

7.2 ANNUAL DISTRICT WIDE WATER MONITORING REPORT**Information Only - No Decision Required**

Report To:	Regulatory Committee
Meeting Date:	23 July 2020
Report Author:	Neil Green, Compliance and Investigations Officer
Report Number:	RRCN20-07-2

Item 7.2**1 Summary**

- 1.1 Tasman District Council runs a dedicated program designed to record and report on the consumption of ground and surface water across the regions water zones, measure compliance with consent conditions, aid in the implementation of water restrictions and oversee the implementation and compliance of requirements set by the Tasman Resource Management Plan (TRMP) and the Reporting of Water Takes Regulations 2010.
- 1.2 The following covers the activities recorded over the 2019-2020 season.
- 1.3 Key findings from this season were:
 - The Tasman District once again witnessed high levels of water restriction over a prolonged summer period. Restrictions started on 27 January and were in effect at various locations and levels until 05 May 2020. For the Compliance Section monitoring and regulating the use of ground and surface water over this period, staff were required to be re directed from their own portfolios to assist the summer students with increased monitoring and auditing the restricted water use imposed throughout the district. Compliance staff also had to work through the additional issue of variable rationing levels being applied pre-Waimea Community Dam construction to consented water users on the Waimea Plains. Different rationing applied to users who had opted to be affiliated or non-affiliated to the dam, those who have objected to proposed consent conditions or were waiting for their replacement consents to be issued. This required significant work both with our database developers to accommodate this new level of rationing into the Water Monitoring Database and water users in assisting them understand what this meant for them.
 - The Dry Weather Taskforce convened on 14 occasions to impose or continue restrictions under Section 329 of the Resource Management Act 1991. Stage 1 rationing for the Waimea's commenced Monday 27 January 2020. Rationing was increased and elevated to stage 3 for affiliated consent holders and stage 4 for unaffiliated consent holders on 17 February 2020. The 19 February 2020 saw both affiliated and non-affiliated consent holders drop to level 2 and 3 respectively where they remained for a number of weeks before increasing and dropping again. All Waimea restrictions were removed on 14 April 2020. Restrictions and Cease takes were also implemented for other certain catchments over this period. On 17

February 2020 a Cease Take was placed on Dovedale and Moutere Surface water users. Dovedale users remained on Cease Take until 05 May 2020, whilst Moutere Surface water users jumped in and out of cease take depending on rainfall. All restrictions were lifted District-wide by 05 May 2020.

- 1014 meter audits were carried out over the period with emphasis on the drought affected zones.
- Resource Consents and Permitted Activity takes administered under the water metering project in the 2019-2020 season increased to 1,551 from the previous 1,530. Of these, 1416 were resource consent authorisations and 135 domestic use in the Moutere Surface Water zone.
- There were 1,012 active water takes this season. Of those, 6% still supply weekly water meter readings via New Zealand Post, 65% are now supplying weekly water meter readings via the web page service provided by the Council, 10% are supplying weekly water meter readings via email, and 9% are filing weekly water meter returns via telemetry. 10% supply weekly water meter readings via mobile phone.

- 1.4 Overall, compliance behaviour was not bad, but as always, there is still a requirement for regular contact between Council staff and a number of consent holders to maintain compliance. Last season Compliance issued a number of Abatement Notices and fines to the worst offenders and this seems to have had the desired deterrent effect on those repeat offenders this season. However, the bigger issue again this season was the number of meter readings not being supplied repeatedly (missing readings), even after numerous reminders. The Covid-19 Pandemic was an influencing factor for a period, with personnel not going on to site to take and submit water readings.
- 1.5 This resulted in the issue of warnings, Infringement fines and Abatement Notices in accordance with the Council's enforcement policies. 28 Warnings for excess takes and 80 missing readings. 2 Infringement fines and 1 Abatement Notice were issued for various offences associated with the taking of water.
- 1.6 The Tasman Resource Management Plan requirement to install a complying water meter recording a rate of under 5 l/s was also followed up. Installation was required by November 2018 and verification of meters as accurate by November 2019. This applies to 354 water takes. 333 of those takes have authenticated verification, 12 are requiring follow up and 9 are due within the next 12 months. The Measurement and Reporting of Water Takes Regulations 2010 requires all water meters recording water takes over 10 litres per second to be verified as accurate. This legislation imposes the requirement to verify water meter accuracy every five years. Follow up was required with consent holders who have water meters recording water takes over 10 litres per second whose meters required re-verification with proof of accuracy to be supplied to Council compliance staff.
- 1.7 The demands on compliance staff this season increased as Council phased in the transitional monitoring framework for the Waimea Community Dam. The delayed issuing of new resource consents, methods of return, and the complex water rationing triggers due to affiliation status in affected zones, created an extra workload on staff, especially those tasked with administration and monitoring. A number of work arounds and solutions had to be created to accommodate the various status of resource consents and non-issuing of

replacement consents. Compliance spent the early part of the season communicating with and assisting consent holders to understand and adopt necessary changes to try and stay on the front foot as much as possible.

