

**Milk or Water?**

***A Discussion of Legal and Social Mechanisms Confronting the Tension between  
Economics and the Environment in the Otago Region's Dairying Industry***

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## I: Introduction

### A) The Tension between Viable Dairy Farming and Effective Water Management

A rural Otago dairy farm carelessly discharges its effluent into a sensitive waterway, this time, the Waipori River.<sup>1</sup> The farm is rightly reported during a routine inspection by an Otago enforcement officer<sup>2</sup> as breaching provisions under the Resource Management Act (RMA),<sup>3</sup> consequently leading to a sentencing of the standard \$25,000 fine.<sup>4</sup> Nonetheless, as District Court Judge Dwyer yearns in his judgment, “as dairy effluent offending continues to come before the Court on a regular basis, the ongoing need for deterrence and the passage of time may lead to an increase of penalty starting point even at that least serious level”.<sup>5</sup>

Clearly exasperated by the volume of similar cases of improper dairying practices brought to the courts, merely five months later Judge Dwyer proved the prophecy of his earlier statement by ramping up his minimum sentence to \$35,000, reasoning that “some uplift in the penalty starting point is appropriate”<sup>6</sup> because “the need for deterrence remains an ongoing issue in dairy farm offending which continues to come regularly before the Court”.<sup>7</sup> Judge Dwyer continues to advocate for the need for deterrent sentencing in his Environment Court decisions, even recently drawing attention to the maximum \$600,000 fine he may levy on offending firms.<sup>8</sup> But is the solution to preventing effluent discharge by dairy farmers solely by inflicting higher and higher charges? This paper contends that a much deeper culture shift must be considered to curb the blatant and continuous damage to Otago’s vulnerable waters by dairy farmers.

New Zealand is heavily reliant on dairy farmers to bolster its economy. Particularly, recent economic events have hampered the profitability of dairy farming, creating a situation prioritizing productivity for farmers, at any cost.<sup>9</sup> Alongside New Zealand’s deep culture in supporting its dairy farmers is its culture in environmental preservation.<sup>10</sup> Finding this balance has proven difficult, yet Regional Councils have adopted this task by developing Regional Plans to provide very specific standards, regulations, and monitoring provisions. The RMA has delegated the proper authority for water management concerns to be these Councils. Yet, despite the power of legislation, several problems continue to arise. Dairy farmers are still compelled to focus on economic viability, even at

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<sup>1</sup> *Otago Regional Council v Aitken* DC Dunedin CRI-2014-012-1581, 18 August 2014 at [11] [*Aitken*] (effluent refers broadly to biological and chemical waste discharges from agricultural practices).

<sup>2</sup> At [4].

<sup>3</sup> Resource Management Act 1991, s 20A (an activity in contravention to a regional plan, such as discharge, can only function if there is a resource consent. In *Aitken*, there was no such consent). [RMA]

<sup>4</sup> At [13] (however, situational factors lessened this penalty at [17]). See *Otago Regional Council v LK & NK Limited* DC Dunedin CRI-2014-017-127, 26 May 2014 at [14] (Judge Dwyer proposes starting point of \$25,000 for effluent charges) [*LK & NK*].

<sup>5</sup> *Aitken*, above n 1, at [14].

<sup>6</sup> *Otago Regional Council v Alpine Dairies Ltd* DC Dunedin CRI-2014-045-183, 23 January 2015 at [14] [*Alpine Dairies*]. See also *Burrows v Otago Regional Council* [2015] NZHC 861 at [4] (affirming Judge Dwyer’s increase in penalties for improper effluent disposal).

<sup>7</sup> *Alpine Dairies*, above n 6, at [14].

<sup>8</sup> “Effluent ponding brings \$40,500 fine” *Otago Daily Times* (online ed, Dunedin, 17 July 2015); *Otago Regional Council v Hannah* DC Dunedin CRI-2015-012-1104, 16 July 2015 at [8] [*Hannah*] (Judge Dwyer cautions defendants of the maximum sentence).

<sup>9</sup> See MR Scarsbrook and AR Melland “Dairying and water quality issues in Australia and New Zealand” (2015) 55 *Animal Production Science* 106 at 107 (“increasing global demand for milk products and the cost-price squeeze on production is driving intensification in the dairy industry” as evidenced by a 75% increase in total cows in New Zealand since 1994).

<sup>10</sup> See Russell Harding “Muddying the Waters: managing agriculture water quality in New Zealand” (2007) 3 *Policy Quarterly* 16 at 16 (the average New Zealander values the “clean green” image of the nation).

the risk of non-compliance sentencing.<sup>11</sup> These actions have tarred the industry, leading to a widely coined ‘dirty dairying’ perspective of the nation’s dairy farmers.<sup>12</sup> More troubling, the stringency and strength of the legislation has been questioned as water quality in New Zealand has been consistently decreasing as a result of the actions of dairy farmers.<sup>13</sup> Thus, a conflict is emerging between the freedom of New Zealand’s dairy farmers and the establishment of sustainable water management.

This paper, by focusing upon the Otago Region as a case study to illustrate New Zealand’s issue at large, will outline the circumstances that must be addressed to ease the apparent tension between these two goals: the production of dairy products and the preservation of water quality. The standards, monitoring, and compliance mechanisms arising from Regional Plans and the RMA will be considered to outline opportunities to resolve uncertainties and strengthen the authority of environmental protection. Next, the importance of self-regulation within dairy farming will be discussed by providing a corporate social responsibility perspective. This paper will conclude upon how these two aspects must work together to achieve national environmental goals without harming the dairy industry. Instead of reactive punishments such as deterrence sentencing, legal tools should instead usher proactive changes in the culture of water use.

## II: Legislation as the Solution to Resolve the Tension

### A) The Current Culture of Water Management

#### 1. *The Resource Management Act and Regional Plans*

The RMA serves as a pervasive multi-dimensional statute regulating the management of all land, air, and water in New Zealand.<sup>14</sup> Serving as the primary statute, it spawns a variety of accompanying regulations, policy documents, and planning instruments that establish the additional standards, principles, and rules to be applied. The philosophical underpinning of the RMA is to address the ‘tragedy of the commons,’ by regulating the use of New Zealand’s natural resources instead of allowing them to be freely used by the public with no consequence.<sup>15</sup> Furthermore, by promoting planning and zoning, the RMA further seeks to reduce common law remedies in tort.<sup>16</sup> After the RMA sets the groundwork, regional councils are provided the sole jurisdiction for the taking, use, damming and diversion of water,<sup>17</sup> as well as the discharge of contaminants into water.<sup>18</sup> Furthermore, regional councils are provided with the authority to establish standards for the quality and quantity of its freshwaters.<sup>19</sup> With these authority powers, regional councils also have the primary function in enforcing the rules, thereby allowing councils to levy penalties ranging from infringement notices to

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<sup>11</sup> See Jan Wright *Update Report: Water Quality in New Zealand: Land use and nutrient pollution* (Parliamentary Commissioner for the Environment, June 2015) at 21 (“dairy farming is the land use that has continued to expand rapidly, and so is largely the cause of increased nutrient stress on waterways”).

<sup>12</sup> Harding, above n 10, at 16-17 (the “dirty dairying” catchphrase arose from a media campaign by environmentalists and the New Zealand Fish and Game Council that sought to undermine the pristine image of the nation purported by tourist agencies in the nation).

<sup>13</sup> See especially “National Policy Statement for Freshwater Management 2014” (4 July 2014) 71 *New Zealand Gazette* 1991 at 1992-1993 [NPS-FM]. (the NPS-FM, created pursuant to the RMA, s 52(2), was enabled specifically to address the gap in legislation and respond to the threat of fresh water and its environmental integrity in New Zealand).

<sup>14</sup> Ceri Warnock and Maree Baker-Galloway *Focus on Resource Management Law* (1<sup>st</sup> Ed, LexisNexis NZ, Wellington, 2015) at 1.

<sup>15</sup> At 5.

<sup>16</sup> At 28. See especially *Wilson v Selwyn District Council* [2005] NZRMA 76 (HC) at [66-68].

<sup>17</sup> RMA, above n 3, s 30(1)(e).

<sup>18</sup> RMA, s 30(1)(f).

<sup>19</sup> RMA, s 30(1)(c)(ii).

prosecutions.<sup>20</sup> Despite these delegated authorities, the RMA maintains an overarching role by legislative function to ensure sustainable management.<sup>21</sup>

In particular, the RMA's principal purpose is stipulated in section 5, which explicitly aims to balance the extraction of natural resources with the social, economic, and cultural well-being of the communities.<sup>22</sup> As recently clarified by the Supreme Court, this section is broadly framed and so should be applied as a guiding principle, not as a specifically worded guide for interpretation.<sup>23</sup> Although the RMA provides further detail in assessing the balance of sustainable management concerning matters of national importance, intrinsic values of ecosystems, and Maori traditional rights,<sup>24</sup> each of these detailed indicia merely serves to inform and guide decision-making, thereby providing individual judges considerable judicial flexibility.<sup>25</sup> As a result, a judgment can engage in subjective comparisons of conflicting considerations of scale or degree and the relative significance of any final outcome.<sup>26</sup>

Notwithstanding this interpretive power of using a vast array of criteria to evaluate the purpose of resource management actions, the RMA retains strict language in sections 13-15 relating to water and contaminant discharge.<sup>27</sup> The stated statutory restrictions are relatively comprehensive,<sup>28</sup> and in summary, restricts all uses of, actions on, or discharges in local freshwater sources unless expressly allowed by a national environmental standard, relevant rule in a regional plan, or by a resource consent.<sup>29</sup> The 'dirty dairying' phenomenon most frequently engages infringements of section 15, which provides for a wide interpretation of discharge including both actively emitting and depositing as well as indirectly allowing to escape.<sup>30</sup> Furthermore, unlike the common law, there is no requirement of foreseeability in the RMA context,<sup>31</sup> and the source premises can be significantly distal from the affected site, so long as there is a causal connection of contamination.<sup>32</sup>

As a result, in policing the effects of water contamination, the RMA provides the framework with neutrally effects-based statements. To reflect community values, regions are responsible for setting forth either exceptions or 'consents' to conduct actions otherwise prohibited by the RMA or to establish

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<sup>20</sup> RMA, pt 12. See Warnock and Baker-Galloway, above n 16, at 47.

