no part of the Unpaid Present Entitlements are sought to be paid out.</li> </ul>
Schedule A 4.3	The Licensee must not consent to any assignment of rights or obligations under the Deed of Financial Capacity & Guarantee by the Guarantor without the prior written agreement of the Minister.
Schedule A 4.4	The Licensee must immediately notify IPART in writing: <ul style="list-style-type: none"> <li>a) of any amendment to the End Date;</li> <li>b) three months before the End Date;</li> <li>c) if the Licensee fails to comply, or becomes aware that the Guarantor has failed to comply, with any term of the Deed of Financial Capacity &amp; Guarantee; and</li> <li>d) if any part of the Unpaid Present Entitlements are sought to be paid out.</li> </ul>

**Note:** Schedule A lists special licence conditions.

### Organisational capacity (licensing criteria (a))

**We are satisfied that CHBWU has the organisational capacity to undertake the proposed new activities.**

We note that CHBWU has no employees and relies on the full support of Solo Water to provide it with organisational capacity. The CHBWU and Solo Water organisational capacity remains materially unchanged since the network operator licence was granted in 2016.

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

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

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

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

- ▼ Construction, operation and maintenance of proposed water infrastructure (reticulation) to discharge excess non-potable water to Central Coast Council's Gwandalan wastewater treatment plant.

- ▼ Use of non-potable water for two new end-uses: construction and maintenance related purposes.

We considered a range of information and evidence to establish CHBWU's capacity. Our detailed assessment is in Appendix B.

The proposed new end-uses are for construction and maintenance related purposes, such as dust suppression and jet cleaning of gravity sewers. CHBWU will be required to assess the risk of customers using non-potable water for these purposes and implement appropriate controls prior to providing non-potable water for these new end-uses. As part of our assessment of the licence variation application, we have assessed CHBWU as having the technical capacity to identify and manage the risks associated with providing the non-potable water for the proposed new end-uses. CHBWU is required to update its non-potable water quality plan to account for the new end-uses by updating its risk assessment and documenting the identified controls to ensure that they are implemented accordingly.

We received one submission from NSW Health regarding CHBWU's capacity to protect public health. The submission is available on our website and discussed in the summary of submissions in Appendix C. NSW Health generally supported the licence application but advised that a risk assessment with relevant stakeholders is required to ensure the exposure risks, associated with the new end uses, are appropriately managed.<sup>26</sup>

Under condition B4.1 of the current network operator's licence, CHBWU must carry out the activities in compliance with any requirements of NSW Health that IPART has agreed to and notified in writing. One such requirement is a requirement to "consult with NSW Health during the detailed risk assessments for drinking and recycled water".<sup>27</sup>

We consider that CHBWU has the capacity to continue to protect public health under a varied licence. We recommend that CHBWU should be subject to the standard licence conditions in Schedule B of the licence (refer to Appendix A for the proposed licence) in relation to its capacity to protect public health, if the Minister grants a varied licence.

### **Appropriate arrangements with respect to insurance (licensing criteria (c))**

**We are satisfied that CHBWU has made, and will continue to maintain, appropriate insurance arrangements for the Catherine Hill Bay scheme.**

We requested advice from Insurance and Care NSW (icare) on the adequacy of CHBWU's insurance arrangements. As a result of its review, icare concluded that CHBWU's insurance arrangements are sufficient for the current and proposed activities under the Network Operator Licence Variation Application.<sup>28</sup> Based on the advice from icare, we consider that CHBWU has demonstrated that it has made, and will continue to maintain, appropriate insurance arrangements for the scheme.

Further details of our assessment of CHBWU's insurance arrangements are in Appendix B.


We received no submissions regarding CHBWU's insurance arrangements.

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<sup>26</sup> Letter to IPART, NSW Health, 12 February 2019.

<sup>27</sup> Letter to IPART, CHBWU, 7 December 2017.

<sup>28</sup> Email to IPART, icare, 20 December 2019.



We recommend no additional licence conditions on insurance, should the Minister grant CHBWU a varied licence. We consider that the current conditions in Schedule B, under condition 2, adequately manage insurance risks related to the Catherine Hill Bay scheme.

#### **4.3.2 Additional changes to conditions**

We propose to apply standard licence conditions. We have removed licence conditions that CHBWU has completed, which impose no further ongoing obligations on CHBWU.

## 5 Environmental assessment of the transfer pipeline for the Catherine Hill Bay scheme

### 5.1 Part 5 of the EP&A Act

In addition to a licence application assessment, the Network Operator Licence Variation Application requires a Part 5 infrastructure and environmental impact assessment to be undertaken. We have examined and taken into account to the fullest extent possible all matters affecting or likely to affect the environment should the Minister vary the licence for the Catherine Hill Bay scheme.

### 5.2 Environmental assessment

We reviewed the environmental assessment reports (Review of Environmental Factors or REFs) provided with the application and assessed that it has addressed to the fullest extent possible all matters under Part 5 Division 5.1 of the EP&A Act affecting or likely to affect the environment associated with the variation application for the Catherine Hill Bay scheme. We consider that the REFs meet the requirements for determination under Part 5 Division 5.1 of the EP&A Act.

Our assessment considered the following information:

#### **REF for the amendments to existing recycled water treatment plant (Addendum REF) and REF for the surplus recycled water transfer main (Pipeline REF)<sup>29</sup>**

CHBWU provided an Addendum REF which, when read with the Approved Project REF (ie, the REF approved for the original licence application) provides a full assessment of the works under the variation application within the current area of operations.

CHBWU also provided a Pipeline REF which provides a full assessment of the transfer pipeline for the section of the pipeline within the Central Coast Council area.<sup>30</sup>

These REFs outline CHBWU's assessment of the environmental impacts of the construction, operation and maintenance of the proposed variations required to be assessed under Part 5 Division 5.1 of the EP&A Act. The REFs concluded that the proposed activities, in conjunction with the proposed mitigation measures, are not likely to significantly affect the environment.

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<sup>29</sup> ADW Johnson, *Addendum to Review of Environmental Factors, Amendments to Existing Recycled Water Treatment Plant, Catherine Hill Bay*, Version F, 9 March 2020 and ADW Johnson, *Review of Environmental Factors, Surplus Recycled Water Transfer Main related to Recycled Water Treatment Plant, Catherine Hill Bay*, Version A, 11 March 2020.

<sup>30</sup> The proposed transfer pipeline that traverses state conservation areas (the Lake Macquarie State Conservation Area and Munmorah State Conservation Area) was determined by the National Parks and Wildlife Service (NPWS) on 23 September 2019. Under EP&A Act section 5.4(c), a determining authority (the Minister) is not required to carry out an assessment under Division 5.1 where an activity has been approved by another determining authority (NPWS) after assessment. Refer to Appendix C12 of the Network Operator Licence Variation Application.

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We reviewed the Addendum REF (along with the relevant sections of the Approved Project REF) and the Pipeline REF provided by CHBWU and concluded that:

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

We include our REFs assessment report in Appendix D.

We recommend the inclusion of additional licence conditions to ensure mitigation measures identified in the REFs are incorporated in the construction, operation and maintenance of the water industry infrastructure licensed at Catherine Hill Bay.

The proposed new licence conditions are summarised in Table 4.1.



## Appendices





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## A Draft Licence



# **NEW SOUTH WALES GOVERNMENT**

***Water Industry Competition Act 2006 (NSW)***

**Network operator's licence**

Licence no. 16\_035

Catherine Hill Bay Water Utility Pty Ltd

(ACN 163 381 922)

## PRELIMINARY

### 1. Summary

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

### 2. Outline

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

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

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

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

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

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

**Schedule C** sets out definitions and interpretation provisions.

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

**Schedule E** sets out the area of operations for the activities authorised under Section 2.

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

**Schedule G** provides indicative maps for reference only.

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

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## SECTION 1 – ACTIVITIES AUTHORISED: NON-POTABLE WATER

Subject to the conditions imposed by the Act, the Regulation and Schedules A and B of this Licence, this Licence authorises the Licensee and any Authorised Persons specified in Table 1.1 to construct, maintain and operate the water industry infrastructure specified in Table 1.2:

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

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

**Table 1.1 Authorised Persons**

Solo Water Pty Ltd (ACN 160 013 614)
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**Table 1.2 Water industry infrastructure and purposes for water industry infrastructure**

- |  |
|--|
| <ul style="list-style-type: none"><li>1) A treatment plant for non-potable water and other water infrastructure used, or to be used, in connection with the treatment plant, where components of the treatment plant or other water infrastructure may be used for one or more of the following purposes for water industry infrastructure:<ul style="list-style-type: none"><li>a) production of non-potable water;</li><li>b) treatment of non-potable water;</li><li>c) filtration of non-potable water;</li><li>d) storage of non-potable water; and</li><li>e) conveyance of non-potable water.</li></ul></li><li>2) A reticulation network for non-potable water and other water infrastructure used, or to be used, in connection with the reticulation network, where components of the reticulation network or other water infrastructure may be used for one or more of the following purposes for water industry infrastructure:<ul style="list-style-type: none"><li>a) production of non-potable water;</li><li>b) treatment of non-potable water;</li><li>c) filtration of non-potable water;</li><li>d) storage of non-potable water; and</li><li>e) conveyance of non-potable water.</li></ul></li></ul> |
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**Table 1.3 Area of operations**

The land bounded within the sequentially numbered vertices listed in Schedule D, Table D.1 and illustrated in Map 1 in Schedule G.

**Table 1.4 Authorised purposes for non-potable water**

- 1) Toilet flushing
- 2) Laundry machine cold water connection
- 3) Irrigation of private lots and footpaths
- 4) Outdoor cleaning and washdown (including car and bin washing)
- 5) Construction and maintenance related purposes

## SECTION 2 – ACTIVITIES AUTHORISED: DRINKING WATER

Subject to the conditions imposed by the Act, the Regulation and Schedules A and B of this Licence, this Licence authorises the Licensee and any Authorised Persons specified in Table 2.1 to construct, maintain and operate the water industry infrastructure specified in Table 2.2:

- a) for one or more of the purposes for water industry infrastructure specified in Table 2.2; and
- b) within the area of operations specified in Table 2.3.

