

**8.3 2021-2022 FARM DAIRY EFFLUENT COMPLIANCE REPORT****Information Only - No Decision Required**

<b>Report To:</b>	Regulatory Committee
<b>Meeting Date:</b>	28 July 2022
<b>Report Author:</b>	Kat Bunting, Compliance & Investigation Officer
<b>Report Number:</b>	RRC22-07-3

**1 Summary**

- 1.1 This report presents the compliance results from the 2021/2022 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 2021/2022 milking season a total of 121 farm dairies had active discharges in the Tasman District. Of those, 118 farm dairies operated as permitted activities and the remaining three held resource consents to discharge treated effluent to water, although all three farmers prefer to apply effluent to land at every possible opportunity.
- 1.3 Each year the Council aims to complete a full assessment of every farm regarding dairy effluent disposal.
- 1.4 All 121 active farms in Tasman were inspected at least once during the 2021/2022 season. At these inspections, each farm was assessed against the permitted activity rule 36.1.2.3 (Discharge of Animal Effluent to Land) and where applicable, against resource consent conditions for the discharge of treated dairy effluent to water.

The final compliance results were:

- Ninety three percent Full Compliance
  - Five percent Low Risk Non-Compliance
  - Two percent Moderate Risk Non-Compliance
  - No Significant Non-Compliance<sup>1</sup>
- 1.5 All instances of non-compliance found this season were associated with ponding of effluent at varying levels. Most were minor but still outside the permitted activity rule relating to ponding. None were at a level that presented risk of contaminant run off to surface water. The Council could not ascertain whether there was any level of contamination of groundwater.
  - 1.6 All farms that hold resource consents fully complied with all conditions of their respective consents.

<sup>1</sup> Ministry for the Environment 2018, Best Practice Guidelines for Compliance Monitoring and Enforcement under the Resource Management Act 1991.

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<b>2 Draft Resolution</b>
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**That the Regulatory Committee**

- 1. receives the 2021-2022 Farm Dairy Effluent Compliance Report**

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### 3 Purpose of the Report

- 3.1 The purpose of this report is to present the results of compliance for the 2021/2022 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 TRMP – Discharge of Animal Effluent to Land.
- 3.2 The survey specifically looks at the collection, containment and disposal of effluent from the dairy and general farm management practices associated with effluent. No routine sampling of waterways or soils is undertaken as part of this bespoke monitoring programme; although samples may be obtained where offences are suspected. It is not therefore, within the scope of this monitoring programme or report to assess or comment on wider effects of farming on water quality, amenity, or aquatic ecology in these catchments. These matters 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 blue dot in Figure 1 depicts the location of a farm dairy that was operating during the 2021/2022 milking season. It can be seen from Figure 1 that approximately two-thirds of Tasman's dairy farms are concentrated in Golden Bay. Of the remaining third, slightly more are within the Murchison sub-region than Central. 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 further 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 either in the Bainham/Rockville area through which the Aorere River flows, or 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 in and around the upper catchment of the Motueka River, the remaining farms are located on the Waimea Plains and Moutere.

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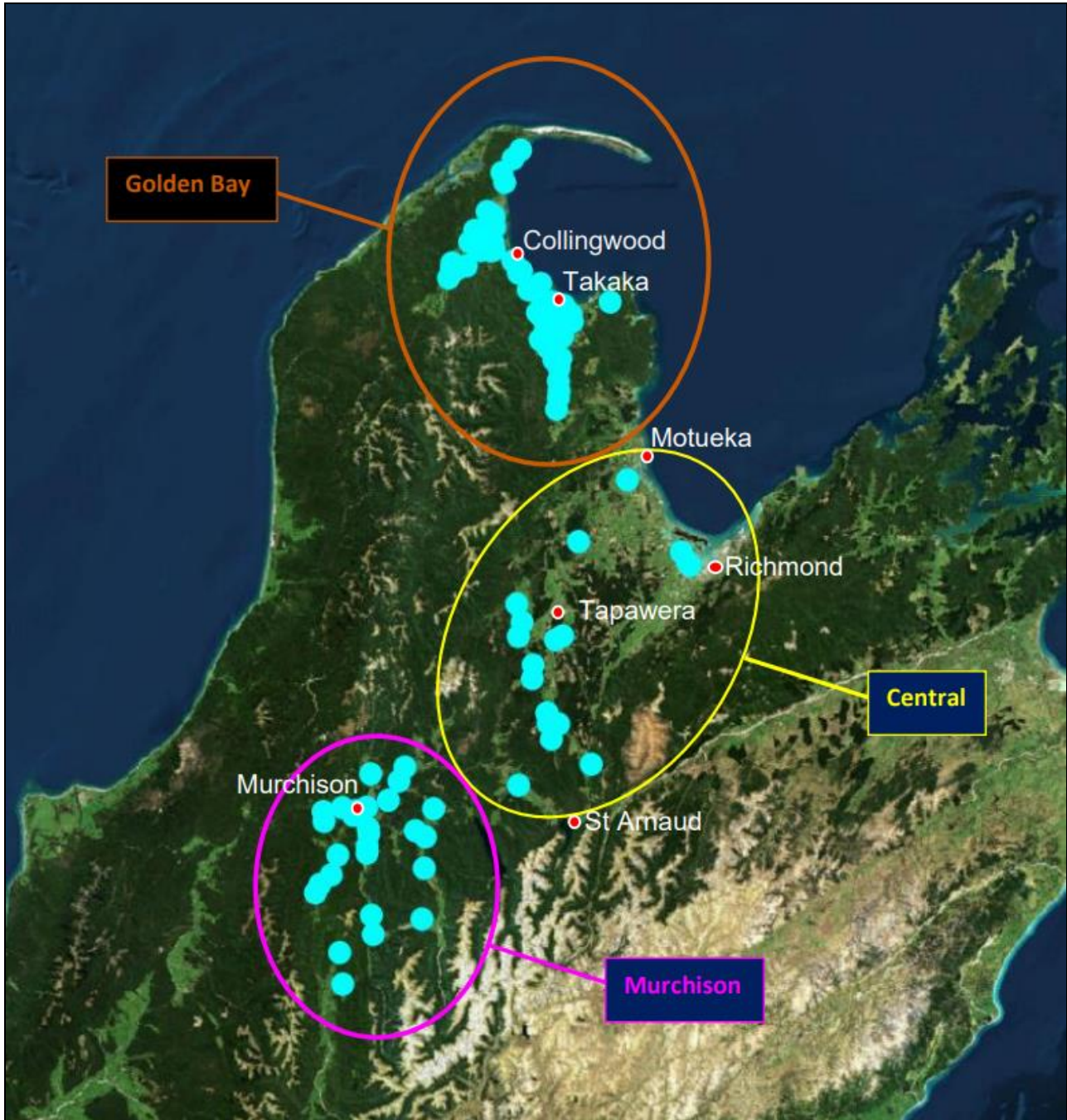