<sup>21</sup> RMA, above n 3, s 5. (See especially s 24A, where the Minister of the Environment has powers to investigate, recommend, and take action in respect of a local authority's actions or omissions; as well as powers to direct regional councils under s 25).

<sup>22</sup> RMA, s 5(2). See especially *Day v Manawatu-Wanganui Regional Council* [2012] NZEnvC 325 (enables farmers to provide for economic well-being provided they coexist with the sub-purposes in the RMA, s 5).

<sup>23</sup> *Environmental Defence Society Inc v The New Zealand King Salmon Company Ltd* [2014] NZSC 38 at [24] [*King Salmon*].

<sup>24</sup> RMA, above n 3, ss 6-8.

<sup>25</sup> *Director General of Conservation (Nelson-Marlborough Conservancy) v Marlborough District Council* [2010] NZEnvC 403 at [760] ("This exercise is not a mechanistic checklist or simple score sheet... We must take all these matters into careful consideration.")

<sup>26</sup> See especially *North Shore City Council v Auckland Regional Council* [1997] NZRMA 59 (EnvC) (certain provisions in the sustainable definition were not seen as 'absolute bottom lines,' and were rather all part of a factual matrix to be considered in an overall broad judgment test.) See also *Meridian Energy Ltd v Central Otago District Council* [2011] 1 NZLR 482 (HC) (although s 7(b) recommends efficient use and development of natural and physical resources, this does not superimpose an additional cost-benefit analysis test).

<sup>27</sup> RMA, above n 3, ss 13-15. (See especially s 14, which defines water as all freshwaters, coastal waters, and geothermal waters whether flowing or not).

<sup>28</sup> Warnock and Baker-Galloway, above n 16, at 131.

<sup>29</sup> See for example RMA, above n 3, s 15(1)(a) (rules on contaminant input to water).

<sup>30</sup> Warnock and Baker-Galloway, above n 16, at 135.

<sup>31</sup> *McKnight v NZ Biogas Industries Ltd* [1994] 2 NZLR 664 (CA) (mens rea was irrelevant, as was proving intention or recklessness; the only question was whether the defendant actually "discharged" the contaminant).

<sup>32</sup> *Works Infrastructure Ltd v Taranaki Regional Council* [2002] NZRMA 517 (HC). See also *Waikato Environmental Protection Society Inc v Waikato Regional Council* [2008] NZRMA 431 (EnvC) (an odour was sufficient to amount to a discharge that prevented the application of a resource consent).

more rigorous standards above and beyond the RMA. Each regional decision is subject to the broad ‘sustainable management purpose’ provided by section 5. Specifically, a regional policy statement (RPS) must be written by “providing an overview of the resource management issues of the region and policies and methods to achieve integrated management of the natural and physical resources of the whole region”.<sup>33</sup> As part of the RPS, regional councils must implement regional plans to transparently explain how the council will carry out its function to achieve the purposes of the RMA and any other national policy statements.<sup>34</sup> The plans may have strict quantitative or qualitative standards to preserve local conceptions of environmental health. Moreover, these regional plans often also stipulate details to obtaining ‘resource consents,’ individualised legal permissions to do something otherwise contravening the RMA or a regional plan.<sup>35</sup> In general, the RMA requires a description of the activity and an assessment on the effects of the environment such as the nature of discharge and sensitivity of the proposed receiving environment to the adverse effects.<sup>36</sup> Furthermore, there is wide discretion under section 108 of the RMA to impose conditions on resource consents, which can be a tool to impose certain baselines in line with regional plans, or to impose additional monitoring and reporting requirements.<sup>37</sup> Even though the RMA stands atop the legislative hierarchy, the rules and regulations developed by local councils are the true working provisions that influence dairy farming practices.

## 2. *The National Policy Statement for Freshwater Management and its Implementation in Otago*

In response to maintaining and improving water quality in New Zealand, the Ministry for the Environment introduced the National Policy Statement for Freshwater Management (NPS-FM) in 2011, which was further updated in 2014 to provide a comprehensive framework for managing water, largely by establishing standard protocols.<sup>38</sup> The NPS-FM is established under the RMA as a matter of national significance and is meant to direct regional councils on the establishment of their regional plans.<sup>39</sup> The NPS-FM requires many specific policies, such as requiring councils to gather detailed water quality and quantity information, sourcing and measuring all contaminants, and provisions to abide to nationally-set minimum acceptable standards.<sup>40</sup> These national ‘bottom lines’ were developed in consultation with industry experts to incorporate scientifically-verified attributes of water quality such as phosphorous content, nitrate toxicity, and dissolved oxygen.<sup>41</sup> Despite these bold changes, water quality is still degrading in New Zealand, largely due to increasing land for dairy farming and the consequent nutrient loss that comes with land conversion.<sup>42</sup> In addition to the movement of land materials into the water, the unmanageable deposition of fertilisers and animal wastes resulting from the intensification of

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<sup>33</sup> RMA, above n 3, s 60(1).

<sup>34</sup> RMA, s 65(1) (although not *mandatory* to put in place, in practice all regional councils have them; s 67 sets out the content of regional plans, which include reasons, results expected, processes for dealing with conflicts, and rules to implementing policies). See especially RMA, s 30 (provides additional standalone duties of regional councils under the act such as s 30(1)(c)(ii) dictating that a regional council must maintain and enhance the quality of water in water bodies and coastal water).

<sup>35</sup> RMA, s 87-88.

<sup>36</sup> RMA, Schedule 4 1(f)

<sup>37</sup> Warnock and Baker-Galloway, above n 16, at 242 (such conditions must be “reasonable” and relevant to the proposal; they also must be imposed for valid planning purposes in line with the context of the RMA).

<sup>38</sup> NPS-FM, above n 13; Jan Wright *Managing Water Quality: Examining the 2014 National Policy Statement* (Parliamentary Commissioner for the Environment, June 2015).

<sup>39</sup> Ministry for the Environment “About the National Policy Statement for Freshwater Management” (13 August 2015) New Zealand’s Ministry for the Environment <<http://mfe.govt.nz>>. See also *King Salmon*, above n 23 (According to hierarchy of instruments, an RPS must give effect to the NPS-FM); RMA, above n 3, s 62(3).

<sup>40</sup> Ministry for the Environment, above n 39.

<sup>41</sup> Wright “Examining the 2014 NPS”, above n 38, at 3.

<sup>42</sup> Wright “Water Quality Update”, above n 11, at 21 (The term nutrient loss refers the movement of land nutrients like nitrogen and phosphorus into the freshwater).

farming practices have further impacted water quality.<sup>43</sup> Although each individual source pollutant has nuanced effects mitigation procedures, and judicial treatment, this paper will consider these collectively using the NPS-FM language of “contaminant discharges”.<sup>44</sup>

Narrowing into the Otago Region, its RPS clearly demarcates the importance of water in chapter 6, labelling water as “the life blood on which Otago’s prosperity is largely based”.<sup>45</sup> Although the RPS is optimistic in reducing adverse effects of point-source pollution, it laments the intensification from non-point-source pollution,<sup>46</sup> likely from the large shift to more agricultural land uses as indicated in the NPS-FM Update Reports.<sup>47</sup> Otago’s specific guidance is established in its Regional Plan for Water (“Water Plan”), which provides explicit policies, methods, and rules that address issues of use, development, and protection of Otago’s water resources.<sup>48</sup> The Otago Regional Council (ORC) has set its provisions in response to the NPS-FM and has developed clear chapters pertaining to water quality by establishing guidelines<sup>49</sup> and specific qualitative and quantitative standards.<sup>50</sup> Specific rules on water quality discharges are set out in chapter 12.C, which explicitly prohibits contaminant discharge except in a range of specific discharge scenarios.<sup>51</sup> These “Rules on Water Management” furthermore establish the situations where a resource consent is required in lieu of meeting the strict standards of the rules. Pertinent to dairying, the ORC established specific standards on the permitted amount of nitrogen able to enter groundwater by use of ‘Overseer’ monitoring technology, thereby shifting the onus to farmers to collect data.<sup>52</sup> The Council additionally manages a Compliance Team to monitor and enforce the rules established in the Water Plan with the discretion to prosecute offenders.<sup>53</sup> Collectively, these additions within the Water Plan seek to adhere to the NPS-FM standards.

## B) The State of Otago’s Environmental Protections

The region of Otago is bolstered by a stringent water management regional plan, given national support from both the NPS-FM and the overarching provisions of the RMA. Despite the wealth of provisions, the end result is that the environmental legislative protections are still not satisfying their purpose. As the dairying industry continues to expand, two distinct issues are arising in Otago. On one hand, as the NPS-FM Update Reports discuss, the overall shift in land-use *collectively* is causing insurmountable damage to vulnerable waters. On the other hand, *specific* offenders continue to act undeterred from the penalties, as indicated by Judge Dwyer’s judgments in the introduction. For Otago to excel in protecting its water, it must address both the deleterious effects of the expansion of the dairy

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<sup>43</sup> RM Fisher and S Russell “Water Policy and Regulatory Reform in New Zealand” (2011) 27 Water Resources Development 387 at 389.

<sup>44</sup> NPS-FM, above n 13 at 9-10 (conforming to language in the RMA, the NPS-FM urges regional councils to adopt the best practicable options to prevent or minimize adverse effects of discharges of contaminants in fresh water at Policy A3). But see for example *Aitken*, above n 1 (courts prefer the broad term “dairy effluent,” which reflects industry-specific language).

<sup>45</sup> Otago Regional Council *Regional Policy Statement for Otago* (1 October 1998), ch 6.3.1 [Otago RPS].

<sup>46</sup> Otago RPS, ch 6.1

<sup>47</sup> Wright “Water Quality Update”, above n 11. See also Otago RPS, above n 45, chs 6.3.2, 6.3.5, 6.3.6 (issues related to agricultural land use).

