



*Water Industry Competition Act 2006*

# Guide to contingency planning and template

December 2024

Water >>

---

## Acknowledgment of Country

IPART acknowledges the Traditional Custodians of the lands where we work and live. We pay respect to Elders both past and present.

We recognise the unique cultural and spiritual relationship and celebrate the contributions of First Nations peoples.

## Tribunal Members

The Tribunal members for this review are:

Carmel Donnelly PSM, Chair  
Dr Darryl Biggar  
Jonathan Coppel  
Sharon Henrick

Enquiries regarding this document should be directed to a staff member:  
Christine Allen (02) 9290 8412

Email: [wica@ipart.nsw.gov.au](mailto:wica@ipart.nsw.gov.au)

## The Independent Pricing and Regulatory Tribunal

IPART's independence is underpinned by an Act of Parliament. Further information on IPART can be obtained from IPART's website.

## Version Control

Issue number	Date issued	Notes
1	September 2024	Draft version released for stakeholder comment
2	December 2024	Version for release

---

# Contents

<b>1</b>	<b>Before you start</b>	<b>1</b>
1.1	Why is a contingency plan needed?	1
1.2	What is the purpose of a contingency plan?	2
<b>2</b>	<b>Preparing a contingency plan</b>	<b>3</b>
2.1	When must the plan be prepared?	3
2.2	Who must prepare the plan?	3
2.3	What is the process for activating the contingency plan?	8
<b>3</b>	<b>Contingency plan contents</b>	<b>12</b>
3.1	Overview of the scheme	13
3.2	Actions and responsibilities under this plan	15
3.3	Directory of Information and Systems	15
3.4	Communication Procedures	25
3.5	Alternative options for providing essential services	26
3.6	How to use the template	28
<b>A</b>	<b>Operations and maintenance manual</b>	<b>30</b>
<b>B</b>	<b>Process Flow Diagram checklist</b>	<b>32</b>
<b>C</b>	<b>Detailed PFDs and P&amp;ID</b>	<b>34</b>
<b>D</b>	<b>Example SCADA documentation</b>	<b>35</b>

# 1 Before you start

This guide has been developed to explain the role, and assist with the preparation, of contingency plans. Our website also has a template for a contingency plan available for use with this guide. We note however there is no statutory requirement for IPART to prepare guidance or a template nor for the preparer of a contingency plan to follow them.

The information that must be included in a contingency plan is described in the *Water Industry Competition (General) Regulation 2024* (WIC Reg).<sup>1</sup> This guide provides further guidance on the information to be included in a contingency plan.

This guide is structured to explain the following:

- chapter 1 – why a contingency plan is needed.
- chapter 2 – how and when contingency plans must be prepared.
- chapter 3 - the type of information that we would expect to see in a contingency plan.
- chapter 4 – the process for enacting the contingency plan.

## 1.1 Why is a contingency plan needed?

Under the *Water Industry Competition Act 2006* (WIC Act), the Minister for Water may designate an last resort provider (LRP)<sup>2</sup> to step in and provide essential services<sup>3</sup> if the registered operator or retailer (i.e., the 'essential service provider') fails. The Minister is responsible for declaring a 'last resort event' which triggers the step-in arrangements.<sup>4</sup> The Minister may declare an essential service provider has failed if no other arrangement is in place for the continued provision of the service and the Minister is satisfied:

- the essential service provider has ceased or is about to cease providing an essential service
- an insolvency official has been appointed for the essential service provider or the whole or part of the property of the essential service provider, or
- an order has been made for the winding-up of the essential service provider or a resolution has been passed for the winding-up of the essential service provider.<sup>5</sup>

Once the Minister has declared a failure of an essential service provider and specified the transfer date, the LRP is responsible for providing the essential services to the transferred customers from that date until the Minister declares the failure has ended.

---

<sup>1</sup> WIC Reg, section 39.

<sup>2</sup> The Minister designates LRPs under [section 55 of the WIC Act](#).

<sup>3</sup> An 'essential service' is a water or sewerage service provided by means of a scheme's essential infrastructure. Whether a scheme is 'essential infrastructure' is determined by IPART under [section 54 of the WIC Act](#).

<sup>4</sup> The Minister declares a failure of an essential service provider, by order published in the Gazette, under [section 56 of the WIC Act](#).

<sup>5</sup> WIC Act, section 56.

Contingency plans must be prepared to assist the LRP to step in and continue to provide the essential services during a last resort event.<sup>6</sup>

More detail is provided in **Section 2.3** of this guide.

### ⓘ Requirement of the WIC Act

Contingency plans for essential services are a specific requirement of the WIC Act.

This requirement is **separate from, and is not the same as**, the Incident and emergency response protocols in Element 6 of the *Australian Drinking Water Guidelines*.

## 1.2 What is the purpose of a contingency plan?

The purpose of the contingency plan is to provide the information necessary for the LRP to provide essential services with minimal disruption to customers if there is a declared failure. The plan will direct the LRP to:

- documentation of operational processes and systems,
- information necessary for the LRP to access electronic systems and data including customer information, and
- contact details for key personnel and suppliers.

A scheme may provide both essential and non-essential services. The contingency plan need only provide the information necessary to operate the infrastructure and provide those services determined to be essential.

The contingency plan will also specify the actions, procedures or requirements to be undertaken by the failed licensee, the LRP or an insolvency official acting for the failed licensee to facilitate provision of the essential service and minimise disruption to customers.

The WIC Reg requires specific information to be set out in the contingency plan, but most of this information can be included in the form of a directory that directs a LRP to where and how they can access the information when needed, that is, during a last resort event.<sup>7</sup>

<sup>6</sup> WIC Act, section 55A.

<sup>7</sup> Information required under section 39(2) of the WIC Reg may be included in a contingency plan in the form of a directory: WIC Reg, section 39(3).

## 2 Preparing a contingency plan

### 2.1 When must the plan be prepared?

The contingency plan must be submitted to IPART for approval within 6 months of the scheme commencing operation and providing the essential service,<sup>8</sup> or a longer period approved by IPART and notified to the essential service provider and designated LRP in writing.

For licensees being transitioned to the new WIC Act framework, the contingency plan must be submitted for approval within 6 months of the end of the transitional period (1 March 2025), when IPART will grant operational approvals for the licensee's existing schemes.<sup>9</sup> This means plans must be submitted by **1 September 2025**. The nominated provider of the contingency plan (see the section below for more details) can seek an extension of time by writing to WICA Mailbox and providing reasons for the extension.

### 2.2 Who must prepare the plan?

A contingency plan for an essential service must be prepared by the 'nominated provider', which can be either the LRP **or** the essential service provider (i.e the registered operator or registered retailer of an essential infrastructure scheme). The plan can be prepared with the assistance of a technical expert (see section 2.2.4).

By default, the WIC Act requires the contingency plan to be prepared by the LRP. However, an essential service provider can prepare a contingency plan if they give notice in writing to IPART within 15 days of the Minister designating an LRP for the scheme. If notice is not given, then the LRP must prepare the contingency plan.<sup>10</sup> Notice should be provided using the form available from IPART's website. See the contingency plan approval process in **Figure 1**.

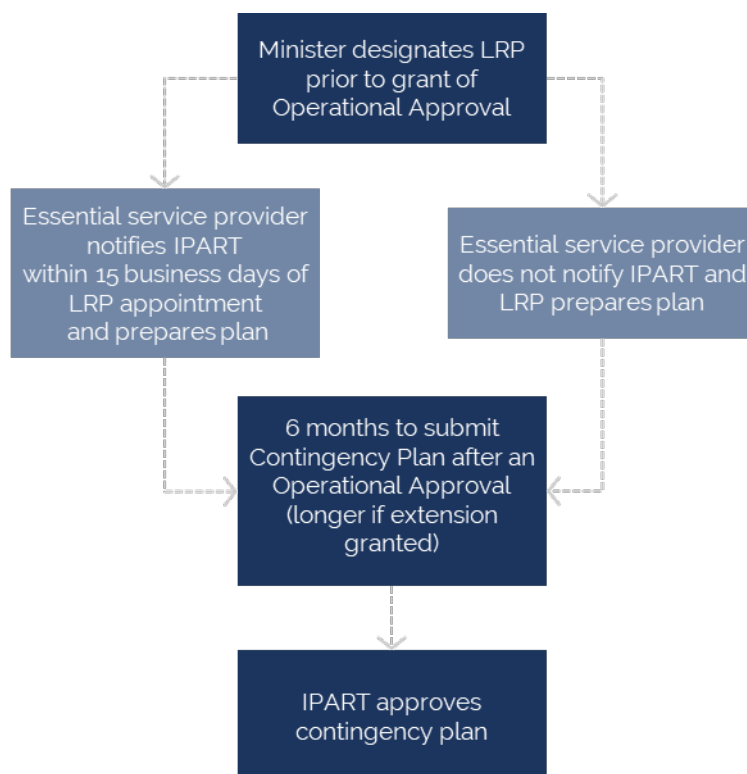
---

<sup>8</sup> This is when an Operational Approval to operate the scheme's infrastructure is first granted.