Figure 1: Location of the three sub-regions of Golden Bay, Central, and Murchison

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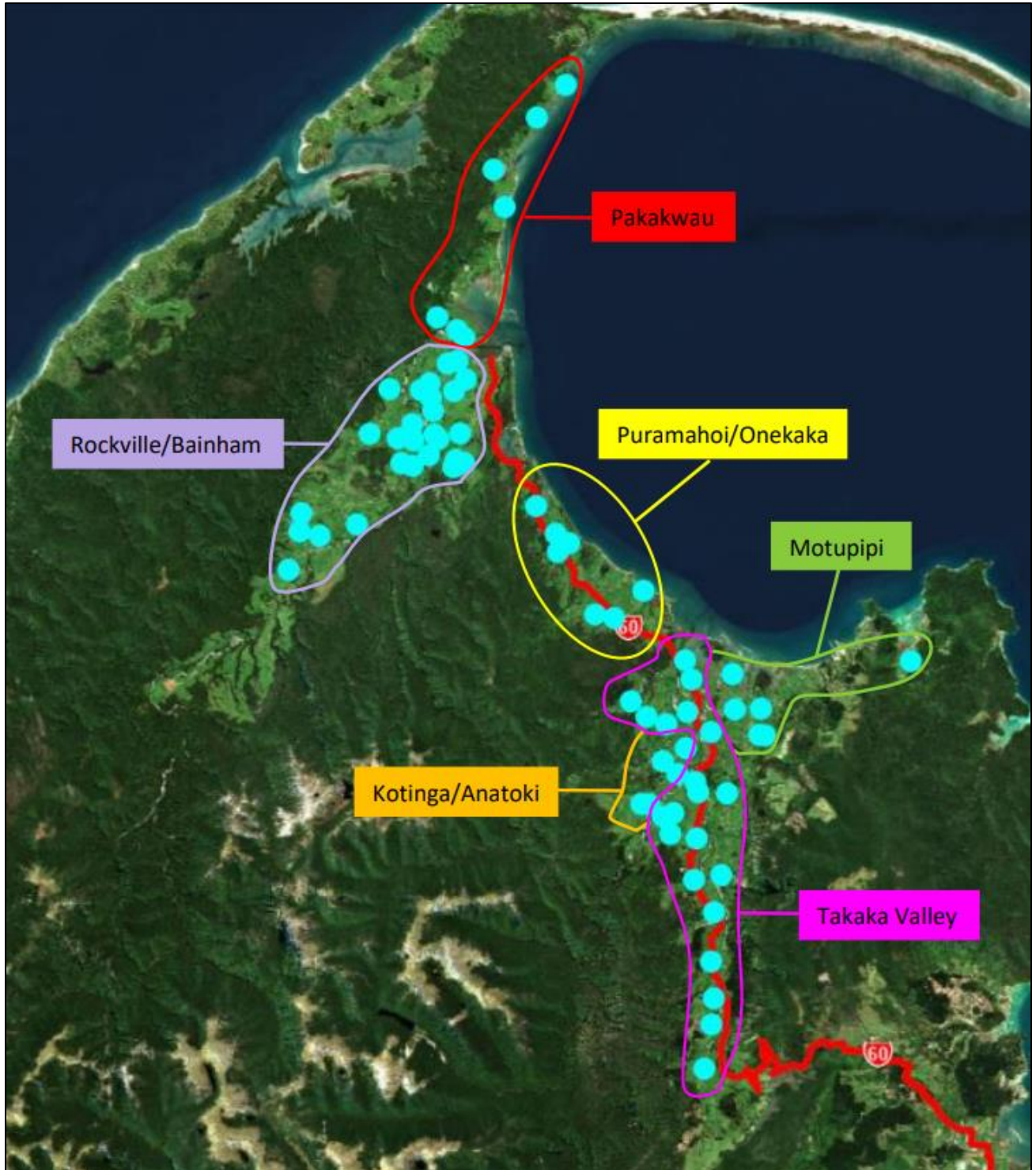


Figure 2: The spatial distribution of farm dairies in the Golden Bay sub-region

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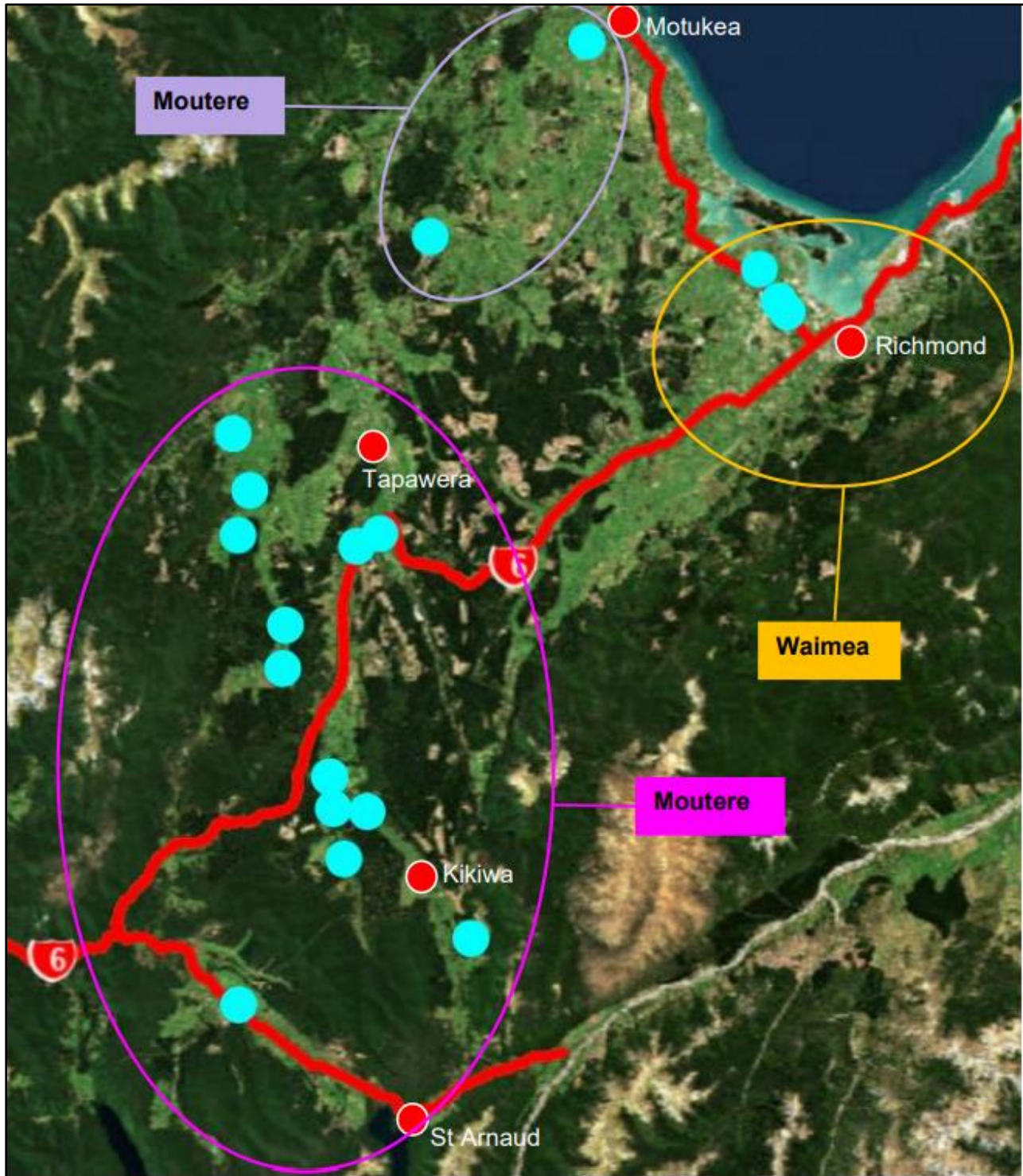