**Table 2.1 Authorised Persons**

Solo Water Pty Ltd (ACN 160 013 614)
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**Table 2.2 Water industry infrastructure and purposes for water industry infrastructure**

<p>A reticulation network for drinking water and other water infrastructure used, or to be used, in connection with the reticulation network, where components of the reticulation network or other water infrastructure may be used for one or more of the following purposes for water industry infrastructure:</p>
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- |  |
|--|
| <ul style="list-style-type: none"><li>a) treatment of drinking water;</li><li>b) storage of drinking water; and</li><li>c) conveyance of drinking water.</li></ul> |
|--|

**Table 2.3 Area of operations**

The land bounded within the sequentially numbered vertices listed in Schedule E, Table E.1 and illustrated in Map 2 in Schedule G.
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### SECTION 3 – ACTIVITIES AUTHORISED: SEWERAGE SERVICES

Subject to the conditions imposed by the Act, the Regulation and Schedules A and B of this Licence, this Licence authorises the Licensee and any Authorised Persons specified in Table 3.1 to construct, maintain and operate the water industry infrastructure specified in Table 3.2:

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

**Table 3.1 Authorised Persons**

Solo Water Pty Ltd (ACN 160 013 614)
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**Table 3.2 Water industry infrastructure and purposes for water industry infrastructure**

- |  |
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| <ul style="list-style-type: none"><li>1) A treatment plant for sewage and other sewerage infrastructure used, or to be used, in connection with the treatment plant, where components of the treatment plant or other sewerage infrastructure may be used for one or more of the following purposes for water industry infrastructure:<ul style="list-style-type: none"><li>a) production of treated non-potable water from sewage;</li><li>b) treatment of sewage;</li><li>c) filtration of sewage;</li><li>d) storage of sewage; and</li><li>e) conveyance of sewage.</li></ul></li><li>2) A reticulation network for sewage and other sewerage infrastructure used, or to be used, in connection with the reticulation network, where components of the reticulation network or other sewerage infrastructure may be used for one or more of the following purposes for water industry infrastructure:<ul style="list-style-type: none"><li>a) production of treated non-potable water from sewage;</li><li>b) treatment of sewage;</li><li>c) filtration of sewage;</li><li>d) storage of sewage; and</li><li>e) conveyance of sewage.</li></ul></li></ul> |
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**Table 3.3 Area of operations**

The land bounded within the sequentially numbered vertices listed in Schedule F, Table F.1 and illustrated in Map 3 in Schedule G.
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## **SCHEDULE A – SPECIAL MINISTERIALLY-IMPOSED LICENCE CONDITIONS**

### **1. Notification of changes to Agreement**

1.1. If a party to an Agreement proposes to:

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

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

### **2. Review of Environmental Factors**

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

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

### **3. Construction Environmental Management Plan**

3.1. The Licensee must not commence, or authorise the commencement of, the construction of any Specified Water Industry Infrastructure until after the Licensee has provided a Construction Environmental Management Plan to IPART, and IPART has provided written approval of the Construction Environmental Management Plan to the Licensee.

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

#### **4. Financial Capacity**

4.1. As at the date of this Licence, the Licensee must have one or more unconditional bank guarantees executed in its favour which are:

- a) for a total value of \$2.5 million (two million and five hundred thousand dollars); and
- b) for a term until 22 March 2021 and such further term as directed in writing by the Minister),

and the Licensee must provide certified copies of the bank guarantees to the Minister or IPART on request.

4.2. The Licensee must use all reasonable endeavours to procure:

- a) that the Deed of Financial Capacity & Guarantee remains in effect;
- b) that the Deed of Financial Capacity & Guarantee is not substantively amended without the prior written agreement of the Minister, except for the amendment of the End Date as contemplated by condition 4.2(c);
- c) the amendment of the End Date from time to time, such that the Deed of Financial Capacity & Guarantee does not expire while the Licence remains in effect; and
- d) that no part of the Unpaid Present Entitlements are sought to be paid out.

4.3. The Licensee must not consent to any assignment of rights or obligations under the Deed of Financial Capacity & Guarantee by the Guarantor without the prior written agreement of the Minister.

4.4. The Licensee must immediately notify IPART in writing:

- a) of any amendment to the End Date;
- b) three months before the End Date;
- c) if the Licensee fails to comply, or becomes aware that the Guarantor has failed to comply, with any term of the Deed of Financial Capacity & Guarantee; and
- d) if any part of the Unpaid Present Entitlements are sought to be paid out.

## **SCHEDULE B – GENERAL MINISTERIALLY-IMPOSED LICENCE CONDITIONS**

### **1. Ongoing capacity to operate**

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

### **2. Maintaining appropriate insurance**

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

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

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

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

### **3. Complying with NSW Health requirements**

3.1. The Licensee must carry out the activities authorised by this Licence in compliance with any requirements of NSW Health that:

- a) IPART has agreed to; and
- b) are notified from time to time to the Licensee by IPART in writing.

### **4. Complying with Audit Guidelines**

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

### **5. Reporting in accordance with the Reporting Manual**

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

### **6. Reporting information in relation to the register of licences**

6.1. The Licensee must notify IPART, and provide IPART with details, of any change in relation to the following, in accordance with the Reporting Manual, within 14 days of the change:

- a) any source from which the water handled by the Specified Water Industry Infrastructure is derived;

- b) the identity of each licensed retail supplier or public water utility that has access to the infrastructure services provided by the Specified Water Industry Infrastructure for the purpose of supplying water to its customers;
- c) any other water infrastructure to which the Specified Water Industry Infrastructure is connected;
- d) in the case of non-potable water, the authorised purposes for that water;
- e) the identity of each licensed retail supplier or public water utility that has access to infrastructure services provided by the Specified Water Industry Infrastructure for the purpose of providing sewerage services to its customers;
- f) any other sewerage infrastructure to which the Specified Water Industry Infrastructure is connected; and
- g) the arrangements for the disposal of waste from the water industry infrastructure specified in section 3, Table 3.2.

## **7. Monitoring**

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

## **8. Delineating responsibilities**

- 8.1. If a code of conduct has not been established under clause 25 of the Regulation, the Licensee must, by a date specified by IPART, establish a code of conduct (**Licensee's Code of Conduct**) in accordance with this clause 8.
- 8.2. Before the Licensee brings the Specified Water Industry Infrastructure into commercial operation or by a later date specified by IPART (if any), the Licensee's Code of Conduct must be agreed in writing between:
  - a) the Licensee; and

- b) each licensed network operator, licensed retail supplier and/or public water utility that:
  - i) supplies water or provides sewerage services by means of any water industry infrastructure that is connected to the Specified Water Industry Infrastructure; or
  - ii) constructs, maintains or operates any water industry infrastructure that is connected to the Specified Water Industry Infrastructure.

8.3. [Not applicable]

8.4. The Licensee's Code of Conduct must set out the respective responsibilities of the entities specified in clause 8.2 by, at a minimum, providing for:

- a) who is responsible for repairing, replacing or maintaining any pipes, pumps, valves, storages or other infrastructure connecting the Specified Water Industry Infrastructure to the other water industry infrastructure;
- b) who is responsible for water quality;
- c) who is liable in the event of the unavailability of water;
- d) who is liable in the event of failure of any water industry infrastructure;
- e) the fees and charges payable in respect of the use of the water industry infrastructure; and
- f) who is responsible for handling customer complaints.

8.5. The Licensee must not contravene the Licensee's Code of Conduct to the extent that it makes the Licensee responsible or liable for the matters set out in it.

## **9. Notification of changes to end-use**

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

## **10. Notification of commercial operation**

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

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

**11. Notification of non-compliant Plumbing**

- 11.1. If the Licensee becomes aware that a customer's Plumbing is not Code Compliant, the Licensee must, within 10 days, notify the customer and the Plumbing Regulator, in writing, of that fact.

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## SCHEDULE C – INTERPRETATION AND DEFINITIONS

### 1. Interpretation

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

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

### 2. Definitions

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

2.2. In this Licence:

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

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

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



Authorised Person	means each person specified in, as applicable: <ul style="list-style-type: none"> <li>a) section 1, Table 1.1;</li> <li>b) section 2, Table 2.1; and</li> <li>c) section 3, Table 3.1.</li> </ul>
Code Compliant	has the meaning given to that term under section 7 of the <i>Plumbing and Drainage Act 2011</i> (NSW).
Construction Environmental Management Plan	means a site or project specific plan which: <ul style="list-style-type: none"> <li>a) complies with the basic structure detailed in the Environmental Management Plan Guidelines; and</li> <li>b) identifies how the Licensee will implement the environmental risk mitigation measures identified in the REF to the extent they relate to construction.</li> </ul>
Deed of Financial Capacity & Guarantee	means the deed of that to which the Licensee is a party dated 1 February 2016, provided by the Licensee to IPART.
Design Phase	means the period during which any design works are carried out in relation to the water industry infrastructure that the Licensee is authorised to construct, maintain and operate under this Licence.
End Date	means the date on which the term of the Deed of Financial Capacity & Guarantee is due to expire.
Environmental Management Plan Guidelines	means the document titled " <i>Guideline for the Preparation of Environmental Management Plans</i> ", prepared by the Department of Infrastructure, Planning and Natural Resources.
Guarantor	Means the guarantor under the Deed of Financial Capacity & Guarantee.
Insurance Expert	means an insurance broker which holds an Australian financial services licence under Part 7.6 of the <i>Corporations Act 2001</i> (Cth) that authorises the broker to provide financial product advice for, and deal in, contracts of insurance within the meaning of Chapter 7 of that Act.

IPART	means the Independent Pricing and Regulatory Tribunal of New South Wales established under the <i>Independent Pricing and Regulatory Tribunal Act 1992</i> (NSW).
Licence	means this network operator's licence granted under section 10 of the Act.
Licensee	means Catherine Hill Bay Water Utility Pty Ltd (ACN 163 381 922).
Licensee's Code of Conduct	has the meaning given in Schedule B, clause 8.1.
Minister	means the Minister responsible for Part 2 of the Act.
NSW Health	means the Water Unit of NSW Ministry of Health and any of the local health districts as defined by the NSW Ministry of Health.
Plan	means any infrastructure operating plan, water quality plan or sewage management plan that the Licensee is required to prepare under the Regulation.
Plumbing	means any pipe, fitting or apparatus that is situated: <ul style="list-style-type: none"> <li>a) downstream of the customer's connection point to a water main, where the water main is Specified Water Industry Infrastructure;</li> <li>b) upstream of a customer's connection point to a sewer main, where the sewer main is Specified Water Industry Infrastructure; or</li> <li>c) upstream of a customer's connection point to a stormwater drain, where the stormwater drain is Specified Water Industry Infrastructure.</li> </ul>
Plumbing Regulator	has the meaning given to that term under section 3 of the <i>Plumbing and Drainage Act 2011</i> (NSW).

REF	<p>means the documents titled:</p> <ul style="list-style-type: none"> <li>a) <i>Review of Environmental Factors, Sewage Treatment Plant &amp; Sewage Reticulation Network, Catherine Hill Bay Stages 1 &amp; 2, Version E</i>, prepared by Planit Consulting Pty Ltd, 29 July 2015;</li> <li>b) <i>Addendum to Review of Environmental Factors, Amendments to Existing Recycled Water Treatment Plant, Catherine Hill Bay, Version F</i>, prepared by ADW Johnson Pty Ltd, 9 March 2020; and</li> <li>c) <i>Review of Environmental Factors, Surplus Recycled Water Transfer Main related to Recycled Water Treatment Plant, Catherine Hill Bay, Version A</i>, prepared by ADW Johnson Pty Ltd, 11 March 2020.</li> </ul> <p>and does not include any modified versions of these documents or any other document replacing any of them.</p>
Regulation	means the <i>Water Industry Competition (General) Regulation 2008</i> (NSW).
Reporting Manual	means the document titled "Network Operator's Reporting Manual", which is prepared by IPART and is available on IPART's website at <a href="http://www.ipart.nsw.gov.au">www.ipart.nsw.gov.au</a> .
Specified Water Industry Infrastructure	<p>means the water industry infrastructure specified in, as applicable:</p> <ul style="list-style-type: none"> <li>a) section 1, Table 1.2;</li> <li>b) section 2, Table 2.2; and</li> <li>c) section 3, Table 3.2.</li> </ul>
Unpaid Present Entitlements	means the quarantined pre-December 2009 Unpaid Present Entitlements referred to in the minutes of the meeting of directors of 2 November 2015 provided to IPART by the Licensee.
Verification Monitoring	means verification monitoring as described in the document titled " <i>Australian Drinking Water Guidelines</i> " or the document titled " <i>Australian Guidelines for Water Recycling</i> " as the case may be.
Water Quality Plan	means the water quality plan that the Licensee is required to prepare under the Regulation.