<sup>9</sup> Some existing schemes have been fast-tracked and extensions of time to prepare the contingency plan have already been approved by IPART.

<sup>10</sup> [WIC Reg, section 37](#).

Figure 1 Contingency plan approval process



Note: The WIC Reg allows 6 months to submit a contingency plan from when an Operational Approval is granted, or longer if approved by IPART (WIC Reg section 38(1)).

If the registered operator and registered retailer are:

- the same entity, or a related corporation (i.e. in the same corporate group)<sup>11</sup> then the contingency plan can cover both operational and retail activities.
- different and unrelated entities then 2 separate plans should be prepared—a plan to cover handover of the registered operator's activities (operator only contingency plan) and a plan to cover handover of the registered retailer's activities (retailer only contingency plan).

### 2.2.1 IPART approves contingency plans

IPART approves contingency plans and determines how often the plans must be reviewed. IPART can approve contingency plans with modifications if required. IPART can also direct a contingency plan be tested, and testing can be carried out as part of an audit.<sup>12</sup> A technical expert can, or must (where IPART requires), be engaged to test the plan.

IPART will require, by notice to the nominated provider, for the plan to be reviewed and resubmitted to IPART for approval every 5 years.<sup>13</sup>

<sup>11</sup> A **related corporation** of a corporation that is an applicant for or holds an approval or licence means a related corporation of the corporation within the meaning of the *Corporations Act 2001* of the Commonwealth that would have or has a direct or indirect interest in, or influence on, the carrying out of activities under the approval or licence: [Dictionary, WIC Act](#).

<sup>12</sup> [WIC Reg, section 38](#).

<sup>13</sup> [WIC Reg, section 38\(3\)](#).

In approving contingency plans, IPART may consider the following matters, as relevant:

- the extent to which the plan addresses the requirements set out in IPART's guide and template
- whether the plan contains the information required<sup>14</sup>
- whether the information in the plan is up to date
- whether the LRP has been adequately consulted and the views of the LRP have been taken into consideration
- whether the recommendations of the technical expert (if any) have been adequately addressed where the plan is required to be tested by a technical expert
- whether the plan adequately addresses or includes the information needed for the LRP to continue to provide the essential services during a last resort event, having regard to the views of the technical expert, LRP and essential service provider/s
- whether the information and systems referred to in the plan are accessible, and
- whether the plan is capable of being implemented in a last resort event.

In cases where a technical expert is used to test the plan, we will also consider the report of the technical expert.

## 2.2.2 Contingency plan prepared by the essential service provider

If a contingency plan is to be prepared by the essential service provider, the essential service provider must consult with the LRP about the contingency plan.<sup>15</sup> IPART will typically require plans prepared by an essential service provider to be prepared or tested with the assistance of a technical expert.<sup>16</sup> This is to give assurance to the LRP and IPART that the plan has been appropriately prepared, as there is no obligation on the essential service provider to provide access to the LRP to inspect the infrastructure or systems if the LRP does not prepare the plan.

## 2.2.3 Contingency plan prepared by the LRP

If a contingency plan is to be prepared by the LRP, the essential service provider must facilitate the preparation and review of the contingency plan by the LRP including:

- providing information that the LRP reasonably requires in a timely way
- giving the LRP a reasonable opportunity to inspect infrastructure and systems,<sup>17</sup> and
- facilitating the conduct of any required exercises to test the operation of the contingency plan by the LRP (see below).<sup>18</sup>

<sup>14</sup> WIC Reg, section 39.

<sup>15</sup> WIC Reg, section 41.

<sup>16</sup> WIC Reg, section 36.

<sup>17</sup> WIC Reg, section 40(2).

<sup>18</sup> WIC Reg, section 40(4).



IPART may also require a technical expert to be engaged in preparing and/or testing contingency plans prepared by the LRP.<sup>19</sup>

## 2.2.4 Who is a 'technical expert' and what is their role?

IPART can appoint technical experts<sup>20</sup> and may require a contingency plan to be prepared or tested with the assistance of:

- for a contingency plan prepared by an essential service provider—a technical expert from our panel of technical experts or otherwise nominated by IPART
- for a contingency plan prepared by an LRP—a technical expert from our panel of technical experts.<sup>21</sup>

See IPART's website for details of the technical expert panel. A technical expert may also be an auditor or a member of IPART's staff with relevant expertise and experience.<sup>22</sup>

A technical expert will inspect infrastructure and systems, examine relevant information, and conduct any required testing of the contingency plan to ensure the plan is adequately prepared, and complies with legislative requirements.

The essential service provider must pay the reasonable costs incurred by a technical expert in preparing or testing a plan, regardless of whether the expert is engaged by IPART, the LRP or the essential service provider.<sup>23</sup>

## 2.2.5 Assistance may be required in preparing and testing plans

If you are:

- the owner of the essential infrastructure
- an essential service provider, or
- the LRP,

then you must assist in the preparation, review or testing of the contingency plan if requested in writing by:

- IPART
- the LRP (in relation to a plan it prepares)
- the essential service provider (in relation to a plan it prepares), or
- a technical expert (in relation to a plan prepared by the LRP or essential service provider).<sup>24</sup>

---

<sup>19</sup> WIC Reg, section 36(1)(b).

<sup>20</sup> WIC Reg, section 35.

<sup>21</sup> WIC Reg, section 36.

<sup>22</sup> WIC Reg, section 35.

<sup>23</sup> WIC Reg, section 45.

<sup>24</sup> WIC Act, section 55A(3); WIC Reg, section 42.

## 2.2.6 What happens after the plan is approved?

Once the plan is approved, the LRP or essential service provider that prepared the plan must review and resubmit the plan for approval at intervals determined and notified by IPART. IPART will require, by notice to the nominated provider, for the plan to be reviewed and resubmitted to IPART for approval every 5 years.<sup>25</sup> The plan must also be internally reviewed and kept up to date annually and will be tested regularly as part of annual compliance audits required by IPART. The plan should also be resubmitted to IPART for approval if any material modifications are made.<sup>26</sup>

If the plan was prepared by the LRP, the essential service provider must also consider whether any change in systems or processes at the scheme operated by them requires that the LRP be notified. This includes if the change:

- may require modification of the contingency plan, or
- is a change the LRP reasonably needs to be aware of.<sup>27</sup>

IPART will provide a copy of the approved contingency plan to the essential service provider/s and the LRP.

### ⓘ Confidentiality requirements

The WIC Act imposes confidentiality requirements on the LRP and any 'new licensee' that takes over the permanent operation of the scheme after the last resort event has ended.

*WIC Act, Section 57E Confidentiality requirement:*

*A last resort provider or new licensee must not use or disclose confidential or commercially sensitive information obtained under this Division other than for the purpose for which it is given unless—*

- (a) the use or disclosure is authorised by the person to whom the information belongs, or*
- (b) the last resort provider or new licensee is required by law to disclose the information.*

## 2.2.7 Who pays for a contingency plan?

The essential service provider must pay the reasonable costs incurred by LRPs in preparing or providing assistance in the preparation or testing of contingency plans. The LRP or essential service provider can apply to IPART to determine the amount payable if the parties can't agree.<sup>28</sup>

<sup>25</sup> WIC Reg, section 38(3).

<sup>26</sup> WIC Reg, sections 38 and 43.

<sup>27</sup> WIC Reg, section 40(3).

<sup>28</sup> WIC Reg, section 44.

## 2.3 What is the process for activating the contingency plan?

The Minister is responsible for triggering the step-in arrangements by declaration in the event of a failure of an essential service provider. The Minister only does this if no other arrangement is in place to provide services. Failure includes where the essential service provider has ceased or is about to cease providing the service, an insolvency official has been appointed or winding-up orders have been issued.<sup>29</sup>

Once the Minister has declared a failure (i.e. a 'last resort event') and specified the transfer date, the LRP is responsible for providing the essential service to customers of the scheme from that date until the Minister declares the failure has ended.

