
Demand Management Status Report and Scorecard 2021/2022

Responsible officer: Group Manager Planning and Delivery (Andrew Logan)

Recommendation

That Council receive and note:

1. The progress and outcomes of demand management deliverables for the 2021-2022 financial year (final year of the current plan) including budget expenditure.
2. Successes, challenges, and learnings of the Regional Demand Management Plan 2019-2022.

Background

This report provides a summary of progress against actions and key performance indicators for the concluding year (2021/2022) of the Regional Demand Management Plan (RDMP) 2019-2022. It covers significant achievements, challenges and learnings over this four-year term, and outcomes that informed the new Regional Demand Management Plan 2023-2026.

The Demand Management Program experienced both notable successes and significant challenges during 2021/2022. The first half of this year saw the continuation of strengthening partnerships with our business community to scope, investigate and implement water efficiency projects. Broader community engagement was also a focus by leveraging media to promote water saving, sustainability and behaviour change messages to residential water-users during the month of October for National Water Week and Water Night 2021.

Conversely, the second part of this year saw program progress and engagement with business partners significantly impacted by Covid19 restrictions and associated staff shortages from November onward (many businesses had significantly reduced capacity to be involved in projects as they were managing staff availability, absences or had no staff at all). These issues dovetailed with the consecutive catastrophic floods experienced across our region in late February 2022 and a shift in priorities for many in our community.

As of June 2022, our region continues to experience higher than average rainfall associated with La Niña. Although, water efficiency is important during wet and dry times, water is seemingly plentiful and abundant, making it difficult to gain traction with messages around the importance of mindful water consumption. Water has been an essential resource for much of the post flood clean-up and recovery. Our community is focused on getting this job done, rather than conserving water. Business partners and our community have reported a great shift in priorities, to focus on essential needs – housing, recovery, rebuilding and operational requirements.

1. Demand Management performance scorecard

The following charts are a snapshot of progress for actions of the RDMP from July 2018 to the end of June 2022, summarising the four-year delivery program.

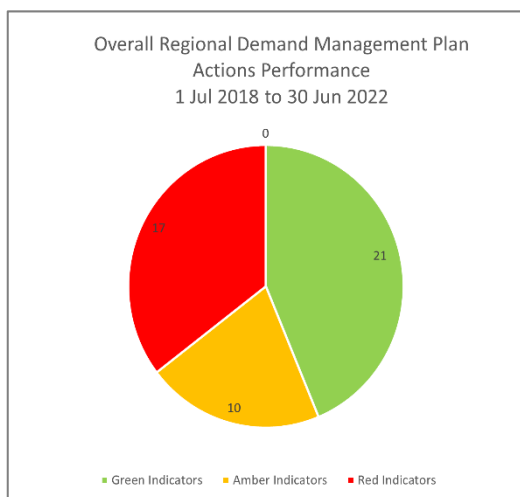


Figure1: Overall performance including collation of activities with joint responsibility between constituent Councils and Rous (48 actions).

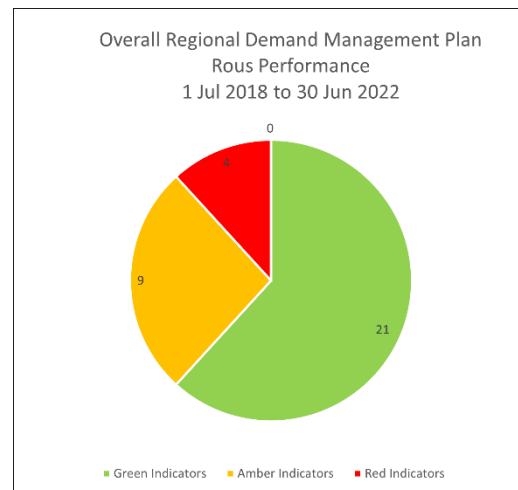


Figure2: Overall performance of activities led by Rous (34 actions).