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## SCHEDULE D – AREA OF OPERATIONS – NON-POTABLE WATER

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

Vertex	Easting	Northing	Vertex	Easting	Northing
0	371624.621	6329475.795	51	371643.991	6329863.796
1	371599.266	6329532.474	52	371692.811	6329876.146
2	371569.787	6329559.742	53	371718.271	6329887.199
3	371469.378	6329557.285	54	371727.115	6329896.866
4	371393.445	6329570.264	55	371743.092	6329944.281
5	371315.491	6329612.387	56	371746.361	6329971.064
6	371274.393	6329637.922	57	371742.677	6330012.401
7	371235.010	6329682.360	58	371738.533	6330034.137
8	371211.979	6329735.579	59	371733.467	6330044.622
9	371222.090	6329786.194	60	371728.328	6330061.395
10	371256.970	6329828.192	61	371719.953	6330107.888
11	371278.942	6329920.693	62	371711.625	6330128.011
12	371326.420	6330013.503	63	371696.166	6330137.113
13	371306.162	6330025.656	64	371662.530	6330143.882
14	371279.772	6330078.860	65	371632.432	6330153.268
15	371155.006	6330116.250	66	371616.413	6330159.901
16	371116.389	6330120.561	67	371510.784	6330182.011
17	371101.188	6330117.959	68	371487.807	6330184.515
18	371085.011	6330118.639	69	371466.444	6330195.218
19	371067.923	6330123.351	70	371407.839	6330209.034
20	371052.423	6330131.950	71	371325.542	6330221.326
21	371042.500	6330140.527	72	371294.258	6330232.637
22	371033.798	6330151.346	73	371260.098	6330236.237
23	371027.548	6330162.878	74	371244.263	6330241.494
24	371023.407	6330175.322	75	371212.918	6330245.623
25	371021.460	6330189.069	76	371200.134	6330245.624
26	371021.984	6330202.175	77	371191.615	6330248.061
27	371024.787	6330214.988	78	371175.684	6330253.854
28	371030.143	6330227.797	79	371166.891	6330269.357
29	371037.294	6330238.793	80	371152.040	6330277.767
30	371046.254	6330248.370	81	371089.351	6330290.303
31	371057.353	6330256.683	82	371004.897	6330310.247
32	371068.950	6330262.650	83	370924.309	6330326.038
33	371080.655	6330266.350	84	370899.835	6330329.452
34	371092.807	6330268.092	85	370890.067	6330332.747
35	371122.278	6330265.954	86	370848.988	6330340.796
36	371161.847	6330258.039	87	370835.635	6330341.628
37	371191.615	6330248.061	88	370782.663	6330357.230
38	371191.615	6330248.061	89	370726.513	6330367.191
39	371287.067	6330220.756	90	370696.524	6330376.410
40	371417.121	6330177.652	91	370668.028	6330379.432
41	371486.878	6330145.920	92	370612.108	6330392.961
42	371578.168	6330158.984	93	370577.381	6330397.758
43	371584.863	6330108.834	94	370547.294	6330404.017
44	371594.277	6330098.632	95	370504.037	6330415.649
45	371613.677	6330029.345	96	370442.763	6330413.820
46	371624.034	6330022.577	97	370417.960	6330420.225
47	371647.655	6329933.473	98	370381.620	6330426.787
48	371638.180	6329917.559	99	370381.824	6330402.076
49	371645.185	6329868.608	100	370295.938	6330410.523
50	371642.933	6329868.286	101	370293.026	6330402.351

Vertex	Easting	Northing	Vertex	Easting	Northing
102	370286.178	6330391.878	161	368911.839	6329333.195
103	370285.316	6330379.524	162	368876.845	6329302.370
104	370248.397	6330355.792	163	368834.358	6329283.139
105	370243.789	6330354.676	164	368792.871	6329255.380
106	370239.316	6330356.795	165	368767.552	6329241.785
107	370233.304	6330351.060	166	368725.902	6329229.091
108	370227.161	6330341.069	167	368697.209	6329228.939
109	370204.382	6330328.463	168	368674.415	6329237.054
110	370176.563	6330315.720	169	368645.937	6329239.245
111	370145.940	6330287.462	170	368643.277	6329236.856
112	370096.400	6330266.407	171	368640.921	6329239.409
113	370047.221	6330225.813	172	368563.318	6329238.783
114	370033.846	6330216.891	173	368522.503	6329227.863
115	370018.650	6330209.322	174	368409.469	6329151.329
116	370010.150	6330198.843	175	368368.056	6329119.793
117	369987.061	6330193.718	176	368351.913	6329103.695
118	369962.996	6330191.882	177	368342.993	6329081.485
119	369945.869	6330186.959	178	368310.537	6328968.846
120	369925.485	6330186.789	179	368304.124	6328926.519
121	369914.485	6330185.136	180	368287.086	6328905.267
122	369879.066	6330174.528	181	368281.005	6328904.537
123	369851.291	6330169.357	182	368280.881	6328908.186
124	369842.261	6330136.974	183	368275.627	6328907.853
125	369823.809	6330103.359	184	368284.916	6329086.014
126	369805.088	6330075.394	185	368295.172	6329158.797
127	369751.330	6329985.575	186	368327.424	6329323.332
128	369728.854	6329966.955	187	368331.148	6329368.910
129	369714.579	6329962.833	188	368334.654	6329495.971
130	369695.407	6329960.766	189	368337.800	6329515.193
131	369608.428	6329961.858	190	368338.249	6329545.180
132	369555.114	6329960.028	191	368336.154	6329560.345
133	369532.347	6329947.592	192	368340.512	6329842.330
134	369478.717	6329909.518	193	368336.856	6329871.753
135	369399.927	6329849.441	194	368325.195	6329909.703
136	369397.394	6329845.710	195	368302.735	6329963.831
137	369367.668	6329754.837	196	368283.530	6329998.840
138	369364.129	6329727.806	197	368259.873	6330032.200
139	369333.402	6329669.974	198	368161.064	6330162.538
140	369323.011	6329622.472	199	368146.394	6330189.576
141	369326.025	6329596.878	200	368133.703	6330227.534
142	369325.105	6329586.826	201	368064.765	6330484.769
143	369318.956	6329571.609	202	368051.936	6330526.790
144	369302.814	6329489.363	203	368018.944	6330606.937
145	369306.903	6329483.232	204	367926.439	6330819.222
146	369308.065	6329476.171	205	367908.486	6330857.194
147	369278.762	6329447.903	206	367898.808	6330874.183
148	369269.570	6329446.464	207	367881.280	6330897.838
149	369210.760	6329456.952	208	367797.077	6330996.036
150	369199.152	6329454.113	209	367775.935	6331015.693
151	369179.829	6329431.318	210	367721.716	6331058.772
152	369159.491	6329413.819	211	367699.324	6331074.692
153	369142.310	6329408.527	212	367681.063	6331084.547
154	369113.370	6329407.350	213	367663.145	6331091.252
155	369089.425	6329403.729	214	367602.711	6331108.472
156	369051.179	6329390.020	215	367576.054	6331119.536
157	369016.947	6329382.216	216	367484.298	6331182.897
158	368984.175	6329361.584	217	367460.089	6331201.392
159	368961.624	6329359.157	218	367438.480	6331220.944
160	368940.078	6329350.733	219	367425.475	6331237.172

Vertex	Easting	Northing	Vertex	Easting	Northing
220	367415.648	6331255.615	279	367664.580	6331096.042
221	367408.950	6331275.711	280	367683.026	6331089.146
222	367401.084	6331309.023	281	367702.041	6331078.890
223	367395.534	6331349.199	282	367724.761	6331062.738
224	367397.489	6331360.029	283	367779.150	6331019.522
225	367404.869	6331379.085	284	367800.684	6330999.499
226	367403.829	6331399.170	285	367885.125	6330901.034
227	367405.503	6331408.354	286	367902.991	6330876.922
228	367399.020	6331411.836	287	367912.940	6330859.466
229	367393.335	6331403.885	288	367931.005	6330821.259
230	367384.912	6331396.220	289	368023.540	6330608.908
231	367374.576	6331392.796	290	368056.631	6330528.511
232	367363.811	6331392.157	291	368069.588	6330486.087
233	367230.558	6331411.853	292	368138.520	6330228.873
234	367226.820	6331421.497	293	368150.951	6330191.634
235	367228.146	6331438.944	294	368159.765	6330173.910
236	367225.236	6331453.630	295	368171.125	6330157.111
237	367206.703	6331469.031	296	368263.876	6330035.197
238	367201.787	6331477.638	297	368287.764	6330001.501
239	367203.753	6331556.242	298	368307.262	6329965.954
240	367206.526	6331564.282	299	368329.848	6329911.532
241	367210.527	6331568.404	300	368341.762	6329872.719
242	367245.280	6331583.957	301	368344.828	6329852.718
243	367249.713	6331583.542	302	368345.801	6329832.217
244	367272.328	6331568.318	303	368341.159	6329560.563
245	367279.792	6331565.208	304	368343.245	6329545.391
246	367281.042	6331563.043	305	368343.134	6329525.124
247	367278.542	6331560.543	306	368342.055	6329505.685
248	367270.185	6331563.793	307	368339.646	6329495.578
249	367246.517	6331579.058	308	368336.141	6329368.650
250	367217.630	6331566.872	309	368331.960	6329320.079
251	367211.526	6331562.636	310	368300.095	6329157.919
252	367209.179	6331558.146	311	368289.902	6329085.628
253	367206.729	6331478.419	312	368281.543	6328936.667
254	367210.315	6331472.494	313	368280.756	6328911.836
255	367229.747	6331455.832	314	368288.097	6328918.179
256	367233.162	6331439.030	315	368294.416	6328926.830
257	367231.779	6331422.176	316	368295.489	6328937.887
258	367234.285	6331415.576	317	368303.936	6328975.407
259	367363.895	6331397.157	318	368338.799	6329092.699
260	367373.714	6331397.723	319	368342.377	6329102.294
261	367382.362	6331400.542	320	368347.453	6329110.382
262	367389.612	6331407.225	321	368369.497	6329129.963
263	367397.293	6331417.491	322	368407.679	6329158.976
264	367410.060	6331411.523	323	368520.460	6329234.442
265	367410.915	6331409.174	324	368558.872	6329245.753
266	367408.834	6331399.057	325	368622.032	6329246.573
267	367409.798	6331378.133	326	368669.290	6329244.096
268	367402.251	6331358.499	327	368671.800	6329246.561
269	367400.534	6331349.048	328	368674.254	6329243.488
270	367405.990	6331310.007	329	368678.217	6329243.002
271	367413.759	6331277.080	330	368733.040	6329238.367
272	367420.224	6331257.633	331	368742.520	6329240.264
273	367429.699	6331239.849	332	368772.598	6329253.368
274	367442.158	6331224.334	333	368815.916	6329284.601
275	367463.280	6331205.241	334	368866.751	6329304.568
276	367487.269	6331186.918	335	368913.896	6329349.224
277	367578.505	6331123.895	336	368963.272	6329369.139
278	367604.329	6331113.203	337	368984.782	6329375.125