<sup>48</sup> Otago Regional Council *Regional Plan: Water for Otago* (1 January 2004, amended 1 September 2015) [Water Plan].

<sup>49</sup> Water Plan, ch 7.

<sup>50</sup> Water Plan, Schedule 15 (sets characteristics and numerical limits and targets for good quality of water for Otago’s freshwater).

<sup>51</sup> Water Plan, ch 12.C.0

<sup>52</sup> Water Plan, ch 12.C.1.3 See Scarsbrook and Melland, above n 9, at 108 (the Overseer Nutrient Budget Model has become the accepted standard for estimating nutrient losses from individual farms).

<sup>53</sup> Water Plan, Schedule 16 (providing guidelines on where the Compliance Team will make its measurements).

industry at large, as well as the individual offenders who flippantly act in stark contravention of established rules and regulations.

### *1. Addressing the Dairy Industry at Large: Existing Legislative Framework*

In 2013, The Parliamentary Commissioner for the Environment (PCE) conducted a comprehensive scientific analysis to develop quantitative data for steering constructive policy development.<sup>54</sup> After modelling both land use change and nutrient loads in water, the study found that the deterioration in water quality will inevitably continue without significant intervention.<sup>55</sup> This analysis focused upon two factors causing the rapid decline in water quality within New Zealand's catchments: the influx of nitrogen into water largely resulting from bovine effluent; and the increase of phosphorus migrating into the water from soil associated with increased erosion resulting from land use changes.<sup>56</sup> The culprit of both factors is the intensification of the dairy industry, particularly that 650,000 more hectares of land since 1996 will be covered by dairy farms, with 70% of the increase coming from Canterbury, Otago, and Southland.<sup>57</sup> The PCE concedes the great dilemma this poses for New Zealand, specifically that the dairy sector is the biggest earner of export dollars, and there are several governmental incentives to promote dairy industry growth.<sup>58</sup> Nonetheless, the investigation clearly exposes the link between expanding dairy farming and the increasing stress on water quality.

Mitigation has been the primary focus to reduce nutrient losses and to preserve water quality. However, evidence has shown that mitigation cannot offset the increase from large-scale change to more intensive land uses.<sup>59</sup> Annual nitrogen loads on freshwater are rising in every region, where Otago stands out with an increase of approximately 25% per year, correlated with a 75,000 hectare total increase in dairy farming over a 24-year period.<sup>60</sup> In the PCE's report update, actual changes were consistent with the predictions in this earlier report,<sup>61</sup> with the update indicating that the model likely *under-predicted* nutrient loads on waterways.<sup>62</sup> Efforts to reduce nitrogen output, for example by using different fertilisers, have been unfortunately associated to declines in profitability for the dairy farm.<sup>63</sup>

In response to this apparently bleak situation, the NPS-FM revamp in 2014 imposed rigid bottom-lines for water quality in an effort to spur regional councils to correspondingly establish stricter

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<sup>54</sup> Jan Wright *Water Quality in New Zealand: Land use and nutrient pollution* (Parliamentary Commissioner for the Environment, November 2013).

<sup>55</sup> At 5.

<sup>56</sup> At 5 (nitrogen is highly toxic to fish; high nitrate content affects humans and animals drinking the water; widespread impact of nutrient pollution is excessive growth of unwanted plants such as slime, algae, and choking weed, which further degrades swimming and fishing spots, seriously alters the natural food webs and biomes, and trenches upon the natural beauty of New Zealand's water at 18-19. Nitrogen coming from cow urine is 'elusive' and tough to mitigate as it exists in highly soluble forms that easily leach through soil into groundwater at 65); Wright "Water Quality Update", above n 11, at 19 ("cows gush litres of urine at one time, overwhelming the ability of grass to absorb it... the surplus is washed off by rain, but most leaches through soil into groundwater".)

<sup>57</sup> Wright "Water Quality", above n 54, at 6 (since 1996, milk prices rose and dairy farming became increasingly profitable. This led to a widespread conversion of sheep/beef farms and existing forests to dairy farms, which has a much larger impact to water pollution).

<sup>58</sup> At 6.

<sup>59</sup> At 67 (specifically, new dairy farms converted from exotic forests in the central North island employed extensive mitigation techniques, yet nutrient losses are still at least 10 times higher than before).

<sup>60</sup> At 66 (third after Southland and Canterbury).

<sup>61</sup> Wright "Water Quality Update", above n 11, at 8 (between 2008 and 2012, Otago gained 12,700 hectares of dairy land).

<sup>62</sup> At 9 (that is, loss of nitrogen and phosphorus from the conversion of forested land will pose a greater than expected threat).

<sup>63</sup> At 12 (from a case study in Waikato).

regulations.<sup>64</sup> Instead of focusing on individual offenses, these bottom-lines set collective standards on water bodies such as lakes and streams. Monitoring water bodies at large should accordingly force regions to balance economic gains with changes in land use by being obligated to protect quality of its waters. The decision of *Ngati Kahungunu Iwi Inc v Hawkes Bay Regional Council* clarified that regional councils must endeavour to maintain and enhance the quality of water bodies, and such a function is not optional but is required even if difficult;<sup>65</sup> furthermore, this must be in accordance with the ideals, not necessarily the written word, of the NPS-FM.<sup>66</sup> The respondent Council sought to revamp its aquifer policies in its RPS from preventing absolute degradation, to the NPS-FM “overall quality” standard.<sup>67</sup> The Council argued original wording in its policy statements was overly aspirational, and thus unrealistic and ambiguous<sup>68</sup> and that certain objectives simply did not link to numerical standards and so could not be implemented in an informed manner.<sup>69</sup> However, the Environmental Court found implementing the term “overall quality” was far more contentious as it could be regarded that under its “under and overs” approach, permitting an increase in one type of contaminant is acceptable so long as it is exceeded by the loss of another contaminant, thereby inserting considerable flexibility and judgment for a regional council.<sup>70</sup> Thus, the Environmental Court rejected the Council’s application of a statement that may abdicate its responsibilities, and reasoned a Council should endeavour to enhance water in a manner that is reasonably predictable.<sup>71</sup>

The decision of *Ngati Kahungunu* re-affirmed that the spirit and the goals of the NPS-FM cannot be superseded by a regional council’s opinion of ambiguities in its written language. Despite this, the decision highlighted several practical difficulties with the true extent of guidance the NPS-FM provides, also directly considered by the PCE.<sup>72</sup> The existing standard for “overall quality” of water in the NPS-FM is this “unders and overs” approach, which does allow for concessions in quality, like permitting pollution for one nutrient, with commensurate gains in quality based on other standards. However, as expressed in the *Ngati Kahungunu* decision, this aspirational approach, which strives to consider economic realities can be easily exploited by a deliberate degradation under the guise of unrelated improvements.<sup>73</sup> Thus, such language should end to provide proper and direct guidance to regional councils. Furthermore, there are clear gaps in the NPS, namely in Policy CA3(b) which provides an exception for meeting the national bottom lines for water quality if the impact is caused by “existing infrastructure” and the regional council “considers it appropriate”.<sup>74</sup> There are no further definitions, particularly no listing of what can be “existing infrastructure”.<sup>75</sup> This has been interpreted as a powerful ‘get out of jail free’ card for certain bodies of water that are beyond the state of improvement, and consequently poses a direct conflict of providing safe haven for water that has been

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<sup>64</sup> Wright “Examining the 2014 NPS”, above n 38, at 1.

<sup>65</sup> *Ngati Kahungunu Iwi Inc v Hawkes Bay Regional Council* [2015] NZEnvC 50 at [28-29] [*Ngati Kahungunu*] (the “raison d’etre” of a regional council is high-level control of resources of regional significance).

<sup>66</sup> At [16]; RMA, above n 3, s 62(3).

<sup>67</sup> *Ngati Kahungunu*, above n 65, at [56].

<sup>68</sup> At [36] (the unconditional statement in Objective 21 of “no degradation of existing groundwater quality” is written as an absolute, and is thus ignoring the realistic natural degradation of quality in certain situations such as dairy effluent as stated in [38]).

<sup>69</sup> At [43] (“suitable for human consumption” did not provide any specific parameters in the NPS-FM, as it merely stipulated certain levels to analyze for the standard).

<sup>70</sup> At [60].

<sup>71</sup> At [71-73, 105].

<sup>72</sup> Wright “Examining the 2014 NPS”, above n 38, at 8.

<sup>73</sup> *Ngati Kahungunu*, above n 65, at [8].

<sup>74</sup> At [11].

<sup>75</sup> At [11] (however, the Ministry does intend to draft an Appendix after public consultation to list the existing infrastructure for this exception).

affected by industrial practices.<sup>76</sup> Thus, the ambiguous language coupled with this exception provides significant leeway for inaction on water quality improvement.

The ORC, in its *Water Plan* at Schedule 15, established numerical limits for achieving ‘good quality water’. However, the Target Date for the majority of its water bodies in regards to nitrate-nitrite nitrogen content has been set for 2025, thereby providing a source of inaction on such water bodies until this date.<sup>77</sup> Furthermore, the NPS-FM provides no clear guidance on exactly how to divide freshwater management uses, and under what conditions differential standards should apply. The ORC has implemented five “Water Groups,” based on its natural geographic catchment areas.<sup>78</sup> However, the bottom lines for each of these Water Groups are very different, as Group 1 is limited to a 0.444 mg/l nitrate-nitrite nitrogen content, whereas Groups 2 and 3 are limited to a 0.075 mg/l level. The area in Group 3 has particularly sensitive aquifers, and such sensitivity is reflected in chapter 12 of the *Water Plan*, wherein there is a 15kg/hectare/year limit for nitrogen loss for farmers instead of a 30kg/hectare/year elsewhere in Otago.<sup>79</sup> Despite the sensitivity of Group 3, there is no clear explanation of why Groups 1 and 2 should have such different standards. Group 1 largely covers the Clutha District, where the dairy industry is a significant driver of economic progress, and the number of cows has been increasing consistently by 3000-4000 per year.<sup>80</sup> Representing almost half of Otago’s dairy cows, it can be easily inferred that Group 1 has a wildly different standard to help protect the existing dairy industry. Although seemingly justified under Policy CA3b, this shift in standards clearly demonstrates ORC’s sliding rule for water quality in response to industry standards. The existing Guide to the NPS-FM for Regional Councils simply advises councils to monitor existing water quality and establish freshwater objectives in response to current use, which can be set at different scales and levels of detail.<sup>81</sup> Furthermore, such objectives are to be made in the context of economic considerations and after understanding the costs and achievability.<sup>82</sup> Can this guidance really usher true water quality improvement or does it merely permit arbitrary responses to economic factors?

