

An aerial photograph of a river delta system. On the left side, there is a dense, green forested area. To the right, the river branches into multiple channels, creating a complex, braided pattern. The water in the channels is a mix of dark blue and light brown, indicating varying sediment levels. The surrounding land is sandy and light-colored, with some small, scattered trees and shrubs. The overall scene depicts a natural, undisturbed riverine environment.

# Australasian Catchment Water Improvement Guide

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# Version Control

Australasian Catchment Water Improvement Guide

Version 1.0

Contact

Eco-Markets Australia, Australasian Water Credit Scheme administrator [www.eco-markets.org.au](http://www.eco-markets.org.au)

Version Number	Author	Change	Date Approved
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# Contact

Eco-Markets Australia, Australasian Water Credit Scheme administrator [www.eco-markets.org.au](http://www.eco-markets.org.au)

## Acknowledgements

Eco-Markets Australia acknowledges the Traditional Owners of Country and acknowledges their continuing connection to land, waters and community. We pay respect to Country, the people, the cultures and the Elders past and present.

Over the past five years, Eco-Markets Australia has administered Reef Credits, Australia's first environmental market mechanism dedicated to water improvement. This pioneering program has facilitated private sector investment in on-land projects that deliver tangible, measured and independently verified water improvement outcomes for the Great Barrier Reef.

Reef Credits provide a financial incentive for landholders to implement changes in land management practices under approved methodologies.

To date, tens of thousands of Reef Credits have been issued, sold, and retired, demonstrating the strength and scalability of this market-based solution. Eco-Markets Australia continues to uphold the highest standards of integrity, aligning the program with global best-practice frameworks and embedding robust governance mechanisms to ensure confidence in every credit.

The knowledge and experience gained through the administration of Reef Credits has informed the development of the Australasian Catchment Water Improvement Standard, a multi-national framework that recognises and rewards landholders for their role in delivering catchment water improvement outcomes in defined catchment settings. This evolution reflects our ongoing commitment to expanding environmental markets that drive positive outcomes for landholders, communities, and ecosystems across Australasia.

This document may be cited as the Australasian Catchment Water Improvement Guide Version 1.0.

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# Purpose of the Australasian Catchment Water Improvement Guide

The Australasian Catchment Water Improvement Guide establishes the rationale and principles of the Australasian water improvement Scheme. It describes the overall governance and various elements that operationalise the Scheme.

## Versions and review

This is version 1.0 of the Australasian Catchment Water Improvement Guide. This version applies from 6 November 2025 and is effective immediately.

The Australasian Catchment Water Improvement Guide and all accompanying documents may be updated periodically by the Secretariat. All material revisions to the Australasian Catchment Water Improvement Guide or requirement documents will be subject to a 30-day public consultation period.

The Secretariat may issue minor errata corrections or revisions to the Australasian Catchment Water Improvement Guide or requirement documents, which will be published on the Eco-Markets Australia website.

# Rationale for the Australasian Catchment Water Improvement Standard

Water quality degradation across Australasia's catchments is a growing concern, threatening ecosystems, communities, and industries. The 2024 *State of the Environment Report* highlights declining inland water quality due to pollution, land use pressures, and climate change. These challenges demand innovative, scalable solutions that go beyond traditional regulation and funding models.

The Australasian water improvement Scheme, delivered through the Australasian Catchment Water Improvement Standard (ACWIS), and developed by Eco-Markets Australia, responds to this need by introducing a market-based mechanism to incentivise pollutant reduction activities. These initiatives build on five years of experience administering the Reef Credit Scheme and aim to expand measurable water quality improvements across diverse catchment settings.

