



Progress and Performance Report

October 2021

Rural Water Futures

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Summary

The Rural Water Futures program is driving more transparent and sustainable rural water management across the state.

Building on the foundations set by the Rural Water Management Program (RWMP), Rural Water Futures is delivering better technology, policies and processes to give Queenslanders confidence that our water resources are being managed fairly and responsibly.

The program is also continuing to deliver the Government's response to the [Independent audit of Queensland non-urban water measurement and compliance](#) and supports delivery of the state's commitments under the [Murray-Darling Basin Compliance Compact](#) and the [Queensland Bulk Water Opportunities Statement](#).

Rural Water Futures is delivering a comprehensive and integrated program of work that enables better access to high quality water data, more visible and consistent decisions about water management and improved customer experience. The program is implementing a range of projects that focus on:

- strengthened water measurement
- transparent water information and high-quality water data
- optimised water markets and trading
- enhanced regulatory approach and robust compliance
- efficient and customer-focussed business processes.

During the last 12 months Rural Water Futures has secured Commonwealth funding to support program delivery over the next three years. This funding allows us to build our water measurement and data collection capacity and further develop our technical and digital capabilities to improve measurement, monitoring, reporting and transparency of water information.

This report documents Rural Water Futures achievements from 1 September 2020 to 31 August 2021. It also details how we are implementing the Queensland Government's response to the Independent Audit as well as progress we have made on our commitments under the Murray-Darling Basin Compliance Compact for the current reporting period.

The report showcases how we are using our Performance Excellence Framework to measure our progress and demonstrate how we are performing in our role as a non-urban water resource manager.

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About the program

Rural Water Futures has grown from its initial focus of responding to the [Independent audit of Queensland non-urban water measurement and compliance](#), to deliver a comprehensive and integrated program of work that enables better access to high quality water data, more visible and consistent water management decisions, and improved customer experience.

The program is strengthening our non-urban water management, through:

- improved measurement of all types of water use, including, individual entitlement holders, dam operators and the Queensland Government's own networks
- an improved water market so that water trading can create social and economic benefits for our communities
- transforming access to information through new digital channels to deliver timely, transparent and responsive water information and improved services to our customers and the community
- enhanced regulation and compliance to ensure accountability.

Water is a precious resource for all Queenslanders: it preserves our environment, sustains our communities and is a vital input for the farming and mining industries which are the backbone of our rural economies.

Maximising the value and availability of our water resources is key to unlocking Queensland's economic development into the future.

Rural Water Futures vision: Transforming how we deliver sustainable water management for the people of Queensland focusing on fairness, transparency and accountability

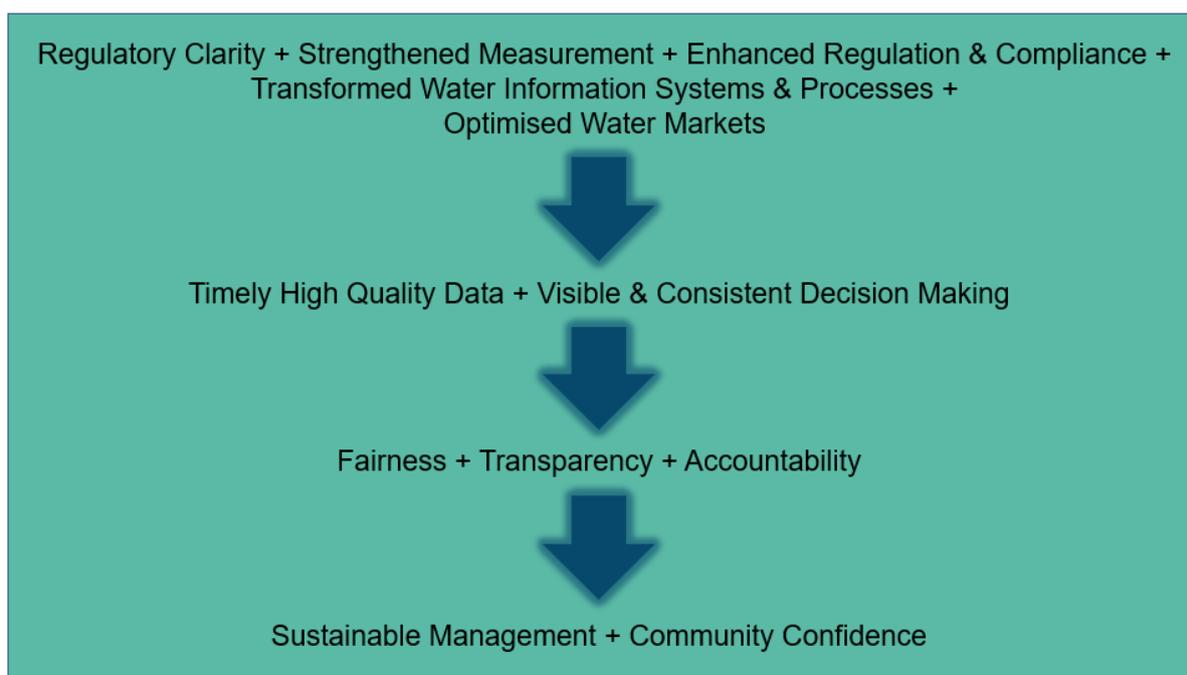


Figure1: Rural Water Futures – program drivers and outcomes that deliver community confidence

Delivery model

Rural Water Futures is being delivered by the Department of Regional Development, Manufacturing and Water through a distributed project delivery model involving a number of business groups. This allows us to draw on expertise from across the department to deliver practical policy and business solutions and enhanced customer-focussed service delivery.