Vertex	Easting	Northing	Vertex	Easting	Northing
338	369012.374	6329390.077	397	370222.170	6330345.555
339	369054.989	6329397.934	398	370228.221	6330355.351
340	369092.308	6329411.581	399	370236.577	6330363.714
341	369106.340	6329414.060	400	370263.903	6330380.483
342	369124.713	6329414.156	401	370280.265	6330395.528
343	369147.767	6329418.344	402	370289.735	6330416.095
344	369165.750	6329426.784	403	370297.164	6330423.980
345	369185.741	6329453.768	404	370307.219	6330448.222
346	369204.633	6329463.126	405	370308.950	6330449.434
347	369219.874	6329463.368	406	370371.180	6330440.912
348	369270.004	6329454.396	407	370373.660	6330438.676
349	369279.792	6329458.219	408	370450.145	6330431.083
350	369285.059	6329465.614	409	370461.155	6330431.273
351	369299.199	6329507.034	410	370567.170	6330405.953
352	369310.182	6329569.305	411	370672.168	6330388.184
353	369316.364	6329589.138	412	370741.094	6330370.025
354	369314.696	6329630.096	413	370790.828	6330360.788
355	369317.607	6329651.310	414	370827.060	6330350.188
356	369324.389	6329671.308	415	370849.621	6330345.767
357	369352.745	6329726.092	416	370867.844	6330344.898
358	369356.938	6329737.342	417	370891.359	6330337.589
359	369364.083	6329769.865	418	370972.411	6330323.500
360	369365.464	6329782.677	419	370972.861	6330328.539
361	369379.113	6329813.017	420	370975.591	6330329.885
362	369384.124	6329834.928	421	370977.518	6330328.080
363	369393.363	6329850.336	422	370977.409	6330322.725
364	369400.504	6329859.025	423	371073.842	6330299.302
365	369421.922	6329872.528	424	371145.107	6330284.622
366	369457.978	6329903.366	425	371145.949	6330288.380
367	369519.598	6329950.353	426	371148.736	6330289.225
368	369551.642	6329966.160	427	371150.347	6330287.505
369	369573.744	6329968.822	428	371150.102	6330283.493
370	369647.624	6329972.209	429	371169.222	6330275.061
371	369709.997	6329969.650	430	371181.610	6330259.615
372	369715.539	6329970.583	431	371187.122	6330255.205
373	369736.712	6329980.356	432	371210.482	6330254.156
374	369743.435	6329988.030	433	371236.902	6330249.702
375	369764.363	6330026.622	434	371265.220	6330242.763
376	369783.016	6330051.565	435	371295.876	6330240.163
377	369799.038	6330082.841	436	371342.286	6330227.884
378	369831.676	6330131.419	437	371394.544	6330220.149
379	369836.869	6330141.652	438	371445.247	6330209.170
380	369841.804	6330160.366	439	371467.808	6330202.581
381	369842.669	6330171.688	440	371489.674	6330192.574
382	369851.291	6330179.242	441	371531.440	6330185.857
383	369875.143	6330180.570	442	371582.393	6330173.699
384	369919.109	6330192.411	443	371610.704	6330168.666
385	369940.306	6330193.921	444	371664.394	6330152.780
386	369982.060	6330201.265	445	371698.131	6330144.723
387	369992.737	6330200.224	446	371708.858	6330140.555
388	370002.099	6330202.517	447	371717.502	6330134.865
389	370019.227	6330217.440	448	371722.779	6330126.856
390	370039.986	6330228.148	449	371725.906	6330116.831
391	370065.059	6330247.986	450	371733.954	6330068.722
392	370078.688	6330261.027	451	371746.548	6330023.760
393	370098.614	6330274.501	452	371751.410	6329982.301
394	370133.480	6330287.393	453	371751.672	6329945.913
395	370147.536	6330298.330	454	371735.862	6329899.409
396	370172.831	6330322.306	455	371731.421	6329888.719



Vertex	Easting	Northing	Vertex	Easting	Northing
456	371723.566	6329881.609	491	372322.098	6330147.809
457	371724.579	6329879.388	492	372360.665	6330083.637
458	371875.194	6329926.755	493	372372.622	6330075.844
459	371923.179	6329948.634	494	372383.084	6330063.772
460	371924.070	6329946.934	495	372397.396	6330041.106
461	371974.405	6329948.862	496	372398.672	6330033.668
462	371973.279	6329978.221	497	372402.151	6330026.447
463	371993.365	6329979.369	498	372411.718	6330017.648
464	371989.112	6330090.343	499	372433.257	6329989.565
465	372039.354	6330092.268	500	372463.648	6330008.873
466	372030.403	6330326.159	501	372467.076	6329987.177
467	372072.966	6330328.621	502	372440.487	6329970.112
468	372071.285	6330372.505	503	372467.798	6329889.373
469	372083.863	6330372.854	504	372494.035	6329845.639
470	372087.772	6330406.108	505	372418.627	6329845.603
471	372099.837	6330413.438	506	372339.509	6329852.790
472	372117.710	6330411.333	507	372340.299	6329879.587
473	372133.136	6330397.090	508	372284.639	6329840.535
474	372158.496	6330349.931	509	372321.190	6329783.322
475	372146.230	6330349.300	510	372324.624	6329760.484
476	372178.387	6330293.707	511	372346.969	6329700.465
477	372182.084	6330288.460	512	372346.220	6329661.840
478	372195.265	6330290.651	513	372362.474	6329621.949
479	372199.493	6330263.758	514	372312.195	6329577.326
480	372206.355	6330254.021	515	372217.763	6329511.639
481	372230.949	6330237.444	516	372149.869	6329488.556
482	372217.494	6330211.255	517	372078.326	6329443.324
483	372233.994	6330202.710	518	372057.653	6329452.590
484	372241.172	6330196.347	519	371991.285	6329410.951
485	372260.483	6330199.557	520	371921.147	6329397.375
486	372263.610	6330179.691	521	371813.761	6329360.119
487	372274.790	6330171.056	522	371748.308	6329382.921
488	372274.862	6330159.349	523	371667.760	6329430.768
489	372294.696	6330148.398	524	371624.621	6329475.795
490	372300.919	6330135.150			

Note: Coordinate reference system is MGA 56.

## SCHEDULE E – AREA OF OPERATIONS – DRINKING WATER

**Table E.1 Vertices for area of operations for drinking water**

Vertex	Easting	Northing	Vertex	Easting	Northing
0	371624.621	6329475.795	51	371643.991	6329863.796
1	371599.266	6329532.474	52	371703.434	6329880.079
2	371569.787	6329559.742	53	371718.271	6329887.199
3	371469.378	6329557.285	54	371727.115	6329896.866
4	371393.445	6329570.264	55	371743.092	6329944.281
5	371315.491	6329612.387	56	371746.361	6329971.064
6	371274.393	6329637.922	57	371742.677	6330012.401
7	371235.010	6329682.360	58	371738.636	6330033.759
8	371211.979	6329735.579	59	371733.467	6330044.622
9	371222.090	6329786.194	60	371728.328	6330061.395
10	371256.970	6329828.192	61	371719.953	6330107.888
11	371278.942	6329920.693	62	371711.625	6330128.011
12	371326.420	6330013.503	63	371696.166	6330137.113
13	371306.162	6330025.656	64	371662.530	6330143.882
14	371279.772	6330078.860	65	371632.432	6330153.268
15	371155.006	6330116.250	66	371616.413	6330159.901
16	371116.389	6330120.561	67	371510.784	6330182.011
17	371101.188	6330117.959	68	371487.807	6330184.515
18	371085.011	6330118.639	69	371466.444	6330195.218
19	371067.923	6330123.351	70	371407.839	6330209.034
20	371052.423	6330131.950	71	371325.542	6330221.326
21	371042.500	6330140.527	72	371294.258	6330232.637
22	371033.798	6330151.346	73	371260.098	6330236.237
23	371027.548	6330162.878	74	371244.263	6330241.494
24	371023.407	6330175.322	75	371212.918	6330245.623
25	371021.460	6330189.069	76	371200.134	6330245.624
26	371021.984	6330202.175	77	371191.615	6330248.061
27	371024.787	6330214.988	78	371175.684	6330253.854
28	371030.143	6330227.797	79	371166.891	6330269.357
29	371037.294	6330238.793	80	371152.040	6330277.767
30	371046.254	6330248.370	81	371089.351	6330290.303
31	371057.353	6330256.683	82	371004.897	6330310.247
32	371068.950	6330262.650	83	370924.309	6330326.038
33	371080.655	6330266.350	84	370899.835	6330329.452
34	371092.807	6330268.092	85	370890.067	6330332.747
35	371122.278	6330265.954	86	370848.988	6330340.796
36	371161.847	6330258.039	87	370835.635	6330341.628
37	371191.615	6330248.061	88	370782.663	6330357.230
38	371191.615	6330248.061	89	370726.513	6330367.191
39	371287.067	6330220.756	90	370696.524	6330376.410
40	371417.121	6330177.652	91	370668.028	6330379.432
41	371486.878	6330145.920	92	370612.108	6330392.961
42	371578.168	6330158.984	93	370577.381	6330397.758
43	371584.863	6330108.834	94	370547.294	6330404.017
44	371594.277	6330098.632	95	370504.037	6330415.649
45	371613.677	6330029.345	96	370442.763	6330413.820
46	371624.034	6330022.577	97	370417.960	6330420.225
47	371647.655	6329933.473	98	370381.620	6330426.787
48	371638.180	6329917.559	99	370381.824	6330402.076
49	371645.185	6329868.608	100	370295.938	6330410.523
50	371642.933	6329868.286	101	370293.026	6330402.351

Vertex	Easting	Northing	Vertex	Easting	Northing
102	370286.178	6330391.878	161	368911.839	6329333.195
103	370285.316	6330379.524	162	368876.845	6329302.370
104	370248.397	6330355.792	163	368834.358	6329283.139
105	370243.789	6330354.676	164	368792.871	6329255.380
106	370239.316	6330356.795	165	368767.552	6329241.785
107	370233.304	6330351.060	166	368725.902	6329229.091
108	370227.161	6330341.069	167	368697.209	6329228.939
109	370204.382	6330328.463	168	368674.415	6329237.054
110	370176.563	6330315.720	169	368645.937	6329239.245
111	370145.940	6330287.462	170	368643.277	6329236.856
112	370096.400	6330266.407	171	368640.921	6329239.409
113	370047.221	6330225.813	172	368563.318	6329238.783
114	370033.846	6330216.891	173	368522.503	6329227.863
115	370018.650	6330209.322	174	368409.469	6329151.329
116	370010.150	6330198.843	175	368368.056	6329119.793
117	369987.061	6330193.718	176	368351.913	6329103.695
118	369962.996	6330191.882	177	368342.993	6329081.485
119	369945.869	6330186.959	178	368310.537	6328968.846
120	369925.485	6330186.789	179	368304.124	6328926.519
121	369914.485	6330185.136	180	368287.086	6328905.267
122	369879.066	6330174.528	181	368281.005	6328904.537
123	369851.291	6330169.357	182	368280.234	6328894.106
124	369842.261	6330136.974	183	368288.401	6328836.921
125	369823.809	6330103.359	184	368308.178	6328727.655
126	369805.088	6330075.394	185	368313.185	6328705.026
127	369751.330	6329985.575	186	368325.298	6328674.039
128	369728.854	6329966.955	187	368333.402	6328660.249
129	369714.579	6329962.833	188	368350.798	6328636.293
130	369695.407	6329960.766	189	368469.256	6328483.240
131	369608.428	6329961.858	190	368502.359	6328447.809
132	369555.114	6329960.028	191	368511.049	6328441.245
133	369532.347	6329947.592	192	368520.981	6328429.743
134	369478.717	6329909.518	193	368553.763	6328398.667
135	369399.927	6329849.441	194	368567.404	6328387.751
136	369397.394	6329845.710	195	368592.920	6328355.764
137	369367.668	6329754.837	196	368600.571	6328343.536
138	369364.129	6329727.806	197	368610.284	6328320.051
139	369333.402	6329669.974	198	368614.038	6328303.940
140	369323.011	6329622.472	199	368621.690	6328225.598
141	369326.025	6329596.878	200	368643.356	6328132.355
142	369325.105	6329586.826	201	368652.784	6328102.112
143	369318.956	6329571.609	202	368664.432	6328080.381
144	369302.814	6329489.363	203	368707.336	6328032.643
145	369306.903	6329483.232	204	368717.282	6328019.454
146	369308.065	6329476.171	205	368785.224	6327908.582
147	369278.762	6329447.903	206	368813.840	6327877.021
148	369269.570	6329446.464	207	368895.483	6327801.558
149	369210.760	6329456.952	208	368933.600	6327777.824
150	369199.152	6329454.113	209	368948.937	6327771.072
151	369179.829	6329431.318	210	369024.275	6327858.787
152	369159.491	6329413.819	211	369031.387	6327846.826
153	369142.310	6329408.527	212	369038.154	6327847.718
154	369113.370	6329407.350	213	369039.027	6327841.606
155	369089.425	6329403.729	214	369032.280	6327840.654
156	369051.179	6329390.020	215	369020.844	6327832.350
157	369016.947	6329382.216	216	369011.009	6327835.726
158	368984.175	6329361.584	217	368971.173	6327787.996
159	368961.624	6329359.157	218	368950.793	6327765.908
160	368940.078	6329350.733	219	368931.190	6327773.438