## 2. Addressing the Dairy Industry at Large: The Water Management Culture

Even if the NPS-FM is overly broad, indiscriminate in its level of detail and responsiveness to economic considerations, the onus rests on councils to manage its water effectively. Although the ORC has done its best to establish standards and a monitoring regime, it is difficult to ascribe any significant blame to the Council because it is limited in financial resources. Perhaps much of the issue relies on the theoretical underpinning of New Zealand’s treatment of freshwater as a ‘common pool’ resource, a sufficiently large resource that anyone can enter.<sup>83</sup> Admittedly with regional plans, monitoring, and consent orders, it is inaccurate to label New Zealand’s freshwater as a true ‘common pool’.<sup>84</sup> Nonetheless, it is contested that the current regulatory regime fails to account for the current scarcity

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<sup>76</sup> At [12].

<sup>77</sup> *Water Plan*, above n 48, at Table 15.2.

<sup>78</sup> *Water Plan*, at Map 15.1.

<sup>79</sup> *Water Plan*, ch 12.C.1.3.

<sup>80</sup> Clutha Agricultural Development Board *Agricultural Statistics for the Clutha District: June 2013 update* (June 2013) at 8-9.

<sup>81</sup> Ministry for the Environment *A Guide to the National Policy Statement for Freshwater Management 2014* (Ministry for the Environment, Wellington, 2015) at 33-39 (s 5.5 Policy A1).

<sup>82</sup> At 35.

<sup>83</sup> See Ezekiel Hudspith “Freshwater Management in New Zealand: a Challenge for Ecology, Equity and Economic Efficiency” (2012) 16 NZJEL 277 at 286; Elinor Ostrom “Sustainable Development of Common-Pool Resources” (2008) 50 *Environment: Science for Sustainable Development* 8.

<sup>84</sup> See RMA, above n 3, s 14 (provides that no one may use fresh water unless expressly allowed by a rule in a regional plan, a national environmental standard, or a resource consent).

and fragility of water resources.<sup>85</sup> In particular, this is reflected in the idea that declines in water quality are largely attributed to diffuse discharges from land use changes, not point discharges from specific polluters' effluent discharges.<sup>86</sup>

One major criticism of the current regime is the nature of resource consents, which many feel functions as *de facto* property rights.<sup>87</sup> Market-based instruments can be favourable as a means to internalise environmental costs, but the pursuit under this system of optimal water allocation has been considered difficult, if not impossible.<sup>88</sup> New Zealand's system of resource consents are determined on a 'first-in first-served' basis, which allow those with earlier rights substantive priority to use the resource.<sup>89</sup> Furthermore, courts have prevented the granting of further resource consents that would derogate from existing consents.<sup>90</sup> Existing consents are also typically and unceremoniously renewed, given priority over any new applicants for the same resource.<sup>91</sup> Collectively, these rights associated to resource consents amount to an effective monopolistic right over a water resource, a right that is blind to the best and most efficient use of water, but rather to the 'property' rights of the first user. As a result, users have little incentive to adopt more efficient water use or to limit their usage.<sup>92</sup> Academics opine many users are allocated far too much freshwater, and even if consent holders draw more than allowed, there are often no ramifications.<sup>93</sup> Enforcement action have levied fines so trivial that benefits of breaching outweigh the penalties.<sup>94</sup> Furthermore, because of individualized consent allocation, it becomes difficult to protect against cumulative effects. As freshwater systems are so complex to manage and each system has unique attributes, current systems are ill-equipped to respond to the complexity in the face of so many granted uses, each subject to their capricious whims. Thus, challenging individual resource consents remains ineffective because individuals are not causing detrimental effects in and of themselves, but rather in conjunction with each user of the system.<sup>95</sup> The NPS-FM has done little to solve the issues inherent in resource consents.<sup>96</sup>

In addition to the systemic issues of resource consents, the procedural acquisition of these consents have come under fire.<sup>97</sup> There has been a slippery standard of proof to be applied when establishing facts in defending the right to a resource consent, and courts have been mixed in applying a precautionary approach as the RMA leaves great uncertainty in the application of precaution.<sup>98</sup> Thus, applicants for resource consents could entirely discard low probability events related to its use and could avoid ruminating uncertain future consequences of its use. The typical common law standard of proof is above 50%, but the Environmental Court recently stated that resource consents cannot entirely

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<sup>85</sup> Hudspith, above n 83, at 288 (ex. nationwide allocation of water increased by 50% between 1999 and 2006).

<sup>86</sup> At 289.

<sup>87</sup> At 294.

<sup>88</sup> Fisher and Russell, above n 43, at 395-396.

<sup>89</sup> At 294. See *Central Plains Water Trust v Synlait Ltd* [2009] NZCA 609.

<sup>90</sup> *Aoraki Water Trust v Meridian Energy* [2005] 2 NZLR 268 (HC).

<sup>91</sup> Hudspith, above n 83, at 294-295.

<sup>92</sup> At 296.

<sup>93</sup> Andrew Hayward "Freshwater Management: Water Markets and Novel Pricing Regimes" (2006) 10 NZJEL 215 at 230.

<sup>94</sup> At 230.

<sup>95</sup> At 229.

<sup>96</sup> Rachel Devine and Eliza Prestidge-Oldfield "New Policy but No Rules for Freshwater Management" (2011) 9 BRMB 41 at 42.

<sup>97</sup> See generally Greg Severinsen "Letting our Standards Slip? Precaution and the Standard of Proof under the Resource Management Act 1991" (2014) 18 NZJEL 173.

<sup>98</sup> At 175-176.

disregard low-probability effects, which may help achieve precaution.<sup>99</sup> Case law has struggled with the amount of proof required for an applicant, such as if a court must definitively prove that an alleged effect will not occur. Apparently, case law has settled on a sliding scale of proof, where the standard depends on the potential impact of an effect.<sup>100</sup> However, Severinsen argues that the concept of proof is inherently flawed as it targets persuasiveness of evidence and does not encompass scientific probabilities where the concept of precaution is concerned.<sup>101</sup> Consequently, there is a separate body of evidence that has abandoned the concept of proof altogether, establishing a discretionary evaluation as a tool to assess resource consents.<sup>102</sup> However, this approach can undermine the objectivity required by the court as a finder of fact.<sup>103</sup> As a result, Severinsen thus suggests the development of substantive policies stemming from robust scientific research and well-founded risk management decisions, and not to let such issues be determined by inappropriate court-based standards.<sup>104</sup>

Severinsen underscores the indefensibility of the current resource consent process, as the system is unequipped to handle the scientific complexities and need for precaution in divvying out these consents. Moreover, as discussed, there is an inherent lack of precaution in the antiquated ‘first-in first-served’ method. The entire regime also delivers a heightened propensity for unresolvable cumulative effects. This plurality of issues is the impetus of the Land and Water Forum (“Forum”), a diverse range of stakeholders and parties concerned with freshwater resources.<sup>105</sup> This Forum has published landmark reports and was influential in shaping the NPS-FM in its current iteration. Its focus has been setting and managing limits, particularly those in diffuse discharges and dealing with cumulative effects on water bodies.<sup>106</sup> The Forum advised an adoption of a standards framework that is clear enough to achieve certainty, to take into account spatial variation, and to address direct and diffuse charges.<sup>107</sup> The Forum further criticised the ‘first-in first-served’ allocation scheme, instead moving to an ‘even-handed’ method such as giving more power to a regional plan to place community considerations over individual considerations of existing consent holders.<sup>108</sup>

### *3. Addressing the Dairy Industry at Large: Implementation of Recommendations*

Moving forwards, the Forum was able to issue several more recommendations aiming at bridging the gap between community decision making and water management. Wherein the resource consent system favours certain individuals or industries, the Forum seeks to redress this issue by establishing clearer powers by regional councils. This paradigm of “collaborative freshwater management” is largely favoured to facilitate the creation of effective limits that provide certainty for all parties and can be applied and enforced predictably.<sup>109</sup> Moreover such co-operative efforts were

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<sup>99</sup> *Long Bay-Okura Great Park Soc Inc v North Shore City Council* NZEnvC Auckland A078/08, 16 July 2008 at [309].

<sup>100</sup> Severinsen, above n 97, at 182. See *McIntyre v Christchurch City Council* (1996) 2 ELRNZ 84 (PT) (first application of this approach by considering the “gravity of the question”).

<sup>101</sup> Severinsen, above n 91, at 205.

<sup>102</sup> *Director General of Conservation v Marlborough District Council*, NZEnvC Christchurch C113/04, 17 August 2004 at [44].

<sup>103</sup> Severinsen, above n 97, at 205.

<sup>104</sup> At 206.

<sup>105</sup> Hudspith, above n 83 at 300-301 (the programme was spurred by a failure of the system to deal with “deteriorating water quality, water demand outstripping supply, and constrained economic opportunities”).

<sup>106</sup> Land and Water Forum, *Report of the Land and Water Forum: A Fresh Start for Freshwater* (Land and Water Forum, 2010) at 63.

<sup>107</sup> At ix-x.

<sup>108</sup> At xi.