Figure 3: The spatial distribution of farm dairies in the Central sub-region.

4.4 The Murchison sub-region (Figure 4) is separated into six 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.

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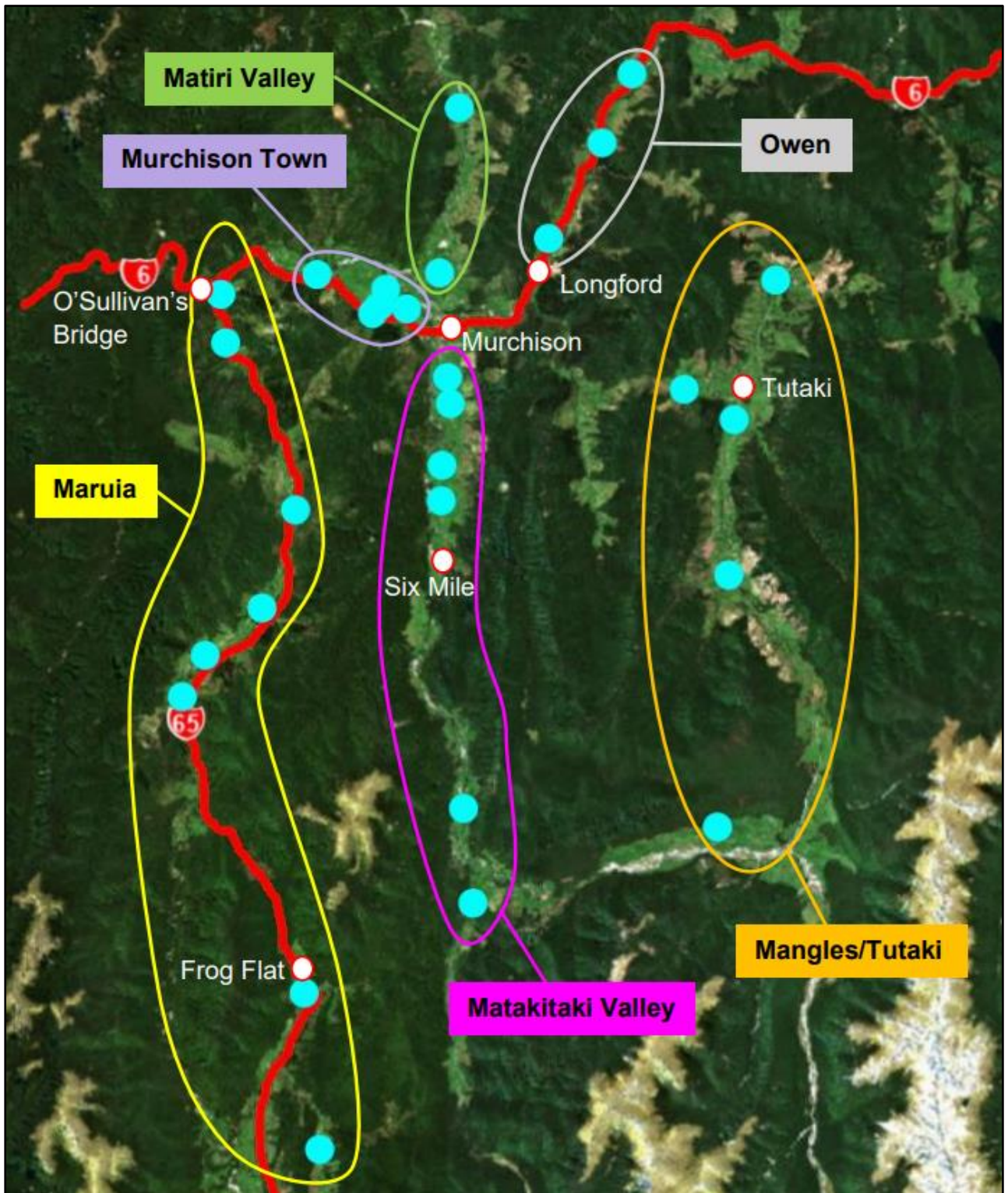


Figure 4: The spatial distribution of farm dairies in the Murchison sub-region

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

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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.

