

7.2 ANNUAL DISTRICT WIDE WATER MONITORING REPORT

Information Only - No Decision Required

Report To:	Regulatory Committee
Meeting Date:	28 July 2022
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1 Summary

- 1.1 Tasman District Council runs a dedicated compliance monitoring program designed to record and report on the take and use of ground and surface water across the region's water management zones.
- 1.2 Some of the key tasks are: monitoring compliance with resource consent conditions and the rules controlling taking and using water within the Tasman Resource Management Plan (TRMP); undertaking appropriate enforcement action where water users' behavior is below the required level, aiding in the implementation of water restrictions during periods of drought and enforce the requirements of the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 and subsequent amendment regulations.
- 1.3 Key notes from the 2021-2022 season were:
 - The Tasman District underwent rationing restrictions, which started on 24 January 2022. This affected certain zones until 10 April 2022 when all were lifted.
 - Stage 1 rationing occurred for the Waimea's both Affiliated and Non-Affiliated¹, Moutere Eastern and Western, Motupiko, Rainy and Tadmor zones on 24 January 2022. All restrictions were lifted bar Moutere Eastern Groundwater zone on 4 February 2022
 - The Moutere Eastern Groundwater zone remained at Stage 1 rationing until 10 April 2022.
 - 1,432 consented and permitted activity takes were administered through the database in the 2021-2022 season. This was a decrease from 1,478 the previous year. Of these, 1,297 were resource consents and 135 permitted activity domestic takes subject to the Moutere Domestic Zones rules

¹ Affiliated in relation to the Waimea Community Dam, means the exercise of a permit to take and use water is linked to the release of a sufficient quantity of water from the Waimea Community Dam and is demonstrated by the provision by the holder of the permit of either:

- (a) a water supply agreement or
- (b) any other agreement such that the requirements of an applicable water permit held by the person to take and use water can be satisfied with respect to releases of water from the Dam.

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- A small number of active consents are still exercised while remaining under Section 124 protection or Section 357 Objection status.
 - Of the 1,297 consented takes administered this year 1,033 were active and required to provide weekly water use readings.
 - Of the 135 permitted takes administered this year, 119 were active and required to provide 6 monthly water use readings.
 - The preferred method of submitting meter returns for consented users were as follows:
 - 4.5% remain using postal service
 - 62% supply via the Council web-based service
 - 9.5% are via email
 - 11% are filing weekly water meter returns via telemetry
 - 13% have taken up the mobile phone app.
- 1.4 713 water meter audits were carried out across the summer season.
- 1.5 516 overtakes were recorded throughout the 2021-2022 water season, an increase from 474 recorded the previous year. Once investigations had resolved the anomalies, there were 143 confirmed actual water overtakes. None of these were significant and the breaches were dealt with through formal warnings without the need for additional enforcement.
- 1.6 This season was however, marred by a high level of missing readings. While there was a group of users requiring formal actions to address persistent poor behaviour, there was also a high number who missed readings at one point or another but responded to contact and remained in compliance thereafter. Non-compliance was addressed through the following actions:
- 34 formal warnings issued
 - one Abatement Notice was issued
 - two fines for breaching Abatement Notice were issued
 - 27 audits were undertaken, and a fee imposed in accordance with the Council's missing reading audit policy. The fee was set at \$246.00 per audit for this financial year.
- 1.7 Under the Measurement and Reporting of Water Takes Regulations 2010, most meter owners are at some point in the reverification phase. Those that have missed milestones are being followed up.
- 1.8 Compliance staff spent a lot of time throughout the year assisting consent holders to understand the obligation to supply an Irrigation Management Plan (IMP) or Farm Irrigation Management Plan (FIMP) required through consent conditions.
- 1.9 End of water year summaries have gone out to all consent holders. This package includes graphical representation of their individual water use record and the wider use data for

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their relevant water management zone. This information is valued by users for GAP and other quality assurance audits and water budgeting.

2 Draft Resolution

That the Regulatory Committee receives the Annual District Wide Water Monitoring Report.