<sup>109</sup> Land and Water Forum, *Second Report of the Land and Water Forum: Setting Limits for Water Quality and Quantity Freshwater Policy- and Plan-Making Through Collaboration* (Land and Water Forum, 2012) at ix.

envisioned to incentivise good faith participation and would incorporate scientific and technical analysis into early stages of the process.<sup>110</sup>

Unfortunately, the result of the NPS-FM lacks the teeth and detail of limit-setting envisioned by the ambitious Forum reports. The national bottom lines are set forth in Appendix 2 of the NPS-FM. As the guide to implementation admits, work is continuing to identify additional relevant attributes that can be applied nationwide.<sup>111</sup> Indeed, Appendix 2 has a limited scope of attributes; national bottom lines are only established on a river's metrics concerning periphyton, nitrates, ammonia, dissolved oxygen, plankton and *E coli*.<sup>112</sup> Nonetheless, the NPS-FM only purports to provide limited examples and encourages regional councils to establish far more stringent standards and to abide with a wide range of locally relevant attributes. The Forum's fundamental virtues reflect community engagement, expressed when encouraging councils to incorporate variables such as temperature, channel morphology, and chloride intrusion.<sup>113</sup> In particular, the Forum recognises that even if minimum numerical objects cannot be specified at the national level, narrative objectives and technical guidance should support regional councils.<sup>114</sup> Thus, the NPS-FM should not be the final word in limit-setting, and the optimal way to create regionally-relevant standards in line with community viewpoints is to empower regional councils to take ownership on establishing useful limits.

Whereas the Forum's vision is broad, the result in the Water Plan per Schedule 15 is a very skimmed down and scant version of limit-setting in line with only the minimal guidance set forth by the NPS-FM, not the robust community-engaged direction pointed to by the Forum.<sup>115</sup> The ORC should be commended in establishing its limits far above the National Bottom Lines, but it has selected only the mere variables presented in Appendix 2 of the NPS-FM. The bulk of the recommended attributes by the Forum are present in a *qualitative* metric under Table 15.1 such as algae content, sediment quality and bank appearance. With the lack of real measures or standards for these variables, and not even a description of what would be Fair, Good, or Excellent, it is difficult to find any utility or guidance from Table 15.1. Perhaps the NPS-FM should be far more comprehensive to force regional councils to follow a wider range of necessary principles, otherwise, as the ORC has demonstrated, failing to measure vital freshwater indicators essential for determining quality are unenforceable.<sup>116</sup>

The central focus of the Forum, limit-setting, is thus plagued by a plethora of issues: inaction by regional councils, lack of scientific guidance, and an integral weakness to inspire change as limits only determine a bottom line. To resurrect the Forum's vision, each of these three issues must be resolved. The underlying issue of inaction by councils is likely founded in the notion that any stricter standards than directed run contrary to economic benefits to the region. To address this obstacle, the Forum will publish a fourth report by the end of September to discuss how to maximize economic benefits while being consistent with the NPS-FM.<sup>117</sup> In association with this forthcoming report, a letter by the Minister for the Environment advises the Forum that significant water management changes will

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<sup>110</sup> At x.

<sup>111</sup> Ministry for the Environment "Guide to NPS-FM 2014", above n 81, at 94.

<sup>112</sup> NPS-FM, above n 13, at 2008 (Appendix 2).

<sup>113</sup> Land and Water Forum "Second Report", above n 109, at 15.

<sup>114</sup> At 16.

<sup>115</sup> The Water Plan, above n 48, at Schedule 15.

<sup>116</sup> At ch 7.D.5 (the ORC provides broad statements that they have regard for any effects upon water quality, but at 7.D.5(e), specify that only trends in quality relative to Schedule 15 characteristics are considered); Land and Water Forum "Second Report", above n 109, at 19 (for the NPS-FM 'unders and overs' approach to be effective to any reasonable standard, the evaluation of multiple values is required).

<sup>117</sup> Land and Water Forum "A Common Direction for Water Management in New Zealand" (2015) Land and Water Forum <[www.landandwater.org.nz](http://www.landandwater.org.nz)>.

be made in 2017 to improve the system's effectiveness, particularly in regional councils implementing the NPS-FM.<sup>118</sup> This work will ideally find a method to embolden Regional Councils to set more appropriate limits before the target date of 2025. Furthermore, fostering community ideals on sustainability, as will be discussed in Part III, is an alternate strategy to inspire Regional Councils to establish stricter standards.

Scientific guidance is further needed to maximise the utility of effective limits. In the murkiness of qualitative standards and ambiguous limits in the NPS-FM, which has influenced the seemingly superfluous Table 15.1 of the ORC's Water Plan, science can be a compass to set proper limits and guide the correct attributes evaluated to ensure freshwater health. Most importantly, as Objective 1A(a) of the NPS-FM to safeguard ecosystem health has no specific guidelines, it is recommended to include a metric for the Macroinvertebrate Community Index (MCI) which serves as an ecologically accepted proxy for the health of the ecosystem.<sup>119</sup> It is promising that the PCE has chosen to recommend this metric in its report, yet many necessary metrics and standards remain unaddressed. Even with limit-setting, an underlying conflict is the deep variety in topography, climate, stream density, and farming management systems encountered by every individual dairy farmer.<sup>120</sup> Scientific papers consistently tout the benefits of catchment-specific characterisation factors, thereby promoting detailed, expensive analyses of water quality at a point-by-point basis, wherein local variations dramatically impact the sustainable amount of pollution a system can hold.<sup>121</sup> Thus, although the rigidity of a hard-line limit is desirable, it must take into account extenuating and differentiating factors that would otherwise unfairly prejudice certain farmers or limit productivity.

But the resources are not available to employ elaborate scientific analyses. Despite the costs, all the Regional Councils with the help of the independent New Zealand scientific body, the Cawthron Institute, have formed a concerted effort to bring together the dispersed information on freshwater sources and monitoring datasets in a public online database (Land Air Water Aotearoa).<sup>122</sup> This endeavour presents the opportunity to input all the data the NPS-FM envisioned, but due to regional limitations, each dataset only provides for the variables the local council measures, and each has inconsistent sampling frequencies and methodologies.<sup>123</sup> Apparent on the website, the Otago Regional Council markedly stands out by actively uploading comprehensive historic and current data on the quality of its lakes and streams using "Cawthron Institute Approved" data-collection methods.<sup>124</sup>

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<sup>118</sup> Letter from Nick Smith (Minister for the Environment) to Alastair Bisley (Land and Water Forum Chair) regarding deliverables sought from the land and water forum by the government over the next three years (2 February 2015).

<sup>119</sup> Wright "Examining the 2014 NPS", above n 38, at 15 (This easily determinable attribute measures the diversity and quantity of large insect species within specified points in a river to assess how the ecosystem is functioning; for example, mayfly and caddisfly larvae indicate healthiness, whereas snails and chironomids indicate the opposite).

<sup>120</sup> Richard W McDowell and David Nash "A Review of the Cost-Effectiveness and Suitability of Mitigation Strategies to Prevent Phosphorus Loss from Dairy Farms in New Zealand and Australia" (2012) 41 *J Environ Qual* 680 at 680-681.

<sup>121</sup> See especially MA Zonderland-Thomassen and SF Ledgard "Water Footprinting – A comparison of methods using New Zealand dairy farming as a case study" (2012) 110 *Agricultural Systems* 30 at 39.

<sup>122</sup> Land Air Water Aotearoa (LAWA) "About the LAWA Project" (2015) The Land Air Water Aotearoa Project <<http://www.lawa.org.nz>>. See also Scarsbrook and Melland, above n 9, at 110-111.

<sup>123</sup> See especially Scarsbrook and Melland, above n 9, at 111 (critical of the sampling procedures used by different regions, which renders the utility of much of the data useless).

<sup>124</sup> See for example Otago Regional Council "River Quality – Clutha River" (2015) The Land Air Water Aotearoa Project <[www.lawa.org.nz/explore-data/otago-region/river-quality/clutha-river](http://www.lawa.org.nz/explore-data/otago-region/river-quality/clutha-river)> (showing the degrading quality in regards to nitrogen content of the Clutha River); Otago Regional Council "Lakes – Lake Waiholo" (2015) The Land Air Water Aotearoa Project <[www.lawa.org.nz/explore-data/otago-](http://www.lawa.org.nz/explore-data/otago-)

Furthermore, in some sites, Otago has provided comprehensive ecological data such as the MCI, taxonomic richness, and other macro-invertebrate richness measures. Thus, there is promise that Regional Councils will seek to actively monitor, report, and assess water quality trends, even if spurred from third-party government actions, rather than direct legislation.

As a result, the NPS-FM is using its legislative force to establish limits, but each regional council should additionally adopt wider requirements to manage and maintain its water. Concurrently, councils have the responsibility to ensure dairy farms are abiding to regulations and ensuring they are not the cause of the degradation of water quality. While navigating through the difficulties of countering diffuse pollution entering the streams, the ORC must not remain complacent, and must jointly focus its attention upon individual dairy farms to ensure on an individualized basis, each are doing their share in preserving water quality.

#### 4. Addressing the Individual Offenders

The ORC Manager of Environmental Services noted that in the past season a total of 48 dairy farms were found to have one or more breaches of rules considered to have the potential to result in adverse effects on the environment.<sup>125</sup> This represents, over ten percent of dairy farms, a significant portion of the 451 dairy sheds operating in the Otago Region. Twenty of these non-compliant dairy farms were further identified to have serious non-compliance with the rules resulting in the issuing of infringement notices.<sup>126</sup> The ORC further authorised eight prosecutions in total over this year, several of which have been heard by Judge Dwyer, who additionally exemplifies the court's frustration of such continuance offenses. This non-compliance has disappointed the ORC Chief Executive, who recently stated that "[i]t appears there are some dairy farmers who are determined not to accept the **stewardship responsibilities** they have to farm in ways that are compliant with Otago's most basic and most important waterway protection rules".<sup>127</sup> The Otago Federated Farmers' provincial president echoed these concerns, stating that he was deeply saddened from the results of the inspections.<sup>128</sup>

In response to individual offenders, the ORC established stricter qualitative guidelines within its Plan Change 6A for its Regional Plan in 2012 with the intention to limit leaching of nitrogen and phosphorous.<sup>129</sup> With limits restricting only ten kg of effluent per hectare per year in sensitive regions, the Council's science director exclaimed traditional farming would be impossible, and this entirely prevents dairying as a viable enterprise.<sup>130</sup> Essentially, stocking rates at farms would be cut so significantly, it would no longer be economical to operate a farm. Even though subject to mediation from disgruntled council members, the strict discharge limits remained largely similar in the accepted iteration of the plan.<sup>131</sup> Nonetheless, these limits are set in place for 2020, providing adequate

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region/lakes/lake-waihola> (showing very poor quality results in this important wetland, but a paucity of ecologically collected data).

