8.2 2020-2021 FARM DAIRY EFFLUENT COMPLIANCE SURVEY

Information Only - No Decision Required

Report To:	Regulatory Committee
Meeting Date:	29 July 2021
Report Author:	Kat Bunting, Compliance & Investigation Officer
Report Number:	RRC21-07-2

1 Summary

1.1 This report presents the compliance results from the 2020/2021 farm dairy effluent survey, in particular compliance with respect to resource consent conditions for the discharge of treated dairy effluent to water, and the discharge of dairy effluent to land as a permitted activity under the Tasman Resource Management Plan (TRMP).

1.2 In the 2020/2021 milking season a total of 124 farm dairies had active discharges in the Tasman District. Of those, 121 farm dairies operated as permitted activities and the remaining three held resource consents to discharge treated effluent to water, although all of these farmers preferred to apply effluent to land.

1.3 Each and every year the Council aims to complete a full assessment of every farm regarding dairy effluent disposal. All 124 active farms in Tasman were inspected at least once during the 2020/2021 season.

1.4 At these inspections each farm was assessed against resource consent conditions for the discharge of treated dairy effluent to water, or against the permitted activity rule 36.1.2.3 (Discharge of Animal to Land). The final compliance results were:

- Ninety eight percent (98%) Fully Compliant
- One percent (1%) Non-Compliant
- One percent (1%) Significantly Non-Compliant

1.5 All farms that hold resource consents fully complied with all conditions of their respective consents.

2 Draft Resolution

That the Regulatory Committee receives the 2020-2021 Farm Dairy Effluent Compliance Survey RRC21-07-2

3 Purpose of the Report

3.1 The purpose of this report is to present the results of compliance for the 2020/2021 dairy season with respect to those farm dairies that hold a resource consent to discharge treated dairy effluent to water and those farms that operate under the permitted activity rule 36.1.2.3 of the Tasman Resource Management Plan (TRMP) – Discharge of Animal Effluent to Land.

3.2 The survey specifically looked at the collection, containment and disposal of effluent from the farm dairy and general farm management practices associated with effluent. No routine sampling of waterways or soils is undertaken as part of this monitoring programme; samples are only undertaken during investigation phases where offences are suspected. Therefore, the monitoring programme and report do not attempt to assess the wider effects of farming on water quality, amenity, or aquatic ecology in these catchments, which are covered by other reports to the Council.

4 Background and Discussion

A Snapshot of Dairying in Tasman District

4.1 Tasman District's farm dairies are concentrated in three main areas, referred to as sub-regions. These sub-regions are Golden Bay, Central and Murchison. Each yellow square in Figure 1 depicts the location of a farm dairy that was operating during the 2020/2021 milking season. It can be seen from Figure 1 that approximately two-thirds of Tasman's dairy farms are concentrated in Golden Bay. The remaining third are more or less evenly distributed in the Central and Murchison sub-regions. Figures 2, 3, and 4 show the spatial distribution of farms in these sub-regions and introduces the catchments, or geographical 'zones' of each sub-region.

4.2 The dairy farms of Golden Bay are placed into six 'zones' with each zone representing either a catchment or geographical area. Figure 2 shows the location of these zones. Most farms are in the Bainham/Rockville area where the Aorere River flows and the Takaka Valley where the Takaka River flows. The remaining farms are dotted around the coastlines of Pakawau, Puramahoi/Onekaka, and Motupipi, and a small inland pocket in Kotinga/Anatoki.

4.3 Figure 3 illustrates the spatial distribution of farms in the Central sub-region. Here there are three distinct zones. Most of the farms are located in and around the upper catchment of the Motueka River, the remaining farms are located on the Waimea Plains and in Moutere.

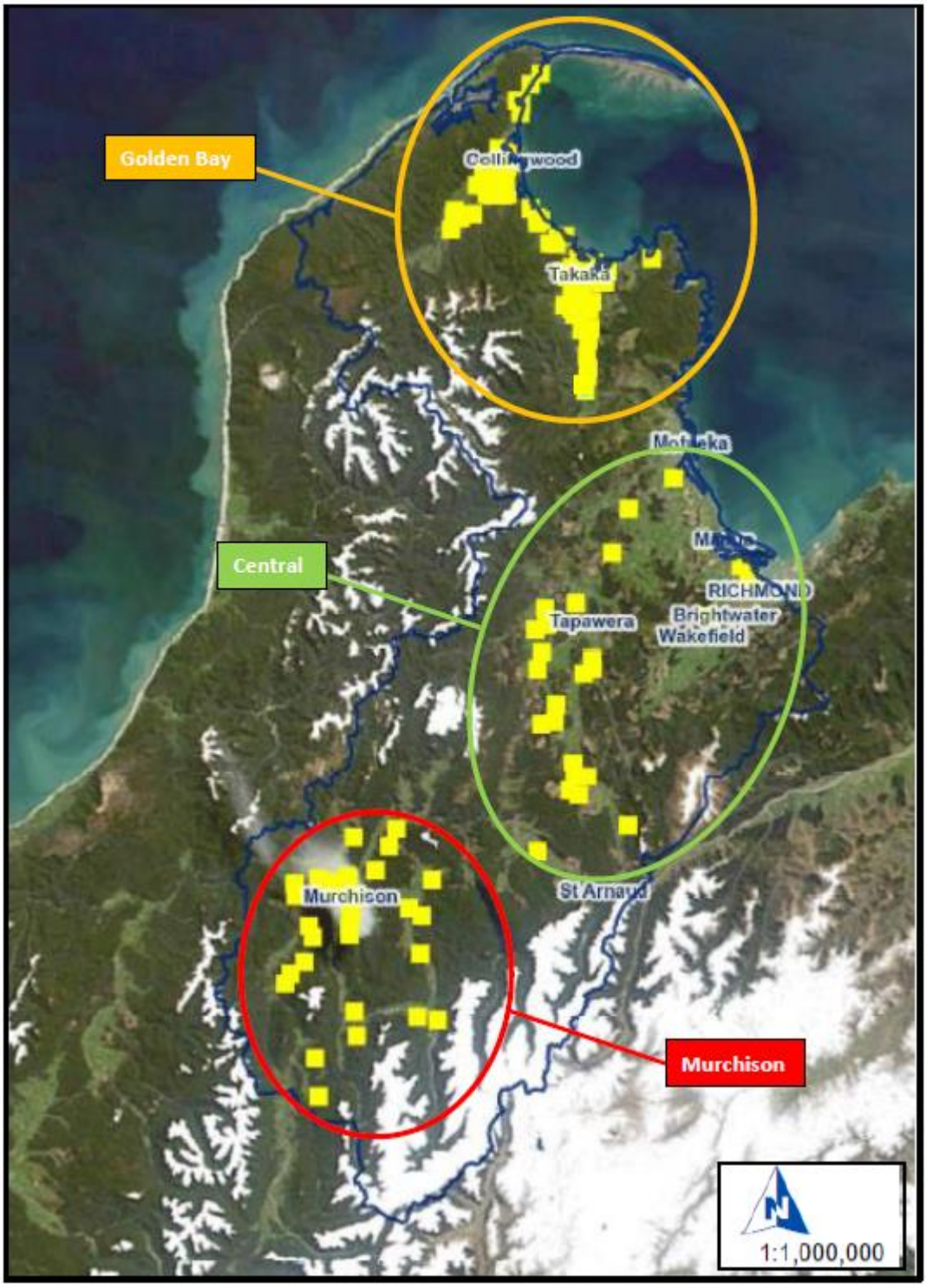

Figure 1: Location of the three sub-regions of Golden Bay, Central, and Murchison