ANNUAL DISTRICT WIDE WATER MONITORING REPORT**3 Purpose of the Report**

- 3.1 Tasman District Council runs a dedicated programme designed to monitor and report on ground and surface water consumption across the region's identified water management zones.
- 3.2 The programme collates water use data from those taking water under resource consents or who are subject to specific TRMP requirements to provide information on usage. The data received is not only a key component to ensuring compliance with consent allocation limits, but also provides information to assist with wider water resource management and aid in the decision-making around water restrictions in droughts.
- 3.3 The Council also has an obligation to administer and enforce the provisions of the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 and achieves that through this programme.
- 3.4 At the conclusion of each water metering season, the Council produces a summary report. Our report includes the response to drought and the monitoring and enforcement activity undertaken over the period.

4 Water Monitoring Programme for 2021-2022 Season**Current administrative programme**

- 4.1 Most water management zones² in this district have a metering requirement on abstractive ground and surface takes imposed through either a resource consent or specific rule in the TRMP.
- 4.2 For the users in these zones, there is an obligation to furnish weekly usage readings over the water metering period (now 1 July to 30 June) or for the users in the Moutere domestic zone, six monthly readings.
- 4.3 This incoming data forms the basis of the compliance monitoring programme and has three primary objectives:
 - 4.3.1 Monitoring users' compliance with the restrictions imposed in consent conditions and assisting in determining the Council's enforcement response to poor compliance.
 - 4.3.2 Ensuring comprehensive usage data is stored and available for the purpose of sound decision making on water resource management during a season and any future policy setting.
 - 4.3.3 Ensuring accurate data is collected to meet local and national reporting objectives.

² Water Management Zones are defined parts of the water resource displayed on the planning maps in the Tasman Resource Management Plan and subject to all applicable rules.

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4.4 Since the introduction of the Reporting of Water Takes Regulations 2010, the duties imposed on the Council to administer these regulations have also been incorporated into the programme.

Programme's base statistics for 2021-22

4.5 Resource consented and permitted activity water users administered under the programme in the 2021-2022 season reduced from 1,478 to 1,432.

4.6 The number of users accounts for this season comprised the following:

- 1,297 resource consented ground or surface water takes
- 135 Moutere domestic (permitted activity) takes.

4.7 Of the consented metered takes the following applied:

- 1033 were deemed active and required to file weekly water meter readings. These were the consent holders using water over this season and included 22 non-consumptive takes.
- 119 were deemed non-active and not required to file weekly returns. These were consent holders not irrigating. This is up from 113 last year.
- 92 are on future implementation. These are authorised through consent but have not yet been exercised. This is down from 156 last year.
- 53 accounts are on 'Other' status. These accounts consist of non-consumptive takes and takes from storage.

4.8 Of the Moutere domestic takes the following applies:

- 119 bores are active and users filing six monthly returns.
- 16 are not being used.

Water users preferred data return methods

4.9 Of the 1033 active users who were required to provide water use returns, the following methods were used to provide that data to the Council:

- 5% still preferred to supply readings using prepaid cards via ordinary post
- 63% supplied readings electronically via the web page service provided by the Council
- 10% supplied readings via email
- 10% provided use data via telemetry
- 12% supplied readings via mobile phone app.

Telemetry

4.10 In the last year, the number of telemetered water meters has increased by five (5), bringing the total number to 108. These meters cover 94 consents (several consents have more than one meter). Four of the telemetered sites also provide additional data for consent requirements, i.e. water level, conductivity. The new meters are predominantly due to a

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requirement of being unaffiliated to the Waimea Dam, with their usage over 2000 cubic metres of water per week.

- 4.11 Alignment of the telemetered water meter data with other hydrological data collected by the Environmental Monitoring section continues. With preseason and postseason checks provided by the consent holder and mid-season meter audits, the data is being archived and quality coded to the National Environmental Monitoring Standards (NEMS) and comments are lodged when issues have occurred. Last season's quality coding has now been completed with 79% of the data coded fair to good quality (an increase from previous season's 72%). This season is currently being processed and figures are not available at time of reporting.
- 4.12 While issues continue with some of the incoming telemetered data these are diminishing, although certain sites still prove problematic. The Council is working with the service providers to overcome problems. Issues identified range from water meter malfunctions sending erroneous data, to power issues causing data to be lost. Unfortunately, in some instances, the telemetered data initially appears complete, but the later manual audits highlight missing or erratic data.
- 4.13 The implementation of the Waimea Community Dam means that the unaffiliated permit holder conditions require consent holders who take more than 2000 cubic metres of water per week to install telemetry on their water meter. This installation must be done prior to any use. Six of the water metres that require telemetry as a result of the Waimea Dam project are telemetered, with four more required to do so.