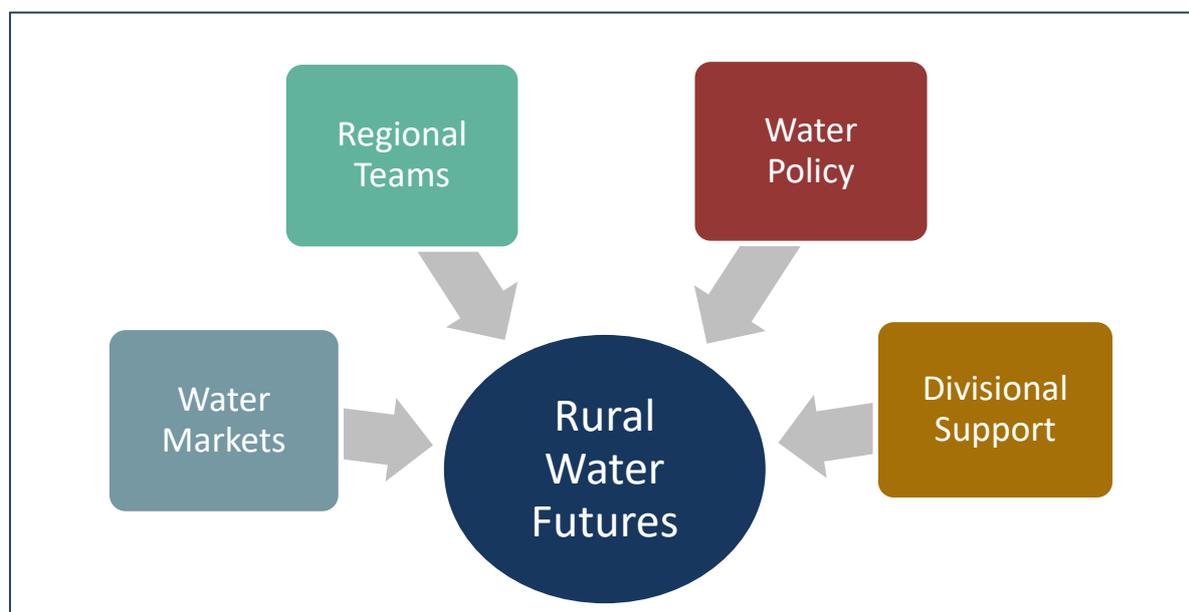


Figure 2: Business groups involved in the delivery of the Rural Water Futures program

Australian Government funding

During the last 12 months, Rural Water Futures has secured Commonwealth funding to support program delivery.

In late 2020 the program received \$10.2M as part of the Australian Government’s Hydrometric Networks and Remote Sensing (HNRS) Program. These funds are supporting a number of key activities identified in the Murray-Darling Basin Compliance Compact (the Compact), enabling the department to develop technical and digital capabilities to improve measurement, monitoring, reporting and transparency of water information.

Earlier this year, the program secured a further \$12.5M in Commonwealth funding under the Murray-Darling Basin Communities Investment Package. This investment will support projects to build water measurement and data collection capacity and improve access to water information in the Murray-Darling Basin over the next three years. The funding will go towards projects to:

- test the accuracy and efficiency of water meters
- evaluate telemetry options and alternative monitoring approaches such as remote sensing
- subsidise the installation of telemetry in high-risk catchments.

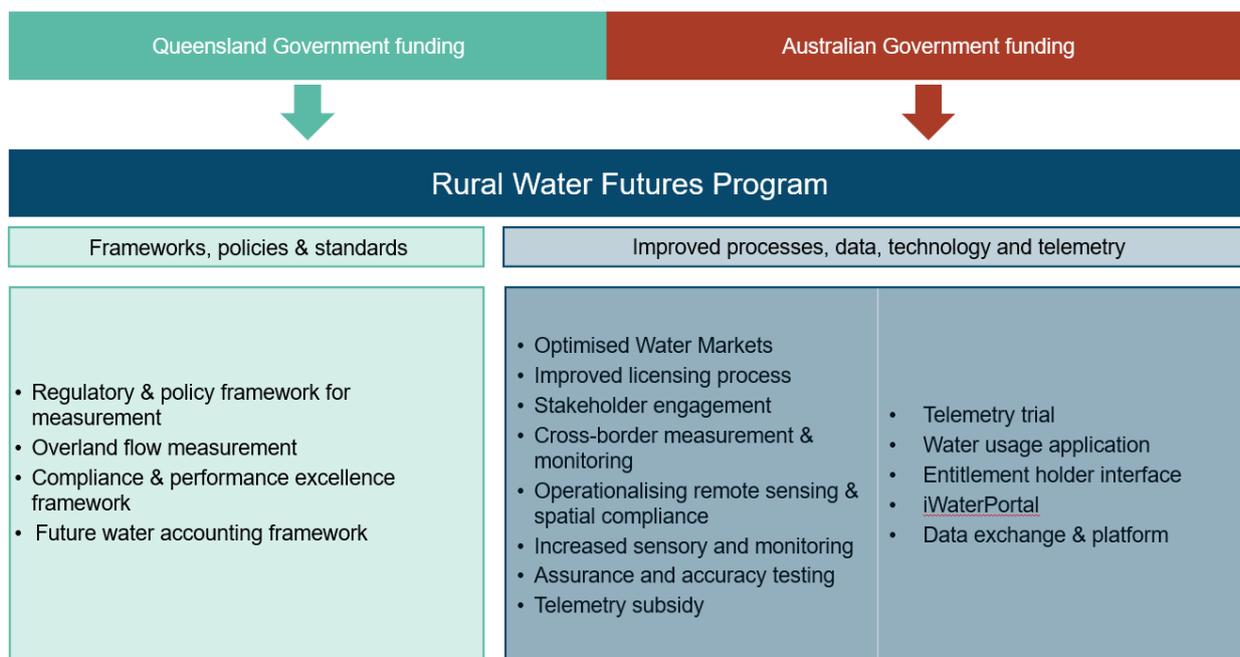


Figure 3: High level projects and activities being delivered 2021-2023



The Queensland Department of Regional Development, Manufacturing and Water (DRDMW) gratefully acknowledges the Australian Government’s financial contribution to the Rural Water Futures Program through the Murray-Darling Basin Authority and the Murray-Darling Basin Communities Investment Package, delivered under the Murray-Darling Basin Plan by the Queensland DRDMW, through funding from the Australian Government Department of Agriculture, Water and the Environment.

Program achievements

Rural Water Futures has continued to improve the way Queensland's water resources are managed, measured and reported.

Over the last 12 months the program has taken significant steps to:

1. strengthen water measurement
2. optimise water markets
3. improve business processes and systems
4. enhance regulatory and compliance approaches.

1. Strengthened water measurement

Non-urban water measurement policy

A strengthened non-urban water measurement policy is a key component of the Rural Water Futures Program.

The department has consulted widely with industry and water users and undertaken significant work to address complex policy issues. We have developed draft policy positions that respond to stakeholder feedback and government commitments and address:

- How a risk-based approach will be applied
- Metering thresholds and exemptions
- Cost concerns
- Metering standards and transitional arrangements for existing meters
- Implementation approach and timing
- Innovative approaches to collecting measurement data e.g. telemetry, remote sensing
- Supplemented and dual-purpose water meters

Further targeted engagement is planned for later this year before we finalise the policy for Government consideration early next year.