Key points:

- Progress of demand management initiatives for 2021/2022 have been significantly impacted by restrictions associated with the Covid19 pandemic, followed by major floods during February 2022. Although the performance charts indicate red areas (for actions that have not started or have not happened), these are largely tasks that have had challenges over the four-year term of the delivery program, rather than a direct reflection of tasks that have been influenced by these recent events.
- As stated in the last annual status report (2020/2021), there is momentum in delivering actions that are the responsibility of Rous County Council (Rous) or where Rous is directly involved, including green indicators, where progress was achieved prior to the floods. These areas include:
 - Sustainable Water Partner Program;
 - Residential Rainwater Tank Rebate Program; and,
 - Communications and engagement activities that broadly promote and raise awareness of the value of water, water efficiency and tools and resources available to better understand and reduce household demand.

Although these program areas were hindered by the floods, overall, they are still considered on-track for the four-year Demand Management Program.

- Progress has been made with complementary programs delivered alongside the RDMP, including the Smart Metering Implementation Program for Rous retail customers and water loss management program (WLMP). This is indicative of actions that are within Rous' remit to deliver within the Rous supply network, direct with our customers.
- Meeting key performance indicators for activities that require involvement from each constituent council, continues to be a key challenge and recurring issue of the current RDMP. These actions generally relate to complex projects that will require work / agreement with constituent councils and their various internal business departments. Examples of such activities (red indicators) include tasks such as a regional smart metering approach, consistent regional water billing and developing standardised definitions of connection types. These regional projects involve significant work to review and understand financial, billing, and administrative operations within each constituent council. At this stage, the feasibility, practicalities, and priority of such projects is unknown and will, therefore, be a focus for scoping in the new RDMP.
- As councils direct their limited resources and funding to prioritise post-flood asset audits, maintenance, and reconstruction, it is expected that these region wide projects may be influenced by a shift to critical operational needs. This may be the case for several years.

2. Budget verse actuals 2021/22 to 2018/19 (four-year delivery of the RDMP 2019-2022)

Table 1: Program area budget versus actual for 2021/22 to 2018/19

Program Area	2021/2022			2020/2021			2019/2020			2018/2019		
	Actual	Budget	% Spend	Actual	Budget	% Spend	Actual	Budget	% Spend	Actual	Budget	% Spend
DM General Program	Nil	\$9,600	0%	Nil	\$2,900	0%	\$29,286	\$9,300	315%	\$4,362	\$8,900	49%
DM Monitoring, Reporting & Evaluation	Nil	Nil	Nil	Nil	\$30,000	0%	Nil	\$10,000	0%	Nil	\$10,000	0%
DM Recycled Water (residential only - Byron & Ballina)	Nil	\$45,000	0%	Nil	\$30,000	0%	Nil	\$20,000	0%	\$20,000	\$20,000	100%
DM Residential Rainwater Tank Rebate Programs	\$106,510*	\$65,000	164%	\$107,685	\$90,000	120%	\$115,067	\$65,000	172%	\$73,739	\$65,000	113%
DM Com. Education Program	\$39,998	\$49,900	80%	\$43,438	\$48,900	89%	\$8,862	\$47,700	19%	\$41,025	\$42,000	98%
DM Smart Metering	Nil	Nil**	0%	Nil	\$10,000	0%	\$6,400	\$48,200	13%	\$26,777	\$30,000	89%
DM Sustainable Water Partner Program	\$28,901	\$90,000	32%***	\$68,819	\$82,000	84%	\$5,392	\$80,000	7%	\$16,406	\$55,500	30%
DM Water Loss Program Leakage	Nil	Nil	Nil	Nil	Nil	NA	\$40,003	\$40,000		\$58,000	\$50,000	
TOTAL DM Programs ONLY	\$175,409	\$269,500	65%	\$219,942	\$293,800	75%	\$205,010	\$320,200	64%	\$240,309	\$281,400	85%
Administration costs not included in projects	\$73,772	\$71,600	103%	\$53,354	\$31,500	169%	\$26,376	\$79,800	33%	\$75,730	\$92,900	82%
TOTAL including administrative costs	\$249,181	\$341,100	73%	\$273,296	\$325,300	84%	\$231,386	\$400,000	58%	\$316,039	\$374,300	84%

* The total Rous expenditure for the Residential Rainwater Tank Rebate Program was \$106,510. Income received from constituent Councils (in the form of rebates from outside the Rous supply footprint, mainly Mullumbimby and Casino) was \$7,340. This is the equivalent of approximately 7% of total program costs for 2021/2022. Following the 2019/2020 drought, annual uptake of the rebate program has remained relevantly consistent.