### 2.3.1 Responsibilities during a declared failure

Section 2 of our Contingency Plan Template, "Actions and responsibilities under this plan", sets out the actions and responsibilities of the essential service provider, the LRP and an insolvency official during a last resort event.

During the last resort event, the LRP and the provider of the essential service have the following responsibilities under the WIC Act:

- facilitate the provision of the essential service by the LRP
- take action as required by the approved contingency plan or the regulations, and
- comply with reasonable directions given by the LRP in providing the essential service.<sup>30</sup>

The WIC Act further states, to avoid any doubt, that:

- (a) the failed licensee must enable the LRP to access customer information, including personal information under the *Privacy and Personal Information Protection Act 1998* and health information under the *Health Records and Information Privacy Act 2002*, in connection with the provision of the essential service, and
- (b) the provision of the essential service includes exercising a right of the failed licensee under an easement or right of way relating to the essential service as if the last resort provider were the failed licensee.<sup>31</sup>

During a declared failure the LRP must not be obstructed from access to property, or the provision of the essential service, by any person.<sup>32</sup>

Penalties apply for not complying with these requirements.<sup>33</sup>

---

<sup>29</sup> WIC Act, section 56.

<sup>30</sup> WIC Act, section 56B(2).

<sup>31</sup> WIC Act, section 56B(3).

<sup>32</sup> WIC Act section 56B(4).

<sup>33</sup> WIC Act section 56B(4).

### 2.3.2 Responsibilities of an insolvency official

An insolvency official must take all reasonable steps to facilitate continuity of the essential services. If an insolvency official has been appointed for the failed licensee or for the whole or part of the property of the failed licensee, the insolvency official must:

- take all reasonable steps to facilitate compliance with the conditions of the operational approval and continuity of the provision of the essential services by the LRP,
- facilitate the provision of the essential services by the LRP,
- take action as required under the approved contingency plan,
- comply with reasonable directions given by the LRP, and
- comply with any direction given by the Minister designed to ensure compliance with the obligations of the insolvency official.

The insolvency official is protected from any liability arising out of complying with these directions, except to the extent that they have negligently caused loss, damage or injury.<sup>34</sup>

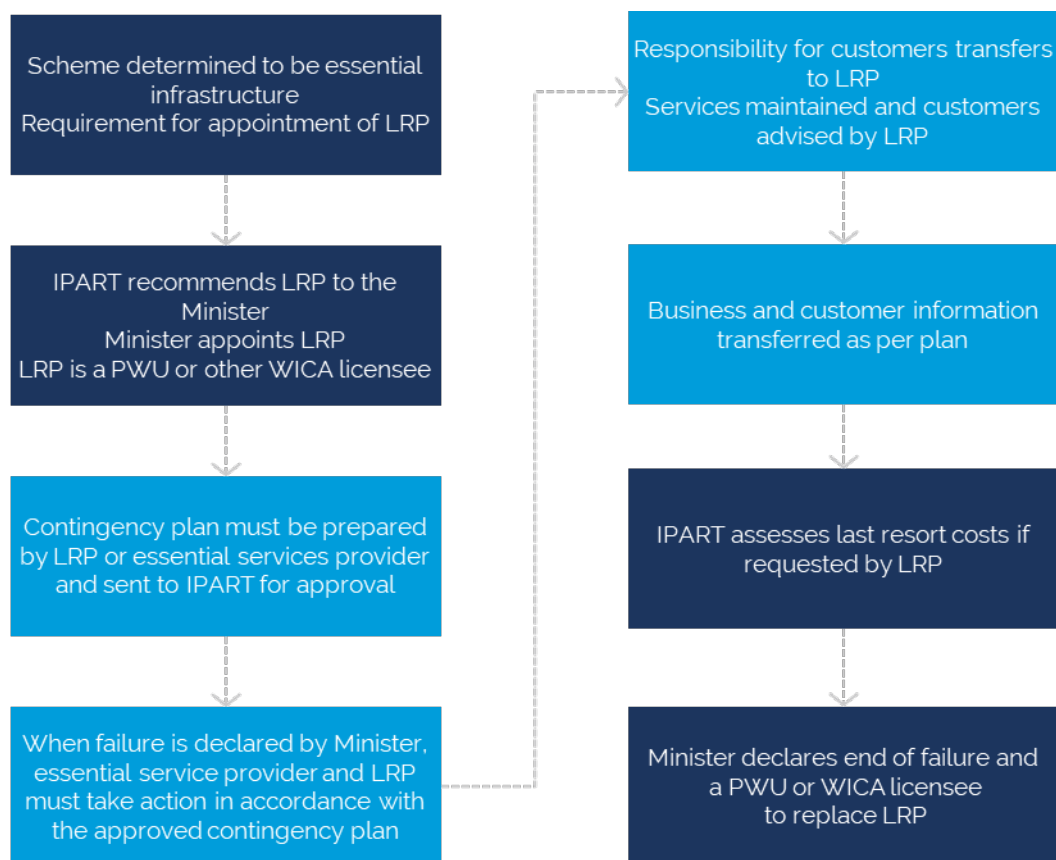
### 2.3.3 Timeline of a declared failure

**Figure 2** summarises the process of developing a contingency plan and the events when a scheme failure occurs.

---

<sup>34</sup> WIC Act, section 56G.

Figure 2 Contingency plan development and activation



Source: Frontier Economics and IPART.

### 2.3.4 Review and resolution of a declared failure

IPART will review a declared failure and make recommendations to the Minister about how the failure can be resolved as quickly as possible at least every 6 months during the declared failure. IPART will consult with the LRP, failed licensee and any other provider of the essential service when undertaking a review.<sup>35</sup>

The Minister can declare the end of a failure if the failure has been or is about to be resolved, including where the essential service is to be provided by another licensee or provided under a different legal framework (for example by a public water utility).<sup>36</sup>

<sup>35</sup> WIC Act, section 57.

<sup>36</sup> WIC Act, sections 57 to 57C.

### 2.3.5 Costs and liability for a Last Resort Provider

If a last resort event occurs, the LRP may apply to the Minister for cost recovery. The Minister may then direct IPART to assess the reasonable costs and expenses of the LRP. The Minister may also provide for a cost recovery scheme to recover costs from the failed licensee or related corporation, from an industry contribution fund or, with the consent of the Treasurer, from the Consolidated Fund.<sup>37</sup>

The LRP is also provided with immunity from, amongst other things, financial or other liability of a failed licensee accrued before the transfer date.<sup>38</sup>

---

<sup>37</sup> WIC Act, section 56F.

<sup>38</sup> WIC Act, section 56E.

### 3 Contingency plan contents

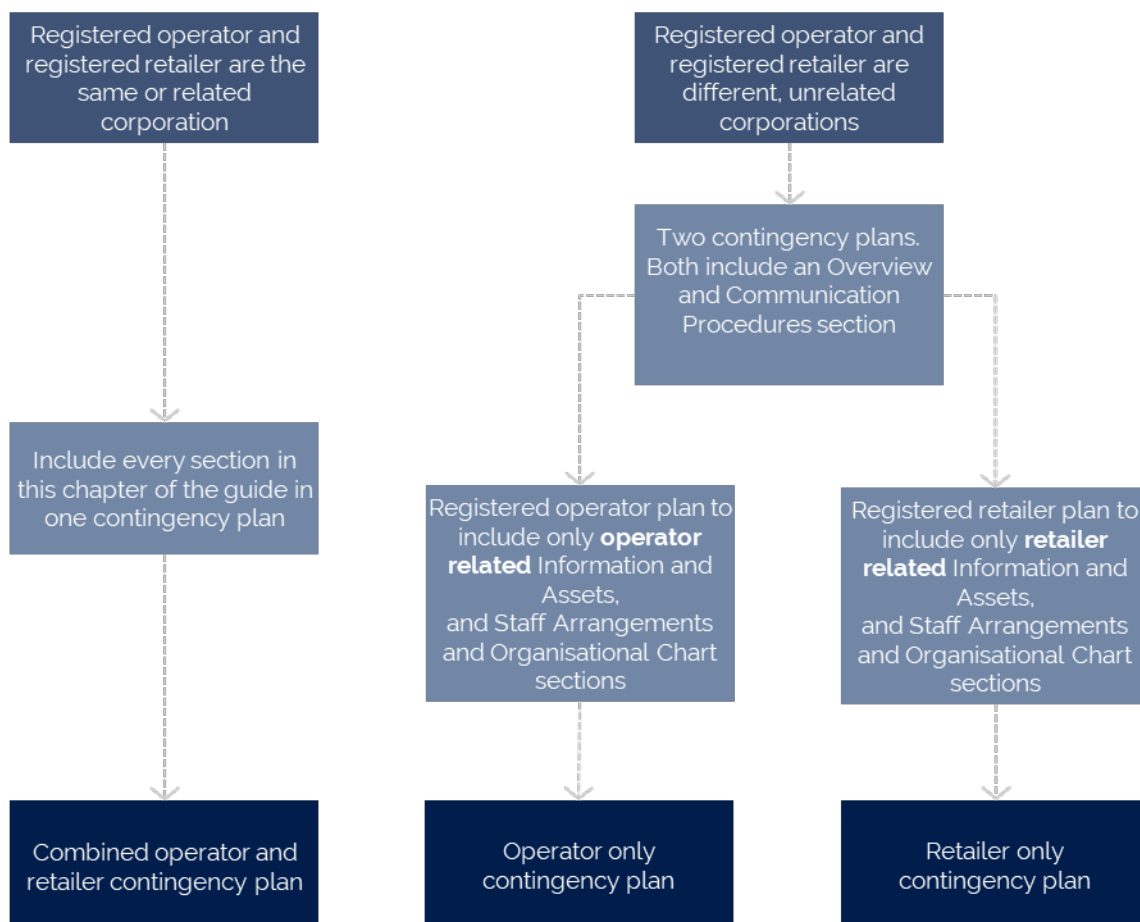
This chapter explains what information is to be included in the contingency plan and why. This chapter is to be used with the template on our website in developing a contingency plan.