Metering standard

The department has recently updated the [*Queensland interim water meter standard for non-urban water metering*](#) (the standard) to assure confidence in the performance of existing, new and replacement water meters. Many of these changes directly address concerns raised by stakeholders during consultation on metering policy proposals in late 2019.

The standard now aligns more closely with national requirements. These updates provide the framework to ensure that the department and the water user can have confidence that their meter is performing as intended. Meter performance is assured through:

- Selecting the correct meter (accurate and fit for purpose)
- Installing the meter correctly
- Ensuring the meter is maintained throughout its life
- Validation of meters at installation, post-installation and over their operational lives



Gauge boards, Elliot River Gauging Station, near Bundaberg

The standard provides details on each of these meter assurance requirements and provides clarity for water users and Certified Meter Installers (CMIs) on the department's expectations.

Metrological Assurance Framework 2

Queensland has actively participated in the development of the Metrological Assurance Framework 2 – Rules and guidance for the uses and regulation of non-urban water meters. Approved by the National Reform Committee in April this year, the updated framework provides a nationally consistent compliance management approach for non-urban water meters in Australia and provides agreed pathways to:

- an acceptable level of confidence in non-urban water meter performance
- greater coverage of Pattern Approved non-urban water meters which comply with Australian Standard AS4747
- a nationally consistent approach for the regulation and management of non-urban water meters
- transition to greater use of risk management to prioritise metering implementation and management requirements.

Queensland's updated interim standard applies the national requirements outlined in the Metrological Assurance Framework 2.

Telemetry trial and subsidy

To better understand the effectiveness of telemetry on water meters, we are undertaking a small trial in the Queensland Murray-Darling Basin (QMDB) to identify cost effective, accurate telemetry devices and effective transmission options and costs. Commencing in May 2021 the telemetry trial is expected to run up until mid-2022.

Trial participants including water users and telemetry service providers are testing a range of equipment, telemetry networks and services.

Devices have now been installed across several surface water sites in the Border Rivers, Condamine and Balonne and Lower Balonne water management areas and groundwater sites in the Central Condamine Alluvium groundwater management area.

The trial enables us to test the viability of data transmission across a range of networks and estimate overall costs to install and run telemetry devices. The information we gather about data transmission, device connectivity and costs will help us to identify cost-effective, practical solutions for implementation.

The department has also received Commonwealth funding for a telemetry subsidy in the QMDB. Information about the subsidy will be made available to water users once the details have been established.



CatVue telemetry device installed on Mace meter in the Border Rivers catchment

Overland flow

Progress continues on the overland flow measurement project. The first phase of the project was completed in early 2021 with the publication of an interim standard for measurement of water levels in on-farm storages. As a result, the Border Rivers and Moonie water plan measure, stating that large volume overland flow water take will be measured in high priority areas by 31 December 2022, can now be met.

Recent work has focused on preparing a robust, quantitative measurement framework that will apply in high-risk areas of the QMDB. Feedback will be sought from irrigators and industry bodies before the measurement policy and standard are finalised later this year.

The next phase of the project will focus on establishing the supporting legislative and system frameworks and implementation of the new overland flow measurement framework requirements. This work will be supported by Commonwealth funding made available through the Hydrometric Networks and Remote Sensing program.

Groundwater monitoring network review

The department routinely reviews its water monitoring networks to ensure they provide timely, reliable and appropriate data to support water resource planning and management needs into the future. The Groundwater Network Monitoring Review methodology has been finalised and the assessment and recommendations are anticipated to be completed towards the end of 2021. Significant work has been undertaken to align the review methodology with the state-wide risk assessment framework for water plans in Queensland to incorporate risk-based assessment of groundwater units against the criteria.

Resource Operations Licence holder reporting

Last year's independent audits of Resource Operation Licence (ROL) holders assessed the quality and condition of their hydrometric monitoring networks. Following the audits, the department engaged with each of the ROL holders to identify opportunities for improvements to quality assurance. Since then steps have been taken by some ROL holders to improve their data collection and record management and upgrade their water monitoring devices.

Through this project, Queensland has published the revised data collection and reporting standards for hydrometric networks operated by ROL holders and initiated a model of quality assurance that aligns with their operational requirements.



*Manual streamflow measurement,
Burnett Creek Gauging Station*

2. Optimised water markets

Maximising the value and availability of our water resources and infrastructure is key to unlocking Queensland's regional economic development into the future.

We are working closely with the community and industry to find ways to:

- improve access to water information
- optimise water market and trading processes
- increase access to water through unallocated water releases.

Queensland Water Markets Optimisation

The department worked closely with key industry stakeholders to develop the Queensland Water Market Optimisation (QWMO). Released earlier this year, these initiatives provide a pathway towards better water trading markets which will deliver significant economic benefits while still protecting our rivers and streams.

QWMO is delivering a coordinated set of actions that will make it easier for Queensland irrigators and businesses to buy or sell unused water and to expand or develop new enterprises. The department is implementing these key actions as a priority:

- Water customers will be encouraged to voluntarily offer unused water up for temporary trade as a way to maximise economic benefits associated with existing and new water infrastructure and resources.
 - Business and investors will be supported with improved information available to help access water which is required to establish and expand operations.
 - Improved availability and timeliness of information on water market activity which will allow improved business planning and risk management for water users.
 - Up-to-date and interactive mapping will be developed to help water users and investors identify water trading opportunities and priority areas for investment in water.
- The development of the water brokerage industry in Queensland will be supported to reduce costs of temporary trading and to connect buyers and sellers more easily.

Unallocated Water

To support economic development in regional communities, the department has formed the Unallocated Water Hub to streamline its processes for releasing unallocated water. Since its creation in September 2020, the Hub has managed release processes of 107 655 megalitres in the Lockyer, Stanthorpe, Baffle and Gulf areas, with a further 235 636 megalitres prioritised for release over the next 12 months.

Providing the opportunity to access more water gives water users across the state the resources they need to grow their business, create new jobs and recover from the impacts of COVID-19.

Water provided through these releases has been accounted for in the water planning process and is within the sustainable limits for extraction.

