



**Engineering Services**

**Technical Standard**

**TS 0153**

# Requirements for Automated Assessment

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**Government of  
South Australia**

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Only the current revision of this Standard should be used which is available for download from the SA Water website.

## Significant/Major Changes Incorporated in This Edition

Nil.

This is the first issue of this Technical Standard.




## Document Controls

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Version	Date	Author	Comments
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# 1 Introduction

Automated Assessment is the process for preparing, validating and submitting asset information required by SA Water.

Automated Assessment is an efficient way to manage asset information. It ensures the information is consistently recorded and validated so problems are quickly found and corrected. Much of the processing is 'Automated' which means the information is registered quicker in SA Water systems.

Information required for Automated Assessment is submitted to SA Water through a web-portal ('Portal'). The Portal validates the submission and highlights any problems. The submitter of the asset information (referred to in this document as 'Developer') corrects any problems and after successful validation SA Water downloads the asset information for further processing.

Asset information submitted for Automated Assessment must be in AutoCAD DWG format. The position of infrastructure is defined by Map Grid Australia (MGA) coordinates and elevations are reduced to the Australian Height Datum (AHD).

## 1.1 Purpose

This specification describes SA Water requirements of Automated Assessment including:

- How to register for Automated Assessment,
- What information and format is required,
- How to submit the information to the Portal for validation,
- How to inform SA Water of submissions that have been validated on the Portal.

## 1.2 Scope

These requirements apply to all Developers who submit Asset Information as listed in Table 1 below.

Asset Information	Description
As-Constructed Information	New and existing network infrastructure created or impacted as the result of a Major Land Development or capital works.

**Table 1 - Asset Information in Scope**

SA Water will continue to develop and enhance Automated Assessment. It is anticipated that Automated Assessment will be used for design information, minor land divisions and capital works where applicable. It is important to refer to the SA Water web site and this document for updates to the scope of Automated Assessment.

**This document does not describe nor replace the requirements for relevant hard copy plans.**

**Refer to TS 0095 Requirements for Technical Drawings and the SA Water web site for hard copy plan requirements.**

## 1.3 Glossary

The following glossary items are used in this document:

Term	Description
Accuracy	The level of closeness of an estimated value – measured or computed – of a quantity to its true or accepted value.
ACDC	As-Constructed Design Certification. Software used to facilitate Automated Assessment including a web portal.
AHD	Australian Height Datum – Currently AHD71.
As-Constructed Information	Representation of the utility infrastructure as it exists in the field, showing a relationship to a defined absolute or relative reference system.
Asset Information	Contents of the submission validated by the Portal such as As-Constructed information.
Automated Assessment	Process and systems for electronically submitting asset information for assessment and updating asset databases.
Developer	A service providing organisation, such as a property Developer, consultant, SA Water staff or Surveyor, that submits asset information for validation on the Portal.
DWG	AutoCAD native file format. DWG is the standard file format for Automated Assessment.
GDA	Geocentric Datum of Australia
GIS	Geographic Information System.
Horizontal Datum	An official national geodetic datum spatial reference frame known as the Geocentric Datum of Australia (GDA). The national geodetic datum will be updated from time to time e.g. GDA94, GDA2020. There may be a time delay between the publication of the official national geodetic datum and implementation by SA Water of the datum. The datum to be used for SA Water as-constructed surveys shall be published on the SA Water website.
Job	Refer to Submission
Network Infrastructure	Assets related to the provision of water, sewer and recycled water services.
Plan	The Drafting representation of the submission. For example, the As-Constructed plan complying with TS 0095 Requirements for Technical Drawings.
Portal	As Constructed Design Certification Web Portal. Web Portal for submission and validation of asset information in DWG format.
Project	The name of the Subdivision or Project (if capital). A Project can include any number of submissions.
SA Water	South Australian Water Corporation
Submission	A DWG file submitted to the Portal for validation. Water, Sewer and Recycled Water must each be submitted in their own DWG file. Each is separate submissions.
Web Portal ('Portal')	As Constructed Design Certification Web Portal. Web Portal for submission and validation of asset information in DWG format.