- 1.8 As in previous years, end of water year summaries are in the process of being sent to all consent holders together with graphical representation of their individual water use record and the relevant water management zone. This reporting method used for the majority of consent holders is now expected and has previously been well received.
- 1.9 Whilst database and process changes were made this season, there have been future improvements identified to make working and reporting access more effective. They will however have to wait in line whilst other IT needs are met elsewhere in Council.
- 1.10 In conjunction with the IT department, teal time water meter rationing zone maps were created for the public on our website as part of the request of the Dry Weather Task Force. This was to increase Councils communication, and the ability for the public to gain ready access to up to date information.

2 Draft Resolution

That the Regulatory Committee receives the Annual District Wide Water Monitoring Report RRCN20-07-2

3 Purpose of the Report

- 3.1 Tasman District Council runs a dedicated program designed to monitor and report on ground and surface water consumption across the regions 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 plank of measuring compliance with consent conditions, but also providing information to assist in 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 program.
- 3.4 At the conclusion of each water metering season the Compliance Department who oversees the program, presents a summary of the season and response to the seasonal trends in the shape of monitoring and enforcement.
- 3.5 The purpose of this report is to present a summary for the 2019-2020 water year.

4 Water Monitoring Programme for 2019-2020 Season

Current administrative programme

- 4.1 70 water management zones 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:
 - Monitoring users compliance with the restrictions imposed in consent conditions and assisting in determining the Council's enforcement response to individual and regional issues as and when detected.
 - Ensuring comprehensive usage data is available for the purpose of sound decision making on water resource management during a season and any future policy setting.
 - Ensuring accurate data is collected to meet local and national reporting objectives.
- 4.4 Since the introduction of the Reporting of Water Takes Regulations 2010 some years ago, the duties imposed on the Council to administer these regulations have also been incorporated into the programme.

- 4.5 Resource consented and Permitted Activity water users administered under the programme in the 2019-2020 season increased to 1,550 up from last year's figure of 1,530. This number of accounts comprises the following:
- 1,413 resource consent authorised ground or surface water takes
 - 137 Moutere domestic (permitted activity) bore takes.
- 4.6 Of the consented metered takes the following applies:
- 1014 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.
 - 148 were deemed non-active and not required to file weekly returns. These were consent holders not irrigating.
 - 251 are on future implementation. These are authorised through consent but have not yet been exercised.
- 4.7 Of the Moutere domestic takes the following applies:
- 121 bores are active and users filing six monthly returns.
 - 16 are not being used.

Water users preferred data return methods

- 4.8 Of the 1014 active users who were required to provide water use returns the following methods were used to provide that data to the Council.
- 6% still preferred to supply weekly water meter readings using prepaid cards via ordinary post
 - 65% supplied weekly water meter readings electronically via the web page service provided by the Council
 - 10% supplied weekly water meter readings via email
 - 9% provide water meter use via telemetry
 - 10% supplied water meter readings via mobile phone.
- 4.9 Of the electronic methods available this season, webpage returns make up 69.2% of all returns coming in. Email returns to 10.6%, telemetry data to 9.6% and the Council's mobile app makes up 10.6% of returns.

Telemetry

- 4.10 In the last year, the number of telemetered water meters has increased by 20 bringing the number to 94. These meters cover 73 accounts, i.e., several accounts have more than one meter. Four of the telemetered sites also provide additional data for consent requirements, i.e. water level, conductivity. The increase in numbers is mainly from businesses with multiple meters and the TRMP requirement for takes under 5 l/s to have a meter installed and provide readings.
- 4.11 The aligning of the telemetered water meter data with other hydrological data collected by the Environmental Monitoring section continues. With pre-season and post-season 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 logged when issues have occurred.

- 4.12 There have been a number of issues with telemetered data. This has ranged from actual water meter malfunctions sending erroneous data, to power issues causing data to be lost. No more or less than other years. Occasionally the telemetered data appears okay, but the manual audits can highlight missing or erratic data.
- 4.13 The supply of electronic data in this format has increased as a result of the Waimea Dam project. The implementation of the Waimea Community Dam and the unaffiliated permit holder conditions will see the amount of telemetered water meters increase with the requirement placed on resource consent holders who take more than 2000 cubic meters of water per week. Council compliance staff are required to enforce the provisions of the Tasman Resource Management Plan including the requirement to install telemetered water monitoring equipment. This installation must be done prior to 1 July 2021. This date allows time to have equipment installed and testing to ensure the system is working prior to the 2021/2022 summer irrigation season.