Unallocated water delivery model

The 'virtual hub' delivery model, tasked with coordinating and streamlining releases of unallocated water to the market to stimulate economic development in regional communities was extended for a further 12 months to 31 December 2021.

Lockyer unallocated water release

A release of 1 275 megalitres of unallocated water was announced in September 2020 for the Great Artesian Basin in the Crows Nest and Southern Clarence/Moreton (Lockyer area) sub-areas. Information from the expression of interest (EOI) process completed last year was used to inform the release decision, the method of release and terms of sale. Offers have been made to successful applicants following assessment of tenders. Successful applicants were given six months in which to investigate the viability of extracting usable quantities and quality of groundwater. Offers will close on 22 September 2021.

Stanthorpe unallocated water release

A release of 1 060 megalitres of unallocated water was announced in February 2021 with offers made to the successful applicants. Offers closed on 13 August 2021 and the uptake has been almost 100% acceptance, with only 60 megalitres returning to the general reserve. Water licences will be issued to successful applicants in early September 2021.

Baffle unallocated water release

A process was developed to finalise a historical unallocated water dealing, where the offer remained outstanding for over five years. A direct offer was made for a licence for 2 900 megalitres which was subsequently accepted on 3 March 2021. This approach resolved a legacy issue that has prevented any further unallocated water releases in this catchment.

Gulf unallocated water release – fixed price process

Three applications have been successful in securing a total of 10 000 megalitres of water from the Lower Leichardt sub-catchment. The release remains open for applications to be made at any time for the remaining volumes in the Gilbert, Norman and Nicholson catchments under the current Terms of Sale.

Great Artesian Basin expression of interest – Western Qld unallocated water release

An EOI process was completed for groundwater units of the Great Artesian Basin in Western Queensland which included a total volume of 4545 megalitres available within the Cadna-owie, Hooray, Springbok Walloon and Hutton units. Information from the EOI is being used to develop a release process which is expected to commence in early 2022.

Strategic Water Infrastructure Reserve unallocated water release

The Hub is finalising a review of the outcome of the temporary use of the strategic water infrastructure reserve in the Dawson Valley Water Management Area in 2019.

The initial findings indicate the release was successful with one issue raised by a single stakeholder. Planning is underway for a second temporary release and to investigate the issue raised. During the last release process, landholders were able to secure temporary access to 69 000 megalitres for irrigation.



Dawson River, Central Queensland

3. Information and systems

The department is investigating technology and digital solutions to ensure customers and the community have better access to accurate and timely water information and services. Our key objectives are to:

- encourage more efficient use of the water resources available
- support [water markets and trading](#) and access to unallocated water
- improve the effectiveness of our compliance activities
- increase public confidence in how our water resources are regulated.

Foundation project

We have established an Information Management Framework to formalise and strengthen our approach to data and information management. This framework enables us to plan how we organise and manage our information to support business processes and decision making.

Key components of the Information Management Framework include: a **Data Strategy**, a **Water Data Audit** and **Information Asset Register**, a **Data Glossary** and **Data Model** and provision of the required **data platform**.

Over the last 12 months we have also implemented a coordinated program of work to identify the high-level activities, business requirements and processes we need to have in place to meet our information and systems objectives.

This work is setting the foundations for:

- future business processes and new ways of working
- improved business agility and performance
- consistent, reliable, cost-effective service delivery state-wide
- more efficient and compliant processes.

Our Procurement Plan for engaging technology vendors and service providers, based on the foundational work defining the Information and Process Frameworks, has also been finalised.

The Australian Government funding secured by Rural Water Futures over the last 12 months has enabled us to expand the scope of our information and systems projects and business improvement activities.

Core Water Platforms project

The Core Water Platforms project will establish the technical capabilities to support more flexible and efficient ways for us to do business now and into the future.

Funded under the Australian Government's Hydrometric Networks and Remote Sensing Program, the project has commenced its initial phase focussed on:

- mapping and redesigning some key business processes
- technical foundations for more efficient systems
- engaging with stakeholders to seek feedback on digital service channels that will enable water users to see entitlement and resource information and to undertake online transactions using smart forms
- developing a high-level scope for initial release of digital tools for entitlement holders to support them to make business decisions in managing their water entitlements.

The project will deliver the following business improvement initiatives.

Initiative	Business improvements
Future water accounting framework	Improvements to our legislative framework, systems and processes to enable automated reconciliation of actual and authorised take
Water user app	A mobile application for Queensland's licenced water users (See further details below.)
Publish water trades data	Automated process to publish unsupplemented temporary water trade pricing information
Improved Licensing Process	Improved state-wide process, supporting materials and end-user training for seasonal water assignment dealings
Business Intelligence & reporting tools	Access to business intelligence and reporting tools to improve data and information management and support continuous improvement
Improved resource allocation and announcements	Automated process and new communication channels for recommending and publishing announced entitlements or allocations under water sharing rules. (To be trialled for a limited number of groundwater management areas.)
Entitlement Holder Interface	This Entitlement Holder Interface is the first stage of a digital service channel for customers, providing access to their personal entitlement holder information including water entitlements, resource conditions, water trading information, meter readings, water notifications, customer details.
iWater Portal (Compliance Officer Interface)	The iWater Portal will provide an overarching framework for the consistent delivery of the water management and water monitoring function across the state. It will record and manage supplemented and unsupplemented water authorisations, and riverine authorisations under the <i>Water Act 2000</i>

Water application trial (water app)

As part of our overall strategy to improve online services, the department is developing a pilot program to test a mobile app for Queensland water users. The app will use new capabilities available through smartphones to simplify and improve the accuracy of the meter reading process.

A 12-month trial will provide an opportunity for water users in the QMDB to assist the department to design a simple process for submitting meter readings. The initial trial will focus on capturing meter readings using familiar information tags such as "QR code" reader technology and/or optical character recognition* to improve meter reading accuracy and make the submission of more frequent meter readings quick and easy. Feedback through the trial will help us to prioritise features for future releases of the app. The medium-term vision is to allow the department to securely share additional information such as water entitlements and water market information in an easily accessible and familiar digital format.

In the longer term, this mobile app will support water users to access more information about the resource and their entitlements and will provide access to online services and forms.