The Scheme enables the generation of water improvement Credits, which represent verified, additional reductions in pollutants such as sediment, nutrients, or other catchment-specific contaminants. These credits are quantified using approved methodologies, independently audited, and tracked via a secure registry. This structure ensures transparency, integrity, and scalability, making

the Scheme suitable for voluntary and compliance markets. The naming conventions for these Credits (such as Reef Credits) reflect the particular identity (personality) of the defined catchment setting in which the Credit is generated and for which responsibility for the water improvement benefit may be claimed. Credit naming conventions will be determined by the Secretariat to manage market administration and investor demand.

The development of ACWIS aligns with national frameworks such as the National Water Quality Management Strategy (NWQMS) and regional water quality improvement plans (WQIPs). It supports delivery of pollutant reduction targets and water quality objectives, while also contributing to broader sustainability goals, including the UN Sustainable Development Goals (SDGs).

The ACWIS leverages the success of the Australian Government's Natural Heritage Trust Coastal Catchment Initiative. A \$34million programme implemented across all levels of Government and NRM organisations. The CCI supported the development of a limited set of WQIPs (Figure 1) for priority coastal waterways, based on conservation significance (e.g. a Ramsar wetland or World Heritage site) or the iconic values of a coastal localities (e.g. high recreational value), that are threatened by land-based sources (Australian Government, 2006).



FIGURE 1: COASTAL CATCHMENT INITIATIVE WATER QUALITY HOTSPOTS AND WATER QUALITY IMPROVEMENT PLAN LOCATIONS AS OF 2009.

Importantly, the Scheme addresses a critical global challenge in regard to funding nature repair as identified by the *Kunming-Montreal Global Biodiversity Framework*. By creating a credible, standardised mechanism for investing in nature-based solutions, the Scheme helps mobilise private, public, and philanthropic finance toward water quality and ecosystem restoration. It supports the Framework's goals to reduce harmful subsidies, align financial flows with biodiversity outcomes, and scale up investment in ecological health.

Eco-Markets Australia's governance model ensures robust oversight, with strategic direction from a Board of Directors, scientific, conceptual and practical input from a Technical Advisory Committee,

and operational management by a Secretariat. The organisation's consultation process, including stakeholder engagement on ACWIS, reflects its commitment to transparency and continuous improvement.

Benefits of the Scheme include income diversification for landholders, enhanced investment opportunities, and landscape-level beneficial impact. It empowers project proponents to implement validated interventions, while enabling buyers—governments, corporations, and philanthropists—to acquire verified outcomes.

In summary, the ACWIS represents a transformative approach to water management and security (and consequentially, food and fibre security) in the face of climate change in Australasia. The Scheme offers a credible, scalable, and transparent framework for delivering environmental outcomes, attracting investment, and contributing to national and global sustainability goals.

# Benefits of the ACWIS

- Clear and robust rules to ensure water improvements credited are real, additional and permanent.
- Project Proponents and Land Stewards earn diversified and regular income by participating in the Scheme.
- Research and knowledge linked to on-ground practice through peer reviewed Methodologies designed to suit relevant conditions.
- Attractive investment for government, corporate and philanthropic purposes.
- Credit purchasers buy the right to exclusively claim verified water improvement outcomes that have been delivered and audited.
- A single administrative platform with independent, transparent and accountable governance oversight to achieve water quality improvements and bring to market, assure and safeguard the exclusive right to claim those benefits.
- Delivers consistent measurement and monitoring to track progress toward water quality targets and/or caps related to the defined catchment setting, identified in the relevant water quality improvement plan or comparable strategy.
- Funds projects designed to suit local conditions, preferably aligned to Sustainable Development Goals (SDGs).
- Complements other key services such as extension, agribusiness, catchment management, natural capital, natural solutions and other ecosystem services initiatives, fostering holistic and coordinated approaches to landscape-scale water quality improvement
- The ACWIS encourages the inclusion of First Nations peoples in the design and implementation of water improvement methodologies and projects, incorporating perspectives, cultural responsibilities and knowledge systems.