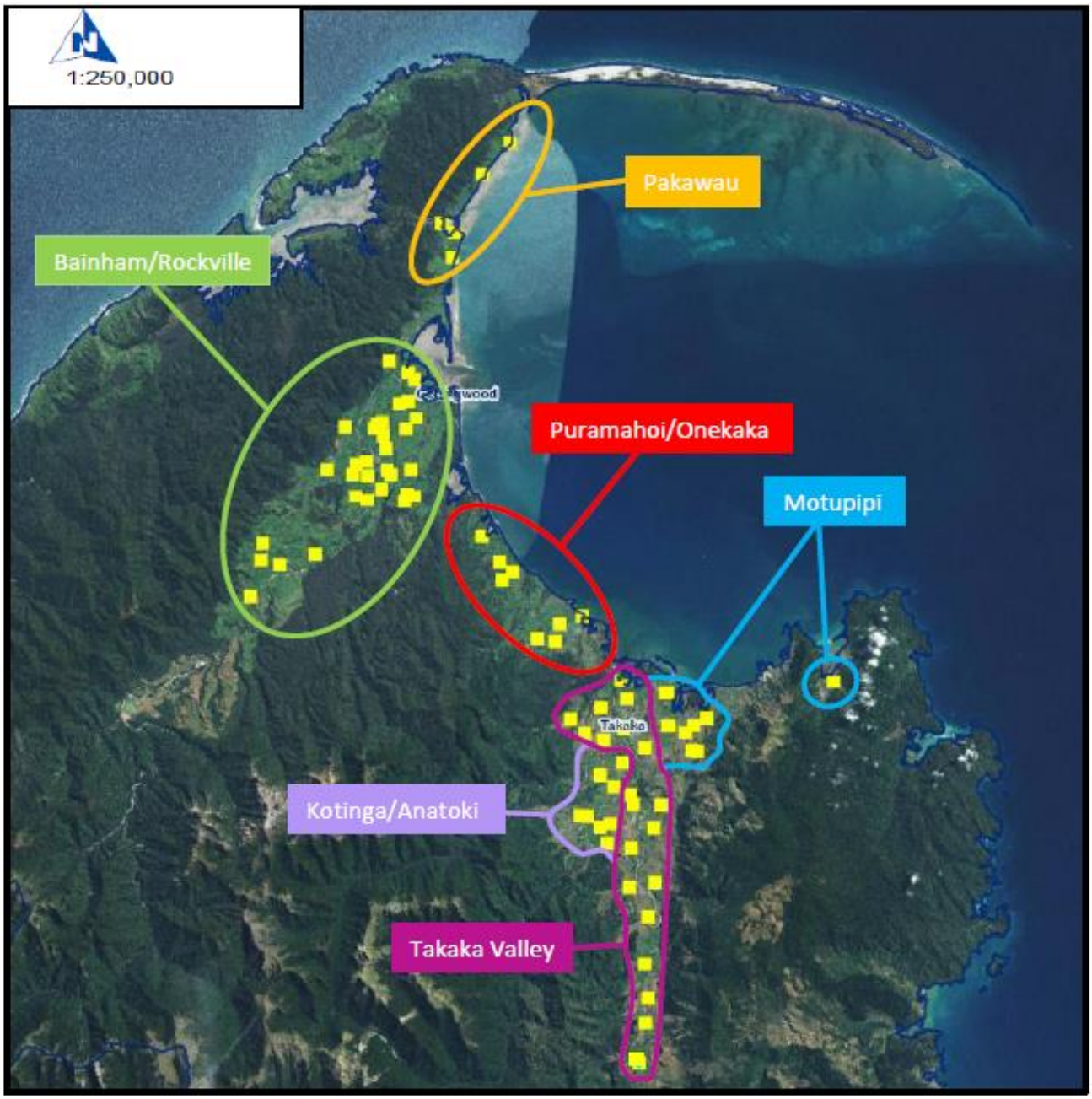

Figure 2: The spatial distribution of farm dairies in the Golden Bay sub-region

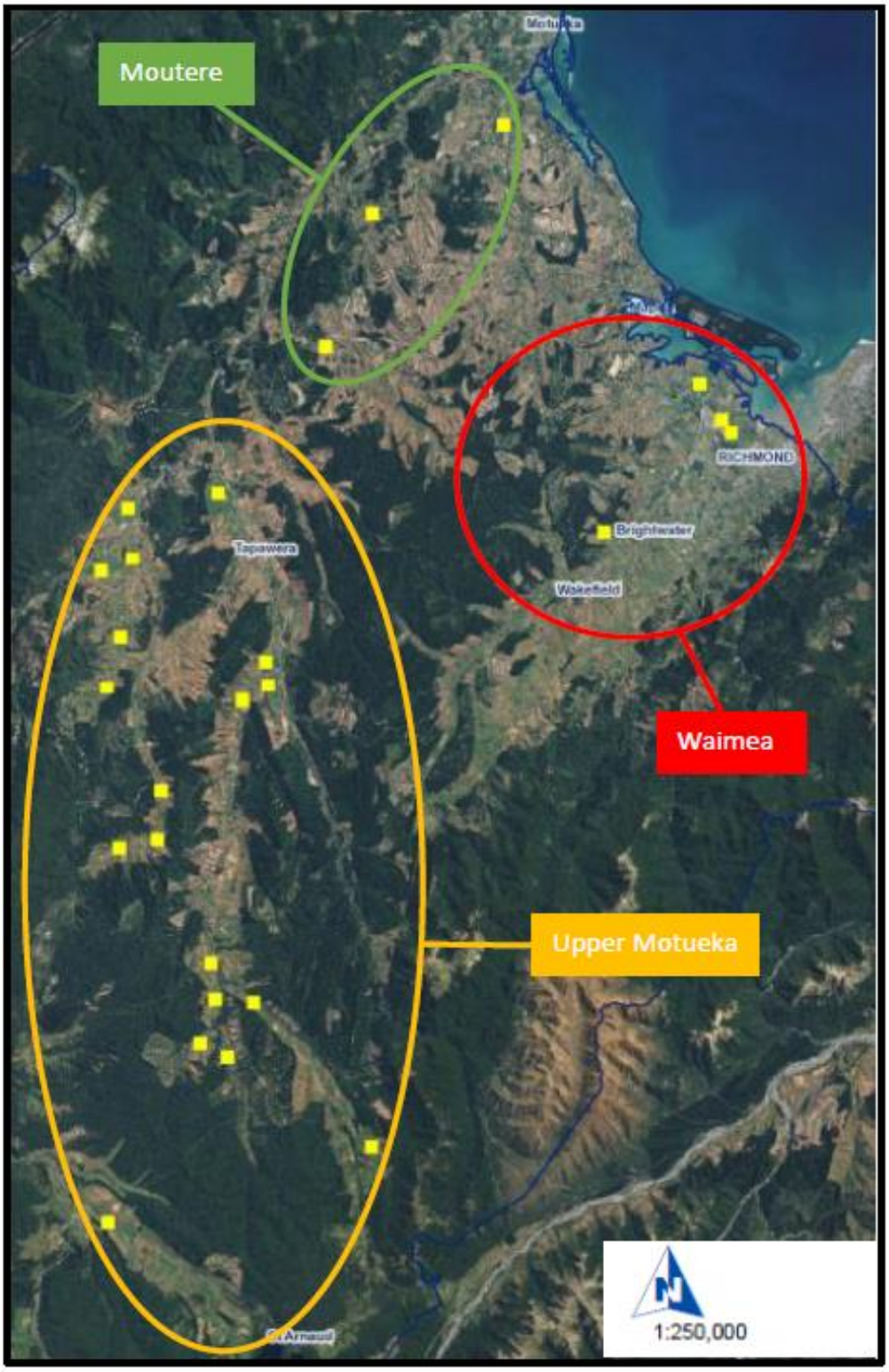

Figure 3: The spatial distribution of farm dairies in the Central sub-region.