The exact content of information to be covered in a contingency plan will depend on the complexity and scale of the scheme infrastructure and the type of the services being provided.

As discussed in section 2.2, if the registered operator and registered retailer are the same or related corporations then the contingency plan should cover both operational and retail activities involved in providing the essential services. If however, the registered operator and registered retailer are different and unrelated entities then 2 plans should be prepared.

**Figure 3** describes what to include in each type of contingency plan.

Figure 3 Contingency plan scenarios



As schemes vary widely in size, complexity and technology we consider the preparer of the contingency plan, with assistance from the scheme operator or retailer as required, is best placed to decide on the level of detail in the contingency plan. As a minimum however, the level of detail must allow an LRP to locate, access and operate the scheme's infrastructure and provide the essential services in the event of a declared failure.

Access to information may be provided through the primary or secondary contact or backup hardcopies or other means that adequately protects intellectual property and security of the scheme. The plan needs to set out the access arrangements at a sufficient level of detail that a technical expert can test the plan and an LRP can locate and use the detailed information in a last resort event.

**There is no requirement for a contingency plan to contain unnecessarily detailed, sensitive or proprietary information.**

There are 3 parts to a contingency plan:

- Part 1 must provide an **overview** of the scheme.
- Part 2 can take the form of a **directory** that lists and explains how to find and access critical information and systems.
- Part 3 must detail **communication procedures** to inform customers of the last resort event and keep authorities informed during the last resort event.

### Requirement of the WIC Act

If a last resort event is declared, then the failed licensee, the LRP and the insolvency official (if one is appointed) must take action as required by the approved contingency plan.<sup>39</sup>

## 3.1 Overview of the scheme

The Overview section in the contingency plan is to assist the LRP in basic planning for any last resort event. The purpose of the Overview is to provide a high-level introduction to the scheme and the operations, and key information describing the scheme. Examples of key information include the number of customers, website links to the scheme's Scheme Approval and Operational Approval instruments, and links to maps of areas of operations.

<sup>39</sup> WIC Act, section 56B(2)(b).



The essential service provider needs to nominate a primary and secondary contact person in the contingency plan. The contacts listed in the overview are the first point of contact for the LRP in a declared failure and contact details must be kept up to date. The contact persons should be officers of the corporation who are authorised to provide the LRP, or to assist the insolvency official to provide the LRP, with access to the essential service provider's assets, systems and documentation. The essential service provider will need to provide contact details for the contact person that will be effective in a last resort event (i.e., a general phone number for the business would not be sufficient).

The overview **must** be set out in the contingency plan document itself.<sup>40</sup> We recommend the overview include the information in **Table 1**. This includes a process flow diagram (PFD) that is sufficiently detailed to provide an understanding of the scheme's infrastructure and services.

Table 1 Items to include in the scheme overview

Item
Name of scheme providing the essential services covered by the contingency plan
Name of scheme registered operator
<ul style="list-style-type: none"> <li>Appointed primary contact and contact details of registered operator</li> <li>Appointed secondary contact and contact details of registered operator</li> </ul>
Name of scheme registered retailer
<ul style="list-style-type: none"> <li>Appointed primary contact and contact details of registered retailer</li> <li>Appointed secondary contact and contact details of registered retailer</li> </ul>
Name of the owner of the essential infrastructure
<ul style="list-style-type: none"> <li>Appointed primary contact and contact details of the owner of the essential infrastructure</li> <li>Appointed secondary contact and contact details of the owner of the essential infrastructure</li> </ul>
Name of designated Last Resort Provider for the scheme
<ul style="list-style-type: none"> <li>Appointed primary contact and contact details of designated Last Resort Provider for the scheme</li> <li>Appointed secondary contact and contact details of designated Last Resort Provider for the scheme</li> </ul>
Identification numbers of licences and approvals that relate to the scheme
A description of the essential services being provided (e.g. drinking water, recycled water, non-potable water, sewerage services)
A description of the essential infrastructure required to maintain the essential services, and any other infrastructure operated by third parties to which the services are connected, required to maintain services to customers if there is a declared failure. This description should include a process flow diagram illustrating the scheme's operations and connections with other water infrastructure.
The scale of the infrastructure, i.e. the same as, and referring to, the design capacity of the infrastructure from the Scheme Approval for the scheme
<p>A description of the customers receiving the essential services, for example:</p> <ul style="list-style-type: none"> <li>identification and description of the various customer categories/types (e.g. residential, commercial, industrial, bulk)</li> <li>whether customers with critical health needs have been identified.</li> </ul>

<sup>40</sup> WIC Reg, section 39(1).

### 3.1.1 Process Flow Diagram

The process flow diagram (PFD) included in the contingency plan need not include confidential or commercially sensitive information. We note that a PFD is required with any new scheme approval application (or, for existing schemes, was provided with the licence application) and is made available to the public for the purpose of inviting submissions on the application. This level of PFD may be suitable for the contingency plan.

**An example PFD and checklist of requirements for a process flow diagram is included in Appendix B.**

In a last resort event, the LRP may need access to more detailed PFDs and piping and instrumentation diagrams (P&IDs), and the contingency plan should provide arrangements for LRPs to access these documents. An example of the more detailed PFD or P&ID information to be provided through access arrangements is set out in **Appendix C**.

## 3.2 Actions and responsibilities under this plan

The 'Actions and responsibilities under this plan' section of the contingency plan (i.e., Section 2 of the template) details the actions that must be undertaken by, and responsibilities of, the essential service provider (or 'failed licensee' once the failure is declared), LRP and any insolvency official under the plan. The wording of this section is generic across all contingency plans and across all schemes. This section can be modified and have additional actions added; however, the existing wording of this section should only be changed where necessary because a scheme has exceptional circumstances.

## 3.3 Directory of Information and Systems

A contingency plan must direct the LRP to the information and systems that will be reasonably required by a LRP to continue to provide the essential service and explain how to access the information and systems.<sup>41</sup>

The essential service provider must ensure that, in a last resort event, at least 2 contact persons are made available to facilitate access to the information in the Directory of Information and Systems, as well as software systems including the SCADA and billing systems. These are the contacts provided by the registered operator and registered retailer in the plan's Overview section.

---

<sup>41</sup> WIC Reg, section 39(2)(a).

### ! Required action

In a declared failure, the essential service provider or insolvency official (if one is appointed) must provide the LRP with access to the information, systems, contracts, procedures and plans as detailed in the directory of the contingency plan for the purposes of providing the essential service.

## 3.3.1 System management plans, documents and procedures

### i For a retailer only contingency plan

The operational and maintenance manual will generally not be included if preparing a retailer only contingency plan.

### Critical systems documentation

The contingency plan must include details of how to locate and access the documentation and systems relevant to the scheme. Access may be provided through the primary or secondary contact or backup hardcopies or other means that adequately protects intellectual property and security of the scheme. The plan needs to set out the access arrangements at a sufficient level of detail that a technical expert can test the plan and an LRP can locate and use the detailed information in a last resort event.