Monitoring and Enforcement for 2019-2020 Season

- 4.14 The prolonged dry weather this season resulted in early restrictions coming into effect mid-January. That did not ease until late April with the arrival of sufficient rainfall to scale back the drought response. During that dry period the Waimea zones quickly increased rationing stages. By mid-February unaffiliated consent holders moved to stage 4 rationing (65% cut from full weekly allowance) and affiliated consent holders moved to stage 3 rationing (50% cut from full weekly allowance) for a week before reducing to level 3 and 2 respectively for a number of weeks. Dovedale and Moutere Surface Water zone users spent long periods under a cease take notice. Zone restrictions moved up and down again before mid-April when the Dry Weather Task Force was able to start reducing restrictions across the district before finally removing them all early in May. It was made clear that unlike the previous season, short term informal agreements for allocation sharing were not an option however, a number of consent holders took the option to lodge applications to vary consent conditions to allow allocation sharing.

Missing Readings

- 4.15 A bigger issue this season was the number of meter readings not being supplied repeatedly (Missing readings), even after numerous reminders.
- 4.16 The Covid-19 Pandemic may well have been an influencing factor for a period of time with personnel not going onto site to take and submit water readings amongst other reasons, although water users were written to and advised readings were still required due to water restrictions being in place.
- 4.17 Missing readings continue to be an issue for staff. One problem is the perceived importance (or lack thereof) of providing weekly water meter readings once rain starts and there are no water restrictions or there is intermittent use due to rain. However missing readings also create administrative problems as once a reading is supplied it is entered under the receiving week and results in the total abstracted volume being registered as overtake for that week. These may therefore not be genuine overtakes if averaged over the missing period or they may actually be genuine overtakes and staff then have to decipher this.

- 4.18 Providing meter readings is a consent condition requirement. Staff have issued 80 warnings mainly via formal letters but also email. These are recorded against the water user's account and can be considered when deciding any future enforcement action.

Excessive Water Use

- 4.19 753 overtakes were recorded throughout the 2019-2020 water season. Enforcement staff have investigated the reason for each non-compliant reading received.
- 4.20 Some non-compliance was accounted for as unreported water used over the winter period which calculates when the summer season starts, and allocation sharing which is not a true overtake if spread over legitimate accounts.
- 4.21 Further overtakes were the result of inclusion of water coming from storage, consent holders missing readings or where use had included the taking of stock water which is not limited (I have commented on this separate issue).
- 4.22 Once these and meter and equipment faults there removed there were 70 genuine water overtakes.
- 4.23 All excessive water use situations were investigated and responded to in accordance with the Council's enforcement policies. For minor overtakes or if appropriate for the first instance of non-compliance; warnings were used as a means of addressing the non-compliance and gaining future compliance. Past warnings (should they exist) are considered in determining enforcement options for non-compliance.
- 4.24 Two Infringement fines and one Abatement Notice were issued for noncompliance.

Water Meter Auditing

- 4.25 The 'anytime, anywhere' water meter audit continued throughout this water year. The Council performed 1014 audits across 751 water accounts over the 2019-2020 irrigation season. 74% of all active meters were audited. Some meters were audited more than once to ensure water use data was accurate.

Table 1

Area Covered	Accounts Audited	Number of Times Audited	Total Audits	Percentage of Total
District Wide	533	1	533	52.5%
	181	2	362	36%
	31	3	93	9%
	5	4	20	2%
	0	5	0	0%

	1	6	6	0.5%
Total Audits	751		1014	

4.26 Meter audits continue to include a reading of the meter dial, ensure integrity of the seal and obtain an updated (digital) photographic record of the meter.

Moutere Domestic Metering

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

4.28 As at 30 June 2020 a total of 137 Moutere domestic bores have been identified and registered on the database. While that is the total registered, 16 are not being used.

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

5 Water Rationing and the Dry Weather Task Force

5.1 The Dry Weather Taskforce was required to convene on 14 occasions to consider and impose restrictions under Section 329 of the Resource Management Act 1991 due to the serious water shortage that evolved over the January to April months.

5.2 As in the previous irrigation season, it was very clear that this was going to stretch water users and significant business decisions would have to be made. Compliance staff communicated with water users at the earliest opportunity to help them understand the implications of the transitional rationing conditions, and once again general agreement was reached that the early implementation of rationing steps would help in making water available later into the irrigation season.