Monitoring and Enforcement for 2021-2022 Season**Missing Readings**

- 4.15 The predominant issue this season as in previous, was the number of meter readings missed. Providing meter readings is a consent condition requirement.
- 4.16 Missing readings occurred throughout the season but were particularly prominent toward the end of the season. A problem proving difficult to overcome is the perceived importance (or lack thereof) of providing weekly water meter readings once the need for irrigation diminishes. This usually coincides with the completion of harvest or sustained wet periods, particularly after restrictions have been lifted.
- 4.17 Whilst consent holders are required to provide meter readings all year round, when they inform the Council water use has ceased, the Council allows users to stop supplying readings until the following season commences. Advice must be formally given to the Council that use has ceased and water accounts are then switched from 'Active' to 'Finished' status. The Council cannot and does not assume that water use has ceased for the season because readings stop for obvious reasons. Council conveys this message to users at the end of every season to avoid non-compliance.
- 4.18 In response to non-compliance the following actions were undertaken
- 34 formal warnings issued,

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- one Abatement Notice was issued
- two fines for breaching the one Abatement Notice were issued
- 27 audits were undertaken, and a fee imposed in accordance with the Council's missing reading audit policy. The fee was set at \$246.00 per audit for this financial year.

4.19 All enforcement actions were also recorded against the water user's account and can be considered when deciding any future enforcement action.

Excessive Water Use

- 4.20 516 overtakes were recorded throughout the 2021-2022 water season, an increase from 474 recorded the previous year. Enforcement staff have formally investigated each recorded overtake from readings received.
- 4.21 Some recorded overtakes were accounted for as unreported water used over the winter period. This is detected when the first reading is submitted at the start of the summer season. When averaged out of the winter period this is not a breach of allocation limits.
- 4.22 Allocation sharing accounts for a large number of recorded overtakes. While an overtake may be recorded against an individual consent, when calculated against the sum of the maximum allowable takes in the group recognized in the allocation share arrangement, the water used is invariably under the aggregated limit.
- 4.23 Overtakes were also identified that were the result of inclusion of water coming from storage through a single meter, consent holders missing periods of weekly readings or where use had included the taking of stock water through the same meter associated with the consented take.
- 4.24 Once these factors were identified and any meter and equipment faults were also removed, there were 143 confirmed actual water overtakes.
- 4.25 For minor overtakes or if appropriate, for the first instance of non-compliance by that user, warnings were issued as a first step to address the breach and give an opportunity for future compliance.
- 4.26 For the 2021/22 season there were no further overtakes from users warned, or from those still subject to the previous season's enforcement notices. No infringement fines were issued for excessive overtakes.

Water Meter Auditing

- 4.27 The 'anytime, anywhere' water meter audit continued throughout this water year. The Council performed 716 audits over the 2021-2022 irrigation season. Some meters were audited more than once to ensure water use data was accurate.

Table 1

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Area Covered	Consents Audited	Total Audits	Percentage of Total Audits
Waimeas	246	258	36%
Wai-iti	87	89	13%
Motueka	113	117	16%
Moutere	174	186	26%
Upper Motueka	14	17	2%
Takaka	35	40	6%
Aorere/WestCoast	7	6	1%
Buller	2	3	1%
Total	678 Consents	716 Audits	

4.28 Meter audits include a reading of the meter dial, ensuring integrity of the seal and obtaining an updated (digital) photographic record of the meter.

Moutere Domestic Metering

4.29 The TRMP also requires Moutere domestic (permitted activity) takes to install meters and provide a single reading in April and then in November.

4.30 As at 30 June 2022, a total of 135 Moutere domestic bores are registered on the database. While that is the total registered, 16 are not being used.

4.31 In respect to these domestic meters, water use data readings are required in April and November each year.

5 Water Rationing and the Dry Weather Task Force

5.1 The Dry Weather Taskforce convened on one occasion to consider and impose restrictions under Section 329 of the Resource Management Act 1991 due to dry conditions encountered late January.