# Objectives and Scheme components

The objectives of the ACWIS are to:

1. Improve water quality entering the receiving environment from a defined catchment setting,
2. Contribute to the delivery of respective water targets, or the non-exceedance of caps, described in relevant water quality improvement plans or comparable strategies for defined catchment settings, including any subsequent revisions to those water quality targets or caps.
3. Create a market mechanism to incentivise projects that achieve water quality improvements.

The ACWIS aims to provide a practical and credible Scheme to credit reductions of Pollutants entering the receiving environment of a defined catchment setting. The ACWIS encompasses all elements to deliver water improvements through ecosystem service payments.

## Components of the Australasian water improvement Scheme:

Australasian Catchment Water Improvement Guide	Overview of the ACWIS.
Australasian Catchment Water Improvement Standard (ACWIS)	Rules and requirements to develop Water Improvement Credit Projects and methodologies; validate, register, monitor, and verify Projects; and issue, track and transfer Credits.
Registry	Ledger that tracks Credit issuance, transactions and ownership.
Water improvement Methodology	Approved methods to undertake water improvement Projects that provide verifiable Pollutant reductions.
Water improvement Projects	Activities that conform to an approved water improvement Methodology and ACWIS.
Eco-Markets Australia	Independent administration and oversight of the Scheme Standard, Registry, Methodologies and Projects.

The ACWIS:

1. Creates a fungible Pollutant reduction credit named after the defined catchment setting or iconic receiving environment (at the Secretariats discretion). These can be referred to as water improvement credits;
2. Provides a transparent and secure Registry system that offers protection against double counting and provides visibility for the public;
3. Establishes clear rules and procedures to allow development of Pollutant reduction water improvement Projects;
4. Eco-Markets Australia provides transparent oversight to ensure that landholders, participants, investors, community and the market recognise the water improvement Credit as being real, additional and permanent;
5. Links research and knowledge with practice through a credible, transparent and verifiable market mechanism;
6. Provides a testable and practical framework for a water improvement market in relation to defined catchments settings throughout Australasia; and

7. Provides an economically efficient, verifiable pathway and a scalable mechanism for delivering landscape level change to contribute to water quality targets set within water quality improvement plans or comparable strategies, relevant to the defined catchment setting.

# Governance

## Governance structure

Eco-Markets Australia, an independent not-for-profit company, established in Queensland under the *Corporations Act 2001* (Cth) as a company limited by guarantee, administers the ACWIS and water improvement Scheme. The company is governed by a skills-based Board of Directors (the Board), with the day-to-day administration of the Australasian Water Credit Scheme delegated to the Secretariat.

## Board of Directors

The role of the Board is to provide strategic, risk and compliance, and financial oversight to the Scheme, manage the development and ongoing maintenance of the ACWIS and supporting documentation, and provide supervision of the Secretariat.

## Secretariat

The Secretariat, overseen by the Board, administers the Australasian Water Credit Scheme. The Secretariat's role and responsibilities include:

- Managing or overseeing all Scheme processes and procedures
- Managing the review and approval of water improvement Projects, including validation, registration and verification
- Managing the review and approval of water improvement Methodologies approved under the ACWIS
- Managing the review, maintenance and approval of updates to the ACWIS
- Issuing, approving and/or updating all water improvement Credit documentation
- Issuing guidance and interpretations related to the ACWIS and Scheme
- Maintenance of the Registry, including issuance, transfer, and retirement of Credits
- Ensuring the integrity of the Scheme including conducting reviews of stakeholder grievances
- Making decisions regarding the administration or operation of the Scheme

## Technical Advisory Committee

The Technical Advisory Committee (TAC) is composed of specialists that complement the skills of the Board and the Secretariat and advises on technical aspects of the ACWIS and methodologies. The TAC also provides independent expertise on the Methodology application and revision process, selection of peer reviewers, compliance matters and related issues.

# Dispute resolution and grievance procedure

The Dispute Resolution Procedure provides a process for the review of decisions made by the Secretariat.