4.4 The Murchison sub-region (Figure 4) can also be separated into zones with most farms situated on old river terraces in the long narrow valleys of this area. The exception being those farms on the plains in and around the town of Murchison itself.

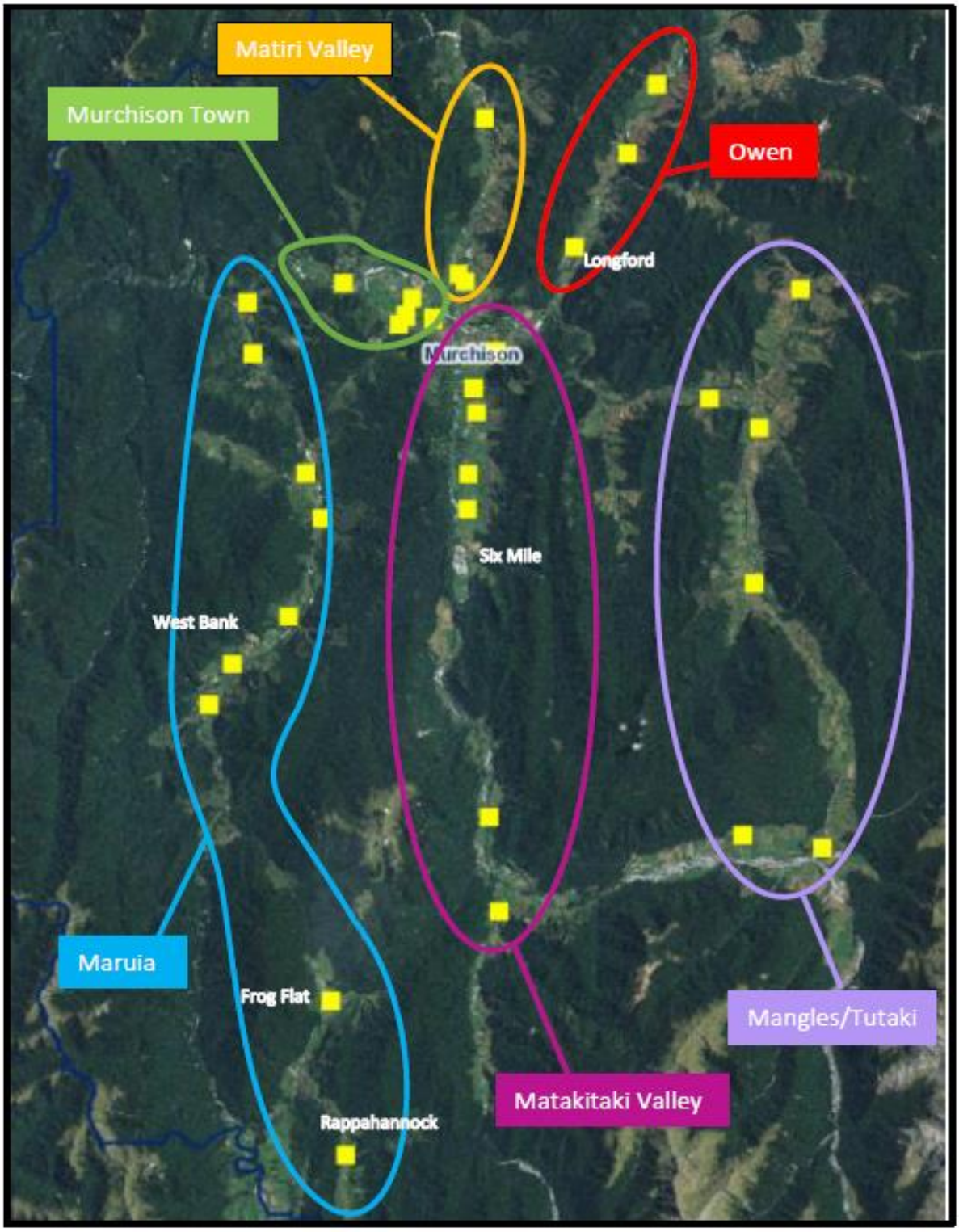

Figure 4: The spatial distribution of farm dairies in the Murchison sub-region

4.5 Table 1 presents a breakdown of the metrics relating to the current number of farms, total and average herd size, land area and stocking rates for Tasman District compared to current national and South Island statistics. The three sub-regions are also included for comparison.

Table 1: Comparative Dairy Farm Statistics – Tasman v National and South Island Trends.

Catchment	Number of Farms	Total Land Area (ha)	Average Farm Area (ha)	Total Dairy Population	Average Herd Size	Average Stocking Rate (cows/ha)
National Statistics (2019-2020) **	11,179	1,730 374	155	4,921,548	440	2.84
South Island Statistics **	3,200	687,886	215	2,064,459	645	3.0
Tasman Statistics *	124	18,250	141	47,197	366	2.58
Golden Bay*	75	9,600	119	25,110	305	2.56
Central*	20	3,099	120	7,815	308	2.56
Murchison*	29	5,551	165	14,272	433	2.62

* These statistics refer to the maximum/peak number of milking cows each farm carried in a given season that is at the time of calving. The end milking number is commonly 10-20 less for each farm and thus these are conservative numbers. These numbers do not include replacement heifers, bulls or calves.

** source: New Zealand Dairy Statistics 2019-20 - DairyNZ

4.6 There are a number of observations to note from this data. Although dairy farming is still a significant rural industry in Tasman when comparing averages against national data, the scale and intensity is relatively low. Less than 1% of the national herd is farmed in Tasman with the average herd size, farm size and stocking rate being 10-20% below the national averages and considerably less than South Island averages.

4.7 While two-thirds of Tasman's farms are in Golden Bay, this sub-region is by no means the most intensive farming area within Tasman in terms of stocking rates and herd size. The largest farms are in fact located in Murchison, in particular the upper reaches of the Tutaki and Matakitaki Valleys where there are currently three farms with a herd greater than 1000 cows and five farms with a herd greater than 800 cows. The average farm size in Murchison is also much larger at 165ha compared to Golden Bay at 119ha. Correspondingly, the average stocking rate is also higher at 2.62 cows/ha compared to Golden Bay at 2.57cows/ha. The Central sub-region has the lowest intensity dairy farming in Tasman in terms of farm numbers, total dairy population, but farm size in terms of land area and herd size and therefore stocking rates, are very similar to those farms in Golden Bay.

The Changing Face of Dairying in Tasman District

4.8 Since the first full dairy effluent compliance survey in 2005, the face of dairy farming in Tasman has changed. These trends are displayed in Figure 5 and a full breakdown of this data is presented in Table 2 and discussed below.

4.9 During the 2005/06 dairy season when data collection began, 155 farms operated in Tasman. This number gradually declined over the next eight seasons to stand at 146 farms in 2013/14. Since that date, an accelerated decline in numbers has become evident.

4.10 This decline is largely attributed to the amalgamation of small farms into bigger entities through buyout or lease of neighbouring farms that had ceased supply. The other factor,

which is more obvious in recent years, is farms moving entirely away from dairying to dairy support, beef and more recently converting to hops.