** There was nil budget for smart metering as this is progressing as a separate project - Smart metering Implementation for Rous Retail Customers, with a \$1.1 million budget.

*** The Sustainable Water Partner Program was significantly impacted by the Covid19 Pandemic and the February floods, as explained below.

Note: Administrative costs reflect staff time.

The key aspects of the 2021/2022 demand management budget included:

- Significantly reduced expenditure against the Sustainable Water Partner Program resulting from the February floods. Actual expenditure (32%) reflects works undertaken in the first half of the financial year. In terms of planned works, more than 60% of the total budget was allocated, though this work was paused following the floods during the second part of the financial year. The remaining budget (40%) was earmarked for generating projects with new business partners (including 11 public pools) and preparing water saving plans. However, this work did not transpire as businesses struggled with staffing issues related to Covid19 restrictions and were then hit by the floods. These businesses are at various stages of operation, non-operation or in some cases remain closed. For at least one location, Trinity Catholic College, this pool is closed indefinitely.
- Nil expenditure against program areas that are dependent on the work of constituent councils or have shifted in their delivery intent such as recycled water. For status details, refer to the Recycled Water update below.
- Overspend on the Rainwater Tank Rebate Program, with percentage expenditure at 164%. This reflects the demand and uptake in the community for rainwater tank rebates.
- Underspend against Communications and Education Program reflects the decision to pull back on planned communications and promotions following the floods.

Further explanation and commentary is provided against each program area in the following sections.

3. 2021/2022 Program Area Commentary

General Demand Management Program

This budget was planned to bolster program areas that had a forecast overspend, including the Sustainable Water Partner Program and Communications and Education component. This planned expenditure did not eventuate and as a result, this allocation was not spent.

Recycled Water (Ballina and Byron Shires)

The following recycled water connections were identified during 2021/2022.

Byron Shire Council

- Habitat Stage 3 (multi-residential) and stage 4 (commercial precedent);
- Keats Street (multi-residential);
- Byron Bay Bowling Club (non-residential);
- Ingenia Holiday Park (non-residential).

Byron Shire Council is leading delivery of these projects including ensuring compliance with their own Recycled Water Policy, planning and approvals. Expenditure by Rous to support these connections (through rebates) is dependent on the progress of this work and Byron Shire Council's engagement with these enterprises.

Ballina Shire Council

- Ballina car wash (non-residential).

Rous is leading engagement with this business, however, this project is conditional on the outcome of a risk assessment and amendment of Ballina Shire Council's S60 approval to cover any high-pressure spray activity e.g., commercial roof washing and manual car washing bays.

Background – why are non-residential recycled water connections a focus

The budget for recycled water under the RDMP was initially intended to incentivise (through rebates) retrofitting of recycled water to existing residential properties. However, required plumbing approvals and inspections to retrofit recycled water to existing residential premises alone is too costly in comparison to available rebates. In addition to these expenses, the location of the property in relation to the recycled water main, size of the connection and work required to achieve the connection, further influence the total cost of works and therefore the feasibility of such projects.

These challenges led to relevant members of the Regional Water Supply Liaison Committee agreeing to continue to focus on expanding connections to new residential builds and reallocate rebates for recycled water (provided by Rous) to support non-residential business connections through the Sustainable Water Partner Program. It was agreed that this approach, targeting high water consuming businesses, was more strategic as the return on investment (including rebate amount) to retrofit recycled water is more attractive, considering potable water consumption and the associated costs charged to non-residential customers.

Rainwater Tank Rebate Program

Expenditure reflects the number of approved rainwater tank rebate applications for 2021/2022.

The Rainwater Tank Rebate Program received fewer applications in comparison to previous years with 111 applications compared with 116 in 2020/2021 and 139 in 2019/2020 (a drought year). This year (2021/2022, a flood year) represented an average number of applications over the four-year delivery of the RDMP. Expenditure reflects this and was slightly less than the previous year.