5.3 Stage 4 rationing which is a 65% cut to the maximum allowable weekly volume, was put in place mid-February for unaffiliated Waimea water users, but reduced quickly back to stage 3 (50% cut) due to a welcome and timely rainfall.

5.4 Whilst it is acknowledged that water restrictions last season were unprecedented and came early, hard and fast, this season saw prolonged restrictions and for some at a high level of stage 2 (50%) and 3 (60%) for some time. Worst affected would be Moutere Surface Water and Dovedale zone users who spent long periods under a cease take.

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

Table 2

DWTF Meet Date	Effective Date	S329 type	Rationing step	Zones affected
21/01/2020	27/01/2020	329 Direction	Stage 1	Delta, Delta Unaffiliated, Delta Affiliated Golden Hills, Golden Hills Unaffiliated, Golden Hills Affiliated, Reservoir, Reservoir Unaffiliated, Reservoir Affiliated, Upper Catchments, Upper

				Catchments Unaffiliated, Upper Catchments Affiliated, Upper Confined Aquifer, Upper Confined Unaffiliated, Upper Confined Affiliated, Waimea West, Waimea West Unaffiliated, Waimea West Affiliated. Motupiko.
None	27/01/2020	329 Direction	Stage 1	Redwood
None	3/02/2020	329 Direction	Stage 1	Moutere Eastern
4/02/2020	10/02/2020	329 Direction	Stage 1	Moutere Eastern, Motupiko, Lower Confined, Hope and Eastern Hills, Lower Confined (Unaffiliated), Hope and Eastern Hills (Unaffiliated), Lower Confined (Affiliated), Hope and Eastern Hills (Affiliated)
			Stage 2	Delta, Delta (Affiliated), Golden Hills, Golden Hills (Affiliated), Reservoir, Reservoir (Affiliated), Upper Catchments, Upper Catchments (Affiliated), Upper Confined Aquifer, Upper Confined (Affiliated), Waimea West, Waimea West (Affiliated), Redwood.
			Stage 3	Delta (Unaffiliated), Golden Hills (Unaffiliated), Reservoir (Unaffiliated), Upper Catchments (Unaffiliated), Waimea West (Unaffiliated), Upper Confined (Unaffiliated).
			Cease	Moutere Surface
11/02/2020	17/02/2020	329 Direction	Stage 1	Moutere Eastern, Moutere Western, Wangapeka, Tapawera, Tadmor, Glenrae, Wai-iti, Takaka Surface Water, Takaka Aquifer, Takaka Marble Aquifer Recharge.
			Stage 2	Motupiko, Lower Confined Aquifer (Affiliated), Hope and Eastern Hills (Affiliated), Lower Confined Aquifer, Hope and Eastern Hills.
			Stage 3	Delta, Delta (Affiliated), Golden Hills, Golden Hills (Affiliated), Reservoir, Reservoir (Affiliated), Upper Catchments, Upper Catchments (Affiliated), Upper Confined Aquifer, Upper Confined (Affiliated), Waimea West, Waimea West (Affiliated), Redwood.
			Stage 4	Delta (Unaffiliated), Golden Hills (Unaffiliated), Reservoir (Unaffiliated), Upper Catchments (Unaffiliated), Waimea West (Unaffiliated), Upper Confined (Unaffiliated), Lower Confined (Unaffiliated), Hope and Eastern Hills (Unaffiliated).
			Cease	Moutere Surface, Dovedale
18/02/2020	19/02/2020	329 Direction	Removed	Moutere Surface, Wangapeka, Tapawera, Tadmor, Glenrae, Wai-iti, Takaka Surface Water, Takaka Aquifer, Takaka Marble Aquifer Recharge.
			Stage 1 continues	Moutere Eastern, Moutere Western