4.11 While these use changes were key drivers in declining number of farms, the total milking platform area had until recently still remained fairly consistent. Historically the data paints a picture of gradual decline in area until 2010/11 where approximately 20,100ha remained in dairying. This was then followed by a period of expansion to where in 2016, the total area under milking reached its zenith at 21,717ha. Since that date however, there has been a steady reduction to where we are now at 18,250ha in the 2020/2021 season, the lowest on record. This trend looks to continue.

4.12 The overall dairy cow population has followed a similar trend. Since the first survey of 2005/06 when 57,549 cows were milked numbers have fluctuated over time with a peak of 58,179 cows in 2014/15. Since that date numbers are now falling and so too is the average stocking rate. After peaking at 2.74cows/ha in 2013/2014, the average stocking rate is now 2.58 cows/ha. Tasman's stocking rate is in fact one of the lowest in the country (https://ecoprofile.infometrics.co.nz/nelson-tasman/Gdp/Dairy)

4.13 From these data trends and on farm discussions, it does appear that dairy farming in Tasman is entering another era. As stated, the most marked trend over the past 16 years is the decline in the number of dairy farms. There are now just 124 farms operating in Tasman in 2020/21, a drop of two from last season. This number is likely to fall further next season with at least four more dairies indicating they are ceasing supply. This trend has also resulted in a dramatic drop in total herd numbers (55,878 cows in 2016/2017 to 47,197 cows this season) as well as the corresponding decrease in land used for dairy farming (20,934ha in 2016/2017 to 18,250ha this season).

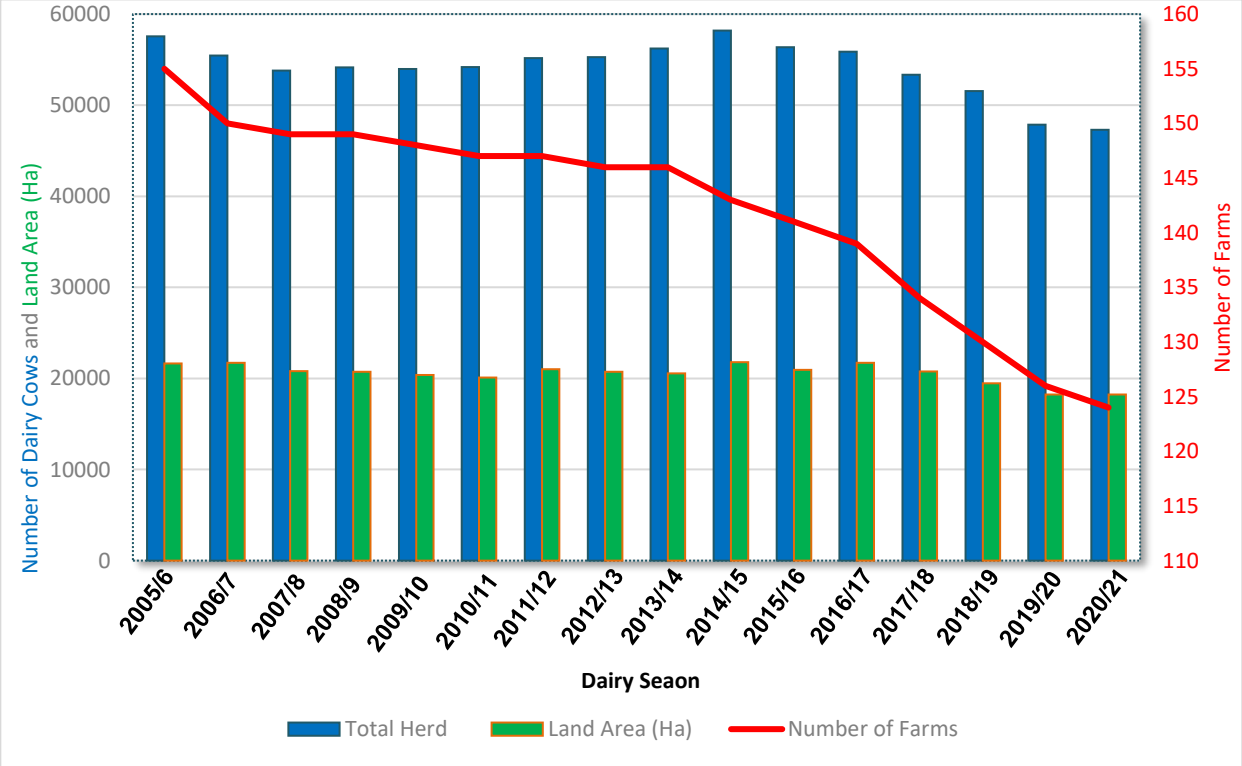

Figure 5: Tasman District's changing dairy herd size, associated land area and number of farms between 2005/06 and 2020/2021

Table 2: Breakdown of statistics presented in Figure 5

Season	Number of Farms	Total Herd	Average Stocking Rate	Land Area (Ha)
2005/06	155	57549	2.66	21655
2006/07*	150	55447	2.55	21706
2007/08*	149	53815	2.59	20790
2008/09*	149	54139	2.61	20744
2009/10*	148	53965	2.65	20393
2010/11*	147	54179	2.70	20094
2011/12*	147	55162	2.62	21015
2012/13*	146	55283	2.67	20727
2013/14*	146	56228	2.74	20553
2014/15*	143	58179	2.67	21798
2015/16*	141	56355	2.69	20934
2016/17	139	55878	2.57	21717
2017/18	134	53359	2.57	20767
2018/19	130	51552	2.65	19482
2019/20	126	47858	2.6	18230
2020/21	124	47297	2.58	18250

*Source: https://ecoprofile.infometrics.co.nz/nelson-tasman/Gdp/Dairy

4.14 Despite the drop in herd numbers given the equivalent drop in land area the actual stocking rate has remained relatively stable since 2005.

Full Season Once-a-Day Milking

4.15 Another pattern of change is the large uptake of farms moving to Full Season Once-a-Day (FSOAD) milking. FSOAD milking is the practice of milking cows only once during a 24-hour period for the entire milking season. This differs from the traditional twice a day (TAD) milking regime. It should be noted that most farms do move to Once-a-Day (OAD) milking at some point in the latter half of the season as feed sources and body condition decrease. The reported benefits of FSOAD include:

- Less time spent milking cows
- Reduced labour costs
- Reduced staff pressure
- The size of contingency storage is reduced and thus installation costs are reduced as less effluent is collected in the yards and sheds.
- Improved stock health from less stress, lameness (less walking)

4.16 Tasman District now has 33 farms (26%) practicing FSOAD milking this season, three more than last season. Two of these farms are amongst the largest herds in the District. Additionally, some of the larger herds are split in two where the younger cows and lower producers are milked FSOAD and the high production cows milked TAD. There are also a small number who operate on a 7/10 regime, that is seven milking's completed every ten

days. At least three further farms have made it known that they are considering the transition to FSOAD in the coming seasons.

4.17 Tasman District, together with the West Coast and Northland regions, has the highest percentage of farms milking FSOAD Full season once-a-day (OAD) milking - DairyNZ

Resource Consents – to Discharge Treated Effluent to Water

4.18 A further change since 2005 is a marked decline in the number of resource consents authorising the discharge of treated farm dairy effluent to water. There were 33 farms that held discharge permits in 2005 and only three farms at the end of the 2020/2021 dairy season. This decline is directly attributed to farms ceasing operation or investing in the infrastructure required to allow them to commit 100% to a fully land-based system for effluent disposal.