	Number of Farms	Total Land Area (ha)	Average Farm Area (ha)	Total Dairy Population	Average Herd Size	Average Stocking Rate (cows/ha)
<b>National Statistics (2020-2021)**</b>	11 034	1 713 515	155	4 903 733	444	2.86
<b>South Island Statistics (2020-2021)**</b>	3 189	68 4458	215	2 064 659	647	3.02
<b>Tasman District Statistics*</b>	121	16 863	139	42 737	353	2.53
<b>Golden Bay*</b>	73	9 424	129	24 207	331	2.57
<b>Central*</b>	19	2 701	142	7 065	371	2.62
<b>Murchison*</b>	29	4 738	163	11 465	395	2.42

\* 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 2020-21 – Dairy NZ](#) page 16

- 4.6 Dairy farming is still a significant rural industry in Tasman when comparing averages against national data, but 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 farmland area, stocking rates and herd size. The largest farms are in fact located in Murchison, in particular the upper reaches of the Tutaki and Matakītaki Valleys. Although one very large farm ceased supply this season with the land use changing to hops, there remain two farms with a herd greater than 1000 cows and four farms with a herd greater than 500 cows. The average farm size in Murchison in terms of land area is also much larger at 163ha compared to Golden Bay at 129ha. While Murchison may have the largest farms in terms of herd size and land area, it has the lowest stocking rate at 2.42 cows/ha. The highest stocking rates can be found in the Central sub-region at 2.62 cows/ha, with Golden Bay averaging 2.57 cows/ha.

**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 is discussed below.



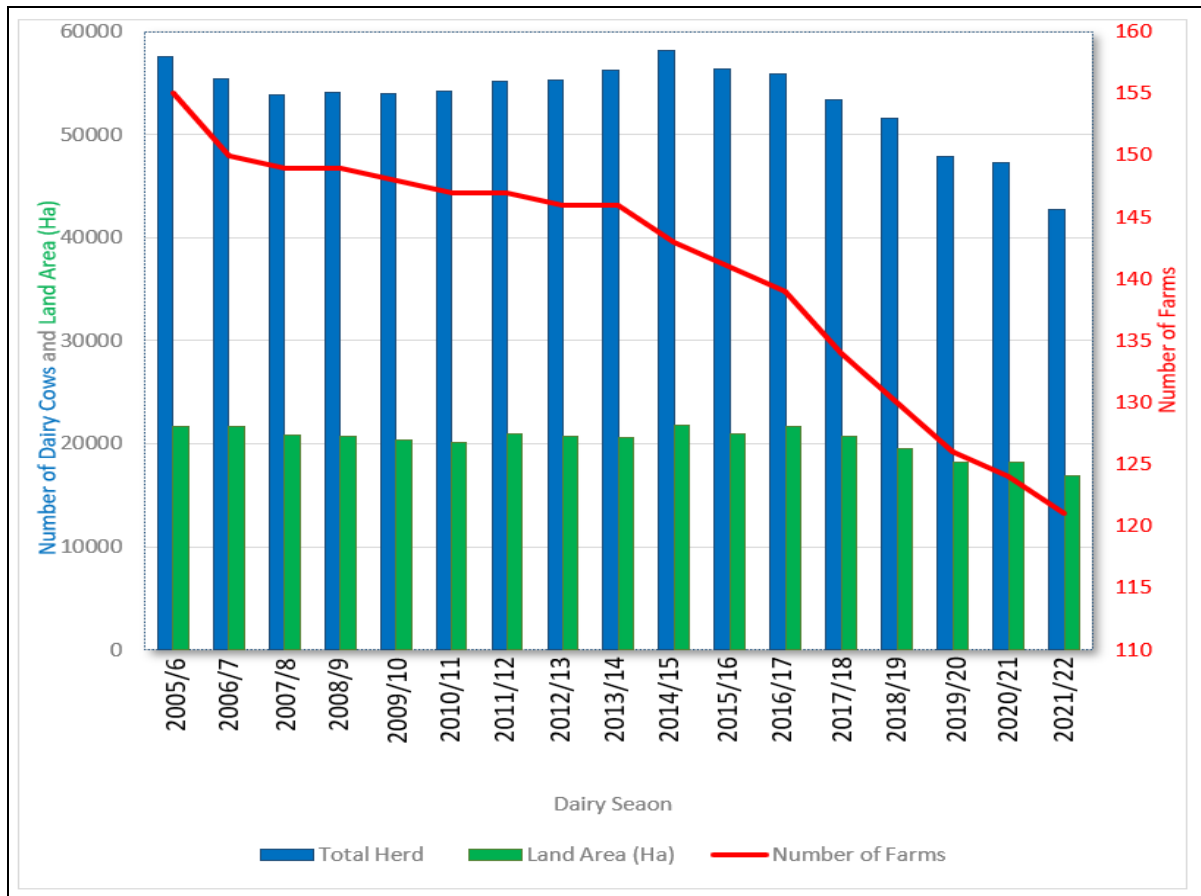
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Figure 5 Tasman District's changing dairy herd size, associated land area, and number of farms between 2005 and 2022

Table 2 Breakdown of statistics presented in Figure 5

Season	Number of Farms	Total Herd	Average Stocking Rate (cows/ha)	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	2.57	18250
2021/2022	121	42737	2.53	16863

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

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- 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 been evident.
- 4.10 The initial decline from 2005 to 2013 was largely attributed to the amalgamation of small farms into bigger entities through buyout or lease of neighbouring farms that had ceased supply. However, the drop in farm numbers seen in recent times is associated with smaller farms ceasing supply as they become less economic and farms moving entirely away from dairying to dairy support, beef and more recently converting to hops. The latter is partially evident in the Central sub-region and is now a trend showing up in Murchison.
- 4.11 While these changes were key drivers in the declining number of farms, the total milking platform area had until recently remained relatively constant. 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 until 2016, when 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 16,863ha in the 2021/2022 season, the lowest on record. This trend looks set 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 fluctuated over next nine years with a peak of 58,179 cows in 2014/15. Since that date numbers have steadily fallen each season to be 42,737 cows this season, some 15,500 cows less than 2014/15. The average stocking rate has also decreased over time. After peaking at 2.74cows/ha in 2013/2014, the average stocking rate is now 2.53cows/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 it does appear that dairy farming in Tasman is entering another era. The most marked trend over the past 17 years is the decline in the number of dairy farms. There are now just 121 farms operating in Tasman in 2021/22, a drop of three from last season. This number is likely to fall further next season, with the owners of at least two more dairies indicating they are ceasing supply.

**Full Season Once-a-Day Milking**

- 4.14 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 grass growth slows down and thus milk production decreases. 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 and lameness (less walking to and from the farm dairy).