Vertex	Easting	Northing	Vertex	Easting	Northing
220	368892.303	6327797.687	279	369106.340	6329414.060
221	368800.397	6327883.205	280	369124.713	6329414.156
222	368781.273	6327905.517	281	369147.767	6329418.344
223	368772.191	6327918.605	282	369165.750	6329426.784
224	368713.111	6328016.694	283	369185.741	6329453.768
225	368703.512	6328029.416	284	369204.633	6329463.126
226	368669.481	6328066.410	285	369219.874	6329463.368
227	368660.454	6328077.346	286	369270.004	6329454.396
228	368653.695	6328088.642	287	369279.792	6329458.219
229	368644.122	6328111.406	288	369285.059	6329465.614
230	368621.523	6328201.000	289	369299.199	6329507.034
231	368615.104	6328236.802	290	369310.182	6329569.305
232	368609.141	6328302.927	291	369316.364	6329589.138
233	368605.544	6328318.450	292	369314.696	6329630.096
234	368596.237	6328341.036	293	369317.607	6329651.310
235	368588.880	6328352.816	294	369324.389	6329671.308
236	368563.898	6328384.170	295	369352.745	6329726.092
237	368550.355	6328395.009	296	369356.938	6329737.342
238	368517.425	6328426.224	297	369364.083	6329769.865
239	368507.737	6328437.485	298	369365.464	6329782.677
240	368498.938	6328444.158	299	369379.113	6329813.017
241	368465.403	6328480.053	300	369384.124	6329834.928
242	368337.185	6328646.199	301	369393.363	6329850.336
243	368329.144	6328657.627	302	369400.504	6329859.025
244	368315.778	6328682.123	303	369421.922	6329872.528
245	368308.334	6328703.807	304	369457.978	6329903.366
246	368303.286	6328726.618	305	369519.598	6329950.353
247	368283.467	6328836.102	306	369551.642	6329966.160
248	368274.576	6328902.015	307	369573.744	6329968.822
249	368275.627	6328907.853	308	369647.624	6329972.209
250	368280.881	6328908.186	309	369709.997	6329969.650
251	368280.756	6328911.836	310	369715.539	6329970.583
252	368288.097	6328918.179	311	369736.712	6329980.356
253	368294.416	6328926.830	312	369743.435	6329988.030
254	368295.489	6328937.887	313	369764.363	6330026.622
255	368303.936	6328975.407	314	369783.016	6330051.565
256	368338.799	6329092.699	315	369799.038	6330082.841
257	368342.377	6329102.294	316	369831.676	6330131.419
258	368347.453	6329110.382	317	369836.869	6330141.652
259	368369.497	6329129.963	318	369841.804	6330160.366
260	368407.679	6329158.976	319	369842.669	6330171.688
261	368520.460	6329234.442	320	369851.291	6330179.242
262	368558.872	6329245.753	321	369875.143	6330180.570
263	368622.032	6329246.573	322	369919.109	6330192.411
264	368669.290	6329244.096	323	369940.306	6330193.921
265	368671.800	6329246.561	324	369982.060	6330201.265
266	368674.254	6329243.488	325	369992.737	6330200.224
267	368678.217	6329243.002	326	370002.099	6330202.517
268	368733.040	6329238.367	327	370019.227	6330217.440
269	368742.520	6329240.264	328	370039.986	6330228.148
270	368772.598	6329253.368	329	370065.059	6330247.986
271	368815.916	6329284.601	330	370078.688	6330261.027
272	368866.751	6329304.568	331	370098.614	6330274.501
273	368913.896	6329349.224	332	370133.480	6330287.393
274	368963.272	6329369.139	333	370147.536	6330298.330
275	368984.782	6329375.125	334	370172.831	6330322.306
276	369012.374	6329390.077	335	370222.170	6330345.555
277	369054.989	6329397.934	336	370228.221	6330355.351
278	369092.308	6329411.581	337	370236.577	6330363.714

Vertex	Easting	Northing	Vertex	Easting	Northing
338	370263.903	6330380.483	397	371923.179	6329948.634
339	370280.265	6330395.528	398	371924.070	6329946.934
340	370289.735	6330416.095	399	371974.405	6329948.862
341	370297.164	6330423.980	400	371973.279	6329978.221
342	370307.219	6330448.222	401	371993.365	6329979.369
343	370308.950	6330449.434	402	371989.112	6330090.343
344	370371.180	6330440.912	403	372039.354	6330092.268
345	370373.660	6330438.676	404	372030.403	6330326.159
346	370450.145	6330431.083	405	372072.966	6330328.621
347	370461.155	6330431.273	406	372071.285	6330372.505
348	370567.170	6330405.953	407	372083.863	6330372.854
349	370672.168	6330388.184	408	372087.772	6330406.108
350	370741.094	6330370.025	409	372099.837	6330413.438
351	370790.828	6330360.788	410	372117.710	6330411.333
352	370827.060	6330350.188	411	372133.136	6330397.090
353	370849.621	6330345.767	412	372158.496	6330349.931
354	370867.844	6330344.898	413	372146.230	6330349.300
355	370891.359	6330337.589	414	372178.387	6330293.707
356	370972.411	6330323.500	415	372182.084	6330288.460
357	370972.861	6330328.539	416	372195.265	6330290.651
358	370975.591	6330329.885	417	372199.493	6330263.758
359	370977.518	6330328.080	418	372206.355	6330254.021
360	370977.409	6330322.725	419	372230.949	6330237.444
361	371073.842	6330299.302	420	372217.494	6330211.255
362	371145.107	6330284.622	421	372233.994	6330202.710
363	371145.949	6330288.380	422	372241.172	6330196.347
364	371148.736	6330289.225	423	372260.483	6330199.557
365	371150.347	6330287.505	424	372263.610	6330179.691
366	371150.102	6330283.493	425	372274.790	6330171.056
367	371169.222	6330275.061	426	372274.862	6330159.349
368	371181.610	6330259.615	427	372294.696	6330148.398
369	371187.122	6330255.205	428	372300.919	6330135.150
370	371210.482	6330254.156	429	372322.098	6330147.809
371	371236.902	6330249.702	430	372360.665	6330083.637
372	371265.220	6330242.763	431	372372.622	6330075.844
373	371295.876	6330240.163	432	372383.084	6330063.772
374	371342.286	6330227.884	433	372397.396	6330041.106
375	371394.544	6330220.149	434	372398.672	6330033.668
376	371445.247	6330209.170	435	372402.151	6330026.447
377	371467.808	6330202.581	436	372411.718	6330017.648
378	371489.674	6330192.574	437	372433.257	6329989.565
379	371531.440	6330185.857	438	372463.648	6330008.873
380	371582.393	6330173.699	439	372467.076	6329987.177
381	371610.704	6330168.666	440	372440.487	6329970.112
382	371664.394	6330152.780	441	372467.798	6329889.373
383	371698.131	6330144.723	442	372494.035	6329845.639
384	371708.858	6330140.555	443	372418.627	6329845.603
385	371717.502	6330134.865	444	372339.509	6329852.790
386	371722.779	6330126.856	445	372340.299	6329879.587
387	371725.906	6330116.831	446	372284.639	6329840.535
388	371733.954	6330068.722	447	372321.190	6329783.322
389	371746.548	6330023.760	448	372324.624	6329760.484
390	371751.410	6329982.301	449	372346.969	6329700.465
391	371751.672	6329945.913	450	372346.220	6329661.840
392	371735.862	6329899.409	451	372362.474	6329621.949
393	371731.421	6329888.719	452	372312.195	6329577.326
394	371723.566	6329881.609	453	372217.763	6329511.639
395	371724.579	6329879.388	454	372149.869	6329488.556
396	371875.194	6329926.755	455	372078.326	6329443.324

<b>Vertex</b>	<b>Easting</b>	<b>Northing</b>	<b>Vertex</b>	<b>Easting</b>	<b>Northing</b>
456	372057.653	6329452.590	460	371748.308	6329382.921
457	371991.285	6329410.951	461	371667.760	6329430.768
458	371921.147	6329397.375	462	371624.621	6329475.795
459	371813.761	6329360.119			

Note: Coordinate reference system is MGA 56.

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## SCHEDULE F – AREA OF OPERATIONS – SEWERAGE SERVICES

**Table F.1 Vertices for area of operations for sewerage services**

Vertex	Easting	Northing	Vertex	Easting	Northing
0	371624.621	6329475.795	51	371655.213	6329857.574
1	371599.266	6329532.474	52	371875.194	6329926.755
2	371569.787	6329559.742	53	371923.179	6329948.634
3	371469.378	6329557.285	54	371924.070	6329946.934
4	371393.445	6329570.264	55	371974.405	6329948.862
5	371315.491	6329612.387	56	371973.279	6329978.221
6	371274.393	6329637.922	57	371993.365	6329979.369
7	371235.010	6329682.360	58	371989.112	6330090.343
8	371211.979	6329735.579	59	372039.354	6330092.268
9	371222.089	6329786.194	60	372030.403	6330326.159
10	371256.970	6329828.192	61	372072.966	6330328.621
11	371278.942	6329920.693	62	372071.285	6330372.505
12	371326.420	6330013.503	63	372083.863	6330372.854
13	371306.162	6330025.656	64	372087.772	6330406.108
14	371279.772	6330078.860	65	372099.836	6330413.438
15	371155.006	6330116.250	66	372117.709	6330411.333
16	371116.389	6330120.561	67	372133.136	6330397.090
17	371101.188	6330117.959	68	372158.496	6330349.931
18	371085.011	6330118.639	69	372146.230	6330349.300
19	371067.923	6330123.351	70	372178.386	6330293.707
20	371052.423	6330131.950	71	372182.084	6330288.460
21	371042.500	6330140.527	72	372195.265	6330290.651
22	371033.798	6330151.346	73	372199.493	6330263.758
23	371027.548	6330162.878	74	372206.355	6330254.021
24	371023.407	6330175.322	75	372230.949	6330237.444
25	371021.460	6330189.069	76	372217.494	6330211.255
26	371021.984	6330202.175	77	372233.994	6330202.710
27	371024.787	6330214.988	78	372241.172	6330196.347
28	371030.143	6330227.797	79	372260.483	6330199.557
29	371037.294	6330238.793	80	372263.610	6330179.691
30	371046.254	6330248.370	81	372274.790	6330171.056
31	371057.353	6330256.683	82	372274.862	6330159.349
32	371068.950	6330262.650	83	372294.696	6330148.398
33	371080.655	6330266.350	84	372300.919	6330135.150
34	371092.807	6330268.092	85	372322.098	6330147.809
35	371122.278	6330265.954	86	372360.665	6330083.637
36	371161.847	6330258.039	87	372372.622	6330075.844
37	371191.615	6330248.061	88	372383.084	6330063.772
38	371287.067	6330220.756	89	372397.396	6330041.106
39	371417.121	6330177.652	90	372398.672	6330033.668
40	371486.878	6330145.920	91	372402.151	6330026.447
41	371578.168	6330158.984	92	372411.718	6330017.648
42	371584.863	6330108.834	93	372433.257	6329989.565
43	371594.277	6330098.632	94	372463.648	6330008.873
44	371613.677	6330029.345	95	372467.076	6329987.177
45	371624.034	6330022.577	96	372440.487	6329970.112
46	371647.655	6329933.473	97	372467.798	6329889.373
47	371638.180	6329917.559	98	372494.035	6329845.639
48	371645.185	6329868.608	99	372418.626	6329845.603
49	371642.933	6329868.286	100	372339.509	6329852.790
50	371645.752	6329856.321	101	372340.299	6329879.587