We have provided comprehensive examples of documentation in **Table 2** and an example of a section of a directory in **Box 1**. The plan should set out the access arrangements at a sufficient level of detail that a technical expert can test the plan and an LRP can locate and use the detailed information in a last resort event.

The items in **Table 2** are examples only. Documentary requirements will vary depending on the size, complexity and type of scheme. As a guide to what should be included, the information must facilitate and allow the LRP to continue to provide the essential service without assistance from the failed licensee.

Table 2 Documentation and systems for any scheme

Item	Purpose and description
Operations and Maintenance Manual	The Operations and Maintenance Manual (O&M Manual) may include some or all of this documentation. The O&M Manual is the basic set of documents and systems used to operate the scheme and train operators. An example Table of Contents for an O&M Manual is provided in <b>Appendix A</b> .
Standard Operating Procedures (SOPs)	Ensure that safe work practices and consistent operation of equipment and systems are implemented and followed by staff. SOPs should set out precautionary safety steps, describe start-up and shutdown procedures and set out the routines for monitoring of equipment.
Unit Process Control Procedures (UPCs)	A road map of operations and key performance parameters.

Item	Purpose and description
	UPCs assist operator and maintenance personnel to make informed decisions to operate systems correctly.
SCADA system documentation and emergency recovery	Information regarding manual operation and emergency recovery of the SCADA system must be readily available in a declared failure and the contingency plan must identify how that information would be made available. This should include proprietary information, supplier details and a general description of the system including software, networks, hardware and access arrangements.
Sampling plan	The sampling plan used for the scheme. A basic plan includes sampling locations and a map. For larger more complex schemes the sampling plan is expected to detail parameters to be sampled at each location, sampling frequency, sampling methods to be used, chain of custody techniques, and preservation procedures.
Data management / Database connected to the sampling plan	This database is usually the foundation for regulatory reporting, process control, and standard and custom reports (e.g. management reports). This information should include each sampling point and associated parameters that are used for tracking processes (incl compliance points) and calculations. It may also include onsite laboratory analysis, online instrumentation data that is either manually entered or imported from SCADA.
Operator Data Sheets or Daily Round Sheets.	Daily round sheets consist of readings, observations and preventive maintenance tasks that will typically identify potential upsets or problems with equipment before anything happens. These documents allow operators to make any necessary process adjustments or create maintenance work orders to proactively correct a maintenance item. In addition, daily round sheets identify general housekeeping actions for keeping the facility safe and clean for all staff and potential visitors to the site.
Water Quality Management System and/or the Sewage Management Plan or System, as applicable	LRP needs to access these documents to operate the infrastructure safely and/or supply water that is fit for purpose.
Infrastructure Operating Plan or Asset management Plan or System	Guides the asset repair and replacement process. May take the form of documentation or system of documentation.
Computerized Maintenance Management System (CMMS)	Stores results of continuous maintenance program and drives annual repair and replacement planning. Is software that has the maintenance business process and workflow mapping. Data already in the CMMS should be retained for the LRP to access.
Condition assessment and asset registry that includes the latest condition assessments and asset risk assessments	Asset risk is used as a tool to assist in the prioritization of repair, rehabilitation, and replacement decisions. Using condition assessment results, risk scores should have been assigned to process areas and assets.
Asset Renewal/Replacement Plan	An Asset Renewal/Replacement Plan is based on condition and risk assessments. A schedule of needs is prepared (i.e. a Renewal/Replacement Plan); coupled with any long-term investment plan to service the scheme.
Repair and Replacement Plan (R&R Plan)	Used in ensuring the continued operation of the scheme's infrastructure. Includes routine preventive, corrective and predictive maintenance schedule procedures; including Inspection procedures and maintenance recordkeeping process.
Spare parts inventory	Will assist the LRP in meeting the maintenance, renewal and replacement needs of the scheme infrastructure.
Safety and Security Plan (or equivalent)	If this exists, it will help the LRP ensure the physical and cybersecurity of the scheme.
PIRMP - pollution incident response (management plan) or equivalent.	Provides a history of major site incidents and any preventative measures.

Item	Purpose and description
Process Control Strategy	Generally only expected in larger more complex schemes, that provide more than sewerage services only. Will help the LRP ensure the treatment processes operate efficiently and effectively, and should consider the design of the facility, influent/effluent characteristics, expected mass flow rates and any EPL (for sewage effluent discharge), end-use requirement (for recycled water) or drinking water quality requirement, as appropriate.
Piping and Instrumentation Diagrams	Should cover entire site and be more detailed than the process flow diagram described in the Overview of the scheme, for example, details of the location of isolation valves in reticulation networks.
Delineation of scheme responsibilities	Provides clear delineation of the scheme's responsibilities. For example, who is responsible for on-property pressure sewer pump wells.
Emergency Response Plans (ERP)	Outlines the procedures and protocols to be followed in the event of an unforeseen incident, such as a fire, natural disaster, chemical spill, or security threat. The ERP should include clear evacuation routes, assembly points, and communication systems and designate roles for key personnel (e.g., emergency coordinators, safety officers, and first aid officers). The ERP should include contact details for relevant emergency services.
ISO 9001 compliance documents	ISO 9000 compliance documents outline the practices, principles, and guidelines in place that support the licensee's Quality Management System (QMS). The documents include guidelines on QMS implementation, documentation, and internal audit activities and support ISO 9000 certification.
Enterprise risk management (ERM) frameworks, risk assessments, business impact assessments (BIA), or contingency plans for specific critical assets	These documents can assist the LRP to identify, prioritise, and manage risks during a last resort event. A BIA would help the LRP to clarify the impact of disruptions on critical business functions, while asset-specific contingency plans assist focused and efficient responses.
Diagrams	Diagrams that support the O&M Manual. For example, the location of CCPs in the treatment plant.

The O&M Manual and other critical systems and documentation may be available in both digital and paper (hardcopy) format. We recommend providing details of how to locate and access both the digital and hardcopy format, as hardcopy format is generally available on most sites and can be more readily accessed than digital format.

### Box 1 Example of directory section from a Contingency Plan

The table below is an example of a section the directory in a Contingency Plan:

Section	Document Number	Description	Access arrangements Digital location	Access arrangements Hardcopy location
Section 2		<b>Operating Manual</b>		
	2.1	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Controls Overview</li> <li>• Automatic Operation</li> <li>• Manual Operation</li> </ul>	Electronic documentation is stored in secure cloud storage. See registered scheme operator primary or secondary contact for instructions on accessing online documentation for the O&M Manual.	Hardcopy documentation is stored in compactus located in the scheme onsite central administration building at 1147 Rock Wallaby Road, Fountaingate NSW.
	2.2	Inspections, Tests and Adjustments	See registered scheme operator primary or secondary contact for access.	Hardcopy inspection logs stored in locked document cabinet in onsite control room building at 1147 Rock Wallaby Road, Fountaingate NSW. See registered scheme operator primary or secondary contact for lock combination.

### 3.3.2 Software and systems access

Similar to the O&M Manual, we recommend providing details of how to locate and access software and systems access documentation in both digital and hardcopy format (if available). An example of documentation is in **Box 2**.

Electronic systems are usually licensed and protected with passwords and other access controls. This includes any of the scheme operator's corporate proprietary systems. Examples include systems such as the SCADA, GIS, and asset management software.

The contingency plan must include contact details for a primary and secondary contact person who can provide access to information systems, software providers, and information in proprietary systems.

Access may be provided through the primary or secondary contact or backup hardcopies or other means that adequately protects intellectual property and security of the scheme.

Access provided through the primary or secondary contact, backup hardcopies or other means should adequately protect intellectual property and security of the scheme. For example, the plan should not expose the scheme to cyber security risk (i.e. not identify system architecture or vulnerabilities). However, the plan needs to set out the access arrangements at a sufficient level of detail that a technical expert can test the plan and an LRP can locate and use the detailed information in a last resort event.

### Box 2 Example of SCADA documentation

The table below is an example of the SCADA information that could be included in the contingency plan:

System	Access arrangements Digital location	Access arrangements Hardcopy documentation
SCADA system for treatment plant A	Electronic documentation is stored in secure cloud storage. See registered scheme operator primary or secondary contact for instructions on accessing online documentation for SCADA system.	Hardcopy SCADA recovery documentation is stored in secure compactus located in the scheme onsite central administration building at 1147 Rock Wallaby Road, Fountaingate NSW. See registered scheme operator primary or secondary contact for access codes.