**Optical Character Recognition, or OCR, is a technology that enables conversion of a scanned image of the meter dial or display captured by a smart phone into a series of numbers and letters as the meter reading.*

Enhanced Measurement Project

Commencing earlier this year, the Enhanced Measurement Project is evaluating a range of new and emerging approaches to water measurement and compliance, in partnership with the New South Wales Department of Planning, Industry and Environment, Water NSW, the Murray-Darling Basin Authority, Geoscience Australia and the Bureau of Meteorology.

Comprising two key components, this Commonwealth funded project will help us to meet our Murray-Darling Basin Compliance Compact commitments.

Cross-border measurement and monitoring

Commonwealth funding will support the addition of three surface water monitoring sites in the QMDB, evaluation of lower cost direct measurement devices and piloting of the use of remote sensing products to provide insights into the take and storage of water on floodplains.

Early work includes a technology scoping paper to guide further investigations into how we can better measure water in challenging geographic locations. Eighteen experts from industry, the education sector and the public sector have collaborated to develop this paper.

The scoping paper will guide investigations into:

- the efficacy and cost of measurement technology in remote regions
- drone use for on farm measurement of farm storages - both in dry and wet conditions
- low-cost water flow monitoring.

Trials in each of these three areas are underway. The outcomes from these will enable the department to collect reliable, repeatable and defensible water measurement data. The work to evaluate lower cost direct measurement devices, complements other Rural Water Futures measurement projects including the Overland flow Measurement Policy and standards project.

Operationalising remote sensing and spatial compliance

The application of remote sensing technology to measure water flow and storage in the Northern Murray Darling Basin; and improve public confidence in the sustainable use of our cross-border water resources is also being investigated.

Work is underway to identify opportunities to increase water balance model confidence through greater granularity of data points and ground truthing. These improved models will be used to inform compliance monitoring.

Key components of this project include:

- Scoping and gap analysis of current capabilities
- Market engagement and testing of commercial remote sensing tools
- Increased monitoring for model input
- Development of departmental work practices and procedures to embed new tools.



Satellite telemetry box installed on a Tipping Bucket Rain Gauge

Indirect measurement approaches including remote sensing and estimation using water balances models, can help to track the volume and timing of the take of water from watercourses and floodplains.

These approaches enable us to measure water use without a water meter outside high-risk areas.

Through delivery of the Enhanced Measurement Project, Queensland will achieve significant progress in meeting our Commonwealth commitments to improving transparency of water use in our State.

4. Enhanced compliance and regulatory framework

Robust compliance

Our role as a water regulator is to ensure that water is managed fairly and responsibly, to make best use of our water resources by delivering sustainable, safe, secure and affordable water to all Queenslanders - today and tomorrow.

The department continues to take significant measures to strengthen our regulatory approach, including:

- a formalised framework and associated governance arrangements for Queensland's water management
- a whole-of-department compliance framework, strategy and plan to provide confidence that the state's water resources are being managed fairly, consistently and responsibly
- monitoring high risk areas through a proactive annual auditing program to ensure sustainably managed water resources
- triaging compliance breaches to identify significant matters for an early response
- supporting staff to manage contentious issues and ensure they have the support of management and the executive in their decision making
- an updated technical training program for authorised officers to support water and compliance staff to undertake their roles.

The following principles will continue to guide our compliance approach:

Consistent and fair: we have a consistent and fair approach to how we achieve compliance.

Outcomes and risk-based: we use a proactive, outcomes-focused, targeted, risk-based approach for our compliance activities.

Supportive: we encourage the community to do the right thing and empower staff to make decisions within our regulatory and governance framework.

Adaptive: we monitor our progress and adjust our actions as needed.

Accountable and transparent: we do what we say we are going to do, are transparent in our decision making and talk openly about priorities, activities and the results of our work.

Safe and well: we support the safety and wellbeing of our staff and communities.

Responsive: we are timely in how we communicate about compliance and in how we respond to non-compliance.

Enhanced Regulatory Framework

The department is continuing to work on regulatory enhancements to support measurement and compliance. For example, the *Water Regulation 2016* was amended to declare new metered entitlements in the Burdekin Basin water plan area to support implementation of the water plan (23 July 2021).

The next phase of regulatory changes is likely to occur in 2022 and will focus on water measurement and compliance following finalisation of the non-urban water measurement policy.

Performance excellence

The department is responsible for sustainably managing Queensland’s 6.4 million megalitres of non-urban water resources. Our role is to deliver value for the people of Queensland through our products and services. We want the public to have confidence that we are doing our job well. Therefore, we must continuously seek to do better in delivering public value.

The Performance Excellence Framework we have built over the last two years is an exciting step towards delivering our commitment to do better and strive towards excellence. Last year, we shared our vision - to be **recognised for excellence in sustainable water resource management, service, and performance.**

We also shared our attributes for excellence - Utmost Integrity, Empathic Engagement and Stellar Competence; and the focus areas that describe who we are and what we want to be known for. You can read more about the framework in Attachment 1.

Public value

How do we know we are doing our job well? What difference are we making? Are the products and services we are delivering, the right ones?

These are the questions we are asking to understand how our work is delivering public value for Queensland.



Figure 4: Attributes and focus areas of our non-urban water resource management performance excellence framework

The year in review

Over the last 12 months we have been working to identify the activities, products, and services we deliver that align with our focus areas. We have started to establish measures that demonstrate how we are performing in our role as a non-urban water resource manager.

Stakeholder engagement is an important part of our business, so measuring how we are performing in this area has been a good place to start.

We value our stakeholder relationships and understanding what, when and how information is best communicated is key. To do well we need to understand what our stakeholders think of us; are we making a difference and what can we do better?

Three water business groups nominated the following existing projects and business as usual activities to pilot the framework by measuring their performance engaging stakeholders. We will be collecting data for these measures during the 2021-22 financial year.

	Project Name	Description
1	Non-urban Telemetry Requirements	Determine the feasibility of implementing telemetry in the QMDB by testing a range of equipment, telemetry networks and telemetry service providers.
2	Rural Water Futures	Program designed to develop and implement initiatives and products that improve rural water management.
3	Announced Entitlements	Administering Announced Entitlements for Bowen Groundwater Management Area.

Table 2: Projects being measured in 2021-22

Performance outcomes, impact measures and data sources for these projects are outlined in the table below.

The following key is provided for clarity:

Performance outcome	A description of the overall result we are aiming for.
Impact measure	Designed to provide insight into how we are meeting our stakeholders' needs. We want to know are we making a difference and is anyone better off?
Data sources	Data from a wide range of sources will be collected and analysed for each impact measure.