<b>Vertex</b>	<b>Easting</b>	<b>Northing</b>	<b>Vertex</b>	<b>Easting</b>	<b>Northing</b>
102	372284.639	6329840.535	111	372078.326	6329443.324
103	372321.190	6329783.322	112	372057.653	6329452.590
104	372324.624	6329760.484	113	371991.285	6329410.951
105	372346.969	6329700.465	114	371921.147	6329397.375
106	372346.220	6329661.840	115	371813.761	6329360.119
107	372362.474	6329621.949	116	371748.308	6329382.921
108	372312.195	6329577.326	117	371667.760	6329430.768
109	372217.763	6329511.639	118	371624.621	6329475.795
110	372149.869	6329488.556			

Note: Coordinate reference system is MGA 56.



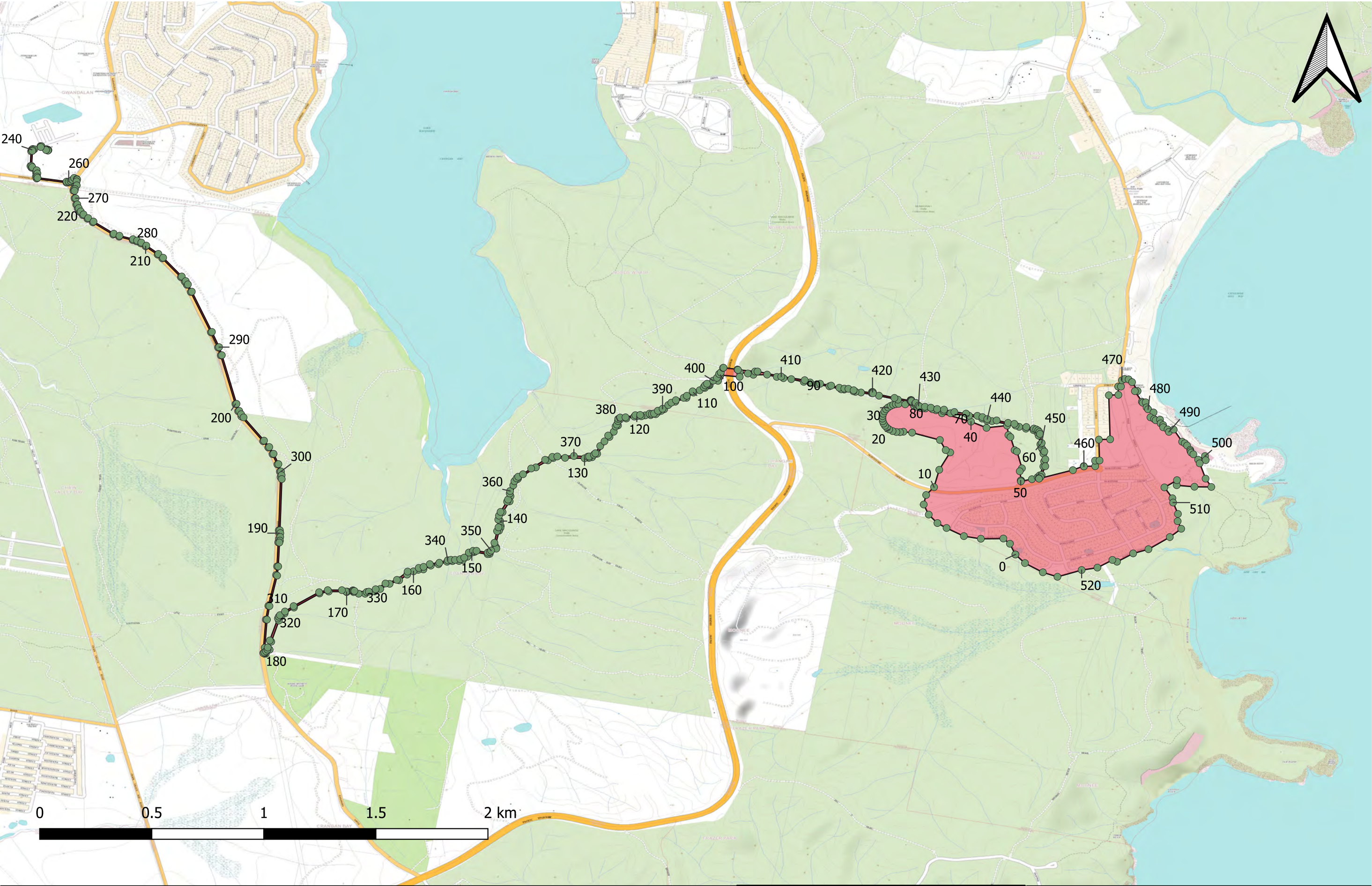
## **SCHEDULE G – AREA OF OPERATIONS – MAPS**

Schedule G contains three maps:

- 1) Map 1 Non-potable water
- 2) Map 2 Drinking water
- 3) Map 3 Sewerage services