Item 7.2

			Stage 1	Motupiko, Lower Confined Aquifer (Affiliated), Hope and Eastern Hills (Affiliated), Lower Confined Aquifer, Waimea Hope Minor Aquifers
			Stage 2	Delta, Delta (Affiliated), Golden Hills, Golden Hills (Affiliated), Reservoir, Reservoir (Affiliated), Upper Catchments, Upper Catchments (Affiliated), Upper Confined Aquifer, Upper Confined (Affiliated), Waimea West, Waimea West (Affiliated), Redwood.
			Stage 3	Delta (Unaffiliated), Golden Hills (Unaffiliated), Reservoir (Unaffiliated), Upper Catchments (Unaffiliated), Waimea West (Unaffiliated), Upper Confined (Unaffiliated), Lower Confined (Unaffiliated), Hope and Eastern Hills (Unaffiliated).
			Cease take continues	Dovedale
25/02/2020	2/03/2020	329 Direction	Stage 1	Takaka Surface Water, Takaka Aquifer, Takaka Marble Aquifer Recharge, Moutere Eastern, Moutere Western, Baton, Stanley Brook, Tadmor, Tapawera, Glen Rae, Waimea Hope Minor Aquifers, Hope and Eastern Hills (Affiliated), Waimea Lower Confined Aquifer, Lower Confined Aquifer (Affiliated), Wangapeka.
			Stage 2	Redwood, Waimea Delta, Delta (Affiliated), Waimea Golden Hills, Golden Hills (Affiliated), Waimea Reservoir, Reservoir (Affiliated), Waimea Upper Confined Aquifer, Upper Confined Aquifer (Affiliated), Waimea Upper Catchments, Upper Catchments (Affiliated).
			Stage 3	Motupiko, Delta (Unaffiliated), Golden Hills (Unaffiliated), Hope and Eastern Hills (Unaffiliated), Lower Confined Aquifer (Unaffiliated), Reservoir (Unaffiliated), Upper Confined Aquifer (Unaffiliated), Upper Catchments (Unaffiliated), Waimea West (Unaffiliated).
			Cease	Moutere Surface Water, Dovedale
			Removed	Wai-iti
3/03/2020	9/03/2020	329 Direction	Stage 1	Takaka Surface Water, Takaka Aquifer, Takaka Marble Aquifer Recharge, Moutere Western, Baton, Stanley Brook, Tadmor, Tapawera, Glen Rae, Waimea Hope Minor Aquifers, Hope and Eastern Hills (Affiliated), Waimea Lower Confined Aquifer, Lower Confined Aquifer (Affiliated), Wangapeka, Wai-iti, Wai-iti Dam Service Zone.
			Stage 2	Moutere Eastern, Redwood, Waimea Delta, Delta (Affiliated), Waimea Golden Hills, Golden Hills (Affiliated), Waimea Reservoir, Reservoir (Affiliated), Waimea Upper Confined Aquifer, Upper Confined Aquifer (Affiliated), Waimea Upper Catchments, Upper Catchments (Affiliated).

			Stage 3	Motupiko, Delta (Unaffiliated), Golden Hills (Unaffiliated), Hope and Eastern Hills (Unaffiliated), Lower Confined Aquifer (Unaffiliated), Reservoir (Unaffiliated), Upper Confined Aquifer (Unaffiliated).
			Cease	Moutere Surface Water, Dovedale
9/03/2020	16/03/2020	329 Direction	Stage 1	Takaka Surface Water, Takaka Aquifer, Takaka Marble Aquifer Recharge, Moutere Western, Baton, Stanley Brook, Tadmor, Tapawera, Glen Rae, Waimea Hope Minor Aquifers, Hope and Eastern Hills (Affiliated), Waimea Lower Confined Aquifer, Lower Confined Aquifer (Affiliated), Wangapeka, Wai-iti, Wai-iti Dam Service Zone.
			Stage 2	Moutere Eastern, Redwood, Waimea Delta, Delta (Affiliated), Waimea Golden Hills, Golden Hills (Affiliated), Waimea Reservoir, Reservoir (Affiliated), Waimea Upper Confined Aquifer, Upper Confined Aquifer (Affiliated), Waimea Upper Catchments, Upper Catchments (Affiliated), Waimea West, Waimea West (Affiliated).
			Stage 3	Motupiko, Delta (Unaffiliated), Golden Hills (Unaffiliated), Hope and Eastern Hills (Unaffiliated), Lower Confined Aquifer (Unaffiliated), Reservoir (Unaffiliated), Upper Confined Aquifer (Unaffiliated), Upper Catchments (Unaffiliated), Waimea West (Unaffiliated).
			Cease	Moutere Surface Water, Dovedale
None	12/03/2020	329 Direction	Cease take removed	Moutere Surface Water
17/03/2020	23/03/2020		Stage 1 Stage 2	Moutere Western, Baton, Stanley Brook, Tadmor, Tapawera, Glen Rae, Waimea Hope Minor Aquifers, Hope and Eastern Hills (Affiliated), Waimea Lower Confined Aquifer, Lower Confined Aquifer (Affiliated), Wai-iti, Wai-iti Dam Service Zone.
				Takaka Surface Water, Takaka Aquifer, Takaka Marble Aquifer Recharge, Wangapeka, Moutere Eastern, Redwood, Waimea Delta, Delta (Affiliated), Waimea Golden Hills, Golden Hills (Affiliated), Waimea Reservoir, Reservoir (Affiliated), Waimea Upper Confined Aquifer, Upper Confined Aquifer (Affiliated), Waimea Upper Catchments, Upper Catchments (Affiliated), Waimea West, Waimea West (Affiliated).
			Stage 3	Motupiko, Delta (Unaffiliated), Golden Hills (Unaffiliated), Hope and Eastern Hills (Unaffiliated), Lower Confined Aquifer (Unaffiliated), Reservoir (Unaffiliated), Upper Confined Aquifer (Unaffiliated), Upper Catchments (Unaffiliated) Waimea West (Unaffiliated).
			Cease	Dovedale