1a. Non-urban Telemetry Requirements

Performance outcome We create an environment where there is an opportunity for staff and stakeholders to access information detailing significant policy decisions and implementation.

Impact measures

1. Staff and stakeholders can access trial outcomes and recommendations
2. Policy decisions on telemetry requirements are made based on evidence
3. There is a clear and transparent approach to implementing telemetry.

Data sources Interview telemetry trial participants, information publicly available and accessible, contact logs.

1b. Non-urban Telemetry Requirements

Performance outcome We include stakeholders in the work that we do so that their positions and concerns can be incorporated.

Impact measures

1. Full disclosure of field trial is provided
2. Open communication with trial participants
3. Perception that the trial is a worthwhile and value adding exercise.

Data sources Interview telemetry trial participants, surveys, other sources of feedback, contact logs.

2. Rural Water Futures

Performance outcome	We actively and effectively engage with external stakeholders impacted by the Rural Water Futures program so that their positions and concerns can be incorporated in the design and delivery of the planned transformation initiatives and products.
Impact measures	<ol style="list-style-type: none"> 1. Increase awareness about RWF, its objectives, deliverables & benefits to external stakeholders 2. Support well-informed external communities by providing publicly accessible program information & avenues for public feedback 3. Engage key stakeholders in a timely and effective way
Data sources	Interview external stakeholders, surveys, other sources of feedback, availability, and accessibility of information, contact logs.

3. Announced Entitlements

Performance outcome	Decisions and advice are provided in a timely manner, clearly articulated, and justified.
Impact measures	<ol style="list-style-type: none"> 1. Announced allocation decisions are made in a timely manner to support good customer service 2. Department meets its statutory obligations regarding announced entitlements including consultation with the Bowen Water Advisor Group. 3. Stakeholders are informed of the process and outcome
Data sources	Interview members of Bowen Water Advisory Group, surveys, other sources of feedback, documented processes, and procedures, contact logs, record of meetings.

Table 3: Performance outcomes, impact measures and data sources for these projects

What's next?

Over the next 12 months we will continue to gather data about our pilot projects. The results will be published in 2022.

We will also continue to instil excellence through all facets of our business and look for opportunities for additional performance outcomes and impact measures to apply to our framework.

We are committed to using our Performance Excellence Framework to measure our progress and publicly report on how we are performing. As the framework matures and each report progresses, we hope to demonstrate community confidence in the job that we do, and that we create public value through excellence.

In the year ahead we will be seeking independent advice and support from specialists in social and market research, and experts with experience in measuring service delivery.

We will also seek feedback from our stakeholders to learn if the way we are delivering our projects is the right way, and if not, how can we do better.

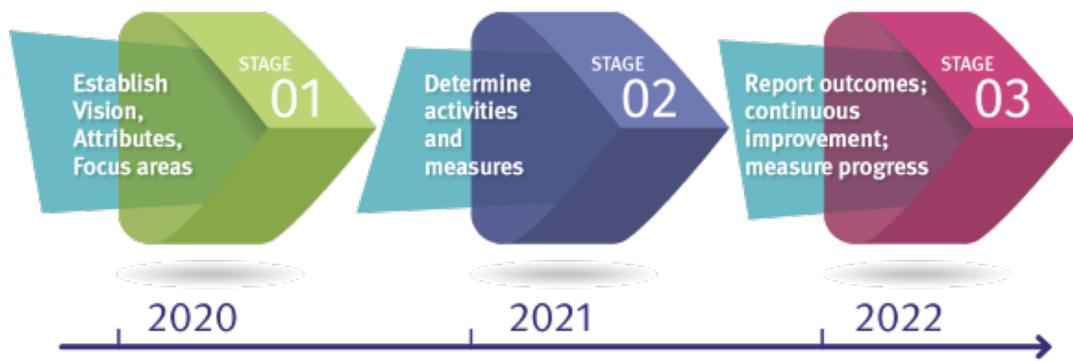


Figure 5: Timeline for delivering our non-urban water resource manager performance excellence framework

Implementing the government’s response to the Independent Audit

Rural Water Futures is continuing to deliver the government’s response to the Independent audit of Queensland non-urban water measurement and compliance. The program is addressing all 15 recommendations arising from the independent audit. Five have been completed and a further seven have been substantially progressed. All actions are on track for completion within the three-year program.

Attachment 2 outlines the progress that has been made against each of the recommendations.

Progress on Queensland Murray-Darling Basin Compliance Compact Commitments

Queensland is continuing to meet its commitments under the [Murray-Darling Basin Compliance Compact](#) (the Compact).

Annual reports on the progress the department is making on each of its commitments are provided to the Murray-Darling Basin Authority (MDBA).

The department has continued to demonstrate significant progress against its outstanding Compact commitments. The Murray–Darling Basin compliance compact assurance report 2020 (published in March 2021) acknowledged Queensland had met a number of metering and measurement commitments including consultation on the development of a new metering policy. However, it was noted that further work may be needed to ensure that this policy meets all requirements of the Compact, including a mandate for all new and replacement meters to be AS4747 pattern approved by 2025 and determining any exemptions that may apply. We are addressing these concerns through our strengthened measurement policy.

The Compact seeks to ‘restore public confidence in water resource management in the Basin by increasing transparency and accountability of surface and groundwater management and regulation across the Basin’.

Many key actions to meet these commitments are being delivered through the Rural Water Futures Program.

While the persistence of drought conditions across 65% of the state and the impacts of COVID-19 have sometimes delayed progress, the department remains committed to the completion and implementation of the Compact commitments.

The MDBA had also raised concerns with the time it is taking for the department to publish a work program to improve the transparency of information about water take under entitlements and a water information improvement program. The department is developing a roadmap for the Rural Water Futures program for publication later this year.

Progress during the 2020/2021 reporting year

Compliance and Enforcement framework

Our [Compliance Plan 2020-21](#) identifies activities that support the Department's compliance approach, including compliance outcomes, performance measures, focus areas, activities, targets and measures. The plan supports a risk-based, transparent and consistent approach to how we regulate Queensland's water resources. We expect to publicly report on the outcomes of the 2020-21 plan during September 2021. Updated performance measures and targets for the [Annual Compliance Plan 2021-2022](#) have been developed and are available on [Our role as a water regulator](#) web page.