Table 2: Comparison of rainwater tank rebate data for 2017/18 to 2021/22.

Year	Applications received	Applications approved	Volume storage approved	Rebate amount approved	Cost per ML storage
2021/2022	111	99	0.868 ML	\$106,510	\$122,707/ML
2020/2021	116	104	0.937 ML	\$107,685	\$115,000/ML
2019/2020	139	125	1.142 ML	\$115,067	\$100,000/ML
2018/2019	74	69	0.391 ML	\$73,739	\$188,590/ML
2017/2018	40	36	0.588 ML	\$39,936	\$67,918/ML

Internal connections for 2021/22 remain on trend in comparison to previous years with between 30-40% of applications opting to connect internal fixtures including toilets and washing machines.

Communications and engagement

Expenditure against the Communications and Education Program reflects expenses associated with key communications and engagement resources, promotions and projects including:

- Web-based water efficiency resources, tools and collateral through our partnership with leading water education group, The Water Conservancy (founded by WSAA);
- Regional promotions, advertising and sponsorship; and,
- Ideation, creation and production of a water conservation social media campaign.
 - This project will deliver a social media campaign and digital marketing strategy to engage residential water users in the value of water, how we connect with water and why we should/how we can conserve it. This will be new territory for Rous and an opportunity to determine the value of digital marketing strategies to engage our community through creative concepts, marketing tactics and a media spend budget.

The launch date of this campaign has been delayed due to the floods (and subsequent trauma and mental health issues in our community) and continuous wet weather experienced on the north coast. The revised timeline is to launch coinciding with National Water Week, October 2022.

In relation to delivered communications, 2021/2022 saw the Demand Management Program and activities promoted via radio, local TV news, newspapers, email and social media (Rous and constituent council platforms).

National Water Week, coinciding with Water Night, was a highlight of the demand management communications and engagement strategy in 2021/2022. Throughout October 2021, Rous delivered a social media campaign to promote key water saving actions and behaviours to residential water users and encourage involvement in the Water Night Challenge (with industry partners from The Water Conservancy and event ambassador Costa Georgiadis). This campaign resulted in the following outcomes:

- Rous radio interview with ABC North Coast.
- Media release published in the Echo newspaper (<https://www.echo.net.au/2021/10/water-night-coming-tomorrow/>) and Community Connect magazine (distributed to residents of the Ballina Shire).
- EDM (Electronic Direct Mail) sent to 300 recipients of our Rainwater Tank Rebate Program.
- Schools engagement with ten regional primary and secondary schools.
- Networking with four regional NSW councils who were also supporting Water Night.
- Social media campaign including short videos. Social media was also shared by our constituent councils at Byron, Ballina, Lismore and Richmond Valley.
- Sharing social media videos featuring Water Night ambassador Costa Georgiadis.

Rous committed to planting 10 trees for every registration to Water Night in our region. Across our bulk water supply footprint there were 64 registrations, representing 21% of all NSW registrations to the national event.

The Sustainable Water Partner Program also generated media interest. This year the Beach Hotel recycled water project gained local media traction through a media release, NBN News interview and two interviews on local radio stations, ABC and ZZZ FM.

Smart metering

Byron Shire Council and Ballina Shire Council continue to implement their own smart metering pilots, whereas Rous is leading a smart metering implementation project for Rous retail customers. Rous has committed \$1.1 million over two years for this program. It is running alongside the delivery of the RDMP, hence the nil budget expenditure against this activity.

Although this is a different approach to the regional based proposal included in the RDMP, Rous envisages co-benefit opportunities for the constituent councils.

Sustainable Water Partner Program (SWPP)

Utilising existing communication strategies and resources has been a focus to strengthen partnerships and projects with existing businesses of the SWPP during 2021/2022. This work has prioritised progress with:

- the Broadwater Sugar Mill and cogeneration energy plant (Cape Byron Power), located on the same site (ranked 3);
- a second project with Byron Bay High School (ranked 36); and
- continued communications with Reflections Holiday Parks (across eight separate parks, five of which rank in the top 100 regional users).