5.2 Once restrictions were imposed, Compliance staff communicated with affected water users at the earliest opportunity.

5.3 Stage 1 rationing, which is a 20% cut to the maximum allowable weekly volume, was applied to the Waimea's both Affiliated and Non-Affiliated, Moutere Eastern and Western, Motupiko, Rainy and Tadmor zones on Monday 24 January 2022. This lasted one week for all zones with the exception of the Moutere Eastern Groundwater zone. That zone remained at stage 1 until 10 April, when all restrictions ended District wide.

5.4 The following is a timeline of the meetings and rationing stages as they were imposed over this period.

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Table 2
S329 Water Shortage Direction and rationing summary

DWTF Meet Date	Effective Date	S329 type	Rationing step	Zones affected
18/01/2022	24/01/2022	329	Stage 1	Moutere Eastern, Moutere Western, Motupiko, Rainy, Tadmor, Delta, Delta Unaffiliated, Delta Affiliated, Golden Hills Unaffiliated, Golden Hills Affiliated, Redwood, Reservoir, Reservoir Unaffiliated, Reservoir Affiliated, Upper Catchments, Upper Catchments Unaffiliated, Upper Catchments Affiliated, Upper Confined Unaffiliated, Upper Confined Affiliated, Waimea West Unaffiliated, Waimea West Affiliated
	31/01/2022	Direction	Stage 1 Continues	Moutere Eastern, Moutere Western, Motupiko, Rainy, Tadmor, Delta, Delta Unaffiliated, Delta Affiliated, Golden Hills Unaffiliated, Golden Hills Affiliated, Redwood, Reservoir, Reservoir Unaffiliated, Reservoir Affiliated, Upper Catchments, Upper Catchments Unaffiliated, Upper Catchments Affiliated, Upper Confined Unaffiliated, Upper Confined Affiliated, Waimea West Unaffiliated, Waimea West Affiliated
	4/02/2022	Direction	Stage 1 Removed	Moutere Western, Motupiko, Rainy, Tadmor, Delta, Delta Unaffiliated, Delta Affiliated, Golden Hills Unaffiliated, Golden Hills Affiliated, Redwood, Reservoir, Reservoir Unaffiliated, Reservoir Affiliated, Upper Catchments, Upper Catchments Unaffiliated, Upper Catchments Affiliated, Upper Confined Unaffiliated, Upper Confined Affiliated, Waimea West Unaffiliated, Waimea West Affiliated

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	4/02/2022	Direction	Stage 1 remains	Moutere Eastern
	14/02/2022	Direction	Stage 1 remains	Moutere Eastern
	21/02/2022	Direction	Stage 1 remains	Moutere Eastern
	28/02/2022	Direction	Stage 1 remains	Moutere Eastern
	3/03/2022	Direction	Stage 1 remains	Moutere Eastern
	9-Mar	Direction	Stage 1 remains	Moutere Eastern
	16-Mar	Direction	Stage 1 remains	Moutere Eastern
	23-Mar	Direction	Stage 1 remains	Moutere Eastern
	28-Mar	Direction	Stage 1 remains	Moutere Eastern
	10-Apr	Direction	Removed	Moutere Eastern

Resource Management (Measurements and Reporting of Water Takes) Regulations 2010 and Tasman Resource Management Plan (TRMP) Reporting of Water Take Requirements.

6.1 Administration of the water metering programme continue with the requirements of the National Regulations and TRMP. Re-verification of meters recording water takes are continually being followed up.

6.2 This season 2021/2022 active meter verification status:

- 832 verified
- 91 overdue for re-verification
- 41 unknown or unverified status
- 69 are sitting on waiting lists of local accredited service providers awaiting verification (these are excluded from the above figures).

6.3 For the 41 that Council has no record of any verification a letter has been issued requiring a status update by 31 August 2022.

6.4 In total, 32 consent holders have been written to advising that they require re-verification in the next 12 months and to be aware of the backlog with accredited service providers.