The Grievance Procedure provides a process to review and respond to grievances by stakeholders.

The Secretariat maintains a Dispute Resolution Log and Grievance Log, to review and respond to disputes and grievances in a timely and transparent manner.

The Dispute Resolution Procedure and Grievance Procedure are available on the Eco-Markets Australia website, [www.eco-markets.org.au](http://www.eco-markets.org.au).

## Scope and Application

### Water improvement Credit metrics and conversion factors

A water improvement Credit is a quantified and verified amount of Pollutant that has been prevented from entering the defined receiving environment of the defined catchment setting. A water improvement Credit is equal to an amount of Pollutant reduction verified during a Monitoring Period measured in a suitable metric or unit which quantifies the amount of Pollutant that has been prevented from entering the receiving environment of the defined catchment setting and converted into water improvement Credits by applying the relevant conversion factors.

The conversion factors represent the relative value of Pollutant reduction derived from the pollution reduction targets or caps described in relevant water quality improvement plans or comparable strategies. The conversion factors may be periodically amended by the Secretariat to reflect published changes to the Pollutant reduction targets or caps approved in relevant water quality improvement plans or comparable strategies.

ACWIS recognises the extensive diversity of water pollutant types and the variation in water quality improvement plan or comparable strategy objectives, targets and caps applying to defined catchment settings. Appropriate conversion factors will be progressively determined in conjunction with Methodology development and the associated as part of the peer review and public comment processes for draft methodologies under the Scheme. These Conversion factors, once determined, will be published in Schedule 1 on the Eco-Markets Australia website and maintained by the Secretariat.

Conversion factors are able to be specific to defined catchment settings, and the uniquely numbered credits are tagged against the relevant defined catchment settings so that claims attach to water improvement benefits achieved for specific localities (defined catchment settings).

In establishing Conversion Factors, ACWIS will apply a principle of reasonably equivalent benefit that reflects:

- the water quality objectives, targets and/or caps in the water quality improvement plan or comparable Strategy relevant to the defined catchment setting;
- relevant indicator thresholds specified under the National Water Quality Management Framework Strategy or a comparable authoritative technical reference source; and
- as a reference value for reasonable equivalence, the established credit value of one water quality credit being equal to the reduction of one kilogram of dissolved inorganic nitrogen delivered to the Great Barrier Reef (Reef Credit Scheme).

## Methodologies

Projects operating under the ACWIS must use an approved water improvement Methodology (Methodology) to quantify Pollutant reductions. Methodologies may be developed for any practice change or ecosystem repair activity that is within scope. 'Within scope activities' acceptable for a defined catchment setting under ACWIS are those activities that are specified or otherwise reasonably included in the water quality improvement plan or comparable strategy for that defined catchment setting, or for a river basin for which Environmental Values (EVs) and Water Quality Objectives (WQOs) have been set under regulatory instruments, and where such EVs or WQOs specify metrics for pollutant targets or caps. Methodologies must comply with all ACWIS requirements.

## Other forms of environmental credit

The scope of the ACWIS does not include greenhouse gas emissions or biodiversity. It is, however, possible to undertake other ecosystem services projects (including carbon, biodiversity and renewable energy projects) over the same area, subject to the requirements set out in the ACWIS.

## Voluntary and compliance markets

The Scheme can be used to develop, buy, and sell water improvement Credits for voluntary purposes, and subject to any specific regulatory requirements, to meet regulatory obligations.

In the voluntary market context, it provides a mechanism to consistently measure benefits generated by land management and conservation actions. In the regulatory market context, it provides a mechanism for mitigation or trading under regulatory requirements.

# ACWIS documentation

The rules and requirements for the Scheme are described in the Scheme documentation (Figure 2). Water improvement Projects and Methodologies need to comply with all applicable rules and requirements described in these documents.