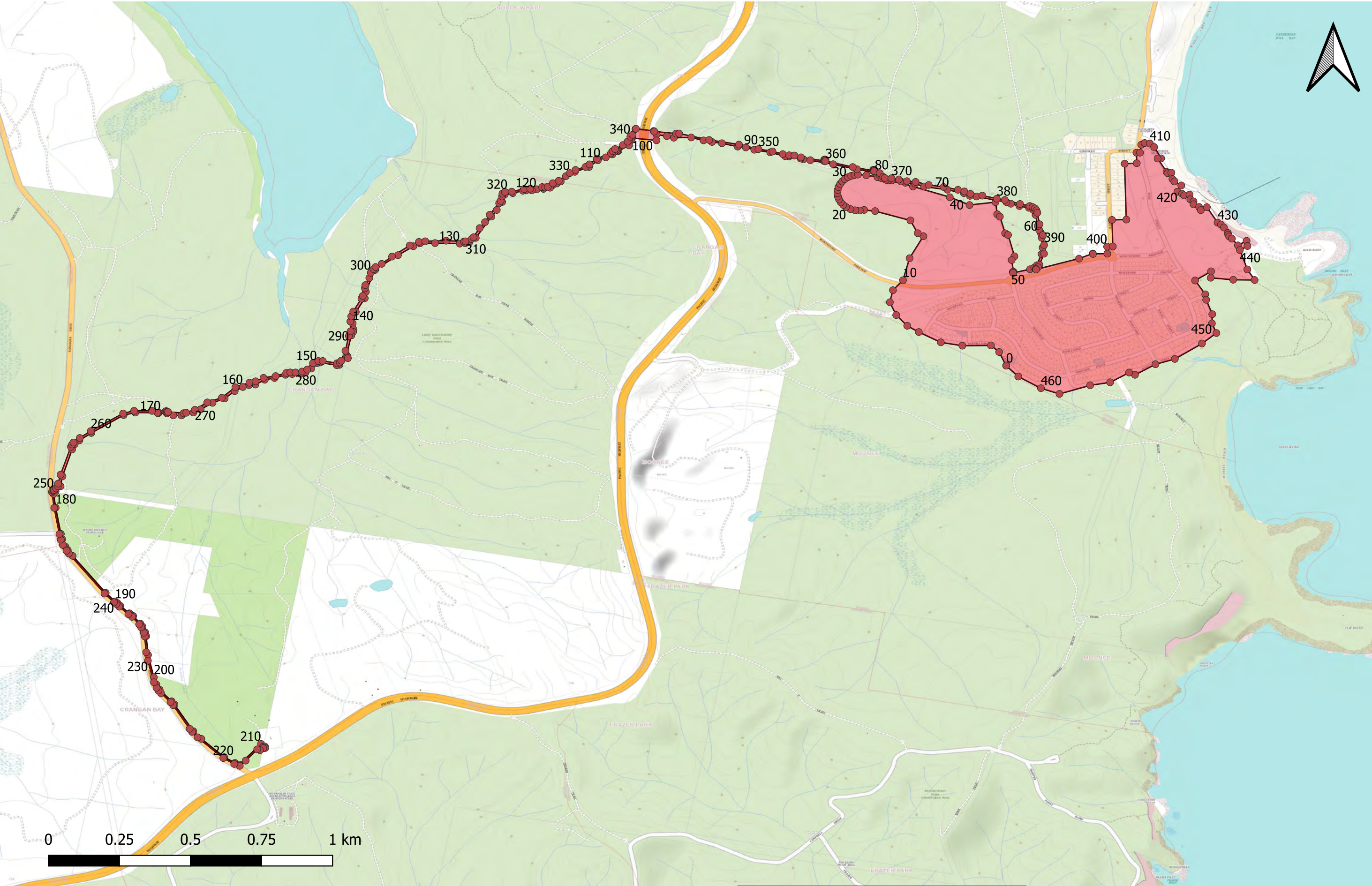
DRAFT





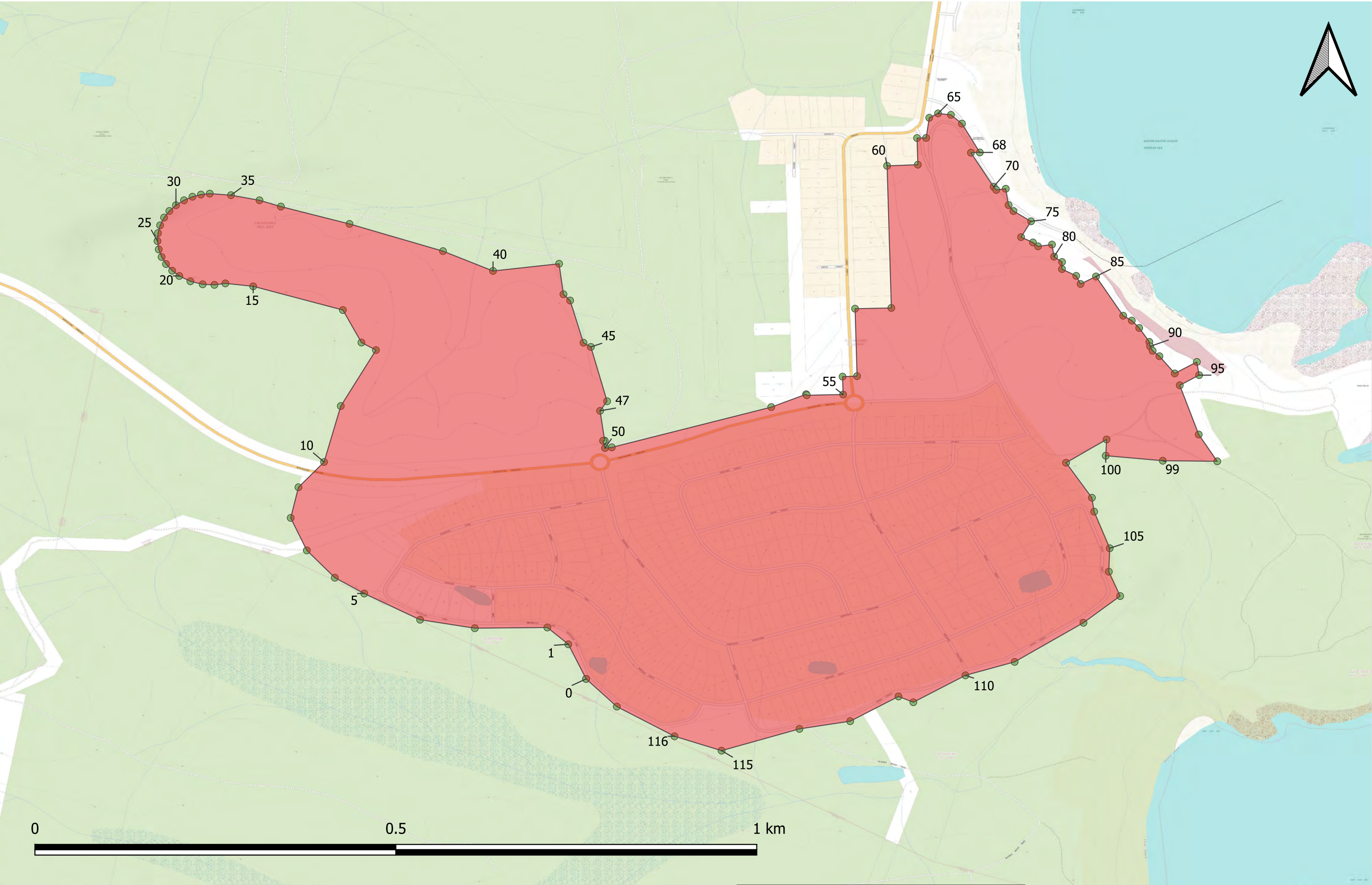
<p><b>Catherine Hill Bay - Area of Operations - Non-potable water</b></p> <p>Date created: 14 April 2020 Version: 1.0</p>	<p><b>LEGEND</b></p> <ul style="list-style-type: none"><li>● Vertices (MGA Zone 56)</li><li>— Boundary of area of operations</li></ul>	<p><b>LICENCE DETAILS:</b></p> <p>Licence Number: 16_035 Licence Type: Network Operator's Licence Licensee: Catherine Hill Bay Water Utility Pty Ltd (ACN 163 381 922)</p>	
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<p><b>Catherine Hill Bay - Area of Operations - Drinking water</b></p> <p>Date created: 14 April 2020 Version: 1.0</p>	<p><b>LEGEND</b></p> <ul style="list-style-type: none"><li>● Vertices (MGA Zone 56)</li><li>— Boundary of area of operations</li></ul>	<p><b>LICENCE DETAILS:</b></p> <p>Licence Number: 16_035 Licence Type: Network Operator's Licence Licensee: Catherine Hill Bay Water Utility Pty Ltd (ACN 163 381 922)</p>	
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<p><b>Catherine Hill Bay - Area of Operations - Sewerage services</b></p> <p>Date created: 14 April 2020 Version: 1.0</p>	<p><b>LEGEND</b></p> <p>— Boundary of area of operations</p> <p>● Vertices (MGA Zone 56)</p>	<p><b>LICENCE DETAILS:</b></p> <p>Licence Number: 16_035 Licence Type: Network Operator's Licence Licensee: Catherine Hill Bay Water Utility Pty Ltd (ACN 163 381 922)</p>	
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## B Detailed capacity analysis of CHBWU's application

We considered the following as part of our assessment:

### Evidence of technical capacity

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

- ▼ **Compliance history and understanding of relevant legislative frameworks:** Recent operational audit of the scheme did not identify any non-compliances.<sup>31</sup> We consider that the ongoing operation of the scheme by CHBWU demonstrates its capacity to safely and reliably design, construct, operate and maintain water industry infrastructure.
- ▼ **Risk assessment for the non-potable water infrastructure for Stage 3 of the scheme:**<sup>32</sup> The preliminary risk assessment for Stage 3 identifies key hazards and risks related to the transfer pipeline and additional end uses, and identifies control measures to manage these risks. Further development of the risk assessment in consultation with NSW Health is required prior to granting approval to commercially operate the infrastructure for the transfer pipeline. We consider that the current preliminary Stage 3 risk assessment demonstrates CHBWU's technical capacity to understand and implement the *Australian Guidelines for Water Recycling* (2006) (AGWR).
- ▼ **Solo Water recycled water quality plan (RW-WQP):**<sup>33</sup> The RW-WQP describes how the operation and maintenance of infrastructure for the Catherine Hill Bay scheme Stage 2 is consistent with the AGWR.
- ▼ **Solo Water infrastructure operating plan (IOP):**<sup>34</sup> The IOP describes the asset lifecycle planning, system redundancy and condition monitoring for water industry infrastructure, amongst other infrastructure management considerations for the Catherine Hill Bay scheme Stage 2.
- ▼ **Transfer main design Report:**<sup>35</sup> The design report shows how that the transfer main has been designed to meet the capacity of the treatment plant for up to 12 hours of full flow, allowing for excess non-potable water to be discharged to Central Coast Council's Gwandalan wastewater treatment plant. The storage capacity on site provides 7 days storage without any non-potable water use, and 20 days with average use. We consider the contingency arrangements for excess non-potable water are adequate for Stage 3 of the Catherine Hill Bay scheme.

<sup>31</sup> Water Futures, *Catherine Hill Bay Water Utility Operational Audit (Stage 2)*, Version 4.0, 14 April 2020.

<sup>32</sup> Solo Water, *Catherine Hill Bay Water Utility, RWTP Stage 3 – Surplus Recycled Water Transfer Main, Recycled Water Risk Assessment*, Revision 3.1, 22 May 2019.

<sup>33</sup> Solo Water, *Catherine Hill Bay Water Utility, Recycled Water Quality Management Plan, Stage 2*, Version 1.2, 20 September 2019.

<sup>34</sup> Solo Water, *Catherine Hill Bay Water Utility, Infrastructure Operating Plan, Stage 2*, Revision 2.0, 18 September 2018.

<sup>35</sup> ADW Johnson, *Design Report, Surplus Recycled Water Transfer Scheme to Gwandalan STP*, Version B, 19 September 2019.



The above statements are not an endorsement of the adequacy or approval of the listed documents and procedures. This assessment only relates to the applicant's demonstration of technical capacity. Many of these documents associated with non-potable water management will be subject to audits for adequacy prior to commencing commercial operations.

## Evidence of financial capacity

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

We have reviewed information provided by CHBWU. We conclude that CHBWU, supported by the Family Trust has, and will continue to have, financial capacity to carry out the activities that would be carried out under the respective licences for the Catherine Hill Bay scheme. We considered:

- ▼ A Deed of Financial Capacity and Guarantee between the Family Trust and CHBWU.
- ▼ Minutes of a meeting of Directors of the parent company dated 2 November 2015, which include a resolution that the parent company will not be seeking pay out of the quarantined pre-December 2009 Unpaid Present Entitlements.
- ▼ Financial capacity of CHBWU, Solo Water and the Family Trust.

CHBWU has also provided a bank guarantee on behalf of the Family Trust in favour of CHBWU.

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

## Evidence of organisational capacity

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

- ▼ **Organisational structure:**<sup>36</sup> Solo Water owns and manages CHBWU. Solo Water and CHBWU manage third parties to deliver the proposed works based on contractual arrangements and agreements.
- ▼ **Organisational chart:**<sup>37</sup> key personnel for areas such as planning and new schemes, construction and operations management, water and wastewater operations, integrated management systems compliance and IT operations are shared with Solo Resource Recovery as required.
- ▼ **An outline of the experience of key personnel:**<sup>38</sup> namely the Planning and New Schemes Manager, Operations Manager, Site Manager, Lead Operator and Operator, which match the role descriptions.

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<sup>36</sup> *Solo Water Corporate Structure*, as at 6 March 2018, Appendix A3(b) of the Network Operator Licence Variation Application.

<sup>37</sup> *Solo Water Organisational Chart*, version 1.3, July 2019, Appendix A6(a) of the Network Operator Licence Variation Application.

<sup>38</sup> *Biographies and Position Descriptions*, Appendix A3(c) of the Network Operator Licence Variation Application.

- ▼ **Key personnel curricula vitae:**<sup>39</sup> which outlines relevant experience in the water industry and specific personnel nominated to the Catherine Hill Bay scheme.

### **Capacity to carry out those activities in a manner that does not present a risk to public health**

From our assessment, we consider that CHBWU has the capacity to carry out the activities that the varied licences (if granted) would authorise in a manner that does not present a risk to public health.

- ▼ **Risk management method:** we reviewed CHBWU/Solo Water's preliminary risk assessment<sup>40</sup> and consider that CHBWU and Solo Water have demonstrated capacity to identify and manage key hazards and risks related to non-potable water components of the varied scheme, to acceptable levels of risk, and would have in place reasonable control and mitigation measures as discussed in Chapters 4.3 and 5 of this report.
- ▼ **Source water quality:** CHBWU will continue to source non-potable water from the licensed Catherine Hill Bay treatment plant. Drinking water top-up for the non-potable water network would be sourced from Central Coast Council as per the existing scheme.
- ▼ **Fit for purpose recycled water quality:** CHBWU operates water infrastructure at the Catherine Hill Bay scheme under its current licence. CHBWU and Solo Water have demonstrated the capacity to treat sewage and provide fit for purpose non-potable water, consistent with the requirements of the AGWR, for the Catherine Hill Bay scheme. We consider that CHBWU will need to undertake further risk assessment to identify the appropriate controls to be implemented to adequately manage risks posed by the proposed new end-uses under the varied licence.
- ▼ **Non-potable water supply interruption:** any interruption to the provision of non-potable water should pose a limited risk to public health because drinking water top-up for non-potable water is available from Central Coast Council.

### **Appropriate arrangements with respect to insurance**

From our assessment, we consider that CHBWU has appropriate insurance arrangements. Insurance information for CHBWU and Solo Water was provided:

- ▼ Insurance experts confirmation and Certificates of insurance for:
  - Professional indemnity
  - General liability
  - Pollution indemnity
  - Commercial Motor vehicle insurance
  - Contract works material damage insurance
  - Industrial special risks insurance
  - Workers compensation

<sup>39</sup> *Biographies and Position Descriptions*, Appendix A3(c) of the Network Operator Licence Variation Application.

<sup>40</sup> Solo Water, *Catherine Hill Bay Water Utility, RWTP Stage 3 – Surplus Recycled Water Transfer Main, Recycled Water Risk Assessment*, Revision 3.1, 22 May 2019.