<sup>125</sup> Personal e-mail from Martin King (Manager Environmental Services, Otago Regional Council) regarding dairy farm compliance in the Otago Region (29 July 2015).

<sup>126</sup> Ibid.

<sup>127</sup> Rob Tipa "Otago water plan non-compliance level disturbing" *Stuff: NZFarmer* (online ed, New Zealand, 27 October 2014) [emphasis added].

<sup>128</sup> Ibid.

<sup>129</sup> Mark Price "Water plan takes stock" *Otago Daily Times* (online ed, Dunedin, 19 May 2012) (those worst-affected farmers are those on stony, gravel soils, some of which are twice as large over the guidelines). See also Water Plan, above n 48, ch 12.C.1.3 (in 2012, these ambitious metrics meant that about one third of dairy farms would not meet the limit).

<sup>130</sup> Price, above n 129.

<sup>131</sup> Water Plan, above n 45, ch 12.C.1.3 (ch 12.C.1.3(a)(i) states 15 kg, and now three sensitivity classes). See especially Maree Baker-Galloway "The Inconsistent Regional Management of Farming Effects" *New Zealand*

adjustment time for farmers to comply with these new standards. Despite this flexibility, individual offenders continue to value their economic efficiency over existing standards. An evaluation of current case law can provide insight to the motivations and values of these farmers, whereby one can then develop strategies to curb these counter-productive incentives.

Carelessness is frequently the main culprit of effluent infractions by farmers. In spite of the lack of deliberate intent, courts are definitive in punishing contamination discharge. Undergoing an analysis of the wealth of dairy effluent cases, *Waikato Regional Council v GA & BG Chick Ltd* establishes guidelines, later utilised by Judge Dwyer in Otago Region decisions.<sup>132</sup> First recognising the clear causal influence of dairy effluent contaminants in creating an adverse effect on water quality,<sup>133</sup> Judge Whiting in *Chick* acknowledges the varying seriousness of potential infringements in regards to both the culpability of the offender and the extent of environmental consequences.<sup>134</sup> In line with accepted principles of environmental offending,<sup>135</sup> *Chick* established three “levels of seriousness” with distinct benchmarks of damages.<sup>136</sup> The least serious are one-off careless incidents resulting from a system failure with little impact to the environment.<sup>137</sup> The moderately serious reflect discharges over a period of time manifested by a reluctance to address restoration.<sup>138</sup> The most serious consist of deliberate actions or a “real want of care” indicating a disregard for environmental effects.<sup>139</sup> Thus, cases heard by Judge Dwyer such as *Aitken* typically fall under the least serious “careless” category.<sup>140</sup> However, facing a plurality of such “careless” offenses, the courts are leveraging sentencing as an activist tool to enforce objectives of the RMA. Speaking for the District Court in *LK & NK*, Judge Dwyer explains “our concern is with the cumulative effect of these ongoing so-called minor discharges” in increasing the starting penalties from those suggested in *Chick*.<sup>141</sup> In *Alpine Dairies*, the defendants clearly fell in the lower end of the first *Chick* level, wherein the offenders comply with inspection notices, actively adjust practices to comply, and there was no proven environmental effect.<sup>142</sup> The District Court has valued community values of the RMA to continuously ramp up the penalty.<sup>143</sup> It appears to have reached the point where the penalties are reaching such untenable levels, wherein individual offenders are being punished disproportionately to the goal of reaching community benefit.

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*Agricultural and Resource Economics Society Conference 2013* (Anderson Lloyd Lawyers, Dunedin, August 2013) at 5.

<sup>132</sup> *Waikato Regional Council v GA & BG Chick Ltd* (2007) 14 ELRNZ 291 (DC Thames) at [14-29] [*Chick*].

<sup>133</sup> At [12].

<sup>134</sup> At [20].

<sup>135</sup> *Machinery Movers Ltd v Auckland Regional Council* [1994] 1 NZLR 492 (HC) at 501-503 (establishing range of factors relevant in sentencing pollution cases under RMA, including: the nature of the environment affected; the extent of the damage afflicted; the deliberateness of the offence; and the attitude of the accused).

<sup>136</sup> *Chick*, above n 132, at [23].

<sup>137</sup> At [24] (associated with damages ranging from \$0-\$15,000).

<sup>138</sup> At [25] (associated with damages ranging from \$15,000-\$30,000)

<sup>139</sup> At [26] (associated with damages upwards of \$30,000).

<sup>140</sup> *Aitken*, above n 1, at [12]. See also *Otago Regional Council v Christensen* DC Invercargill CRI-2014-107-132, 30 June 2014 at [13] per Judge Dwyer (there was a very slight discolouration in the water, but this was still little or no proven effect on the environment; first case where Judge Dwyer sets sentencing standard).

<sup>141</sup> *LK & NK*, above n 4, at [8] (this mandatory increase is especially salient as Dwyer finds: nearly no fault for the offense; the carelessness resulted from a newly acquired farm-owner not being familiarized with certain tile drains on the property at [10]). See especially *Waikato Regional Council v Lichtwark* DC Huntly CRN07024500009, 14 August 2007 at [8] per Judge Dwyer (sentencing serves as “a deterrent to others” such that the imposed penalty “drives home to others the need to meet their obligations to the environment”).

<sup>142</sup> *Alpine Dairies*, above n 6, at [13, 16].

<sup>143</sup> At [14].

On appeal, the High Court recently evaluated Judge Dwyer's activist actions in *Burrows v Otago Regional Council* by confronting his sense of proportionality.<sup>144</sup> The employer, Burrows, was not even on the farm when the admittedly non-serious infraction occurred, but Judge Dwyer discounted his previous good record by finding he was ultimately responsible for the dairy farm including all of its discharges.<sup>145</sup> Concurring with Judge Dwyer, the High Court sought to promote a sense of responsibility in the offender and to deter the offender and others in the industry from committing similar offenses.<sup>146</sup> As Gendall J succinctly explains:

“The offence... involves a situation of particular importance in New Zealand where increasing reliance both nationally and internationally is placed on our environmental image and also the economic contribution to the country of our dairy farming industry. It is important that the dairy industry does its best to maintain a clean image and for this to happen requires compliance from all members of the industry. Deterrence from offending is therefore important and omission of proper precautionary instructions should not serve as a valid excuse for a person who is ultimately in control and takes responsibility for day-to-day operations of a farm”.<sup>147</sup>

Consequently, levying harsh penalties on offenders to set an example for others is a valid function for courts to pursue. The High Court continues to paint with an activist brush citing powers under the RMA to assert what is best for an entire industry.

Burgeoned by the High Court's affirmation, Judge Dwyer decidedly levied tough fines on four offenders within Otago Region in July 2015. Responding to a prohibited incident of effluent ponding in breach of the Water Plan, Judge Dwyer in *Otago Regional Council v Little Oak Dairies Ltd* explained despite any proven negative effects, the Court is now deterring discharges by levying penalties with a “real bite” when cumulatively penalising the offenders for \$37,500.<sup>148</sup> In two similar infringements with one-off circumstances, Judge Dwyer deemed the offenses as “less serious *Chick* offenses”, levying penalties of \$35,000.<sup>149</sup> However, the fourth offence, as heard in *Otago Regional Council v Hannah* repeatedly failed to comply with inspectors in developing a satisfactory system of effluent disposal, thereby reaching a moderate *Chick* offense, and receiving a starting penalty of \$60,000.<sup>150</sup> Yet, Judge Dwyer provided significant reductions in the penalty in *Hannah* for actions such as eventually installing proper equipment, agreement to training, and providing prompt guilty pleas, which increased judicial efficiency.<sup>151</sup> These steps indicate that although sentencing is harsh, there are valid opportunities for offenders to mitigate the penalty if they employ behaviourally accepted actions.

The courts' attempts to control effluent discharge by the dairy industry must not only address small-scale operations, but also the large companies. Fonterra, a Co-Operative jointly owned by dairy farmer shareholders comprising 95% of New Zealand's dairy farmers,<sup>152</sup> is the archetypical large

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<sup>144</sup> *Burrows*, above n 6, at [33].

<sup>145</sup> At [43] (Burrows' concern on this appeal was his future employment prospects after being convicted).

<sup>146</sup> At [41] (acknowledging that under the RMA, deterring others is a particularly important aspect).

<sup>147</sup> At [34].

<sup>148</sup> *Otago Regional Council v Little Oak Dairies Ltd* DC Dunedin CRI-2015-017-136, 16 July 2015 at [8-10].

<sup>149</sup> *Otago Regional Council v Lambz Farmz Ltd* DC Dunedin CRI-2015-017-52, 16 July 2015 at [19-20] (offenders co-operation with Council officers and voluntary entry into training allowed reductions in the penalty however); *Otago Regional Council v Hooked on Cows* DC Dunedin CRI-2015-012-906, 16 July 2015 at [17-18] (uniquely in this case, the effluent was proven to enter wider water systems; yet this could not be proven to significantly degrade water quality).

<sup>150</sup> *Hannah*, above n 8, at [11-13].

<sup>151</sup> At [14, 17].