Transparency and Accountability

- Progressed actions towards improving the quality, transparency of water related information.
- Progressing the development and implementation of a Water Accounting Framework.
- Progressing a 12-month trial to test a Mobile Application for water users in the QMDB.
- Projects initiated to test alternative technology e.g., telemetry, Lidar, satellite imagery to improve measurement & compliance.

Metering and Measurement

Queensland is making progress on a number of metering and measurement commitments. Further stakeholder engagement is planned for later this year before finalising the policy for Government consideration early next year.

Measurement of overland flow and water harvesting

To improve the reliability and accuracy of water harvesting and overland flow measurement and monitoring the department has progressed the development of an overland flow measurement standard and risk-based overland flow measurement program.

Work completed:

- Completed a state-wide audit of existing overland flow water licences and department held notifications (water plan authorisation).
- Finalised the Overland Flow Interim Water Level Station standard.

Work in progress:

- Overland Flow Measurement Policy.
- Overland Flow Measurement standards and guidance materials.
- Targeted consultation on draft proposals.
- An implementation plan for overland flow measurement.

Attachment 1: Our framework for excellence

Our performance excellence framework establishes who we are and where we want to be.

Performance excellence sits at the centre surrounded by our attributes – Utmost Integrity, Stellar Competence and Empathic Engagement. These are the traits we embed in our activities. “Excellence” in this context is about striving to do better. It is not about achieving perfection – it is more about continuous improvement.

Utmost integrity – We believe in holding ourselves to the highest standards of integrity. We serve the people of Queensland and strive for their confidence in our ability to deliver an honest and trustworthy performance.

Empathic Engagement – We strive to engage with all our stakeholders regularly to build relationships based on trust and respect. We also ensure we specifically engage when making decisions and exercising authority. It is important to us to hear what everyone has to say and provide a response that is meaningful, concise, and explanatory.

Stellar Competence – We endeavour to maximise public value by utilising our available resources. Working for the people of Queensland, we believe in delivering products and services that meet the needs of our customers; are useful and easy to understand.



The outer layer is our ‘focus areas’ or outcomes which describes how we want to be recognised as managers of Queensland’s non-urban water resources. Over time we will measure how we are performing in realising these outcomes through the functions, activities, products, and services we deliver. The steps we will take are:

1. Set performance measures.
2. Collect data – how much are we doing? How well are we doing?
3. Report our impact – is anyone better off?
4. Identify opportunities for continuous improvement.

Attachment 2: Queensland government's response actions to the Independent Audit on Measurement and Compliance progress status – August 2021

Government's response actions to the Audit	Actions completed in the last reporting period	In progress	Comments
Governance			
Rec 1: Implement a management framework to achieve state-wide consistency in water measurement and robust compliance actions. The framework must incorporate mechanisms for oversight, assurance and auditing of departmental processes.			Completed
Rec 2: Review the role and structure of the Natural Resource Compliance Committee to ensure governance arrangements align with the revised management framework.	<ul style="list-style-type: none"> The former DNRME established the Compliance Review Group (CRG) and Major Investigation Group (MIG) to formalise the framework and associated governance arrangements for Queensland's water management. As a new department, key compliance governance decisions are made by the DRDMW Water Division Executive Leadership Team with the support of the Strategic Compliance team. The department continues to take significant measures to strengthen our regulatory approach, such as triaging compliance breaches to identify significant matters for an early response. 	<ul style="list-style-type: none"> BAU improvements over time, as governance structures are established for the new department. 	Completed
Rec 3: Implement a formalised and systematic risk assessment process for Queensland catchments and apply the outcomes to decision making on water measurement and monitoring.	<ul style="list-style-type: none"> The Water Regulation 2016 was amended to declare new metered entitlements in the Burdekin Basin water plan area to support implementation of the water plan (23 July 2021). The risk assessments for the following water plan areas have been updated: Pioneer, Whitsundays, Moreton, Logan, Gold Coast, Burdekin Basin, Warrego, Paroo, Bulloo and Nebine The updated risk assessments support the Minister's Performance Assessment report for the Warrego, Paroo, Bulloo and Nebine water plan (released in February 2021) as well as the reports for Moreton, Logan and Gold Coast currently being finalised. 		Completed

Government's response actions to the Audit	Actions completed in the last reporting period	In progress	Comments
Compliance actions and culture			
<p>Rec 4: Establish a stronger culture of compliance and enforcement within the department by introducing compliance and performance targets, finalisation of compliance policies, procedures and guidelines which include proactive inspections/audits and support and training for staff</p>	<ul style="list-style-type: none"> The Compliance Strategy and Framework 2020-2024 sets out our overarching approach to compliance and establishes principles for how we undertake our regulatory functions. All of this information is available from our externally facing web page 'Our role as a water regulator.' Where compliance is not achieved, we take a risk-based approach to decide how best to respond, using a suite of compliance tools and interventions to remediate, rectify and respond to non-compliance. Compliance tools include advisory letters, warning notices, statutory notices, penalty infringement notices and prosecution. The department will continue to develop its compliance documentation, training, policies and procedures continue as required to support water and regulatory staff. In 2020, the department established a centralised response to significant compliance breaches, triaging compliance breaches to identify significant matters for an early response. The department enables staff to manage contentious issues and ensure they have the support of management and the executive in their decision making. 	<ul style="list-style-type: none"> The strategy and framework were developed by the former Department of Natural Resources, Mines and Energy and will be updated in due course for our new Department of Regional Development, Manufacturing and Water (DRDMW). 	On track
<p>Rec 5: Strengthen compliance arrangements by raising awareness of entitlements holders' rights, measurement obligations and penalties for noncompliance. In addition, require Resource Operations Licence (ROL) holders to undertake proactive management of compliance</p>		<ul style="list-style-type: none"> Strengthened measurement policy and regulatory framework. After the measurement policy has been finalised, further regulatory changes are likely to focus on enhancements to water metering rules and arrangements to give effect to the strengthened policy. A state-wide water measurement policy implementation plan to be finalised once measurement policy is finalised. 	Significantly progressed