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- Management liability insurance.<sup>41</sup>
  - ▼ **icare review:** As part of its review, icare examined:
    - CHBWU's proposal under a varied licence.
    - The scheme preliminary risk assessment for Stage 3, including transfer main and new end uses.
    - Insurance experts report.
    - Insurance coverage details, certificates of currency and product disclosure statements related to professional indemnity, public liability and product liability.<sup>42</sup>

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<sup>41</sup> Prepared by Australian Insurance Solutions Pty Ltd, 11 April 2019, and updated certificates of insurance (Email to IPART, Solo Water, 12 February 2020) [\[1\]](#)

<sup>42</sup> Email to IPART, icare, 20 December 2019. [\[2\]](#)



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## C Summary of submissions

**Table C.1 Summary of submissions for CHBWU's application to vary its Network Operator's Licence for the Catherine Hill Bay scheme.**

Agency	Summary of Submission	Our response
NSW Health		
1	NSW Health requested that all new uses are subject to risk assessment with relevant stakeholders to ensure the risks are appropriately managed. The risk assessment must consider associated risks and whether any additional controls are required. For end uses not considered in the AGWR, an exposure assessment is necessary to determine the required log reduction values.	<p>We note that standard licence condition (Schedule B, clause 4.1) requires CHBWU to comply with requirements of NSW Health.</p> <p>The licensee must consult with NSW Health during the:</p> <ul style="list-style-type: none"> <li>a) detailed risk assessments for drinking and recycled water</li> <li>b) technology assessments for drinking and recycled water</li> <li>c) development of management plans for drinking and recycled water, and</li> <li>d) development of an incident notification protocol with NSW Health for drinking and recycled water.</li> </ul> <p>We propose that this condition be retained in the varied licence.</p>
2	NSW Health requested it be consulted during risk assessments, development of management plans and development of incident notification protocols for drinking water and recycled water. NSW Health requested the management plans and incident notification protocols for drinking water, sewage and recycled water are updated in consultation with NSW Health if details of the scheme change.	As above
3	NSW Health expects that the audit process will confirm the adequacy of the drinking water, sewage and recycled water management plans and compliance with the ADWG and AGWR.	We would audit the adequacy of the water quality and infrastructure operating licence plans prior to CHBWU commencing commercial operation of new infrastructure.
Central Coast Council		
1	<p>Central Coast Council considers that CHBWU has the correct approvals for the activities the NOL variation would authorise that are within Central Coast local government area (LGA).</p> <p>Central Coast Council confirmed that:</p> <ul style="list-style-type: none"> <li>• Development consent has been granted under Part 4 of the EP&amp;A Act for the recycled water main.</li> <li>• Section 306 Notification of Requirements has been issued under the <i>Water Management Act 2000</i> (WMA) relating to the operation of the discharge at Gwandalan wastewater treatment plant.</li> </ul>	Noted.

Agency	Summary of Submission	Our response
2	Central Coast Council's development application assessment had regard for the environment. Conditions relating to the protection of the environment during the construction phase of the recycled water pipeline within Central Coast Council's LGA are managed as part of the requirements relating to development consent DA/1385/2018.	Noted.
3	Central Coast Council advised that conditions relating to the protection of the environment by the activity of discharge to the Gwandalan wastewater treatment plant is managed by the existing Environment Protection Licence issued by the EPA (held by Central Coast Council).	Noted.
EPA		
1	EPA confirmed that the scheme does not require an approval (or licence) under the POEO Act as the plant does not exceed the processing capacity threshold.	Noted.
2	EPA confirmed that Lake Macquarie Council is the appropriate regulatory authority for environmental issues.	Lake Macquarie City Council is the appropriate regulatory authority under the POEO Act for the treatment plant and reticulation networks located in its LGA, and Central Coast Council is the appropriate regulatory authority for the section of the pipelines that run through their LGA.
3	EPA does not recommend any further licence conditions.	Noted

## D Assessment of Catherine Hill Bay Water Utility's REFs

### D.1 Purpose

CHBWU has submitted an application under the WIC Act for a variation of their current network operator's licence (NOL 16\_035).

ADW Johnson Pty Ltd (ADWJ), on behalf of Coastal Hamlets Pty Ltd, the developer of the residential development at Catherine Hill Bay that is serviced by CHBWU, prepared two environmental assessment reports (Review of Environmental Factors or REF) for the proposed modifications to satisfy the legal requirements under Part 5 of the EP&A Act and Clause 7 of the WIC Regulation:

- ▼ *Addendum to Review of Environmental Factors, Amendments to Existing Recycled Water Treatment Plant, Catherine Hill Bay (Version F, 9 March 2020,)* (Addendum REF)
- ▼ *Review of Environmental Factors, Surplus Recycled Water Transfer Main related to Recycled Water Treatment Plant, Catherine Hill Bay (Version A, 11 March 2020,)* (Pipeline REF).

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

To assess whether the Addendum REF and the Pipeline REF are sufficient to allow the Minister to make a determination under Part 5 of the EP&A Act, we have reviewed the REFs against the provisions of:

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

We have also assessed whether other relevant requirements have been identified and considered in the Addendum REF and the Pipeline REF, including:

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

- ▼ Water industry guidelines (such as the *Australian Guidelines for Water Recycling* (2006) and *NSW Use of Effluent by Irrigation* (2004)).

## D.2 Proposal

CHBWU proposes to modify the Catherine Hill Bay non-potable water scheme in order to allow the development of Stages 6 and 7 of the residential development to proceed. The proposed works (the “proposed modification”) assessed in the REFs include the following:

- ▼ Construction, operation and maintenance of a Surplus Recycled Water Transfer Main (transfer pipeline) to transfer excess non-potable water to Central Coast Council’s Gwandalan wastewater treatment plant for disposal. The proposed transfer pipeline include a dedicated 8km pipeline of nominal diameter 125mm to 250mm and will include associated valves and control systems. The proposed transfer pipeline is at various stages of construction and approval (See Table D.1).
- ▼ Remove existing reverse osmosis (RO) ponds through bulk earthworks and stabilise the area. The RO ponds are part of the CHBWU’s recycled water treatment plant. The RO ponds (built but not in operation) are no longer required because the RO treatment units (not built and not in operation) are not required to treat the recycled water to produce the required water quality. The RO ponds are proposed to be filled in. The proposed variation is to be determined under Part 5 Division 5.1 of the EP&A Act and the determining authority is the Minister issuing the WIC Act licence variation. Refer to the Addendum REF.

**Table D.1 Construction and approval stages of the transfer pipeline**

Section of transfer pipeline	Description	Construction status	Approval status
Section 1	CHBWU already constructed approximately 300m of the transfer pipeline from the treatment plant to the Montefiore Street roundabout, under the authority of the current network operator’s licence.	Constructed	Approved. No further approval is required.
Section 2	CHBWU proposes to construct and operate approximately 15m of the transfer pipeline from the Section 1 pipeline at the Montefiore Street roundabout to the proposed transfer pipeline on National Parks and Wildlife Service (NPWS) land. Refer to the Addendum REF.	Proposed	Approval required. This section of the pipeline is to be determined under Part 5 Division 5.1 of the EP&A Act and the determining authority is the Minister issuing the WIC Act licence variation.

Section of transfer pipeline	Description	Construction status	Approval status
Section 3	CHBWU proposes to construct and operate approximately 4.6km of the transfer pipeline on NPWS land to Kanangra Drive. This section of the pipeline has been approved by the NPWS as the determining authority, therefore the Minister is not required to carry out an assessment under Part 5 Division 5.1 of the EP&A Act. <sup>43</sup>	Proposed	Approved. No further approval is required.
Section 4	CHBWU proposes to construct and operate approximately 3.3km of the transfer pipeline along Kanangra Drive from NPWS land to Central Coast Council's Gwandalan wastewater treatment plant. <sup>44</sup> Refer to the Pipeline REF.	Proposed	Approval required. This section of the pipeline is to be determined under Part 5 Division 5.1 of the EP&A Act and the determining authority is the Minister issuing the WIC Act licence variation.

Irrigation of excess non-potable water onto the land of Stages 6 and 7 residential development at Catherine Hill Bay would not be required if the excess non-potable water can be transferred to Gwandalan wastewater treatment plant. If approved, this would remove the need to construct, operate and maintain the irrigation zones at Stages 6 and 7. Stages 6 and 7 should then be able to be developed under the development approval MP10\_0204.

### D.3 Findings

The Addendum REF and the Pipeline REF provide sufficient information regarding the construction and operational activities of the proposed modification to enable us to examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment.

The key issues found through our assessment are:

- ▼ The Addendum REF and the Pipeline REF clearly articulate the scope of the proposed modification they assess. The scope of work is to include a transfer main to transfer excess non-potable water to Gwandalan wastewater treatment plant and remove the RO ponds by filling them in. Appendix 1 of the Addendum REF and Appendix 1 of the Pipeline REF provide detailed plans for proposed modification.
- ▼ Environmental impacts at the current area of operations have been assessed and are expected to be minor and/or consistent with the impacts described in the Addendum REF. Environmental impacts are generally temporary in nature and mitigation measures have been identified in keeping with standard construction practices.

<sup>43</sup> Section 5.4(c) of the EP&A Act provides that a determining authority (in this case, the Minister) is not required to carry out an assessment under Division 5.1 assessment where an activity has been approved by another determining authority (in this case, NPWS) after assessment.

<sup>44</sup> We note that this section of the pipeline has received development consent by the Central Coast Council (DA/1358/2018) under Part 4 of the EP&A Act as a water reticulation system. We consider Division 18 of the *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP) applies to this section of the pipeline, which deals with sewerage systems, is the controlling Division of the ISEPP for the transfer pipeline.

- ▼ Environmental impacts at the Central Coast Council area due to the transfer pipeline have been assessed and are not expected to be significant if mitigation measures are effectively implemented as described in the Pipeline REF.
  - The Pipeline REF identified the need to remove 0.09 ha of Narrabeen Doyalson Coastal Woodland (NDCW) within the road reserves. The NDCW, while not an endangered ecological community, could provide potential habitat for a number of threatened flora and fauna species.

Two threatened flora species were found to occur in the study area and none of these threatened flora species will be removed.

A number of threatened fauna species were recorded within the study area including birds, bats and frogs. The study area includes potential foraging habitat for a local population of some of these species as well as potential nesting and breeding habitat. Given the size of the subject site and likely disturbance it is considered that there is very limited potential foraging or nesting habitat that would be lost as part of the proposed transfer pipeline.
  - No significant impacts upon threatened species listed under the BC Act are likely to occur if mitigation measures are implemented.
  - Consideration of the EPBC Act revealed that no impacts on Matters of National Environmental Significance are expected.


Based upon the information provided in the Addendum REF and the Pipeline REF, it is unlikely that the proposed activity will have significant impacts on threatened species, populations and ecological communities listed pursuant to the BC Act, the *Fisheries Management Act* or impact on matters of national environmental significance pursuant to the EPBC Act.

## D.4 Conclusion

The Addendum REF and the Pipeline REF have:

1. Examined and taken into account relevant Commonwealth, NSW and local legislation and policies.
2. Examined and taken into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the proposed activity. Identified environmental impacts are within acceptable parameters, provided the mitigation measures outlined in the Addendum REF, the Pipeline REF and the Approved Project REF are effectively implemented.
3. Been prepared in accordance with Part 5 Division 1 of the EP&A Act. They have concluded that the proposed activity is unlikely to significantly affect the environment and hence an EIS is not required to be prepared. The proposed activity is also unlikely to affect Commonwealth land or have an impact on any matters of national environmental significance.

We therefore consider that the Addendum REF and the Pipeline REF **meet the requirements for determination** under Part 5 Division 5.1 of the EP&A Act and have taken into account to the fullest extent possible all matters affecting or likely to affect the environment associated



with the proposed scope of work that is the subject of the variation application for the Catherine Hill Bay scheme.