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# TABLE OF CONTENTS

1. The Overall Water Savings Framework ........................................ 2
2. Purpose of this document ...................................................... 3
3. Appointment of an Independent Auditor ........................................ 4
4. Scope of Independent Audit ...................................................... 4
   4.1 Scope of the Independent Auditor ........................................ 4
   4.3 Specific Outputs of the Independent Audit .............................. 5
5. Independent Audit Timelines .................................................... 6
1. The Overall Water Savings Framework

This document “Water Savings Audit Process” (Audit Process) is part of the Water Savings Protocol for the Quantification of Water Savings from Irrigation Modernisation Projects (the Protocol).

The Protocol is a series of documents, which together, provides transparency, and consistency in the estimation and allocation of water savings derived from irrigation modernisation projects. It has been developed based on the key principles of the draft Northern Region Sustainable Water Strategy and is applicable State-wide.

It comprises of:

- Technical Manual for the Quantification of Water Savings
- Roles and Responsibilities
- Water Savings Audit Process.

Documents in the Water Savings Protocol is shown in Figure 1.

![Water Savings Protocol and associated documents](image)
The purpose of the Protocol is to:

• specify a reliable and repeatable process and method to estimate water savings from irrigation modernisation projects;
• provide the best estimate of water savings for inclusion in economic assessments of investments in irrigation modernisation projects; and
• establish a transparent process which can be readily audited and reported on to enable actual water savings to be allocated in interim and longer term and converted to entitlements at an appropriate time.

The quantification of water savings is undertaken in four separate stages or Phases of the water savings project, these phases are defined as follows:

• **Phase 1**: The initial “Business Case” **long term** estimates of water savings for the planned program of works
• **Phase 2**: The annual pre-works estimates of **interim** water savings to be set aside within the water savings account.
• **Phase 3**: The annual post-works measurement or verification of **interim** water savings able to be allocated from the water savings account.
• **Phase 4**: The end of program assessment of the overall **long term** water savings achieved through the modernisation program.

Each of the Phases, and the steps which are required to quantify the water savings under these Phases, is described in detail within the *Technical Manual for the Quantification of Water Savings*. Phase 3 and 4 are relevant to this audit process.

### 2. Purpose of this document

The purpose of this document is to establish objective, clear and transparent processes for the audit of water savings, whether it be on an interim year to year basis, or on a long term water savings verification basis. This document sets out the guidelines for the appointment of the independent auditor as well as defining the scope of the work to be undertaken by the independent auditor.

This document outlines the audit processes employed for ensuring the water savings are calculated in accordance with the *Technical Manual for the Quantification of Water Savings*. The audit process will ensure the water savings are both real and sustainable in the long term. This audit process can be applied to any calculation phase described in the Technical Manual. However only Phase 3 and Phase 4 calculations are to be audited as part of this process as these directly effect the allocation of savings in the interim and long terms.
3. Appointment of an Independent Auditor

In committing to the Northern Victorian Irrigation Renewal Project (NVIRP) within the “Next Stage of the Government’s Water Plan” the Victorian Government committed to an independent audit process being established to verify the water savings realised as part of the modernisation program.

An independent panel will be established comprising of auditor(s) who are recognised for their independence from both the development of the protocol and the water savings projects to be audited.

Once the independent auditor(s) are formally notified of their successful appointment to the shortlist, the Project Proponent can engage one or more auditors to commence the annual audit of the interim water savings (phase 3). The timelines associated with the audit requirements are provided within Section 5 of this document.

4. Scope of Independent Audit

4.1 Scope of the Independent Auditor

The auditors will perform an independent audit of water savings calculations undertaken by the Project Proponent on an annual basis. The audit must be completed by 30th of September each year of the overall water savings project. Outside of the official audit period, the Project Proponent, or DSE, may direct additional audits to be conducted at any time on any matters related to the water savings performance of the project proponents water savings works program.

The audit of actual savings on a year to year basis will include:

- verifying that the Phase 3 water savings calculations have been calculated in accordance with the Technical Manual for the Quantification of Water Savings.
- checking that the data collection and inputs are as accurate as could reasonably be expected for the purpose of calculating water savings.
- spot checks that the program of works has been implement as documented in the water saving calculations.
- checking that water savings have been calculated based on the nature and the extent of all modernisation works completed prior to the 15th May in the year of the audit.
- providing a corrected estimate of the water savings for any component where the project proponent calculations are found to be non-compliant or deficient.
- identifying potential improvements to the data collection, data analysis, assumptions and methods used to estimate the water savings. Recommend changes to the Technical Manual for the Quantification of Water Savings to the Director of Allocations and Licences within DSE that will improve useability and accuracy of water savings.
- checking if suggestions from the previous year’s audit have been actioned upon and report upon the status of each of the suggested improvements.
The project proponent, may, on an annual basis, undertake the associated calculations for the Phase 4 assessment and engage an auditor to assess these calculations, however, will not be required to report on the associated long term water savings generally until the end of the water savings modernisation program, or as required by DSE.

A separate independent audit of the Phase 4 calculations will occur at the end of the project.

The auditor is required to verify that the works and measures used in the calculations correspond to those constructed prior to the 15th May, or any other specified time, by reviewing associated Quality Assurance documentation and evidence on file relating to the modernisation works constructed and other adopted interventions.

The audit will evaluate the project proponent’s water savings calculations and outcomes on the basis of:

- inspection of internal audit and performance reports prepared by the Project Proponent or its contractors
- direct inspection of water savings calculation spreadsheets and models established by the Project Proponent
- any other relevant information available to, or obtained, by the auditor

### 4.2 Scope of the Independent Auditor

The specific outputs required from the water savings audit will include, but not be limited to, a detailed audit report evaluating the Project Proponent’s water savings estimation against the water savings protocol and targeted water savings outcomes. The audit report, at a minimum, will include:

- a summary of findings;
- an audited supporting data set and reports;
- full evaluation of water savings estimation against protocol;
- documentation of any instances of non-compliance and the required changes to the proponent’s estimates;
- full tabulation of water savings estimation against Project Proponent’s Business Case targets; and
- description of the audit process undertaken, including a description of how the information was audited and/or verified (e.g. sighted documentation, persons spoken to etc).

In addition to the audit report, the auditor can recommend, to DSE, improvements to the method for estimation, calculation and reporting water savings for future years. This may include recommendations of revisions to the Technical Manual for the Quantification of Water Savings, or to the Project Proponent’s processes for estimating and reporting water savings.
5. Independent Audit Timelines

Independent audits are to be undertaken on an annual basis prior to any water savings held within the water savings account being allocated. The auditor will present a report on the audit findings of each year's audit within timeframe agreed by DSE and the Project Proponent. A copy of the final audit report will be provided to the Minister for Water and its Government Departments for consideration.

The audit findings will be made publicly available after consideration by the Minister for Water.

To enable the independent audit to undertake its role, timely access is required to relevant information from both the Project Proponent and the System Operator. An example of agreed timelines for the independent audit process for an irrigation modernisation project is provided within Figure 2.

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**Figure 2: Timeline for water savings auditing and reporting**