Government's response actions to the Audit	Actions completed in the last reporting period	In progress	Comments
		<ul style="list-style-type: none"> Continue to strengthen compliance capabilities. An information package to support entitlement holders to understand their obligations and timeframes. 	
Transparency			
<p>Rec 6: Provide more transparent information relating to water resource management, water use and compliance, including publication of state-wide catchment level compliance objectives and management strategies.</p>	<ul style="list-style-type: none"> The Queensland Government reports on the compliance and enforcement actions it has undertaken in the Murray Darling Basin. On 30 September 2020, the department published the Compliance and Enforcement Actions Report 2019-20 and is committed to delivering the report each year. The department's Compliance Plan 2020-21 identifies activities that support DRDMW's compliance approach, including compliance outcomes, performance measures, focus areas, activities, targets and measures. The plan supports the department to take a risk-based, transparent and consistent approach to how we regulate Queensland's water resources. 	<ul style="list-style-type: none"> Testing alternative technology e.g. Telemetry, Lidar, satellite imagery to improve measurement & compliance. Business proposal for a Water Use App and progress a trial of the Water Use App. Development and implementation of a Water Accounting Framework. Publication of the 2020 -21 Compliance and enforcement actions in the Queensland Murray Darling Basin catchments areas will occur late 2021. Queensland has received Commonwealth funding under the Hydrometric Networks and Remote Sensing (HNRS) Program and the Murray-Darling Basin Communities Investment Package to achieve this outcome. 	On track
Metering Policy			
<p>Rec 7: Strengthen measurement policy for supplemented and unsupplemented water extractions, which maintains consistency with AS 4747 and includes a comprehensive validation, maintenance and assurance regime</p>	<ul style="list-style-type: none"> Amendment of existing metering standard to enhance alignment with AS4747 and to provide clarity for data recording and storage devices 	<ul style="list-style-type: none"> Finalise the strengthened Measurement Policy. Targeted engagement on draft water measurement policy positions. 	Significantly progressed

Government's response actions to the Audit	Actions completed in the last reporting period	In progress	Comments
<p>Rec 8 Introduce a stronger meter validation and maintenance oversight by amending existing government measurement policy</p>	<ul style="list-style-type: none"> Amendment of the existing metering standard included enhancements to meter validation process to give greater confidence in meter performance, to provide clarity on requirements to meter validators and improved validation certificates and record keeping. 	<ul style="list-style-type: none"> Non-urban water metering standard updated as required after finalisation of strengthened water measurement policy and will no longer be considered "interim". Department will determine an appropriate meter auditing and compliance approach as part of implementation of a final strengthened water measurement policy. 	Significantly progressed
<p>Rec 9: Incorporate provisions in the strengthened measurement policy to require the upkeep of fully working meters, systematic record keeping for maintenance and meter audits, validation of meters in accordance with the Qld meter standard & inclusion of the standard in quality management systems</p>	<ul style="list-style-type: none"> Amendment of the existing metering standard to align with updated national Metrological Assurance Framework and includes enhancements to ensure meter performance, improved meter validation certificates to provide clarity to meter validators and better record keeping. 	<ul style="list-style-type: none"> Full implementation of this recommendation will occur through the implementation of the strengthened measurement policy once it is finalised. (refer to recommendations 5, 7 and 8). 	Significantly progressed
<p>Rec 10: Investigate the metering of entitlements across Queensland and develop and action plan for installation of meters on measurable entitlements</p>		<ul style="list-style-type: none"> A strengthened water measurement policy will provide clarity on entitlements to be metered and a state-wide implementation plan will identify the timeframes for when meters are required. A state-wide water measurement policy implementation plan to be finalised once measurement policy is finalised. 	Significantly progressed
Information systems and resourcing			
<p>Rec 11: Invest additional resourcing in management systems and information systems to deliver sustainable metering and compliance arrangements to support Queensland's water management framework state-wide</p>	<ul style="list-style-type: none"> Hydrometric network review- Surface water monitoring and groundwater quality network review Report on Quality Assurance framework for ROL holders on the condition and quality of the hydrometric monitoring networks. 	<ul style="list-style-type: none"> Testing alternative technology e.g. Telemetry, Lidar, satellite imagery to improve measurement & compliance. Hydrometric network review- Groundwater monitoring network review 	Significantly progressed

Government's response actions to the Audit	Actions completed in the last reporting period	In progress	Comments
		<ul style="list-style-type: none"> Finalise the concept design for a contemporary Water Information System providing quality assured water information, including water trade data and water accounting capability. Developing Entitlement Holder and Compliance Officer Interfaces to simplify water user access to information. 	
<p>Rec 12: Review resourcing requirements and costings for the development of programs to implement the recommendations of the Independent Audit.</p>		<ul style="list-style-type: none"> Ongoing review of the program resourcing requirements, costings, priority investment programs and funding sources by the RWF Program Board. 	Significantly progressed
Meter ownership			
<p>Rec 13: In consultation with stakeholder and industry, assess the most effective a meter ownership model, including consideration of third-party provider options.</p>			Completed
Water plans and Water Regulation 2016			
<p>Rec 14: Provide greater consistency and improved transparency across various water planning and regulatory instruments including adoption of enhanced risk assessment processes for all future water plans and introduction of publicly available ROL holder compliance reports.</p>	<ul style="list-style-type: none"> The risk assessments for the following water plan areas have been updated: Pioneer, Whitsundays, Moreton, Logan, Gold Coast, Burdekin Basin, Warrego, Paroo, Bulloo and Nebine The updated risk assessments support the Minister's Performance Assessment report for the Warrego, Parroo, Bulloo and Nebine water plan (released in February 2021) as well as the reports for Moreton, Logan and Gold Coast currently being finalised. Quality Assurance framework for ROL holders on the condition and quality of the hydrometric monitoring networks. 		Completed

Measurement of overland flow and water harvesting			
<p>Rec 15: Improve the reliability and accuracy of water harvesting and overland flow measurement and monitoring with introduction of an overland flow measurement standard and risk-based overland flow measurement program</p>	<ul style="list-style-type: none"> • Expert review of approaches to overland flow water measurement used in other jurisdictions. • Overland Flow Interim Water Level Station standard prepared and released providing consistent, verifiable water level measurement, and requiring data logging. • Overland Flow volumetric measurement assessment methodology developed and publicly released. • Preparation of pilot overland flow measurement accounting system completed. 	<ul style="list-style-type: none"> • Development of Overland Flow Measurement standards and guidance materials. • Finalisation of Overland Flow Measurement Policy. • Targeted consultation on draft overland flow measurement policy and standard. • Conversion of existing high risk overland flow works authorities to volumetric overland flow entitlements partially completed. • An implementation plan for OLF measurement. • Development of system application for overland flow measurement accounting system. 	<p>On track</p>