4.19 The three farms that have retained their discharge permits are located within the very high rainfall areas of Golden Bay. They all elect to apply effluent to land as a primary method of disposal but continue to retain their consents as a 'back-up' for contingency purposes if their storage ponds cannot contain the amount of effluent that will accumulate during prolonged periods of wet weather when land application is not possible without promoting ponding and overland run-off.

4.20 Over the last seven years, all three farms operating under discharge permits have fully complied with their respective wastewater quality limits for the receiving waters. Some of the parameters that are measured include bacteria, suspended solids, biological oxygen demand, nitrogen and phosphorous.

The Changing Standards of Effluent Systems

4.21 Many advances in technologies have occurred in recent years and are actively promoted through dairy industry initiatives. This includes the industry led Farm Dairy Effluent System Design Accreditation programme. This programme provides a new way forward for effluent system design in New Zealand and councils are seeing this being rapidly picked up by farmers nationwide. The programme goal is to ensure all dairy farmers have effluent systems that can achieve dairy industry and wider communities' expectations for the land application of dairy effluent. Key points to this are:

- Keeping all untreated effluent out of surface and groundwater;
- Keeping land-applied effluent nutrients in the root zone to capture their nutrient and economic value; and
- To ensure all systems are compliant 365 days a year.

4.22 Having standards for effluent systems helps reduce the level of risk for farmers who are investing in new systems or upgrading existing systems. Accredited providers are expected to undertake site assessments, extensive design and requisite documentation before a system goes in the ground. They will also oversee the commissioning of the system after installation to ensure it operates in accordance with design. By engaging an accredited provider, a farmer should be confident the system design will be consistent with Dairy NZ's Farm Dairy Effluent Design Code of Practice and Standards and assist in meeting the Councils rules**.** In addition to these, the Institution of Professional Engineers (IPENZ) with support of Dairy NZ has produced Practice Note 21 – Farm Dairy Effluent Pond Design and Construction. This Practice Note has an engineering focus on the design and construction of effluent ponds and is to be read alongside the Code of Practice and Standards.

4.23 Council staff, while on farm, continue to promote these industry initiatives to farmers and encourage them to seek out service providers who understand and apply these new codes and standards. By encouraging this uptake, it is hoped we will see increasing improvements in systems that are future proofed to meet regulations and provide better environmental outcomes.

The 2020/2021 Compliance Survey – The Inspection Process

4.24 The on-farm compliance inspection process this season was essentially that of previous seasons. It is not intended to detail that process in this report and the reader is referred to staff report EP06/05/18 where this was described in detail. For ease of reference the geographical location of the three "sub-regions" (Golden Bay, Central, and Murchison) referred to in this and past reports is illustrated above in Figure 1.

Compliance Grading

4.25 As with all dairy farm inspections undertaken by the Council, farms once assessed were placed into one of three categories that described their level of compliance. The criteria for assigning these categories are:

- **Compliant:** No non-compliance with any Resource Consent conditions or any sections of Rule 36.1.2.3 of the TRMP were found at the time of inspection.
- **Non-compliant:** All issues that did not fit into either "compliant" or "significantly non-compliant" e.g. technical non-compliance with no adverse environmental effect.
- **Significantly Non-compliant:** refer to Attachment 1 for a full list of criteria.

4.26 These compliance classes are used by all regional councils to ensure national consistency when reporting on dairy compliance and will be referred to throughout the remainder of this report.

5 Compliance – The season in summary

2020/2021 Inspection Results

5.1 Compliance with respect to an individual's consent conditions, Rule 36.1.2.3 of the TRMP and Section 15(1)(b) of the Resource Management Act (RMA) 1991 as assessed from the farm inspections are presented in Figure 6.

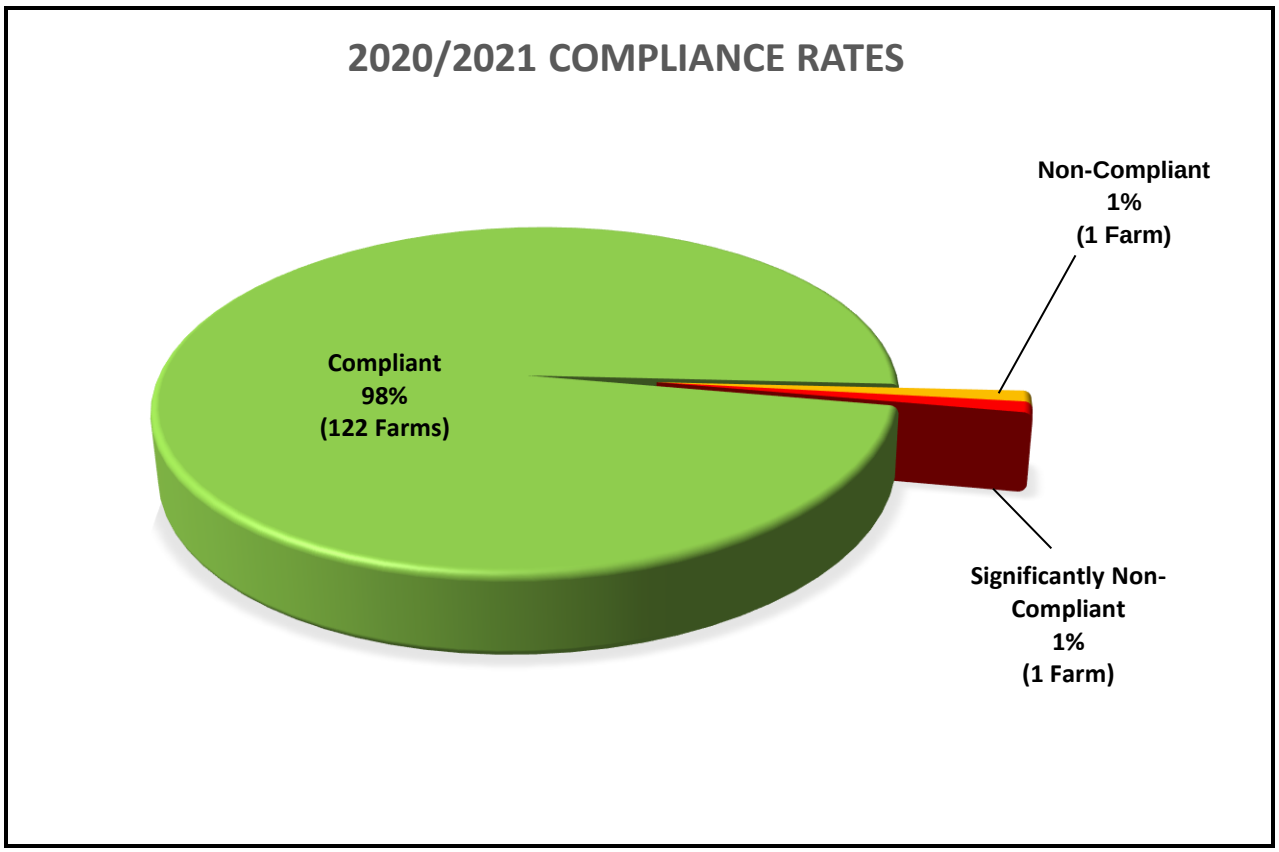

Figure 6: Compliance gradings of farms inspected during the 2020/2021 milking season with respect to Rule 36.1.2.3 of the TRMP, Resource Consent conditions, and Section 15(1) of the RMA 1991

5.2 All the 124 dairy farms in Tasman district were inspected at least once over the 2020/2021 season, of which 122 (98%) of all inspections were graded 'Compliant'.