**Australasian Catchment Water Improvement Guide** - is the overarching explanatory document that details the rationale for the Scheme, the core principles, the participants, governance of the Scheme, and the framework to generate, register, and issue Water Improvement Credits from a Water Improvement Project.

**Requirement documents** - ACWIS sets out the rules and requirements to develop Projects and methodologies, the validation, registration, monitoring, verification, crediting, issuance and transaction requirements. The ACWIS is accompanied by other requirements documents.

The ACWIS Definitions apply to all scheme documents.

The Methodology Application and Review Procedure describes in detail the procedure to follow when a Methodology is submitted for approval or revision under the ACWIS.

The Project Application and Crediting Procedure describes in detail the procedure to follow when a water improvement Project is submitted for approval and crediting under the ACWIS.

The Additionality Tool is used for the Demonstration and Assessment of Additionality in water improvement Projects.

**Templates and forms** - procedural document forms and templates referred to in the Australasian Catchment Water Improvement Guide and ACWIS.

**Methodologies** – Water improvement Methodologies provide the specific eligibility requirements and accounting rules for different types of water improvement Projects. All water improvement Projects must use an approved Methodology.

**Supporting documents** – supporting documents provide additional information to stakeholders that participate in the Australasian Water Credit Scheme. Supporting documents do not contain new or additional requirements but provide information on how to interpret or apply the requirement documents or information on Scheme administration. Supporting documents are developed as needed.