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- 4.15 Tasman District had 40 farms (33%) practicing FSOAD milking this season. There was an increase of seven from last year, although for some this was not by choice. The very wet and cold spring meant grass growth was slow, and with a shortage of supplementary feed suitable for early lactation, coupled with associated animal health issues. Many farmers elected to move to OAD milking for a short period to maintain cow condition through the mating period. Most then transitioned either back to TAD or a hybrid milking regime once a pasture surplus established in late Spring/early Summer. Of the seven farms who continued OAD for the rest of the 2021/22 season, two farms look to stay on a FSOAD regime going forward. 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. Nine farms (7%) practice this regime. There are also an increasing number who operate a hybrid milking regime, such as milking on a 7/10 or 3/2 schedule, that is seven milkings completed every ten days or three milkings every two days. There were 20 farms (17%) operating a hybrid milking regime this past season. These statistics are shown graphically in Figure 6.
- 4.16 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 - DairyNZs](#))

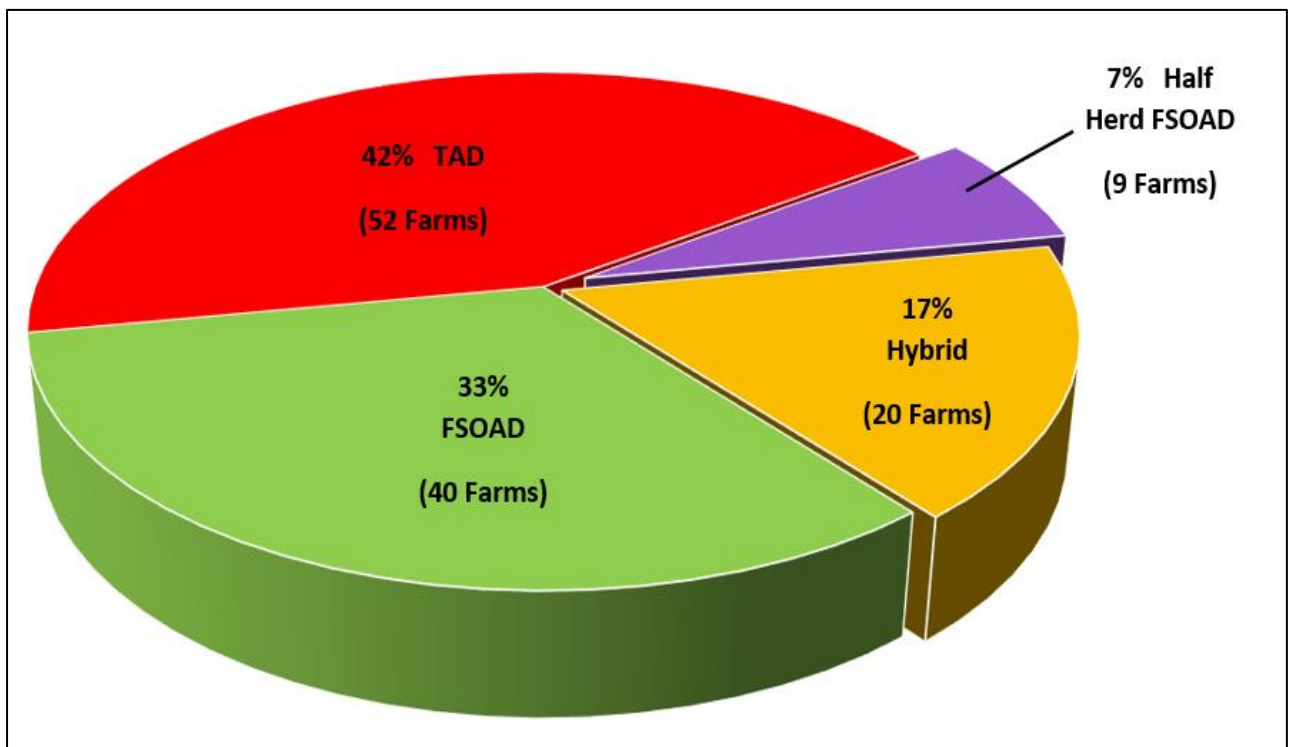


Figure 6 Snapshot of the different milking regimes practice in the district during the 2021/2022 dairy season.

**Resource Consents – to Discharge Treated Effluent to Water**

- 4.17 Since 2005, there has been 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 2021/2022 dairy season. This decline is directly attributed to farms with consented discharges ceasing

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operation or investing in the infrastructure required to allow them to commit 100% to a fully land-based system for effluent disposal.

- 4.18 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.
- 4.19 Over the last eight 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**

- 4.20 Many advances in technology 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's 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 throughout the year.
- 4.21 Having standards for effluent systems and an accreditation system for rural practitioners 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 New Zealand's (Dairy NZ) Farm Dairy Effluent Design Code of Practice and Standards and assist in meeting the Council's 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.
- 4.22 Acknowledgement is given to the considerable amount of work that has been done by the dairy industry bodies (Dairy NZ, Fonterra, and Westland Milk) by working one-on-one with farmers with respect to effluent systems 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

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any new effluent 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 facilities.

- 4.23 Over the past seven 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 NZ's Code of Practice and Standards.
- 4.24 Figure 7 presents a breakdown of the standard of farm dairy effluent systems within Tasman District with respect to Dairy NZ's Code of Practice and Standards. Currently 49% (59 farms) have effluent systems that have been designed and constructed to the standards set out in Dairy NZ's Code of Practice and Standards. This means the system has been sized, or an existing system has been verified as being of adequate size using the The Dairy Effluent Storage Calculator (DESC) and proven to be sealed as per the allowable seepage rates for clay and synthetic liners.
- 4.25 A further 29% (34 farms) have storage facilities confirmed to be of sufficient size but have not had confirmation that the ponds are sealed to industry standards. 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 the industry standard.
- 4.26 During the farm inspection each 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, 77% (93 farms) of Tasman District's dairy farms have storage systems that meet industry best practice and standards in terms of storage volume.