In this example the LRP can contact the primary or secondary contact person for the registered scheme operator to access the digital documentation or access the hardcopy documentation at the nominated site address. The documentation to which the contingency plan refers the LRP should include instructions on how to log in and recover the SCADA system.

Examples of what SCADA documentation the plan may refer the LRP to are contained in **Appendix D**.

### 3.3.3 Critical accounts, agreements and insurance

This section directs the LRP on how to access agreements critical to maintaining the operation of the scheme and provision of the essential services. The contingency plan does not need to individually list the agreements. However, the contingency plan should identify where a register or list of critical accounts, agreements and insurance is held, and the register should facilitate the LRP to access all of the agreements..

Access may be provided through the primary or secondary contact or backup hardcopies or other means that adequately protects intellectual property and security of the scheme. The plan needs to set out the access arrangements at a sufficient level of detail that a technical expert can test the plan and an LRP can locate and use the detailed information in a last resort event.

Examples of agreements include:

- Supplier accounts, that is accounts that are critical to the continuation of services. Examples include electricity, water, waste, maintenance, chemicals and other critical service providers.
- Contracts or agreements with third parties, for example liens on assets, bulk supply agreements or any other agreement that may impact the continuation of essential services.
- Easements or other arrangements concerning access to the land the infrastructure is located on.
- Insurance policies.

### 3.3.4 Staff Arrangements and Organisational Chart

In a last resort event, the LRP will likely want to depend on the essential service provider's staff knowledge to operate the scheme or retail the scheme services. A contingency plan must include arrangements under which the staff of the essential service provider may assist the LRP in continuing to operate the essential infrastructure and provide the essential services.<sup>42</sup>

These arrangements may include providing information to staff on what would occur in a last resort event, including that they can be paid by the insolvency official or LRP to assist in the continued operation of the scheme and provision of services. If staff are made aware of the contingency plan, and what they may expect in a last resort event, then their uncertainty is reduced and the likelihood of cooperation with the LRP is increased.

This section should guide the LRP to information about scheme personnel and include:

- arrangements in place with staff to provide assistance to the LRP during a last resort event, including:
  - information provided to staff to explain their role in a last resort event and how they can assist the LRP
  - access to payroll information to enable an insolvency official or the LRP to continue to pay staff for services provided during the last resort event
  - contractual or other arrangements in place necessary to enable staff to assist the LRP during a last resort event.
- the essential service provider's internal organisation chart, showing key roles and responsibilities of the relevant staff operating the essential infrastructure or providing the essential services
- staff contact details
- staff skills and qualifications
- contractor/subcontractor details.

This section needs to set out the information or the arrangements to access the information at a sufficient level of detail that a technical expert can test the plan and an LRP can locate and use the detailed information in a last resort event.

---

<sup>42</sup> WIC Reg, section 39(2)(c).



### 3.3.5 Customer information

#### For an operator only contingency plan

Customer related information will generally not be included if preparing an operator only contingency plan.<sup>43</sup>

The customer information section directs the LRP on how to access the information needed, and actions the LRP must take, to ensure minimal interruption to services and inform customers of their rights and obligations.

The essential service provider must establish and maintain privacy policies and practices that lawfully enable customer information to be provided to and used by the LRP in connection with a declared failure or last resort contingency planning. This includes another licensee who is substituted as the registered operator for the scheme when the last resort event has ended.<sup>44</sup>

#### Required action

The essential service provider/s or insolvency official (if one is appointed) must ensure that the LRP can access customer information in the event of the Minister declaring a failure. This requires the essential service provider/s to establish and maintain privacy policies and practices that lawfully enable customer information, including personal information under the [Privacy and Personal Information Protection Act 1998](#) and health information under the [Health Records and Information Privacy Act 2002](#) in connection with the provision of the essential services of the scheme, to be transferred to the LRP in a last resort.<sup>45</sup>

### Customer data

The contingency plan must direct the LRP on how to access customer information.<sup>46</sup> This could be through the nominated contacts. The plan needs to set out the information or the arrangements to access the information at a sufficient level of detail that a technical expert can test the plan and an LRP can locate and use the detailed information in a last resort event.

<sup>43</sup> Where the registered operator and retailer are not the same entity, [section 8H\(1\)\(h\)\(ii\) of the WIC Act](#) requires the operator and retailer to have an agreement specifying respective responsibilities, including who will notify customers. Depending on the responsibilities that lie with the operator, the contingency plan for the operator may still need a customer information section.

<sup>44</sup> Under the essential service provider's licence conditions. See [WIC Act, sections 8H and 8I](#).

<sup>45</sup> [WIC Act, section 56B\(3\)\(a\)](#).

<sup>46</sup> [WIC Reg, section 39\(1\)\(b\)](#).

The plan must also identify whether, during a last resort event, the LRP will need to manage the failed licensee's customer billing system, or if customers will be moved to the LRP's billing system. For example, if the billing system is electronically linked to the scheme's metering data, the LRP might have to operate the essential service provider's system. If this isn't the case, the LRP may only need to import customer data into its own billing system.

In either case the customer information provided to the LRP must include the following:

- billing addresses and customer contact details
- information about customers, or persons living at the customer's property with critical health needs (e.g. dialysis patients), and
- information about customers with payment difficulties or special payment arrangements and other special needs such as family violence or security related privacy requirements.<sup>47</sup>

We also recommend customer information include the following billing details for each customer:

- address of the serviced property
- type of property (e.g., house, multiple occupancy, commercial) and any other attributes such as sewer discharge factor (for non-residential); trade waste agreements, or number of units (multiple occupancy)
- meter size, type, number, and location
- services provided
- payment/automatic payment details
- tariffs and special charges
- rebates, allowances and pension concession details
- account balance and usage
- if the customer operates critical infrastructure, for example, a hospital requiring a minimum daily volume of water, or a community hall used for emergency retreat; and how these customers will be prioritised in the event of a failure.

Where the customers of the scheme are subject to a modified deemed customer contract or excluded from the deemed customer contract, this should be noted in the contingency plan and information on how to access the modified or applicable customer contract should be provided.

---

<sup>47</sup> WIC Reg, section 39(4).

## Customer Information Transfer

### ⓘ Required action

Once the Minister declares a failure, the essential service provider/s or insolvency official (if one is appointed) must provide all necessary access and assistance to transfer the customers of the scheme to the LRP by the transfer date specified by the Minister in the declaration, such that customers can continue to receive and be billed for the essential services.

The plan should direct the LRP on actions required by the failed licensee, or an administrator acting for the failed licensee, to transfer customer information, ensuring minimal interruption to services.<sup>48</sup> This should include where to locate and access the information and details of the information storage system (e.g. Xero, QuickBooks, Sage Cloud, etc.).<sup>49</sup> This could be, for example, through the nominated contacts.

## Last resort contract charges and conditions

The contingency plan must set out what terms and conditions apply during a last resort event.

Last resort contract charges and last resort contract conditions are defined in section 56C of the WIC Act:

- **last resort contract charges** means a transfer fee not exceeding an amount determined by the Minister on the recommendation of IPART, and the standard contract charges within the meaning of Part 5, Division 1AA of the failed licensee.
- **last resort contract conditions** means—
  - (a) the terms and conditions that would have applied if the service were provided by the failed licensee, or
  - (b) if, for a LRP that is a public water utility, the contingency plan identifies terms and conditions as standard contract conditions of the utility—the standard contract conditions of the utility as identified in the contingency plan.

If the LRP is a public water utility (PWU), and the PWU would like terms and conditions of its standard contract to apply during a last resort event, instead of the failed licensee's terms and conditions, this must be identified in the contingency plan.<sup>50</sup>

<sup>48</sup> WIC Reg, section 39(2)(b).

<sup>49</sup> The LRP may have access to customer data, including personal and health information as reasonably required to provide the essential service. It is a condition of an essential service provider's operator licence and retailer licence that the essential service provider establishes and maintains privacy policies and practices that lawfully enable customer information to be provided to and used by an LRP. See sections 56B, 8H(1)(g) and 8I(1)(d) of the WIC Act.

<sup>50</sup> WIC Reg, section 39(2)(g).

The contingency plan must clearly identify which terms and conditions of the PWU's standard contract conditions are to apply to customers of the scheme. If the PWU's standard contract conditions are not identified, then the terms and conditions of the failed licensee will continue to apply. The failed licensee's terms and conditions will normally be those in the deemed customer contract as set out in Schedule 4 of the WIC Reg, unless the failed licensee has obtained IPART's approval to modify or exclude the deemed customer contract.