<sup>152</sup> Fonterra Co-Operative Group “Company Overview” (2014) Fonterra <[www.fonterra.com/nz/en](http://www.fonterra.com/nz/en)>.

company. When courts apply regional regulations, they do so bluntly with little oversight for personal circumstances and pleas. However, when judging resource consent activities for large-scale operations, the courts are more deferential so long as there is economic benefit. The differing court treatments are reliant upon the cursory, rigid adjudication to regional regulations, but rather the considerations of consent compliance reflects broader RMA ideals. In *Fonterra Co-Operative Group Ltd v Gillespie*, when contemplating action against industrial discharge by Fonterra, the Environmental Court ruminates over “sustainable management” per section 5 of the RMA, and is satisfied that approving resource consents will provide the wider community with social and economic well-being because the factory is critical to the dairy industry and work, despite several environmental impacts upon the Mangatainoka River and adjacent land.<sup>153</sup> The Environmental Court disregarded the spirit of the local regional plan, partially upon the basis that the discharge would enable the continuation of a dairy factory with considerable importance to the community.<sup>154</sup> However, when the Court finds deliberation on the part of Fonterra, as in *Taranaki Regional Council v Fonterra Ltd* by purposely turning a blind eye to developing contingency plans for odour from a buttermilk discharge, RMA defences upon reasonable conduct and adequate mitigation were to no avail.<sup>155</sup> The apparent discord in these cases could rest upon the significant complaints of the people and community, wherein the Court sought no reason to consider economic benefits of the discharge.<sup>156</sup> On the surface, one could argue courts will apply more economic considerations in resource consent hearings than in prosecution hearings.

Alternatively, the courts may simply be becoming stricter on Fonterra. Environmental Judge Smith addressed this idea directly in *Bay of Plenty Regional Council v Fonterra Limited*, where after a dairy farm inspection from a farmer supplying milk to Fonterra, wastewater ponded near a dysfunctional irrigator.<sup>157</sup> Instead of finding fault on the part of the farmer, the Region targeted Fonterra, who operates, develops, and authorises the use of the irrigation system.<sup>158</sup> Fonterra had used this irrigation system without specific equipment and monitoring systems, that the Region otherwise charged individual parties with offenses if such equipment was not installed.<sup>159</sup> After Judge Smith levied a serious fine of \$170,000 proportionate to the carelessness of Fonterra,<sup>160</sup> he commented:

“Although there is a disconnect between the irrigation offences and those from the plant, they represent a decision, it seems to me, to **prioritise productivity over the environmental consequences of discharge**... It is difficult enough for this Court to impress upon farmers their obligations to comply with the Act for the sake not only of the future of dairying in New Zealand but for the sake of the community. But when Fonterra, who has taken it upon itself to be responsible for improving farm operations... is found to have failed to invest in such a

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<sup>153</sup> *Fonterra Co-Operative Group Ltd v Gillespie* [2013] NZEnvC 250 at [194-196] per Judge Dwyer (although the effects here were minor, they were proven, unlike the several District Court sentencing cases).

<sup>154</sup> At [28] (Rule 6 of the Manawatu Catchment Water Quality Plan was deemed *ultra vires* for other reasons; but the Court pursued an analysis per RMA provisions; under s 107(2)(a) of the RMA, a consent authority can grant a discharge permit under exceptional circumstances. Court also found discharge to be deemed temporary and thus satisfying s 107(2)(b) at [31]).

<sup>155</sup> *Taranaki Regional Council v Fonterra Ltd* DC New Plymouth CRI-2014-043-1198, 2 July 2015 at [73, 85] per Judge Dwyer (for industrial buttermilk discharge into nearby rivers, Taranaki successful in prosecution); RMA, above n 3, s 342(2) (defences to prosecution if defendant can prove certain reasonable conditions).

<sup>156</sup> See *Taranaki Regional Council v Fonterra Ltd* DC New Plymouth CRI-2014-043-1198, 3 August 2015 at [9] (Sentencing decision provides weight on several parameters before levying a \$192,000 penalty at [33]).

<sup>157</sup> *Bay of Plenty Regional Council v Fonterra Limited* DC Tauranga CRI 2015-087-385, 27 July 2015 at [9].

<sup>158</sup> At [8].

<sup>159</sup> At [16].

<sup>160</sup> At [50] (Judge Smith is clearly exasperated when reaching this fine amount, for example stating “I am amazed... that this did not occur ten years ago when these issues were clearly highlighted by the Court in a number of decisions” at [17]).

basic way, this task is made more difficult and this is a significant disappointment to this Court”.<sup>161</sup>

Consequently, Courts are finding it apt to punish Fonterra as well as the individual farmers. But per Judge Smith’s criticism, can rigorous sentencing charges really shift the balance for the dairy industry to consider environmental impacts when productivity is at risk? Environmental sentencing has been criticised for its broad discretion and for sometimes providing overly burdensome penalties.<sup>162</sup> Sentencing is definitely an appropriate tool to police offenders, but to prevent the plethora of offenders, a cultural shift must occur. If even Fonterra is behaving poorly, a deeper consideration on the culture of social and environmental responsibility must be investigated.

### III: Shifting Cultures and Innovation: The Path towards Change

#### A) Ushering an attitude of Social Responsibility for Dairy Farmers

Improving New Zealand’s legislative and judicial structure is only one part of the equation. Dairy farmers must not only be engaged in legal decisions regarding water quality, but become empowered to adopt a responsible attitude towards water management. Simply, the incremental effects from land change and non-compliance of individual dairy farmers can only be addressed partially by legal action, the other portion must come from social responsibility of or by the farmers. Fortunately, New Zealand’s dairy farmers have an active industry organisation, DairyNZ. In its strategic statement, it provides ambitious guidance for farmers to be “caring custodians of the land” and to promote environmental stewardship.<sup>163</sup> Particularly, DairyNZ has promoted compliance and activity in reference to the Sustainable Dairying Water Accord (“the Accord”), which contains several commitments and targets to enhance the overall performance of dairy farming as it affects freshwater resources.<sup>164</sup> Yet in its first annual report published in 2014, DairyNZ admits “there is still a lot more work to do”.<sup>165</sup> Despite the genuine efforts by DairyNZ, the underlying issue of the so-called ‘dirty-dairying’ crisis is the internal conflict of dairy farmers to corroborate the critical importance of their economic practices with the ambitious goals established by DairyNZ. An outlook in corporate social responsibility (CSR) can help substantively confront this balance.

The notion of CSR imbues responsibilities upon a corporation beyond the creation of economic gains for stakeholders of the enterprise. CSR has been theorised specifically as a function for business, as opposed to government, to become a standalone entity for influencing public policy.<sup>166</sup> The idea of policy development represents a novel view of CSR, which has traditionally been termed as merely “actions that appear to further some social good, beyond the interests of the firm and that which is required by law”.<sup>167</sup> The longstanding conflict of CSR initiatives is predicated on eschewing socially

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<sup>161</sup> At [51,52] [emphasis added].

<sup>162</sup> David Grinlinton “Sentencing under the RMA” (2009) 8 BRMB 33 at 37.

<sup>163</sup> DairyNZ *Making Dairy Farming Work for Everyone: Strategy for Sustainable Dairy Farming 2013-2020* (DairyNZ, Hamilton, July 2013) at 35.

<sup>164</sup> DairyNZ *Sustainable Dairying: Water Accord – A Commitment to New Zealand by the Dairy Sector* (DairyNZ, Hamilton, July 2013) [The Accord] (the Accord comprehensively includes all actors, committing Federated Farmers, the Fertiliser Association of New Zealand, the industry group DairyNZ, as well as all New Zealand dairy companies such as Fonterra, Synlait and Tatua, with every Regional Council and the Ministry of the Environment signed on the Accord as supportive of the purpose).

<sup>165</sup> DairyNZ *One Year On... Summary* (DairyNZ, Hamilton, December 2014) at 2.

<sup>166</sup> See Timothy M Devinney “Is the Socially Responsible Corporation a Myth? The good, the bad, and the ugly of corporate social responsibility” (2009) 23 *Academy of Management Perspectives* 44 at 44.

<sup>167</sup> Abigail McWilliams and Donald Seigel “Corporate Social Responsibility: A theory of the firm perspective” (2001) 26 *Academy of Management Review* 117 at 117.

responsibility efforts as they are inconsistent with profit maximisation, the sole role of any business enterprise in a free market.<sup>168</sup> As dairy farmers are struggling to maintain profitability and as the nation is heavily reliant on their economic gains, there is little opportunity for individual dairy farmers to venture into practices not required by law. Furthermore, the classical gains of CSR such as appealing to consumers, and satisfying stakeholders interests<sup>169</sup> are less salient in the farming context, wherein individual farmers do not interface with the public, nor does the public show significant interest in corporate practices in their dairy purchasing habits, unlike other sectors.<sup>170</sup> Nonetheless, following the modern definition, CSR should be perceived as a hand-in-hand process to incentivise social responsibility and infuse socially acceptable practices by providing tangible economic gains.

Under this view, proponents of CSR advocate for its pragmatic effectiveness, wherein corporations can be the best instruments to implement policies and practices, largely because they are on the frontline making rationing decisions about their resources and because they have the entrepreneurial spirit to innovate.<sup>171</sup> Especially when legislative rulings, by nature, must be rigid, individual farmers can flexibly discover grassroots solutions to social problems, such as the water quality issue. Indeed, society has a growing expectation that the private sector, even regionally, should address challenges in water threats.<sup>172</sup> Additionally, beyond reputational reasons, farmers have tangible reasons to be concerned about water use centred on the sustainability of the industry, and fear of freshly imposed legislative restrictions if the farming industry fails to manage the matter on its own.<sup>173</sup> The challenge becomes, how can actions to enhance freshwater quality be promoted to dairy farmers?

Holley and Gunningham optimistically advocate for their self-proclaimed “New Governance”, stating that domestic lawmakers are providing adequate autonomy to individuals and corporations by “social steering” instead of strict laws or governance.<sup>174</sup> Such a model blurs the lines between private and public responsibility for social issues, rightfully claiming it as a joint concern.<sup>175</sup> Predicated upon collaboration, the authors present Environment Canterbury’s collaborative community engagement model upon its catchments as a prime example of New Governance.<sup>176</sup> Its successful “Living Stream Program (LSP) formed collaborative groups of farmers, townspeople, and Canterbury officials to achieve consensus on plans of actions, where the group then worked on implementation and monitoring.<sup>177</sup> The success in Canterbury has led the ORC to issue a statement in September, 2015 to

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<sup>168</sup> At 117.