The 2021/2022 spend for the SWPP reflects progress of projects delivered in partnership with high water consuming businesses (using more than 5 megalitres annually), across the Rous supply footprint. **Table 3** outlines the key achievements and activities during this financial year.

Table 3: Completed water saving projects and potential water savings supported through the Sustainable Water Partner Program 2021/2022

Target business	Regional ranking based on water consumption	Potential potable water saving (megalitres annually)	Project summary
Broadwater Sugar Mill	3	4.00	Turbidity sensor for the Mill's clarifier. This work was completed prior to the February floods. As of June 2022 (post-floods), this site has not returned to normal operations. Smart metering data captured the success of this project before the main water meter serving the site malfunctioned. This issue was resolved by RVC just prior to large scale impacts of the floods which has resulted in uncertainty and on-going issues for business operations since.
Cape Byron Power	3	5.00*	Smart metering implementation project (stage 1). The next stage of this project will utilise smart metering data to inform the identification of water saving projects. As of June 2022, implications of the floods continue to affect business operations. Power is yet to be fully restored onsite. Prior to the floods, this project was also significantly delayed by a malfunctioning water meter as described above.
Byron Bay High School	36	1.12	Stage 2 project, tap upgrades in student amenities complete. This follows the completion of stage 1 in 20/21 - upgrade to irrigation and monitoring for school ag centre.
Ballina Reflections Holiday Parks (x2)	N/A	1.09*	Shaws Bay and River Street sites smart metering implementation (through Ballina Shire Council). Water saving estimates derived from Water Savings Plan December 2020.
		11.21	

** Potential water saving estimates derived from and verified by a specialist water consultant. This is a potential water saving based on leak detection and enhanced visibility of water consumption provided by installed smart meters.*

Progressing engagement with high water consuming businesses and continuing to drive delivery of water saving projects has been a focus of demand management activities during 2021/22. New opportunities were investigated with 11 public pools across Rous' bulk water supply footprint, in addition to a recycled water project with a Ballina based car wash.

Despite initial engagement and interest expressed by these businesses, progress ceased due to their own staffing pressures (businesses had significantly reduced capacity as they were managing staff availability, absences or had no staff at all) and closures related to Covid19 (from November 2021 onward) which were followed by the record breaking floods. As of June 2022, the Broadwater Sugar Mill, Cape Byron Power and approximately half (if not more) of all public pools remain non-operational or have experienced a significant shift in priorities. As a result, no new water saving plans were developed in this period.

The consequent impacts of both Covid19 and the floods reflect the lower than expected budget expenditure for the SWPP. Project progress was significantly impacted and, in many cases, ceased during the last half of the financial year, hence the significant underspend for 2021/2022. It is worth noting that this budget was fully allocated though these external events influenced the execution of planned works. For the completed projects, Rous provided rebates and planning support to the value of \$28,901. This figure broken down represents, 29% to support water efficiency planning costs and 71% on rebates for project delivery. To complete these projects, \$48,168 was contributed by participating businesses.

The Sustainable Water Partner Program has been promoted through various channels and has also received interest from further afield. The program was featured (May 2022) in a non-residential webinar as part of DPIE's scoping for the NSW Water Efficiency Program. This webinar involved water utilities, councils and water industry representatives from across NSW. There has also been interest in showcasing the program in workshops delivered by The Water Conservancy.

During 2023, continued focus will be placed on the completion of a comprehensive water saving plan for Cape Byron Power cogeneration plant. This developing partnership is a flagship project of the Sustainable Water Partner Program. Preliminary works with Cape Byron Power have identified opportunities that will significantly reduce demand on the potable water supply. Actual water savings will be determined upon data collation, analysis, identification and agreement of feasible water saving projects.

Water Loss Leakage Program

Preparation of an on-ground Water Loss Action Plan (Rous supply network) has been considered including detail around specific tasks, responsibilities and timeframes.

During 2022/2023, the focus will be on delivering the most easily achieved tasks linked to the greatest outcomes such as qualifying high priority metering sites, meter install and implementation (end of 2022 timeframe) and trials with active leak detection.