This section can also include any arrangements the LRP can use to contact customers, such as CRM system bulk email capabilities.

## 3.4 Communication Procedures

### 3.4.1 Informing customers

#### Required action

The LRP must give the information outlined in this section to customers with the bill first required to be sent to the customer after the declared failure.

This section of the plan describes and directs the LRP to the information required to be sent to customers. This information includes:

- details of the declared failure
- a description of the role of the LRP
- the contact details of the LRP
- the contact details of the approved ombudsman scheme (i.e. EWON)
- whether the terms and conditions of the essential service provider for the scheme will continue or, where the terms and conditions of the LRP utility will replace the terms and conditions of the failed essential service provider, what the new terms and conditions are or where they can be accessed.<sup>51</sup>
- the last resort contract charges (i.e. standard contract charges and transfer charges).<sup>52</sup>

To better facilitate accurate and timely communication with customers in a last resort event, we recommend the contingency plan includes preprepared information fact sheets for customers, explaining what they should expect when the LRP steps in.

<sup>51</sup> An essential service provider's standard customer contract is provided on the licensee's website.

<sup>52</sup> [WIC Reg, section 39\(2\)\(f\)](#) and [WIC Act, section 56C](#).

### 3.4.2 Informing IPART and the Ombudsman

#### ! Required action

The LRP must provide these updates to the Ombudsman (i.e. EWON) and IPART.

A contingency plan must include procedures for providing updates to the Ombudsman and IPART during a last resort event. The WIC Reg requires the contingency plan to include both:

- procedures for notifying the Ombudsman appointed under an approved ombudsman scheme and IPART when the information, including customer information, has been transferred to the LRP, and
- the timing and content of written updates to IPART on the implementation of the contingency plan.<sup>53</sup>

The contingency plan should include the following requirements for updates to be provided to IPART. IPART should be provided with monthly written updates from the LRP on their progress with implementing the contingency plan that must include, as a minimum, information that identifies any problems in relation to:

- accessing information and systems
- operating infrastructure or maintaining the essential services, and
- obtaining access to skilled personnel to operate the infrastructure or maintain the essential services.

Monthly reports can be made via email to [compliance@ipart.nsw.gov.au](mailto:compliance@ipart.nsw.gov.au).

## 3.5 Alternative options for providing essential services

In a last resort event, the LRP is authorised to step in and operate the scheme's infrastructure to provide the essential services. The contingency plan enables the LRP to access and operate all necessary systems and infrastructure in order to do so, as well as to service the scheme's customers. As schemes are regularly audited by IPART, our expectation is that the infrastructure would be adequately maintained and operable.

However, it is possible that operation of the scheme's infrastructure by the LRP is not immediately possible or possible in the short to longer-term. In this event, it may be necessary to implement temporary or longer-term alternatives to maintain essential services to the scheme's customers. For example, it may not be possible to operate the infrastructure if repairs are needed or the specifications for recycled water quality cannot be met immediately.

<sup>53</sup> [WIC Reg, sections 39\(2\)\(d\) and \(e\)](#).

The available alternative options will depend on the particular circumstances of the scheme. For example, at some schemes it may be possible to divert sewage into the public water utility or LRPs sewer or to supply potable water top-up through the treatment plant on a temporary or longer-term basis. Another alternative may be pump-out and tankering of sewage for disposal elsewhere and tankering potable water into the community.

The plan may provide any viable options for providing essential services other than operating the essential infrastructure.

### Box 3 Example of alternative options

The table below provide details of options for providing essential services where operation of the essential infrastructure is not possible in the short or longer term.

Table 3 Information

Name of alternative action	Description of alternative action	Where to access documentation
Diversion of sewage to Public Water Utility sewer	Sewage from the scheme can be diverted to Capital City Water's sewerage infrastructure. Diversion of sewage can be controlled by the SCADA system.	See Document number S398 of Emergency Response Plan. Electronic documentation is stored in secure cloud storage. See registered scheme operator primary or secondary contact for instructions on accessing online documentation for SCADA system.
Supply of drinking water as temporary substitute for recycled water	Supply of drinking water from Capital City Water to the scheme can be substituted for the schemes recycled water on a short-term/emergency back-up basis. A spool located at the plant must be installed and the supply of recycled water must be shut down by deactivating recycled water pumps.	See Document number S399 of Emergency Response Plan. Spool is located in the Plant main building parts inventory room. The installation guide is in documentation and installation time is approximately 2-3 hours. See registered scheme operator primary or secondary contact for instructions on accessing online documentation.
Pump-out of sewage	Sewage can be pumped from on-site storage tanks for tankering to the Regional Council treatment facility. Average quantity of sewage is 5kL/day and estimated trucking would be required every 5 days. An existing contract exists for emergency trucking with Plop Sewage Trucking Services Pty Ltd and a disposal agreement with Regional Council.	See Document number 57 of Emergency Response Plan. Electronic documentation is stored in secure cloud storage. See registered scheme operator primary or secondary contact for access to Emergency Response Plan.

## 3.6 How to use the template

A template is available in Word format on our website. The template provides a guide to the structure of a contingency plan. The contents of the template should be guided by this document and by what type (i.e. combined, operator or retailer) of contingency plan is needed.

# Appendices

---



# A Operations and maintenance manual

The Operations and Maintenance Manual (O&M Manual) is the basic set of documents and systems used to operate the scheme and train operators. Examples of the documents that are commonly included in the O&M manual are provided in **Table A.1**.

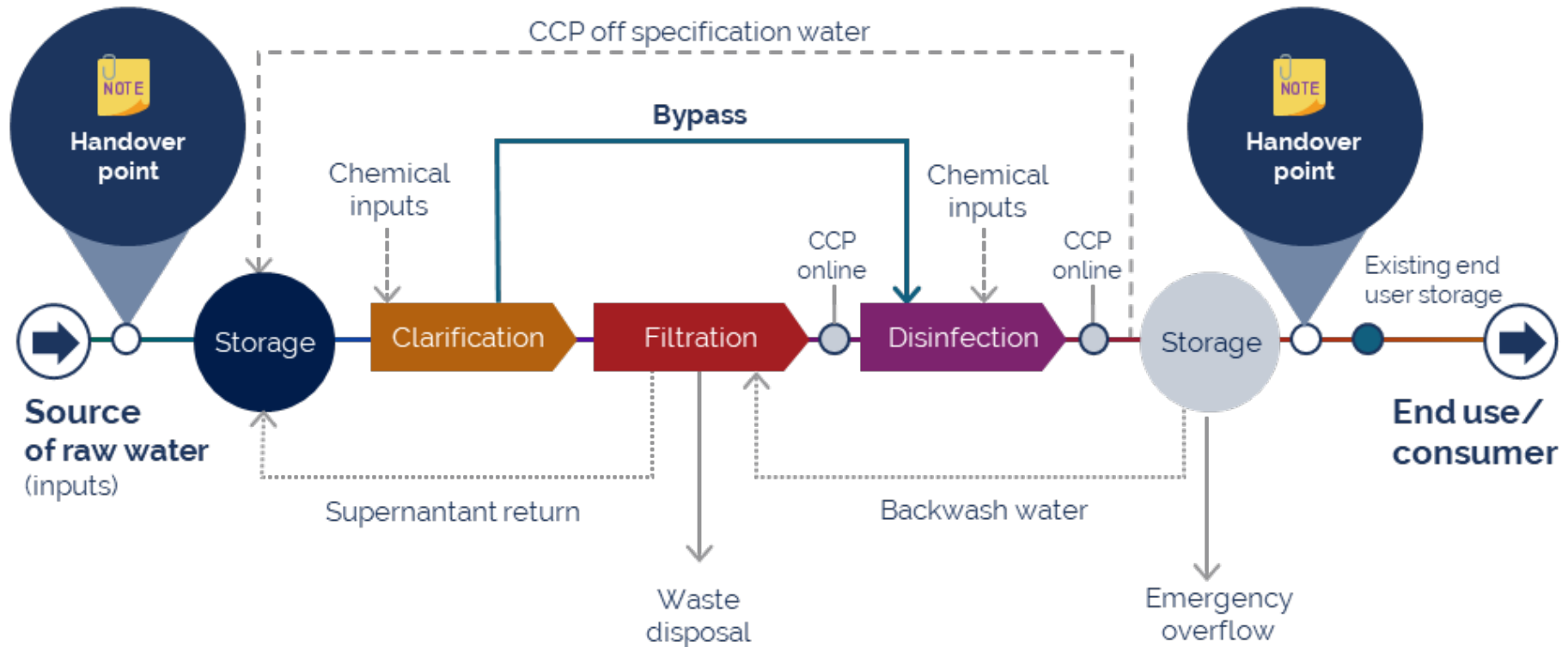
Table A.1 Example table of contents for an O&M Manual