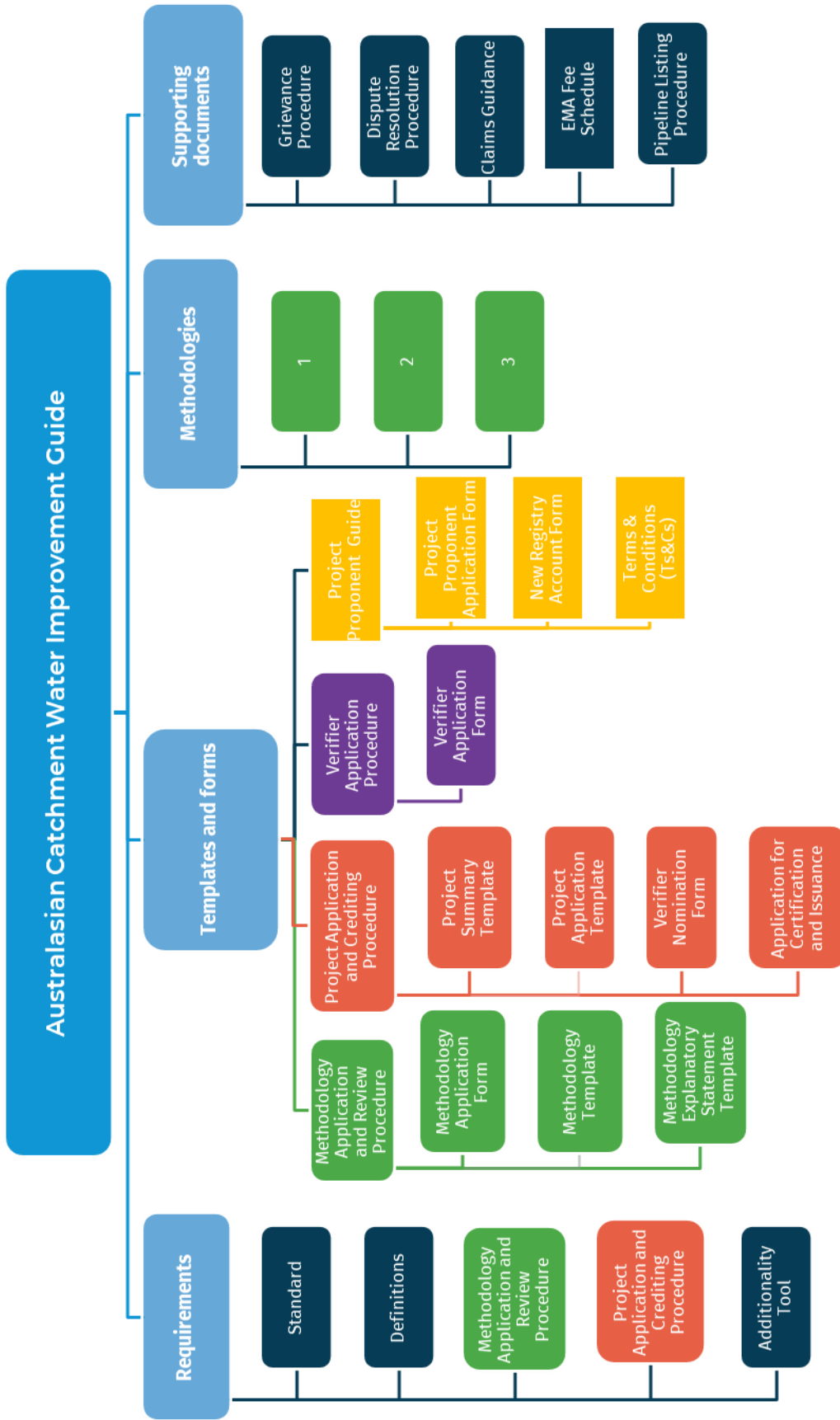


FIGURE 2: AUSTRALASIAN CATCHMENT WATER IMPROVEMENT GUIDE DOCUMENTATION

# Registry

The Registry is comprised of a Project Database and the Registry, to provide Project Proponents with the ability to list and register Projects, and issue, transfer and retire Credits. The secure online platform is operated by Eco-Markets Australia and uses unique serial number tracking to ensure transparency, traceability, and integrity for all water improvement Credits.

## Water improvement Credit Principles

All water improvement Projects must meet the requirements set out in this document and the ACWIS. Pollutant reductions verified under this Scheme and issued with water improvement Credits must meet the following core principles:

### Real

All water improvement Credits must be the result of registered and validated Projects under the ACWIS that yield quantifiable and verifiable Pollutant reductions or removals.

### Measurable

All water improvement Credits and underlying Pollutant reductions and removals must be quantified using a credible baseline established in water improvement Methodologies approved by the Secretariat.

### Permanent

Where water improvement Credits are generated by Projects that sequester Pollutants in the landscape and therefore carry the Risk of Reversal, adequate safeguards must be in place to ensure that, should Reversal occur, a mechanism is in place that guarantees replacement or compensation.

### Additional

All water improvement Credit generated Pollutant reductions and removals must be over and above:

1. legal requirements (e.g. regulatory standards threshold for compliance, or activities required by a conservation covenant);
2. reductions that would have occurred without the water improvement Project; and,
3. any pollutant reductions already paid for by other programs.

### Independently audited

Water improvement Credits must be verified by an independent, third-party Verifier, approved by the Secretariat.

## Unique

Each water improvement Credit must be unique and only associated with a single water improvement Project.

## Transparent

There must be sufficient and adequate public disclosure of information to ensure water improvement Credits are trusted by Project Proponents and Participants, investors, partners, Stakeholders, governments and the general public.

## Conservative

Accurate or conservative assumptions, values, and procedures must be used to ensure water improvement Credit Pollutant reductions and removals are not over-estimated. This includes a requirement that the Project Proponent assess, account for and mitigate Leakage in accordance with the ACWIS and relevant approved Methodology.

Leakage is the displacement of activities that harm water quality from within the Project Area to a location outside the Project Area. Leakage occurs if improving water quality within Project Areas has a knock-on effect of reducing water quality elsewhere that affects the receiving environment of the defined catchment setting.

Leakage may be caused by shifting of the activities of people present in the Project Area. For example, if there is a risk that farming on adjacent land might be intensified to compensate for reduced output in the Project Area. Leakage can also occur due to market effects whereby Pollutant reductions are countered by pollution created by shifts in supply of and demand for the products and services affected by the Project. Leakage does not occur if activities are shifted, or market effects occur outside the defined catchment area.