Item 7.2

24/03/2020	30/03/2020	329 Direction	Stage 1	Moutere Western, Baton, Stanley Brook, Tadmor, Tapawera, Glen Rae, Waimea Hope Minor Aquifers, Hope and Eastern Hills (Affiliated), Waimea Lower Confined Aquifer, Lower Confined Aquifer (Affiliated), Wai-iti, Wai-iti Dam Service Zone, Takaka Surface Water, Takaka Aquifer, Takaka Marble Aquifer Recharge, Wangapeka, Redwood, Waimea Delta, Delta (Affiliated), Waimea Golden Hills, Golden Hills (Affiliated), Waimea Reservoir, Reservoir (Affiliated), Waimea Upper Confined Aquifer, Upper Confined Aquifer (Affiliated), Waimea Upper Catchments, Upper Catchments (Affiliated), Waimea West, Waimea West (Affiliated).
			Stage 2	Moutere Eastern, Delta (Unaffiliated), Golden Hills (Unaffiliated), Hope and Eastern Hills (Unaffiliated), Lower Confined Aquifer (Unaffiliated), Reservoir (Unaffiliated), Upper Confined Aquifer (Unaffiliated), Upper Catchments (Unaffiliated), Waimea West (Unaffiliated).
			Stage 3	Motupiko
			Cease	Dovedale
None	6/04/2020	329 Direction	Stage 1	Moutere Western, Baton, Stanley Brook, Tadmor, Tapawera, Glen Rae, Waimea Hope Minor Aquifers, Hope and Eastern Hills (Affiliated), Waimea Lower Confined Aquifer, Lower Confined Aquifer (Affiliated), Wai-iti, Wai-iti Dam Service Zone, Takaka Surface Water, Takaka Aquifer, Takaka Marble Aquifer Recharge, Wangapeka, Redwood, Waimea Delta, Delta (Affiliated), Waimea Golden Hills, Golden Hills (Affiliated), Waimea Reservoir, Reservoir (Affiliated), Waimea Upper Confined Aquifer, Upper Confined Aquifer (Affiliated), Waimea Upper Catchments, Upper Catchments (Affiliated), Waimea West, Waimea West (Affiliated).
			Stage 2	Moutere Eastern, Delta (Unaffiliated), Golden Hills (Unaffiliated), Hope and Eastern Hills (Unaffiliated), Lower Confined Aquifer (Unaffiliated), Reservoir (Unaffiliated), Upper Confined Aquifer (Unaffiliated), Upper Catchments (Unaffiliated), Waimea West (Unaffiliated).
			Stage 3	Motupiko
			Cease	Dovedale
None	13/04/2020	329 Direction	Stage 1	Moutere Western, Waimea Lower Confined Aquifer, Lower Confined Aquifer (Affiliated), Waimea Hope Minor Aquifers, Hope and Eastern Hills (Affiliated), , Wai-iti, Wai-iti Dam Service Zone,
			Stage 2	Moutere Eastern, Baton, Stanley Brook, Tadmor, Tapawera, Glen Rae, Takaka Surface Water, Takaka Aquifer, Takaka Marble Aquifer Recharge, Wangapeka, Redwood, Waimea Delta, Delta (Affiliated), Waimea Golden Hills, Golden Hills