Section	Number	Description
<b>Section 1</b>		<b>Overview</b>
<b>Section 2</b>		<b>Operating Manual</b>
	2.1	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Controls Overview</li> <li>• Automatic Operation</li> <li>• Manual Operation</li> </ul>
	2.2	Inspections, Tests and Adjustments
	2.3	Operating Parameters
	2.4	PLC, HMI and SCADA Programs <ul style="list-style-type: none"> <li>• Controls Functional Description (FD or FDS)</li> <li>• PLC and HMI Diagrams</li> <li>• Emergency recovery process</li> </ul>
	2.5	Data Storage and Retrieval
	2.6	High Voltage Switching Plan
	2.7	Isolation Plan
	2.8	Contingency Operation
	2.9	Troubleshooting
<b>Section 3</b>		<b>Maintenance Manual</b>
	3.1	Maintenance Schedules
	3.2	Special Maintenance Activities
	3.3	Critical Spares
	3.4	Consumables
	3.5	Special Tools
	3.6	Suppliers and Service Providers
<b>Appendices</b>		<b>Appendix</b>
	A	Drawings
	B	Warranties
	C	Instrument and Equipment List
	D	Test Results and Manufacturers Data Reports
	E	Manufacturer/Supplier Literature
	F	Training
	G	Work Health and Safety and Environmental File
	H	High Voltage Switching Plan(s)
	I	Isolation Plan(s)
	J	Statutory Compliance Certificate(s)
	K	PLC, HMI and SCADA
	L	Delineation of scheme responsibilities
	M	Emergency Response Plans (ERP)

Section	Number	Description
	N	ISO 9001 compliance documents
	O	Enterprise risk management (ERM) frameworks, risk assessments, business impact assessments (BIA), or contingency plans for specific critical assets
	P	Diagrams

## B Process Flow Diagram checklist

Figure B.1 Process Flow Diagram and checklist



Sources:	Treatment Process:	End Use / Consumer:	General:
<input type="checkbox"/> Water source	<input type="checkbox"/> Flow direction	<input type="checkbox"/> End uses / consumers	<input type="checkbox"/> Appropriate document control
<input type="checkbox"/> Catchment	<input type="checkbox"/> All treatment processes	<input type="checkbox"/> End use barriers	<input type="checkbox"/> Process flow diagram has been verified onsite by those with specific knowledge of the system
<input type="checkbox"/> Catchment inputs	<input type="checkbox"/> System inputs (rainwater, stormwater, chemicals, etc.)	<input type="checkbox"/> Existing infrastructure	
<input type="checkbox"/> Existing infrastructure	<input type="checkbox"/> Sources of water for backwash	<input type="checkbox"/> End user storages	
<input type="checkbox"/> Handover points (e.g., water allocation license or agreement with other party)	<input type="checkbox"/> Supernatant return	<input type="checkbox"/> Environmentally sensitive areas	
	<input type="checkbox"/> Critical control points (CCP) monitoring points	<input type="checkbox"/> Handover point/s (asset ownership, maintenance, operations, water quality, water quantity) e.g., agreement with other party	
	<input type="checkbox"/> CCP off-specification water		
	<input type="checkbox"/> Online monitoring		
	<input type="checkbox"/> Waste disposal		
	<input type="checkbox"/> Emergency overflow		
	<input type="checkbox"/> Pumps		
	<input type="checkbox"/> Existing infrastructure		

## C Detailed PFDs and P&ID

In a last resort event, the LRP may need access to more detailed PFDs and piping and instrumentation diagrams (P&IDs), and the contingency plan should provide arrangements for LRPs to access these documents.

More detailed PFDs or P&IDs may be needed to provide details of the following:

- a supply system overview showing source water, treatment, handover points, water storage tanks and distribution network
- a diagram of the reticulation network (i.e. not just the treatment plant), showing clear water tanks/storage tanks, any re-chlorinators, pumps, valves, bypasses and other infrastructure, verification sampling locations
- a diagram showing critical control points (CCPs) and instrumentation monitoring the CCPs, if applicable (or a location/name of a specific document where the above can be accessed)
- key process chemicals
- connection points with other infrastructure
- pathways for managing by-products (e.g., disposal to landfill or other)
- the typical arrangement of on-lot assets, and
- the number and location of emergency relief overflow structures within the network.

## D Example SCADA documentation

**Table D.1** is an example of the types of SCADA related documents that, in a last resort event, the contingency plan may provide access arrangements for the LRP to locate online or onsite.

Table D.1 Example SCADA documentation (not for contingency plan document)

### Example SCADA documentation kept in digital or hardcopy format

#### SCADA and HMI systems:

- Manuals, maintenance information, operating guides, and design documents
- List of all SCADA/Control system software, including license details and contact details for vendor account managers
- All system software installation files, hardware, and cloud access information
- List of SCADA assets/infrastructure, servers, client terminals, etc., and their locations
- SCADA communications/networking drawings
- Log details for all SCADA terminals/computers (Windows and installed apps), including administrator access where applicable to support the systems
- Procedures on how to connect to SCADA and any programmable control system devices
- List of telemetry devices used to communicate to and/or from SCADA
- Contact details for contractors engaged or able to provide local support to the SCADA/control systems equipment
- Details to remotely connect to control systems to enable remote monitoring

#### Automation/Control System:

- List of automation equipment
- Configuration files/PLC source code/related passwords
- Electrical drawings and design documents
- List of software required to configure PLC/control equipment/programmable devices
- Transfer of any licensed automation software
- List of sites where automation and control equipment is installed
- Historical data from SCADA systems or log files
- Details of contractors used to build/maintain/operate SCADA/telemetry/automation systems

#### Electrical Engineering:

- Drawings of general arrangements, single line drawings, schematics, and process drawings
- Equipment lists including make/model of significant equipment
- Manuals, maintenance information, operating guides, design documents including recent maintenance history for electrical equipment
- Operating protocol for high voltage connections
- Hazardous area dossiers for sites with hazardous areas

#### Operational Information:

- CMMS including equipment register and hierarchy, asset information including nameplate details
- Asset/maintenance plans including task instructions, maintenance history

**Example SCADA documentation kept in digital or hardcopy format**

- Design documents
- Spare parts inventory specifying critical spares

**GIS:**

- Access to vendor GIS system if available and/or GIS data sets for all assets
- Work As Constructed documents including install date for assets (pipes, fittings, manholes, pump stations, etc.)
- Certificates of completion if available
- Survey files including DWGs/asset coordinates

**Drawings & Documents:**

- Electrical, civil, mechanical, piping, and instrumentation (P&IDs) drawings in native (.DWG) and/or PDF format

**Water Sampling:**

- Water quality and recycled water quality data essential for maintaining public health and critical customer needs
- LIMS software, including access, testing, user guides, and customer service contracts
- Water quality results databases/data lakes
- Sampling/testing field software
- Document control software

**Digital Services & Technology:**

- Backup and recovery procedures including detailed steps for data backup and recovery
- Frequency and types of backups (full, incremental, differential)
- Offsite storage locations for backups

**IT Infrastructure and Cybersecurity:**

- Existing cybersecurity measures and protocols.

**IT Disaster Recovery Plan:**

- Recovery time objectives (RTO) and recovery point objectives (RPO)
- Procedures for restoring IT systems and data.

© Independent Pricing and Regulatory Tribunal (2024).

With the exception of any:

- a. coat of arms, logo, trade mark or other branding;
- b. photographs, icons or other images;
- c. third party intellectual property; and
- d. personal information such as photos of people,

this publication is licensed under the Creative Commons Attribution-NonCommercial-NoDerivs 3.0 Australia Licence.



The licence terms are available at the [Creative Commons website](#)

IPART requires that it be attributed as creator of the licensed material in the following manner: © Independent Pricing and Regulatory Tribunal (2024).

The use of any material from this publication in a way not permitted by the above licence or otherwise allowed under the Copyright Act 1968 (Cth) may be an infringement of copyright. Where you wish to use the material in a way that is not permitted, you must lodge a request for further authorisation with IPART.

**Disclaimer**

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

This document is published for the purpose of IPART fulfilling its statutory or delegated functions as set out in this document. Use of the information in this document for any other purpose is at the user's own risk, and is not endorsed by IPART.

**ISBN 978-1-76049-781-1**