## 1.4 References

The following table identifies the documents and/or articles that are referenced in this document:

Title/URL	Version	Date
TS 0103 Survey Standard Specification	1.00	1/11/2017
TS 0095 Requirements for Technical Drawings	3.00	24/01/2016

## 2 Prerequisites for Automated Assessment

### 2.1 Overview

To participate in Automated Assessment all Developers submitting asset information must register their details with SA Water. The details are used to create an account on the Portal.

### 2.2 Registration

Contact SA Water by email - [AutomatedAssessment@sawater.com.au](mailto:AutomatedAssessment@sawater.com.au) – for instructions on registering for Automated Assessment.

During the registration process the following will be provided:

1. Access to the Portal,
2. AutoCAD templates and menus to capture asset information in the format required by SA Water,
3. User guides and supporting documentation.

### 2.3 Portal Account

All Asset Information shall be submitted to the Portal for validation. SA Water will request information and contact details from you so that your account can be created on the Portal.

You will be provided with a username and password to access the Portal.

### 2.4 Software and Tools

#### 2.4.1 AutoCAD

AutoCAD Lite, AutoCAD Map 3D or AutoCAD Civil 3D can be used with the templates and menus to capture asset information.

#### 2.4.2 AutoCAD Template and Menus

Pre-defined AutoCAD templates and menus are needed to capture as-constructed information for Automated Assessment.

SA Water will provide you with AutoCAD templates and menus and instructions for installation.

### 2.5 Training

SA Water recommends a half day training session on Automated Assessment at your offices. The training is conducted by SA Water staff.

The training includes installation of the AutoCAD templates and menus, data capture, Portal submission and validation.



## 3 Information Requirements for Automated Assessment

### 3.1 Overview

Automated Assessment requires the position of network infrastructure assets recorded as projected coordinates (MGA) and relevant elevations reduced to the AHD. The survey method used to determine the coordinates and elevations must meet SA Water survey accuracy requirements (Refer to *TS0103 Survey Standard Specifications*).

Attributes of asset information are recorded in a predefined format adhering to SA Water technical and business rules. The AutoCAD templates and menus facilitate the capture of SA Water infrastructure and the rules are checked by the Portal validation routines.

### 3.2 Surveying Methods

#### 3.2.1 Design and Construction

Surveying methods shall be carried out to ensure network infrastructure complies with SA Water design and construction requirements – refer to **Building and Development** at [www.sawater.com.au](http://www.sawater.com.au).

#### 3.2.2 As-Constructed Information

Surveying methods shall be carried out to capture the physical nature of the network infrastructure asset so it can be correctly reproduced in the SA Water GIS from projected coordinates. This means maintaining the integrity of the geometry of the network, including (but not limited to):

- capturing coordinates at the end of each pipe segment and/or change of direction,
- ensuring service connections (water and sewer) attach to the main pipe.

#### 3.2.3 Survey Accuracy

Refer to **TS0103 Survey Standard Specifications** for accuracy requirements for Automated Assessment.

### 3.3 Recording Asset Information

Asset Information shall be recorded using SA Water provided AutoCAD templates and menus and saved in DWG format.

### 3.4 Validating Asset Information

Asset Information in DWG format shall be validated using the Portal. Instructions on access and validation process will be provided during registration.

The provider of asset information shall correct any errors detected by the validation routines.

## 4 Submitting Asset Information to SA Water

### 4.1 Overview

The Portal validates the asset information in AutoCAD DWG files. This is a necessary step as SA Water will only accept validated files. The validation will check the AutoCAD files such as making sure legitimate materials and diameters are attributed to the pipes. If errors are found you will need to correct the AutoCAD files and submit them again to the Portal for re-validation.

### 4.2 Certification of Information

SA Water shall be informed by a Surveyor licensed or registered with the Surveyor's Board of South Australia that a submission is available for download from the Portal.

### 4.3 Informing SA Water of Successful Validation

After you have successfully validated the as-constructed AutoCAD file on the [ACDC As Constructed Web Portal](#) SA Water shall be informed that a 'submission' is ready for downloading.