Leakage results in a lower provision of water improvement services being attributable to the Project. Project Proponents must deduct Leakage that reduces the Pollutant reduction and/or removal benefit of a Project in excess of any applicable threshold specified in the Methodology.

## ACWIS Participants

Participation in the Scheme is voluntary and based on satisfying the ACWIS and Methodologies approved under the ACWIS. Participation is open to anyone that can meet these requirements. The various Participants in the Scheme are set out in the table below and may be further described in the Australasian Catchment Water Improvement Definitions.

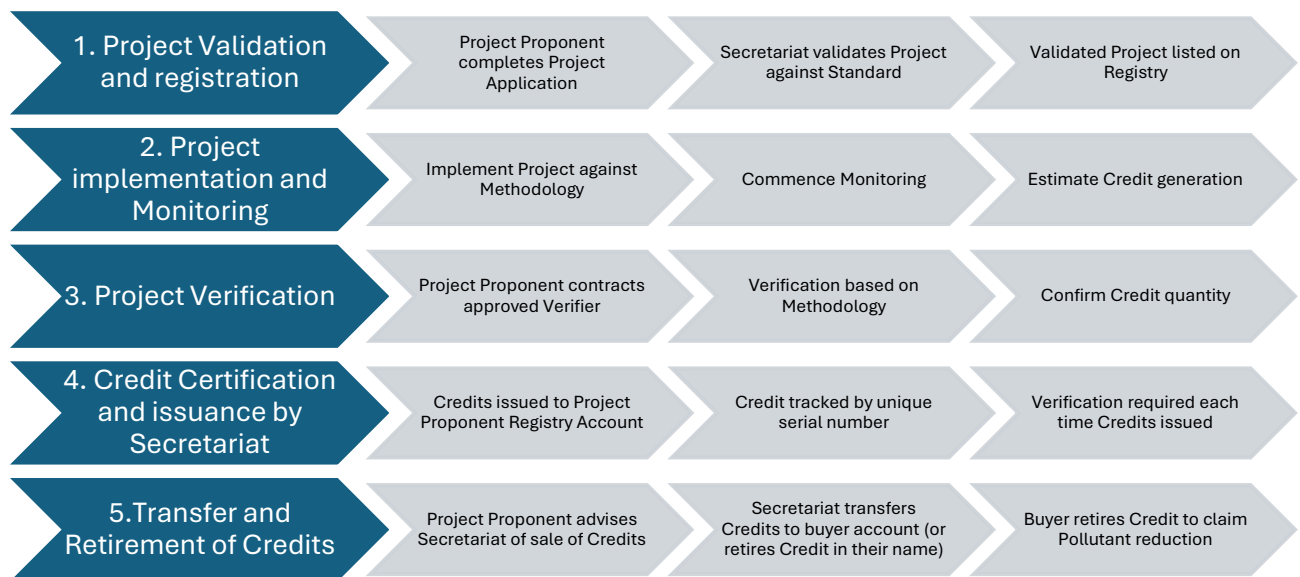
Participant	Role
Project Proponents	<i>Project Proponents</i> are the Person or Persons that has overall control and responsibility to carry out the Project and to whom water improvement Credits may be issued.
Buyers	<i>Buyers</i> include any public or private entity that chooses or needs to support water improvement by purchasing water improvement Credits. Buyers may purchase water improvement Credits to meet regulatory

obligations, subject to any relevant regulatory agency requirements, or as a way to measure progress toward environmental goals.