				(Affiliated), Waimea Reservoir, Reservoir (Affiliated), Waimea Upper Confined Aquifer, Upper Confined Aquifer (Affiliated), Waimea Upper Catchments, Upper Catchments (Affiliated), Waimea West, Waimea West (Affiliated).
			Stage 3	Motupiko, Delta (Unaffiliated), Golden Hills (Unaffiliated), Hope and Eastern Hills (Unaffiliated), Lower Confined Aquifer (Unaffiliated), Reservoir (Unaffiliated), Upper Confined Aquifer (Unaffiliated), Upper Catchments (Unaffiliated), Waimea West (Unaffiliated).
			Cease	Dovedale, Moutere Surface
None	14/04/2020	329 Direction	Removed	Moutere Surface, Waimea Lower Confined Aquifer, Lower Confined Aquifer (Affiliated), Waimea Hope Minor Aquifers, Hope and Eastern Hills (Affiliated), , Wai-iti, Wai-iti Dam Service Zone, Baton, Stanley Brook, Tadmor, Tapawera, Glen Rae, Takaka Surface Water, Takaka Aquifer, Takaka Marble Aquifer Recharge, Wangapeka, Redwood, Waimea Delta, Delta (Affiliated), Waimea Golden Hills, Golden Hills (Affiliated), Waimea Reservoir, Reservoir (Affiliated), Waimea Upper Confined Aquifer, Upper Confined Aquifer (Affiliated), Waimea Upper Catchments, Upper Catchments (Affiliated), Waimea West, Waimea West (Affiliated), Motupiko, Delta (Unaffiliated), Golden Hills (Unaffiliated), Hope and Eastern Hills (Unaffiliated), Lower Confined Aquifer (Unaffiliated), Reservoir (Unaffiliated), Upper Confined Aquifer (Unaffiliated), Upper Catchments (Unaffiliated), Waimea West (Unaffiliated).
14/04/2020	20/04/2020	329 Direction	Stage 1	Moutere Western
			Stage 2	Moutere Eastern
			Cease	Dovedale
21/04/2020	27/04/2020	329 Direction	Stage 1	Moutere Eastern, Moutere Western
			Cease	Dovedale
28/04/2020	29/04/2020	329 Direction	Removed	Moutere Western, Moutere Eastern
28/04/2020	4/05/2020	329 Direction	Cease	Dovedale
5/05/2020	5/05/2020	329 Direction	Cease Take Lifted	Dovedale

6 Strategy and Risks

- 6.1 In addition to the routine collection, monitoring and reporting of water use data during the season, other critical water monitoring administrative tasks place significant demand on staff time in the lead up and after the main season. These include:

- 6.1.1 **Pre-summer season set up.** Considerable staff time is dedicated to preparation for the upcoming summer. This is typically reviewing and uploading new consents and renewals, database and data integrity audits, alerts to water users of the pending start, and contacting those not using water for confirmation that the non-use situation remains.
- 6.1.2 **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. While this takes a considerable amount of staff time generating this data it is considered to be well worth the effort and is typically well received by the majority who receive it. The reporting consists of a summary letter, graph of the individual and relevant zone usage, commentary on consent condition performance together with any identified deficiencies.
- 6.1.3 **Electronic records.** There are now 94 telemetered water meters over 73 accounts i.e., several accounts have more than one meter. The supply of electronic data in this format is has increased as a result of the Waimea Dam. This number will further increase with the requirement placed on unaffiliated resource consent holders who take more than 2000 cubic meters of water per week. Council compliance staff are required to enforce the provisions of the Tasman Resource Management Plan including the requirement to install telemetered water monitoring equipment. Unaffiliated resource consent holders have been advised in writing that their telemetry installation is required prior to 1 July 2021. The Council continues to develop processes to adequately manage this data stream. (Refer to telemetry comments for further comment). 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.
- 6.1.4 The proposed amendments to the Resource Management (Measurement and Reporting of Water Takes) Regulations 2010 as part of the Governments Freshwater Management strategy will now impose additional telemetry requirements and impact on the Council under the role as regulator.
- 6.1.5 **Main database changes.** The rapid changes occurring in the management and reporting of water use has meant demand for increased database functionality. Version two of the water metering database was rolled out this season. Whilst a great improvement on version one, further improvements and changes have been identified that should enhance information management in and out. This will be implemented when IT support becomes available.
- 6.1.6 The Tasman Resource Management Plan does not put a limit on the taking of water for stock drinking and it is not monitored. It is apparent that many consent holders take both irrigation and stock drinking water from a source using a single pump and meter and separate it at some point beyond. The previous two years of summer drought have highlighted that the inclusion of unlimited stock drinking water through a water meter used to monitor consented water obscures compliance with the actual consented water use. When there is a registered overtake from a meter, which includes the use of stock drinking water, monitoring staff are forced to attempt to determine stock numbers and deduct daily requirements from the total volume in order to determine compliance. This is impractical, fraught with risk and open to abuse. There were 59 registered overtakes during this seasons drought which included stock drinking water. It is unknown if these were true overtakes due to the stock water

component. Staff believe there are probably more water use returns that include stock water but remain hidden as they have not recorded an overtake and received closer scrutiny. If the Council is required to accurately monitor water use while keeping stock water use as unlimited changes are likely to be required in the upcoming plan reviews. The Compliance Department will continue to feed into this process.