This work follows a resolution at the December 2020 Council meeting to adopt the implementation of the Rous Water Loss Management Plan (WLMP) for immediate action. This program and its implementation will be a focus over four years with a budget of \$1.9M. This is progressing outside the RDMP and as such the 2021/2022 RDMP had nil budget for this item.

4. Successes and learnings, Regional Demand Management Plan (RDMP) 2019-2022

Overall, for the four-year term of the RDMP 2019-2022, the total budget verse actual expenditure (drawn from **Table 1** though not presented in the data) was:

- Total budget: \$1,164,900
- Total expenditure: \$840,670
- Equivalent percentage spend: 72%

The successes and challenges of the Regional Demand Management Plan 2019-2022 mirror many of the experiences and outcomes of the final delivery year, previously highlighted in this report.

Key successes relate to engagement with our local business community to investigate and implement water efficiency projects. Throughout the program, the Sustainable Water Partner Program has engaged more than 30 high water consuming businesses (using >5ML/annually). From this, nine water saving / efficiency projects were completed with a potential annual water saving of 35 megalitres.

Engagement and communication tools continue to evolve and push into areas that are new for Rous, including untapped opportunities through digital media platforms. Social media marketing presents an opportunity to reach a far broader audience than traditional media channels to promote water efficiency messages and themes. We have learnt, however, the timing of these messages needs to be considered in the broader context of climate conditions, local events and community appetite. Although water efficiency is important during wet and dry times, during times when water is seemingly plentiful and abundant, it is difficult to gain traction with messages around the importance of mindful water consumption.

For projects that involve high levels of engagement and rely on voluntary uptake and involvement, mainly the Sustainable Water Partner Program and rebates for recycled water connections, it cannot be underestimated the time required to identify, develop and deliver these projects. The delivery model of such programs means there is heavy reliance on voluntary business commitment and in many cases, significant financial expenditure prior to the business receiving a rebate. Regardless of initial business commitment, intent and goodwill, there are many factors that can influence the progress, execution and completion of these projects. Outside factors can quickly shift and change, influencing business priorities and available funds. Therefore, the only constant factor in delivering such programs is the strength of the partnership between Rous and the business.

For region-wide initiatives, increased focus needs to be placed on listening, learning and applying lessons from each water utility in common areas of delivery, such as water loss management, leakage and smart metering. To gain an accurate understanding of the successes and outcomes of demand management initiatives, focus also needs to be placed on improving monitoring and data collection across customers of each water utility. The new Regional Demand Management Plan 2023-2026 incorporates these learnings.

Conclusion

This report is presented to Council as an update on the status of demand management initiatives against planned outcomes of the final year of the RDMP 2019-2022. It also summaries learnings over the full program timeframe.

External events such as the pandemic and the catastrophic February 2022 floods have influenced the final year of the RDMP. This unprecedented natural disaster has and continues to impact program delivery, mainly engagement with business and residential stakeholders. Based on stakeholder feedback from our business partners and social media commentary received from the public, it is foreshadowed these events will likely have repercussions for the first year, if not more of the new RDMP.

Although outside challenges have impacted progress, momentum continues in delivering actions that are led by Rous including the Sustainable Water Partner Program, Residential Rainwater Tank Rebate Program and communications and engagement activities. Although these program areas were hindered by the floods and implications of Covid19 restrictions, they are still considered on-track overall for the four-year term of the Demand Management Program.

Over this time, a key highlight has been progressing engagement with high water consuming businesses and continuing to drive industry involvement in projects that reduce demand on our potable water supply. This work will continue in 2022/2023 including a cornerstone partner project with Cape Byron Power.

For areas that have experienced challenges, this reflects the issues of meeting key performance indicators for activities where equal commitment and involvement from all councils is required. These activities highlight challenges associated with areas of authority and responsibility of each council (bulk water supply versus local water network) as well as the limited resources and funding each constituent council has for projects outside essential business operations. It is pre-empted that post-flood recovery may only exacerbate this.

Attachment: Appendix 1: Council Report. Demand management showcase 2021-2022