Verifiers	<i>Verifiers</i> are an accredited and independent person or organisation approved by the Secretariat within the requirements of the ACWIS and the Verifier Application Procedure. They confirm that water improvement Credits are calculated accurately and maintained to the appropriate standard throughout the life of the water improvement Project.
Eco-Markets Australia and Secretariat	The Scheme is administered by Eco-Markets Australia, a not-for-profit company limited by guarantee incorporated in Queensland, Australia. Eco-Markets Australia is governed by a Board of Directors, with the day-to-day administration of the Scheme delegated to the Secretariat. The Secretariat manages validation, registration, verification, and Credit certification and issuance processes.

## Overview of the Scheme process

The following steps outline the process that a Project Proponent follows to generate, issue, and sell water improvement Credits from a water improvement Project registered and validated under the ACWIS.



### 1. Project Validation and registration

Once a Project Proponent has identified a site to implement a water improvement Project, selected an appropriate Methodology, and is satisfied that they meet all necessary rules and requirements of the ACWIS, they must apply to validate and register the Project with the Secretariat.

The Secretariat will validate the Project against the ACWIS and the appropriate Methodology to ensure that the Project Proponent has complied with all relevant rules and requirements. If the

Project is compliant the Secretariat will notify the Project Proponent and register the Project on the Registry. If the Project is not compliant the Secretariat will notify the Project Proponent that the Project has failed to meet Validation standards. Project Proponents may revise their Project Application and reapply if they feel they are able to subsequently satisfy all necessary rules and requirements of the ACWIS and relevant Methodology.

## 2. Project implementation and Monitoring

To generate water improvement Credits Project Proponents must implement the Project activities and monitor the Project outcomes.

Project Proponents must apply the relevant Methodology to determine Monitoring requirements and estimate the number of water improvement Credits generated. The estimation of water improvement Credits may require making several deductions to the amount of Pollutant reductions generated by a Project to take into account uncertainties, potential Leakage and Risk of Reversal as specified in the Methodology.

## 3. Project Verification

To provide assurance that Pollutant reductions are real and correctly estimated, all Projects must undergo independent Verification by professional Verifiers approved by the Secretariat.

Verification processes may differ depending on the Methodology. This process confirms Project eligibility, baseline and Project Pollutant reduction calculations, Credit quantity and that the Project was implemented to meet the ACWIS.

## 4. Credit Certification and issuance by Secretariat

Once a water improvement Project has been verified the Secretariat is able to certify and issue water improvement Credits to the Project Proponent.

Water improvement Credits are issued into the Project Proponent's Registry Account. Upon issuance, water improvement Credits become visible to the public and are tracked with a unique serial number.

Project Verification by independent and accredited Verifiers must be undertaken each time Project Proponents seek to have water Improvement Credits issued.

## 5. Transfer and Retirement of water improvement Credits

Water improvement Credits can be sold and purchased by transferring the Credits between Registry Accounts. This includes sales from Project Proponents and buyers, or between other buyers and sellers that are not implementing water improvement Projects.

Registry Account holders can retire water improvement Credits for their own benefit, or on behalf of third-parties. Retirement amounts to a party claiming the benefits associated with a water improvement Credit and results in water improvement Credits being moved to a Retirement Account on the Registry which removes the credit from circulation.

Water improvement Credits are also subject to 'vintaging'. The vintage is a term that refers to the year the water improvement Credit was generated, specifically the date the water improvement Credit was issued. The price of a water improvement Credit may vary depending on its Vintage and/or Pollutant reduction (e.g. dissolved inorganic nitrogen or fine sediment). Water improvement Credits remain valid for five (5) years from the date of the Credit issuance, after which the water improvement Credit automatically expires. The purpose of vintaging is to ensure that water improvement claims are realised within a timeframe consistent with the water improvement Project intention and implementation.

## Detailed definitions and process

Terms used in this document are defined in the Definitions. Details on the approval of Verifiers, Methodology approval, Leakage, Risk of Reversal, Permanence, Safeguards, Crediting Periods and Retirement are provided in the ACWIS, Methodology Application and Review Procedure, Project Application and Crediting Procedure and Verifier Application Procedure.