5.3 One inspection found issues that were graded as 'Non-Compliant' and involved minor ponding of effluent on the ground. This ponding was not in danger of running off and entering water.

5.4 One farm was graded as 'Serious Non-Compliant' and concerned moderate ponding of effluent created by an irrigator that malfunctioned. This ponding occurred on the crest of steep sloping land where a small stream flowed at its toe. The slope of the land was enough to promote overland flow. Upon discovering the fault, farm staff immediately shut the effluent system down but not before a small amount of effluent entered the stream. Council staff undertaking water sampling downstream at the time observed the discolouration in the steam. They traced this back upstream to the farm boundary and notified Compliance staff who responded.

5.5 This particular farm had completed half of a major overhaul of the effluent system and was well underway with the installation of the final components at the time of the offence. A low application system and more storage that will meet industry standards will be completed ready for the 2021/2022 season.

5.6 A considerable amount of work has been done since 2012 by the dairy industry (Dairy NZ, Fonterra, and Westland Milk) by working one-on-one with farmers with respect to system and wet weather contingencies. The Council and industry are actively promoting to farmers the benefits of engaging professionals who have gained accreditation through the Farm Dairy Effluent Accreditation Scheme. Regardless of whether the farmer chooses to engage such a person, they are required to demonstrate that any new system or modification to

any existing system meets Dairy NZ's Farm Dairy Effluent Design Code of Practice and Standards. These standards include among other things, adequate sizing and the sealing of effluent storage systems.

5.7 This work is now being seen throughout the District. This is particularly so in the Murchison area, where inspections made in past seasons identified that non-compliance associated with ponding was far more prevalent here than any other area of the District. This was largely associated with undersized storage systems, which left farmers with no option but to irrigate effluent onto saturated pastures rather than being able to contain until the receiving soils were back in a moisture deficit state.

5.8 Over the past six seasons both milk supply companies (Fonterra and Westland Milk) have repeatedly audited effluent systems that were of concern and made recommendations to the respective farmers as to how to improve them in order to meet industry best practice as prescribed in Dairy NZs Code of Practice and Standards. At the end of the 2020/2021 season, two more site specific designed systems had been commissioned. A further six farms are part way through the installation of their systems and should be commissioned over the next few seasons. Five more farms have had systems sized for them. These farms are now in a position where they can price out different storage options and work these costs into their farm budgets. At least three further farms are in the process of actively constructing improved containment facilities ready for the 2021/2022 season.

5.9 Unfortunately, there still exists a small minority who will not move forward unless pushed to do so. Such a push will likely have to come from industry as the permitted activity rules do not provide the Council enough leverage at present and our intervention requires detection of an offence. It was fair to say that the majority of these were in the Murchison sub-region, with a scattering of other farms located around the rest of the district. However, this season sees a shift as a direct result of these southern farms active uptake of technologies under the encouragement and guidance from the Council and the milk supply companies. The owners of farms that do remain with very vulnerable systems typically cite financial constraints as prohibiting any investment in improved effluent management systems.

5.10 Much focus has been placed on ponding in past years, as this was the most common issue of non-compliance found during the surveys. Many of the farms that presented ponding in past seasons have now installed storage that has been designed and constructed to industry standards. The uptake of these new systems, combined with robust management regimes, has seen ponding and in particular the severity of ponding decrease as an area of noncompliance in Tasman District.

5.11 Figure 7 presents a breakdown of the standard of farm dairy effluent systems within Tasman District with respect to Dairy NZs Code of Practice and Standards. Currently 39% (49 farms) have effluent systems that have been designed and constructed to the standards set out in Dairy NZs code of practice and standards, an increase of two since last season. This means the system has been sized, or an existing system has been verified as being of adequate size using the Pond Calculator and proven to be sealed as per the allowable seepage rates for clay and synthetic liners. A further 28% (35 farms) have storage facilities confirmed to be of sufficient size but have not had confirmation that the ponds are sealed to industry standard. In most cases, these systems are former oxidation pond systems that have had the discharge pipe removed once the farms have moved to a land-based disposal system. These ponds were often lined with compacted clay when constructed, but they need to be assessed for seepage before they can be regarded as fully meeting industry standard. Notwithstanding this, during the farm inspection each and every pond is thoroughly inspected for any visual signs that they may

be prone to seepage. Such evidence can present as wet exterior pond walls, boggy areas in surrounding land, and long-green-filamentous algal growth in nearby waterways. Should there be any concerns, the farmer is required to have the system assessed to ascertain whether the pond is sealed to industry standards and rectify this if it is not. Collectively, 68% (84 farms) of Tasman District's dairy farms have storage systems that meet industry best practice and standards in terms of storage volume.