7. Policy / Legal Requirements / Plan
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- 7.1 Our district's rivers, streams, waterbodies and freshwater ecosystems are vitally important to tangata whenua, our communities, and businesses. Monitoring to ensure our water is sustainably and lawfully used and taking appropriate action where it is not, is a key plank of the water monitoring programme. By appropriately resourcing and prioritising this work we assist in the Councils' effort to protect the health and wellbeing of our water, which in turn protects the health and wellbeing of the communities, as well as provides for their social, economic, and cultural wellbeing. These are key principles that underpin Te Mana o Te Wai.
- 7.2 The water metering programme also forms part of the Councils wider compliance monitoring strategy designed to meet its obligations under the Resource Management Act 1991 (the Act).
- 7.3 One of the principal objectives of this programme therefore is to monitor the use of ground and surface water against regulatory settings and respond where user behaviour is not at the required standard.
- 7.4 This programme also allows the Council to meet its obligations of reporting to stakeholders and the wider public,
- information around the consumptive use of water resource in the district
 - the implementation of the agreed monitoring strategy and
 - the compliance behaviour of the users.
- 7.5 Presentation this information in an annual summary report is an essential part in the Council meeting these obligations. It is also a key level of service reporting measure in the Council's annual report.
- 7.6 Graphical representation of each water management zone and the report is also provided on the Council's website www.tasman.govt.nz for public viewing. The 2020-21 water year will be uploaded in July once the end of year wrap-up is complete.

The Council also has an obligation to implement and report to the Ministry for the Environment (MFE) on the district's performance with respect to the Resource Management (Measurement & Reporting of Water Takes) Regulations 2010. This is incorporated in this programme.

8. Consideration of Financial or Budgetary Implications

- 8.1 A summary of the Compliance Monitoring Water income/costs for the 12-month period ending 30 June 2022 is as follows.
- 8.1.1 Budgeted expenditure for the 2021/22 year was \$336,662. Total actual expenditure for the period was \$373,720. Total operating funding for the period was \$350,708.
- 8.2 The programme was 37% water user funded this year.

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- 9.1 Pre-summer season set up: Uploading of critical information, running database and data integrity audits and setting up for receiving information and providing customer information is highly dependent on database functionality and external base data integrity. Considerable staff time is required to achieve this in order to start the summer programme.
- 9.2 End of water year reporting: This is an important feedback mechanism to water users at the personal level and forms an integral part of the overall reporting process. The reporting consists of a summary letter, graphing of the individual and relevant zone usage, and commentary on consent condition performance together with any identified deficiencies.
- 9.3 The Council continues to develop processes to adequately manage the data stream from telemetry. Despite the real time nature of this data there is still a requirement for active staff involvement with telemetered sites to ensure the integrity of information received and its correct storage.

10 Conclusion

- 10.1 The water monitoring programme requires significant Council administrative and field effort in order to meet objectives. Significant communication between consent holders and Council staff is required to achieve consistent compliance every season.
- 10.2 Non-compliance with meter returns continues with high numbers missing readings this summer. In response a record number of audits were carried out with audit fees charged back to consent holders.
- 10.3 Whilst there were still numerous overtakes this season, most of these were technical as opposed to actual and there was much less repeat offending, so only a few warnings were issued.
- 10.4 The Waimea Community Dam transition phase is still in place in the water metering programme until the dam becomes operational.
- 10.5 Telemetry is still a growing method for monitoring water use. This will increase further as some consent holders unaffiliated to the Waimea Dam project are required to install telemetry to report water use.
- 10.6 The expanding water programme has had a significant impact on the Council's database requirements. Last summer season alongside our IS team, Compliance staff implemented an automated process to accept readings received via the web or mobile app. The aim will be to eventually have the majority automated around some defined parameters.
- 10.7 The inclusion of Irrigation Management Plans and other consent requirements such as backflow prevention certification and pumped bore tests have increased the workload on the programme. Variations to our Water Consent Monitoring (WCM) database have been implemented to administer these recent requirements.

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- 10.8 Consent holders in the Waimea and Takaka zones are still required to supply Irrigation Management Plans (IMP) to the Council by 31 August this year. The IMP is to be reviewed and updated if required and submitted annually. This is in accordance with Schedule 31E of the TRMP.
- 10.9 Tasman District Council appears to remain well positioned under in the implementation of the Measurement and Reporting of Water Take Regulations.

11 Next Steps / Timeline

- 11.1 Council will now follow up on water users who require telemetry pre-Waimea dam becoming operational.
- 11.2 Follow up on missing Moutere Domestic water user six monthly readings who failed to report in June 2022.
- 11.3 Water meter verification updates required by 30 August 2022 and correspondence has gone out to all affected consent holders on 15 July.
- 11.4 The 2022-23 preseason letters to go out to all consent holders by end of September 2022 either requiring a status update or advising active users of the requirements of the upcoming summer.

12 Attachments

Nil