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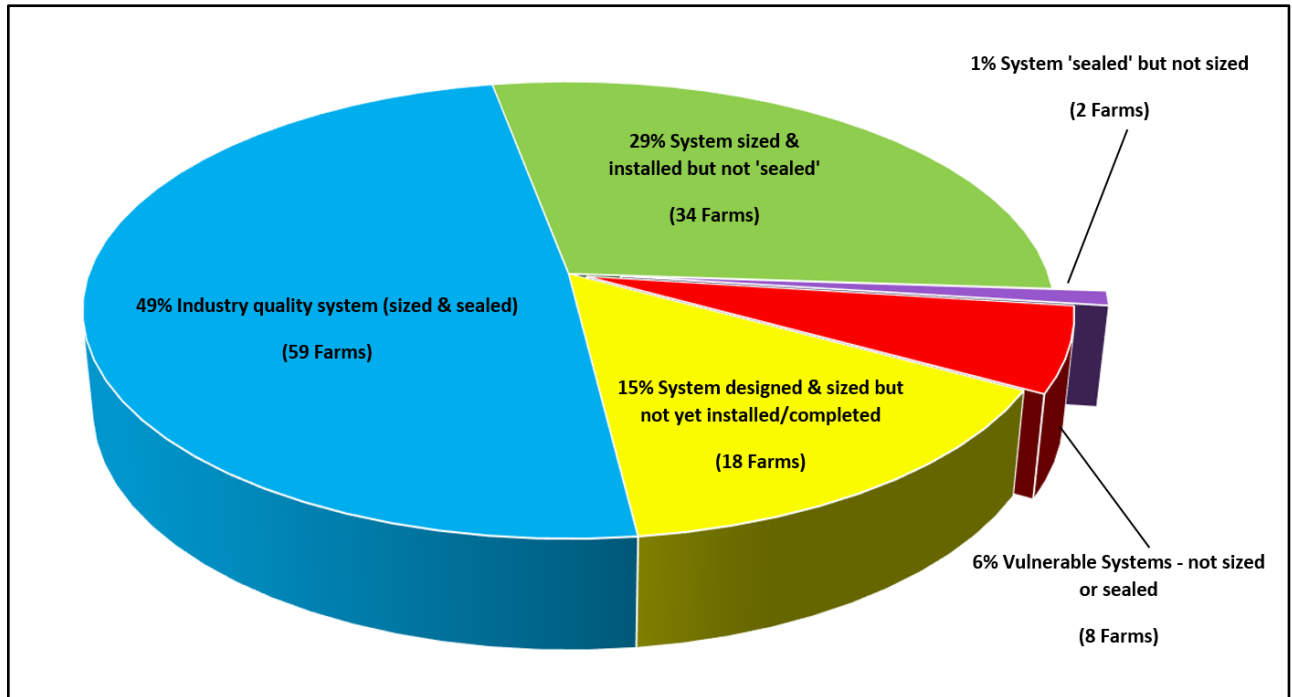


Figure 8 Snapshot of the effluent storage system suitability in the district during the 2021/2022 dairy season.

- 4.27 In addition to these numbers, a further 18 farms (15%) 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 and are in various stages of having their respective systems completed.
- 4.28 Additionally, there are a small number of farms (two 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.
- 4.29 There remain 8 farms (6%) with systems that are regarded as 'vulnerable', having storage facilities not confirmed as being of sufficient size nor sealed to industry standards. It is important to note that not all these farms are necessarily in dire need of improvement or have systems not fit for purpose. Three of these eight farms have storage facilities that are clearly inadequate in terms of size and two of these farms will cease to operate as a dairy within one to two years.
- 4.30 With respect to all farms not meeting industry best practice, Council staff engage with the farmers regarding these shortcomings and recommend they progress matters by working with their respective supply company.
- 4.31 Unfortunately, a small minority still exists 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 sufficient leverage and our intervention is predicted on the detection of an offence. These farms are evenly scattered around the District. The owners of farms that do remain with very vulnerable systems typically cite financial constraints as prohibiting sufficient investment in improved effluent management systems.

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**The 2020/2021 Compliance Survey –The Inspection Process**

4.32 The on-farm compliance inspection process this season was essentially the same as for 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.

**Compliance Gradings**

4.33 Past compliance surveys up until 2020/2021 saw all dairy farm inspections assessed and placed into one of three categories that described their level of compliance. The criteria for assigning these categories are contained in Table 3.

4.34 The 3-tier grading for dairy effluent monitoring came from a 2007 Compliance and Enforcement Special Interest Group (CESIG) initiative to introduce nationally consistent criteria and compliance categories for grading dairy effluent monitoring inspections for audit purposes. This was adopted throughout the regions despite many Councils having four or more tier systems in their wider monitoring strategies.

**Table 3: Former compliance categories for grading dairy effluent monitoring inspections.**

<b>COMPLIANCE GRADE</b>	
	<b>Full Compliance (C):</b> an inspecting officer did not observe <b>any</b> non-compliance with any Resource Consent conditions or any sections of Rule 36.1.2.3 of the TRMP at the time of the inspection.
	<b>Non-Compliant (NC):</b> All issues that did not fit into either “Full Compliance” or “Significant non-compliance”
	<b>Significantly Non-Compliant (SNC):</b> criteria contained in Appendix 1

4.35 In 2021 it was agreed that Councils realign their dairy effluent monitoring grading to a four-tier system to reflect the Ministry for the Environment (MfE) publication ‘Best Practice Guidelines for Compliance, Monitoring and Enforcement under the Resource Management Act 1991’.

4.36 Table 4 (below) details that standardized grading. The change is around a differentiation between low and medium risk non-compliance, which previously was placed in one category, ‘Non-compliance’. The criteria for Full compliance and Significant Non-Compliance, as defined in Appendix 1, have remained.

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**Table 4: MfE (2018) four-tier compliance monitoring grading categories**

<b>COMPLIANCE GRADE</b>	
	<b>Full Compliance (C)</b> with all relevant consent conditions, plan rules, regulations, and national environmental standards.
	<b>Low Risk Non-Compliance (LRNC).</b> Compliance with most of the relevant consent conditions, plan rules, regulations, and national environmental standards. Non-compliance carries a low risk of adverse environmental effects or is technical in nature (e.g. failure to submit a report)
	<b>Moderate Non-Compliance (MNC)</b> Non-compliance with some of the relevant consent conditions, plan rules, regulations, and national environmental standards, where there are some environmental consequences and/or there is a moderate risk of adverse environmental effects.
	<b>Significant Non-Compliance (SNC)</b> Non-compliance with many of the relevant consent conditions, plan rules, regulations, and national environmental standards, where there are significant environmental consequences and/or there is a high risk of adverse environmental effects. (Guideline criteria for FDE contained in Appendix 1)