Please inform SA Water by email. The details are:

<b>Email Address</b>	<a href="mailto:AutomatedAssessment@sawater.com.au">AutomatedAssessment@sawater.com.au</a>
<b>Email Subject</b>	Project Name: <project name> - Submission ID: <submission ID>
<b>Email Content</b>	List the names of the .DWG and other supporting files for the submission.
<b>Email Signature and Sender</b>	Name and contact details of a Surveyor licensed or registered with the Surveyor's Board of South Australia

**Note that the files listed in the email content must be on the Portal so that SA Water can download them.**

For example;

Project Name: Gawler East – East Riding Stage 9 Sewer  
 Submission ID: 11379  
 DWG file: A010816\_Sewer\_MGA.DWG  
 Log file: A010816\_Sewer\_MGA.log  
 Sender: Bob Plumb, Exact Surveys.

Email details are:

<b>Email Address</b>	<a href="mailto:AutomatedAssessment@sawater.com.au">AutomatedAssessment@sawater.com.au</a>
<b>Email Subject</b>	Project Name: Gawler East – East Riding Stage 9 Sewer - Submission ID: 11379
<b>Email Content</b>	The following files are ready for downloading: A010816_Sewer_MGA.DWG, A010816_Sewer_MGA.log
<b>Email Signature and Sender</b>	Bob Plumb. Licensed Surveyor. BSc(Survey) Exact Surveys 22 Main Rd, Coromandel Valley, SA 5051 T (08)8555333, M 0412 444 222 bplumb@exactsurveys.com.au

## 4.4 Business Continuity

The Portal is a web hosted site for the validation of submissions. The Portal also serves the purpose as a temporary depository for submissions until they are downloaded by SA Water.

Business Continuity refers to the procedures to use should the Portal be unavailable.

In the situation where the Portal is unavailable:

1. Prepare asset information submission as would be required for Portal validation,
2. Email the submission to SA Water in the following format:

<b>Email Address</b>	<a href="mailto:AutomatedAssessment@sawater.com.au">AutomatedAssessment@sawater.com.au</a>
<b>Email Subject</b>	Project Name: <project name> - Submission ID: <submission ID> Ready for Validation
<b>Email Content</b>	List the names of the .DWG and other supporting files for the submission.
<b>Email Signature and Sender</b>	Name and contact details of person representing the organisation preparing the submission
<b>Email Attachments</b>	DWG files and other supporting files for the submission

3. SA Water will validate the submission and reply by email with the results,
4. If the submission fails the validations the errors are corrected by the Developer and resent to SA Water for another validation check,
5. If the submission passes the validation, the Developer sends an email to SA Water as follows:

<b>Email Address</b>	<a href="mailto:AutomatedAssessment@sawater.com.au">AutomatedAssessment@sawater.com.au</a>
<b>Email Subject</b>	Project Name: <project name> - Submission ID: <submission ID>
<b>Email Content</b>	List the names of the .DWG and other supporting files for the submission.
<b>Email Signature and Sender</b>	Name and contact details of a Surveyor licensed or registered with the Surveyor's Board of South Australia
<b>Email Attachments</b>	DWG files and other supporting files for the submission

This email represents the certification of the as-constructed information by the Surveyor.

6. SA Water will acknowledge receipt of the submission.

## 5 Acceptance of Submission by SA Water

### 5.1 Overview

SA Water accepts the asset information after the following checks and validations have passed:

1. Engineering checks (where applicable; e.g. as-constructed information),
2. Construction and Audit office field checks (where applicable),
3. Portal Validation of the DWG file,
4. SA Water GIS validations.

### 5.2 Acceptance Workflow

The asset information acceptance workflow is:

1. Developer submits to SA Water relevant plans (e.g. As-Constructed plans)  
  
Note: plans are **not** submitted through the portal. Existing procedures for the submission of plans shall be used.
2. SA Water conducts internal checks (relevant engineering and auditing) and informs the Developer of the outcomes,
3. Developer shall submit the asset information in DWG format to the Portal for Automated Assessment,
4. Having passed the Portal validation routines the Developer emails SA Water as described in Section 4.3 above,
5. SA Water conducts the SA Water GIS validations,
6. Having passed all the checks SA Water accepts the asset information and informs the Developer.

The validated asset information in DWG format shall be submitted to SA Water within ten days after the Developer has been notified that the internal checks have passed (after step 2 above).