7 Resource Management (Measurements & Reporting of Water Takes) Regulations 2010 and Tasman Resource Management Plan (TRMP) Reporting of water take requirements.

- 7.1 Overall administration requirements of the water metering program continue with the requirements of the National Regulations. Re-verification of meters recording water takes of 10 litres per second or greater are now being followed up.
- 7.2 The TRMP requires meters for takes of less than five litres/second and this applies to 397 water takes. These water takes were to have their meters verified as accurate by November 2019.
- 7.3 To date 283 water takes have provided evidence of their water meters being verified as accurate.
- 7.4 The remaining 114 water takes are either awaiting a service provider to carry out verification, are new consent holders or require reminding again. This will be followed up by written letter.

8 Policy / Legal Requirements / Plan

- 8.1 One of the main objectives of the water metering programme is to provide the Council, resource users and the community, data on the consumptive use of water in the individual management zones and the compliance behaviour of the users. This data provides information on the volumes, pattern of use, return rates and the stages and effects of rationing in the individual zone. Presentation of this information in an annual summary report is an essential part in the Council meeting this requirement. 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 2019-20 water year will be uploaded in July once the end of year wrap up is complete.
- 8.2 The Council also has an obligation to report to the Ministry for the Environment (MFE) on the district's performance with respect to implementation of the Resource Management (Measurement & Reporting of Water Takes) Regulations 2010. This occurs annually as and when it receives the request. At present this is done through spreadsheets as there is no data share mechanism.

9 Consideration of Financial or Budgetary Implications

- 9.1 A summary of the Compliance Monitoring Water income/costs for the 12 month period ending 30 June 2020 is as follows.

- 9.2 Budgeted expenditure for the 2019/20 year was \$331,851. Total actual expenditure for the period was \$350,953, with total income for the period of \$269,440.
- 9.3 The program was 60% water user funded this year. The target remains for this activity to be 100% user funded.

10 Conclusion

- 10.1 Water user compliance requires significant Council administrative and field effort. Significant interaction between consent holders and Council staff is required to achieve consistent compliance every season. This was highlighted again this season with the Waimea Dam transitional rationing steps and tough drought restrictions.
- 10.2 The Covid-19 Pandemic had a significant impact, but a certain level of business as usual was maintained.
- 10.3 Non-compliance with meter returns continues with a large number of missing readings this summer. This season a record number of warnings were issued either by letter or email. As always, compliance staff assess each case of non-compliance and where possible place emphasis on education and encouragement to achieve compliance.
- 10.4 Whilst there were still numerous overtakes this season which resulted in formal written warnings, there was much less repeat offending so only two Infringement Fines and one Abatement Notice were issued. This is most likely the result of the stance taken at the end of last season with the issuing of 40 Infringement fines and 17 Abatement Notices for the more serious offenders.
- 10.5 Use of the mobile phone application and other electronic methods of meter returns remain approximately the same this season although telemetry has gone up by 2%. The number of consent holders who, for various reasons, lack the ability or will to utilise electronic technology to provide returns remains also. As a result, the old paper system still remains. Whilst this remains there will be some cost to the Council in time and resources, especially when providing reports or communications such as mail-outs.
- 10.6 The Waimea Community Dam transition phase is now in place in the water metering program. The Compliance Section continues to work on its strategies for this and the post dam construction implementation of this project.
- 10.7 Many consent holders take both irrigation water and stock drinking water from a single source and this can create difficulties in compliance monitoring and enforcement.
- 10.8 Telemetry is 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.
- 10.9 The expanding water program has had a significant impact on Council database requirements. The new version two of the database was implemented this season and functionality has been continually fine-tuned this season to reflect the fluid situation and adapt to the increase in data flow and management. Further improvements have been identified for application and testing prior to next summer season. This seeks to improve yet again for better information management, such as analysing and reporting on that information and providing greater customer service.

- 10.10 Consent holders in the Waimea zones will now be required to supply Irrigation Management Plans (IMP) to the Council by 31 August starting 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.
- 10.11 Tasman District Council appears to be well positioned under in the implementation of the Measurement and Reporting of Water Take Regulations.

11 Next Steps / Timeline

- 11.1 Irrigation Management Plan requirement reminder letters going out July 2020.
- 11.2 Improvements and updates of the water database to be tested prior to going live.
- 11.3 November 2020 the new water season commences.
- 11.4 2020-21 Preseason letters to go out by end of September 2020

12 Attachments

Nil