4.37 The 2021/2022 Farm Dairy Effluent Survey is the first survey to grade compliance to these four categories.

**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 8.



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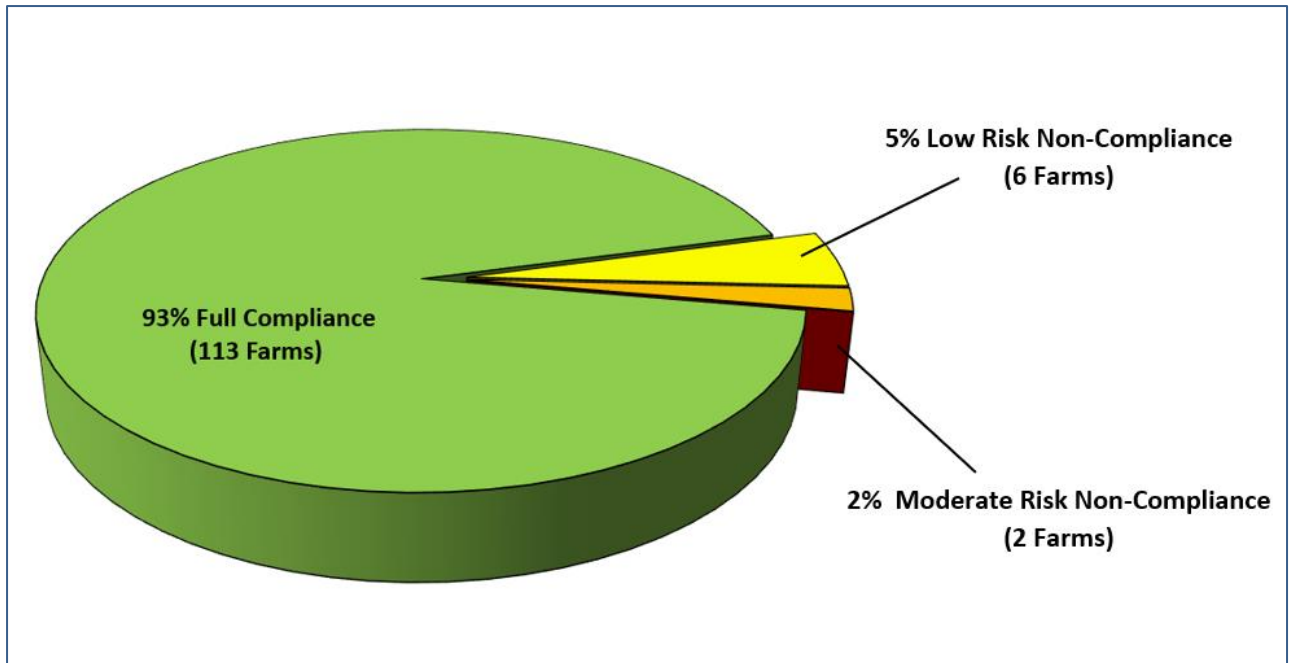


Figure 8 Compliance gradings of farms inspected during the 2021/2022 milking season with respect to Rule 36.1.2.3 of the TRMP, Resource Consent conditions, and Section 15(1) of the RMA 1991

- 5.2 All the 121 dairy farms in Tasman district were inspected at least once over the 2021/2022 season, a total of 113 (93%) of inspections were graded 'Full Compliance'.
- 5.3 Six inspections found issues that were graded as 'Low risk Non-Compliance' and all involved minor ponding of effluent on the ground. In all six cases this ponding measured between two and four-square meters and was just deep enough to create 'splashback' when stomped in. This ponding did not present risk of run off to surface water. The Council could not ascertain whether there was any level of contamination of groundwater.
- 5.4 Two inspections found issues that were graded as 'Moderate Risk Non-Compliance' and involved ponding, but at a greater scale than that graded as low risk. Ponding on these two farms measured between 12-15 square meters with a maximum depth of 5-10cm. In neither circumstance was this ponding in danger of run off to surface water.
- 5.5 All farmers, and where applicable their staff, received on farm education regarding ponding and how to avoid and mitigate it. Frequent 'spot checks' were then undertaken on all non-compliant farms for the rest of this season and full compliance was always observed on each farm.
- 5.6 In addition to this education, one farm did receive a formal letter of direction. This is discussed later in this report. No farms were graded as 'Serious Non-Compliance'.