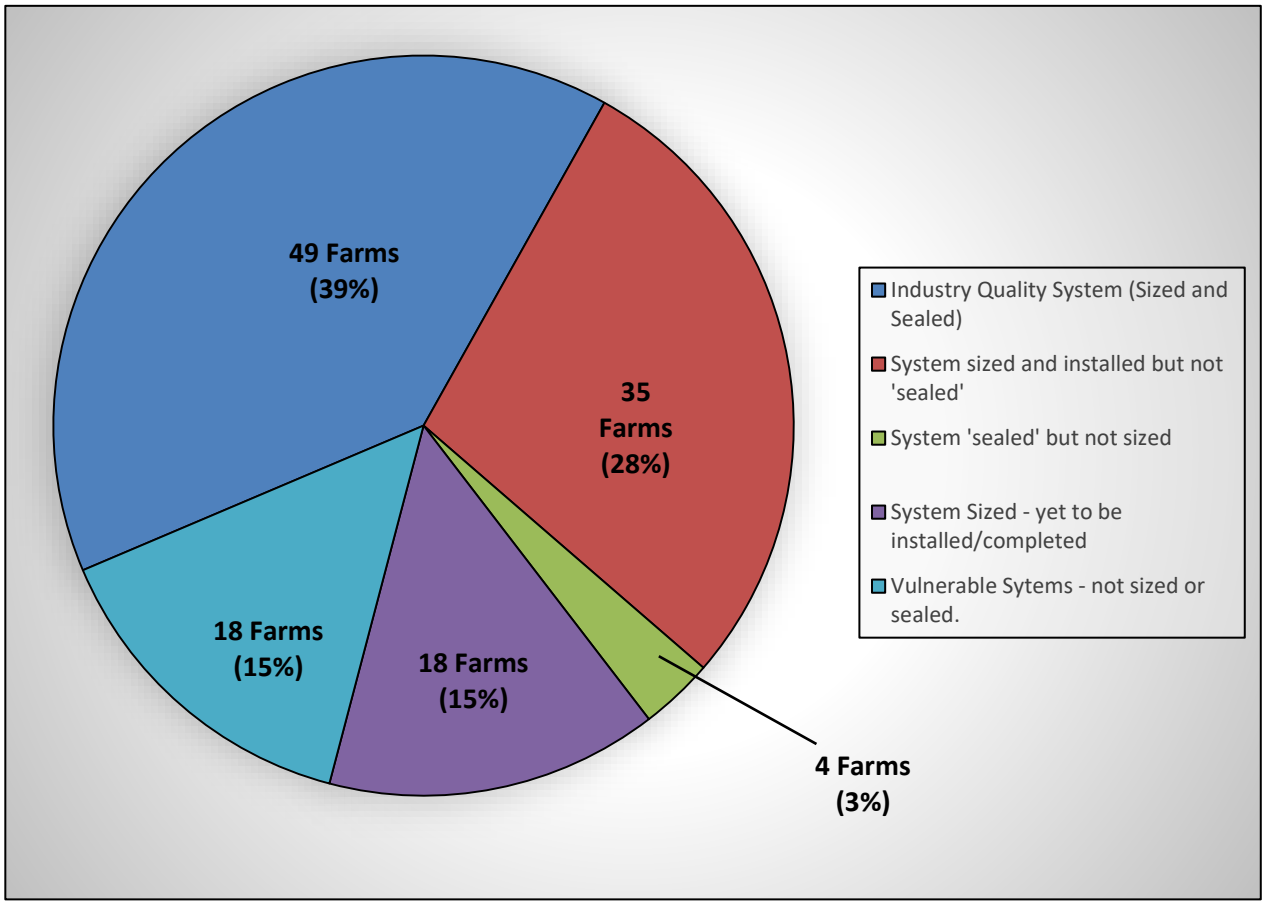

Figure 7: Snapshot of the districts effluent storage system suitability classification

5.12 In addition to these numbers, a further 18 Farms (15%) have engaged accredited rural professionals and have had their current systems audited. Where needed, new storage facilities have been designed for future construction. Most of these farms have either committed to having these upgrades fully commissioned within the next three seasons or are in various stages of having their respective systems completed. Three farms are currently in the final stages of construction to be ready for the 2021/2022 dairy season, and a further four aim to have their system fully commissioned by the 2022/2023 season.

5.13 Additionally, there are a small number of farms (four farms) that have sealed systems but fall well short of being adequately sized. These are all concrete sumps that serve smaller dairy herds and offer limited storage.

5.14 There remain 18 farms (15%) that have storage facilities that have not been confirmed as being of sufficient size nor sealed to industry standards. This is a decrease of two farms since last year, in one farm a fully commissioned new industry spec system, and the other has sealed their current system and have had additional storage sized. It is important to note that not all these farms are necessarily in dire need of improvement or have systems not fit for purpose. In fact, just four of these farms have storage facilities that are clearly

inadequate in terms of size, three of these farms will cease to operate as a dairy within one to two years.

5.15 With respect to these last two scenarios, all farmers concerned have had Council staff engage with them regarding these shortfalls. All farmers have been advised to consider progressing matters by working with their respective supply company and doing the necessary research to determine the most suitability sized storage facility and storage options to fit their circumstances.

Compliance Trends

5.16 Figure 8 shows a comparison of the compliance rates from the past 16 milking seasons (2004/2005 – 2020/2021).

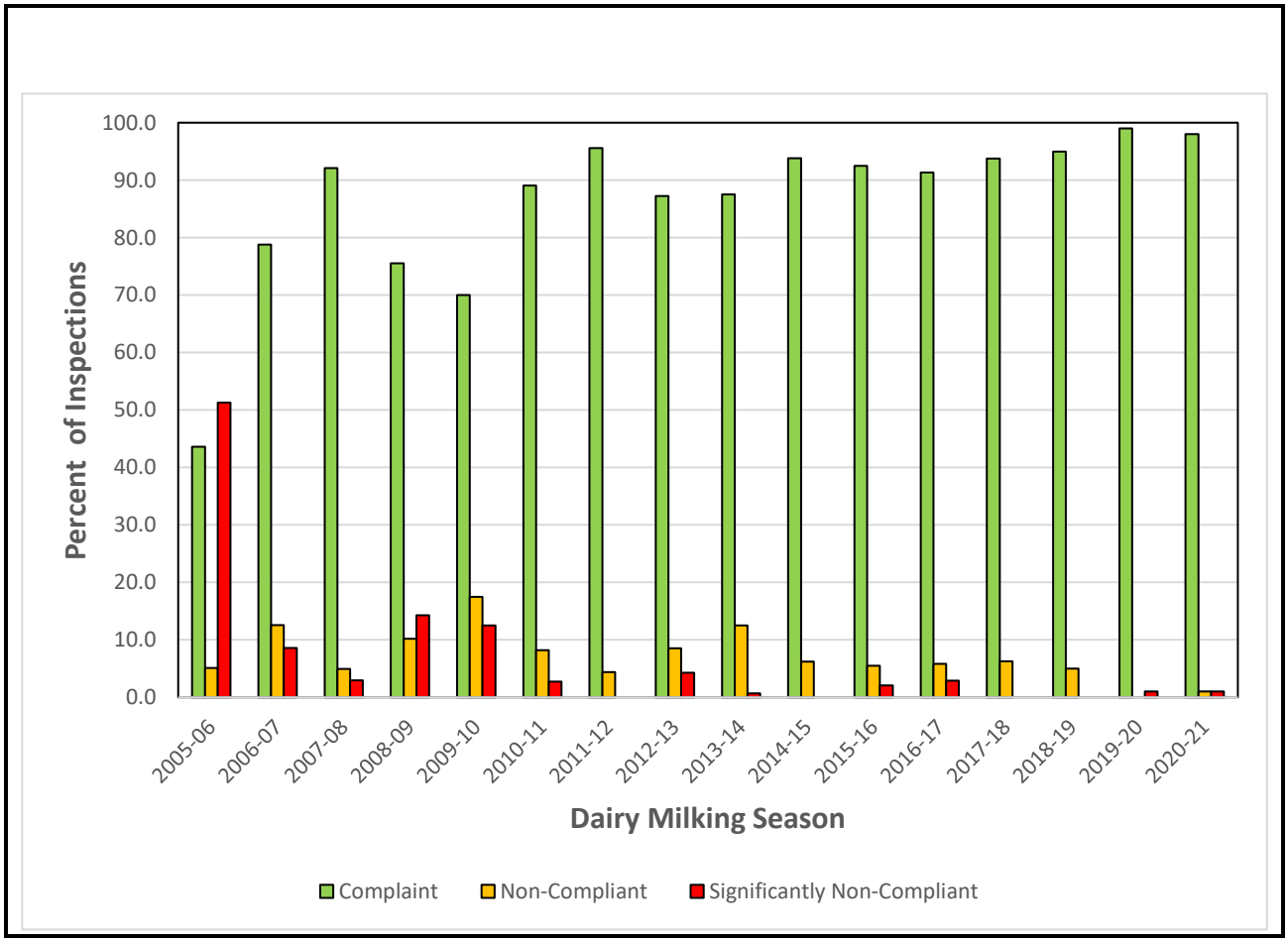

Figure 8: Historic district-wide compliance rates with respect to Rule 36.1.2.3 of the TRMP, Resource Consent conditions, and Section 15(1) of the RMA 1991.

5.17 From Figure 8, it can be seen that full compliance continued to improve from season to season up until 2011/2012 when it reached a very high standard. Since this time, it is pleasing to report that Tasman farmers continue to maintain this high level of compliance and that the 2020/2021 season was no exception to this positive trend. Only two farms were found to be non-compliant and disappointingly, one was significant in nature and could have been avoided had the irrigator not been operated atop of steeply sloping land, or and/or by using a low application system. The farm concerned has taken these learnings from this incident and have updated their protocols regarding placement of effluent and fast tracked the commissioning of the low application disposal system that was already planned for later in the season.

5.18 Despite these two incidences, there exists a continuing high standard of compliance that can be directly attributed to the commitment of most farm owners and their staff to employ best farm practices with respect to system design and the disposal of farm dairy effluent.