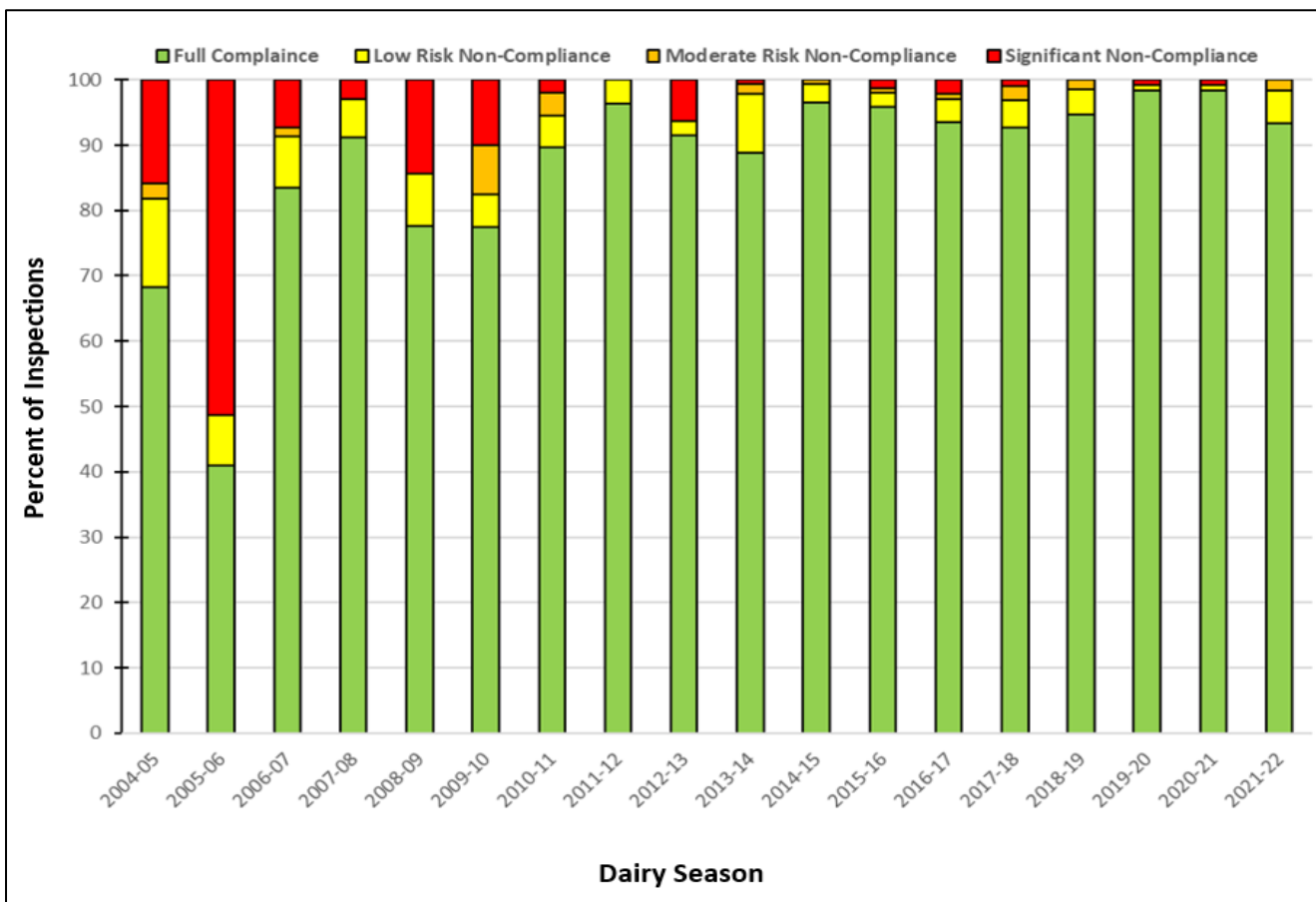
**Compliance Trends**

- 5.7 Figure 9 shows a comparison of the compliance rates from the past 17 milking seasons (2004/2005 –2021/2022). The inspections prior to this season have been re-categorised into the new four tier system for ease of analysing trends. It can be seen from this graph that full compliance continued to improve from season to season up until 2011/2012. Since

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2014/2015 Full Compliance has remained above 90% of all inspections. It is pleasing to report that Tasman farmers continue to maintain this high level of compliance and that the 2021/2022 season was no exception, although there was a slight slip from the higher level of the last two years.

- 5.8 It is interesting to note that the only non-compliance recorded this season was for ponding. With the increased uptake of industry standard effluent storage systems over the past six seasons, ponding has correspondingly become less of an issue of non-compliance. From observation, it appears that this current issue is directly associated with lack of knowledge and experience of those operating the systems and not the systems themselves. Evidence of a tight labour market and shortage of trained and experienced staff is seen as having a direct bearing, particularly given this district relies heavily on skilled migrant workers. Covid restrictions, closed borders, and suspension of effluent training schemes such as the Primary ITO’s National Certificate in Effluent Management Planning have all had on farm impact here as in other regions. Heading into the new dairy season it is anticipated that this will improve.
- 5.9 Despite these incidences, a continuing high standard of compliance exists. This can be 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.



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Figure 9 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.

**Enforcement Action**

5.10 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 include 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**

- 5.11 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 of that farm. Subsequent enforcement action for non-compliance will take into account that the operator had previously been sent a warning.
- 5.12 One formal letter of direction was issued this season. This related to ponding that was graded as moderate risk in terms of its extent, although the actual environmental outcome was minor and there was no immediate danger of it running off overland and entering water. However, a rain event was forecast for later that week. If the rain event had developed into a larger event than forecast, there was the potential for any residual ponding running off to a low point and then entering a critical point source that led to an ephemeral waterway, located approximately 150m away. The farmer volunteered to remedy the situation by 'mopping-up' remaining effluent with wood shavings that were used as bedding in calf sheds. Once the pooled effluent was absorbed, the wood shavings would be removed from the paddock onto a concrete area to be applied to land later. This proposal was formalised by letter. To mitigate potential pugging, direction was also given to exclude stock from this area until grass had re-established. The farmer immediately acted on their intentions, submitting photographs of the remedial work being done and completed. Ongoing 'spot checks' continued for the rest of this season and full compliance was always observed on this farm.

**Abatement Notices**

5.13 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) 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.

5.14 No abatement notices were required for offences found during the 2021/2022 season.

**Infringement Fines**

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

5.16 No infringement fines were required for offences found during the 2021/2022 season.

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- 5.17 An enforcement order prescribed under Section 319 of the RMA is a directive from the Court to a person(s)/company to cease an activity and/or undertake an action(s) to avoid, remedy or mitigate an actual or potential adverse effect on the environment from their activity.
- 5.18 No prosecutions or enforcement orders were required for offences found during the 2021/2022 season.

**National Audit of Council's Compliance Monitoring and Enforcement**

- 5.19 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.
- 5.20 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 2021. A total of nine national audits have been completed. The next audit is due to take place in July 2023.
- 5.21 To date Tasman District Council's farm dairy effluent compliance inspections have achieved a 100% pass rate at each 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.

<b>6 Strategy and Risks</b>
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- 6.1 Although risks are not significant under the current 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 all regional councils 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.
- 6.3 The Council can and should lead in actions taken to ensure the health and well-being of water and help set the balance between the environment, stakeholders and the community under the principles of Te Mana O Te Wai. By maintaining and enhancing the dairy effluent

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compliance monitoring programme we can support our commitment to these principles by not only ensuring that farm effluent practices comply with rules, but that our farmers continually seek best practice and that we support them in achieving these goals to protect our water resources.

**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 National Environment Standard for Freshwater (NES-FW) as it is outside the scope of the regulations.
- 7.2 When non-compliance is detected the cost of enforcement processes essentially 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 taken is successful.
- 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 publish the results of our monitoring.

**9 Conclusion**

- 9.1 A total of 121 dairy sheds had active discharges in the Tasman District during the 2021/2022 milking season. Of these, 118 farm dairies operated as permitted activities and the remaining three had resource consents authorising the discharge of treated effluent to water.
- 9.2 The results of this survey were:
  - 9.2.1 Ninety-three percent Full Compliance
  - 9.2.2 Five percent Low Risk Non-Compliance
  - 9.2.3 Two percent Moderate Non-Compliance
  - 9.2.4 No Significant Non-Compliance

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- 9.3 All three 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 2021/2022 season.
- 9.5 One formal warning /letter of direction 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. Improvements can always be made, and we will engage with the farmers to promote compliance and best practice where applicable.

**10 Next Steps / Timeline****Servicing and Maintenance of Effluent Storage Facilities**

- 10.1 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 modelling tool, the Pond Dairy Effluent Storage 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.
- 10.2 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 sludge is not removed. All storage systems need to be serviced to maintain their design capacity and the Council will engage with farmers to promote this message and ensure it is incorporated into their on-farm maintenance program.

**2022/2023 Farm Dairy Effluent Survey**

- 10.3 Farm Surveys for the 2022/2023 season commence in September 2022 and inspections will begin soon after. We intend to once again complete a full assessment of every farm's dairy effluent disposal system.
- 10.4 There will always be some risk of non-compliance being observed. However, with farmers' ongoing commitment for best farm practices and installation of industry standard effluent systems, a continuing high standard of compliance in Tasman District can be expected.
- 10.5 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 the promotion of Dairy NZ's Farm Dairy Effluent Design Code of Practice and Standards, and the new Farm Dairy Effluent Design Accreditation Scheme.

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<b>11 Attachments</b>
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1. Attachment 1 - Significantly Non-Compliant Farms (SNC)