2020/2021 Enforcement Action

5.19 As in previous years, five modes of enforcement action were available for use to address the non-compliance that arose from these farm inspections. These being: warning letters/letters of direction, Abatement Notices, Infringement Fines, Prosecutions and Enforcement Orders. The type of enforcement action taken is largely determined by the resulting adverse environmental effect arising from that non-compliance.

Formal Warning Letter/Letter of Direction

5.18 A formal warning letter or letter of direction acts as a first enforcement response for very low level of offending and environmental effects. This is retained on file and forms part of a history. Further non-compliance that receives enforcement action will consider that the operator had previously received a warning.

5.19 No formal letters were needed to be issued this season.

Abatement Notices

5.20 An Abatement notice prescribed under Section 322 of the Resource Management Act is a formal and legal directive from the Council to cease an activity and/or undertake an action(s) in order to avoid, remedy, or mitigate an actual or potential adverse effect on the environment. An abatement notice is used by the Council to immediately deal with an illegal activity and to instigate corrective action. Further enforcement action can follow the issuing of an abatement notice and it is an offence under the Act to fail to comply with the notice and its deadlines.

5.21 No abatement notices were required for offences found during the 2019/2020 season.

Infringement Fines

5.22 An infringement fine prescribed under Section 343C of the Resource Management Act is an instant fine issued by the Council to a person(s)/company who has committed an offence against the Act.

5.23 One infringement fine was issued for offences found during the 2020/2021 milking season. This was for the incident detailed above concerning effluent entering a waterway.

Prosecutions and Enforcement Orders

5.24 An enforcement order prescribed under Section 319 of the Resource Management Act is a directive from the Court to a person(s)/company to cease an activity and/or undertake an action(s) in order to avoid, remedy or mitigate an actual or potential adverse effect on the environment from their activity.

5.25 No prosecutions or enforcement orders were required for offences found during the 2020/2021 season.

National Audit of Council's Compliance Monitoring and Enforcement

5.26 Each year, an audit of all regional councils' compliance inspections of farm dairy effluent systems is undertaken by an appointed peer review panel. The purpose of this audit is to determine that consistency exists in the assessment and subsequent application of compliance gradings for farm dairy effluent monitoring by the regional authority. The need for such auditing arose in 2006 when it became evident that reporting of sector compliance

was distorted by individual council's assessment and grading practices. Determining regional and national compliance was therefore proving to be highly problematic and raised a reputational risk from a lack of public confidence in the published data.

5.27 Between 2007 and 2009, a project team was formed to develop nationally consistent criteria and compliance categories for grading dairy effluent monitoring inspections (see Attachment 1). These were accepted by all regional authorities in 2009. From 2009 to 2012 these audits took place annually and changed to bi-annual audits from 2014 to 2018. A total of eight national audits have been completed. The next audit was due to take place in April 2020, however due to Covid-19 lockdown restrictions, this was postponed and is now scheduled to occur 29-30 July 2021.

5.28 To date Tasman District Council's farm dairy effluent compliance inspections have achieved a 100% pass rate at each and every audit. No other regional authority matches this standard. With this in mind, one can be confident that compliance inspections of all dairies in Tasman are carried out to the highest possible standard and continue to stand up to this high level of scrutiny. Thus, the Council and the public can have a good confidence in the reliability and robustness of statistics contained in this annual report and every preceding annual report.

6 Strategy and Risks

6.1 Although risks are not significant under the current Council monitoring strategy, there is always high public interest in dairy effluent disposal due to the known risk to the environment and the frequency of issues appearing in the national media. This is likely to continue with the freshwater reforms taking place across regions

6.2 For that reason, there is potential for strong public comment if the programme does not maintain high levels of compliance and provide adequate performance reporting. Likewise, as part of the collective agreement of all regional councils to adhere to the "every farm, every year" monitoring strategy including audit, a failure to maintain the programme will not only put us out of sync with the rest of the country, but limit our ability to meet national reporting requirements.

7 Consideration of Financial or Budgetary Implications

7.1 Presently there is no robust legal means open to the Council to recover the costs incurred in the monitoring of farm dairies with respect to the permitted activity rules. As most farms within the district operate as a permitted activity the Council cannot charge for routine inspections. This will not change with the introduction of the charging mechanisms under the Freshwater NES as it is outside the scope of the regulations.

7.2 When non-compliance is detected the cost of enforcement processes generally falls to the Council as it does in any area of activity. Penalties such as infringements and court fines do provide some cost offset when action is taken.

7.3 For the three consented activities the costs associated with monitoring are recovered by way of annual charges.

8 Significance and Engagement

8.1 This is an information report so is of low significance. Engagement with farmers takes place as part of the monitoring programme and carries great benefit as an interface between the sector and the Council. This provides an ability to gauge what is occurring in this district and share information with members of the farming community around our expectations and developments in the areas relevant to them.

8.2 Given the level of public interest both locally and nationally on dairying and its regulation we report the results of our monitoring widely.

9 Conclusion

9.1 A total of 124 dairy sheds had active discharges in the Tasman District during the 2020/2021 milking season. Of these, 122 farm dairies operated as permitted activities and the remaining two had resource consents authorising the discharge treated effluent to water.

9.2 The results of this survey were:

- Ninety-eight percent (98%) Compliant.
- One percent (1%) Non-Compliant
- One percent (1%) Significantly Non-Compliant

9.3 All farms that hold resource consents fully complied with all conditions of their respective consents

9.4 No prosecutions or enforcement orders were required for offences found during the 2020/2021 season.

9.5 One infringement fine was issued.

9.6 Heading into the new dairy season, Tasman District continues to present a good rate of compliance with respect to farm dairy effluent management; however, improvement can always be made and we will engage with the farmers to promote compliance and best practice where applicable.

9 Next Steps / Timeline

Servicing and Maintenance of Effluent Storage Facilities.

9.1 The large uptake by farmers in recent years to invest in storage systems that meet the dairy industry's Code of Practice and Standards has been a very positive trend in Tasman District. In part this means a given storage system has been sized using the modeling tool, the Pond Calculator. This model considers numerous on-site parameters including herd size, climate, soil types and wash-down catchment area of a given farm to calculate a site-specific minimal storage volume. A storage facility can then be designed and built to these calculations.

9.2 Now that many of these systems are entering their second and third year of use, the amount of sediment fallout that has accumulated as sludge in the bottom of these facilities has come to the point that the storage volume is becoming compromised. This means the actual storage capacity of these systems is continually decreasing if left unchecked. All storage systems need to be serviced in order to maintain their design capacity and the

Council will engage with farmers to push this message and ensure it is incorporated into their on-farm maintenance program.

2021/2022 Dairy Farm Effluent Survey

9.3 Farm Surveys for the 2021/2022 season commence in September 2021 and inspections will begin in earnest with a view to once again completing a full assessment of every farm regarding dairy effluent disposal.

9.4 As always there is a risk that some non-compliance will surface however it is expected that the ongoing commitment for best farm practices and the installation of effluent systems that are designed and built to Dairy NZ's Code of Practice and Standards, thus industry best practice will be reflected in a continuing high standard of compliance in Tasman District.

9.5 Next season, Council staff will continue to work closely with the industry to build upon the positive work achieved during the past seasons. Such work includes the ongoing promotion of on-farm best practice, particularly with respect to wet weather contingencies and also the promotion of Dairy NZ's Farm Dairy Effluent Design Code of Practice and Standards, and the new Farm Dairy Effluent Design Accreditation Scheme.

Attachments

1. Significantly Non-Compliant Farms