<sup>169</sup> At 119-122.

<sup>170</sup> See for example Jeremy D Foltz, Douglas Jackson-Smith, and Lucy Chen “Do Purchasing Patterns Differ Between Large and Small Dairy Farms? Econometric Evidence from Three Wisconsin Communities” 31 *Agricultural and Resource Economics Review* 28 at 31, 33 (providing literature supporting consumers centrally are concerned with price or locality when it comes to milk, not their individual corporate practices).

<sup>171</sup> Devinney, above n 166, at 48-49 (however a downside of promoting CSR is corporations skewing societal standards to suit their own needs at 50).

<sup>172</sup> Tineke Lambooy “Corporate Social Responsibility: Sustainable Water Use” (2011) 19 *Journal of Cleaner Production* 852 at 862. See Harding, above n 10, at 19 (central desire for industry leadership from public in the Accord’s predecessor agreement derived from public outcry of ‘dirty dairying’ perception).

<sup>173</sup> See Lambooy, above n 172, at 862 (discussion on whether individualized decision-making addresses current concerns or future concerns, alluding to recognition that farmers are employing the precautionary principle).

<sup>174</sup> Cameron Holley and Neil Gunningham “Natural Resources, New Governance and Legal Regulation: When Does Collaboration Work?” 24 *NZULR* 309 at 310.

<sup>175</sup> See Lambooy, above n 172, at 853-854 (laments on difficulty of drawing a line between the responsibilities, and the inherent conflicts in ascribing responsibilities to either party).

<sup>176</sup> Holley and Gunningham, above n 174, at 316.

<sup>177</sup> At 319-320, 326 (Canterbury leveraged the “crisis” and public concern for water to gain seemingly more “altruistic” farmers who are willing to collaborate).

adopt its own industry-wide collaboration with the dairy industry to improve water quality.<sup>178</sup> However, such acclaim of “New Governance” is short-sighted. Canterbury leveraged specific incentives to urge farmers to join its programs, such as by offsetting transaction costs and supplying additional government support for modern technology.<sup>179</sup> The Region additionally leveraged its prosecution authority by providing the LSP as the only alternative to prosecution if farmers caused water quality loss.<sup>180</sup> These efforts essentially amount to the “top-down” incentives of change discussed by Judge Dwyer in *Hannah*. Specifically, several farmers continued to see no reason to join the program, citing they the felt environmental improvements were antithetical to their economic self-interest.<sup>181</sup>

By failing to address this segment of farmers, Canterbury was forced to cross a line that ultimately undermines the collaborative approach envisioned by LSP, leveraged nefarious practices of blackmail, threats to revoke water consents or unsubstantiated pressures of court action.<sup>182</sup> Likely due to this fear-mongering, the program did not serve as a vital long-term management of the stream.<sup>183</sup> The ORC, in developing its new plan to collaborate with DairyNZ and Fonterra, must be wary of the shortfalls of Canterbury’s program. Therefore, for the idea of New Governance to be effective as a CSR strategy, it must evoke genuine goals of participation, outside of fear of compliance by government agents. Dairy farmers must feel that they are not selling out of their economic interests, but rather buying into the evolution of water management.

A pivotal issue in allowing farmers to permanently alter their views to value CSR is trust. The Canterbury farmers did not trust the government had their long-term goals in mind. Likewise, the industry organisation for farmers, Federated Farmers, and others lost trust in the government when it unilaterally implemented the Dairying and Clean Streams Accord in 2003.<sup>184</sup> Trust was eviscerated between the farmers and the government, largely as the Accord’s process was not a democratic process, and was drafted entirely between the Ministry and Fonterra.<sup>185</sup> Fortunately, in the wake of its expiry, DairyNZ – a trusted industrial organisational body – with the support of Federated Farmers,<sup>186</sup> developed the Water Accord. The Accord involves all dairy farmers – not just the Fonterra shareholders.<sup>187</sup> This collaboratively developed Accord symbolises the dairy industry’s overarching commitment to enhancing the performance of dairy farming with measureable and time-bound commitments upon management, effluents, and water use.<sup>188</sup> Yet criticism still exists for how *mandatory* the Accord is, which has led to the annual report’s hesitancy of reporting the new Accord as

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<sup>178</sup> Otago Regional Council “ORC and dairy industry adopt collaborative approach to achieving improved water quality” *LAWA News and Stories* (online ed, Dunedin, 14 September 2015).

<sup>179</sup> Holley and Gunningham, above n 174, at 320.

<sup>180</sup> At 320 (the authors describe this as acting “in the shadow of the law”).

<sup>181</sup> At 326.

<sup>182</sup> At 327 (such as taking photos of poor practices and threatening to publicize them; or by utilizing strict views on provisions within the RMA regulatory framework).

<sup>183</sup> At 329 (termed by the authors as an “episodic success”).

<sup>184</sup> Harding, above n 10, at 17.

<sup>185</sup> At 17.

<sup>186</sup> Federated Farmers of New Zealand “Farmers for the Sustainable Dairying: Water Accord” (media release, 7 October 2013) (the Federated Farmers view the Accord as a document to take pride and ownership of its actions when the organization states “this Water Accord exists because it is about us farmers owning the issue from the farm gate right throughout the supply chain to the finished product”).

<sup>187</sup> Peter Watson and Ali Tocker “New accord takes tougher stance” *Nelson Mail* (online ed, Nelson, 26 February 2013).

<sup>188</sup> The Accord, above n 164, at 6-13. See also Scarsbrook and Melland, above n 9, at 115.

a success.<sup>189</sup> Centrally, despite key improvements in knowledge dissemination<sup>190</sup> and monitoring dairy cattle movement and activity, perhaps the most pressing issue – effluent compliance – remains unaltered since the Accord.<sup>191</sup> Consequently, these large-scale agreements are doing little to change the culture of farmers in the most vital areas; and the small-scale collaborations in Canterbury lack longevity and sustainability. The solution to get the ‘buy-in’ from farmers will require not only government actions, but a culture of social awareness to take their actions more seriously, and scientific advancement to provide the tools to implement these actions.

## B) Legal Mechanisms as Sources of Inspiration, not as Tools for Enforcement

The courts must continue to strictly enforce direct infractions on water quality. Likewise, the New Zealand government must actively commit to standards on water quality preservation. Both are blunt tools to enforce the vision of water preservation in New Zealand. Where the rubber meets the road is the development of inspiration for the true actors involved at the interface of the issue. On one hand, regional councils must be motivated to act beyond its commitments embodied in the NPS-FM and to act creatively beyond its resource constraints to instil true change to reverse the degradation of water quality. Equally, on the other hand, dairy farmers must have a “bottom-up” belief of environmental protection that can help to inform and adjust their economic actions.<sup>192</sup> Legal mechanisms must be used to inspire these two parties.

### *1. Fostering Awareness*

The most straightforward solution proposed to provide inspiration is to create more awareness of the plight of water management in the country. Foote et al. conducted a nationwide assessment of environmental externalities from the intensification of dairying, quantifying a cost to the environment of over \$15 billion, which surpasses existing dairying revenue.<sup>193</sup> Although Federated Farmers panned this controversial publication in a press release, discounting several of its calculations and correcting its facts,<sup>194</sup> the authors’ vehement defense has created a conversation in New Zealand about the future effects of the dairy industry, and the real emphasis on public’s view of economics versus the environment.<sup>195</sup> Neither the RMA nor the RPS-FM have language as strong as Foote et al., who explicitly refer to environmental damage as ‘costs’ as to create an economically commensurable

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<sup>189</sup> Watson and Tocker, above n 182 (however, there is anecdotal evidence that Fonterra are using punitive tools by threatening farmers they will not pick up their milk if breaching compliance). But see DairyNZ “One Year On”, above n 165, at 6 (despite the optimistic tone of this report, only 56% of New Zealand farms provided nutrient management data to their dairy companies; indicating inaction by companies like Fonterra).

<sup>190</sup> See generally DairyNZ *A farmer’s guide to managing farm dairy effluent – A good practice guide for land application systems* (DairyNZ, Hamilton, September 2015).

<sup>191</sup> See DairyNZ “One Year On”, above n 165, at 7 (the initial step of collecting nutrient management data and performing benchmarking has proven difficult, notably because of the sudden shift in reporting culture). See especially Kevin Ikin “Water accord making some progress” *Radio New Zealand* (online ed, Wellington, 11 December 2014) (discussion with DairyNZ environmental policy manager Dr. Scarsbrook elucidates original commitment from 85% of farms for reporting data fell far short, prevented the utility of running Overseer models to provide data; moreover different companies use different reporting systems).

<sup>192</sup> See especially Harding, above n 10, at 17 (citing a statement released from the Waikato Regional Council in 2004: The power of voluntary commitment, particularly when you are dealing with the agricultural sector, is huge. If you get people to be part of the solution, you get momentum, enthusiasm, resources poured into something they voluntarily support. If you tell a farmer what to do, you [will get resistance].”)

<sup>193</sup> Kyleisha J Foote, Michael K Joy and Russell G Death “New Zealand Dairy Farming: Milking our Environment for all its Worth” (2015) 56 *Environmental Management* 709 at 717 (several calculations are considered, but primarily the authors rely on a point that removing nitrogen from lakes is up to 6000 times more costly than reducing nitrogen inputs in the first place).

<sup>194</sup> Federated Farmers of New Zealand “Dairy Industry ‘Paper’ Flawed” (media release, 29 April 2015).

<sup>195</sup> See Jamie Morton “Dairying’s environmental arm a ‘zero sum’ – study” *The New Zealand Herald* (online ed, Auckland, 28 April 2015).

standard for environmental damage.<sup>196</sup> Perhaps, the RMA at section 5 should abandon its neutral language, and force a real engagement in what sustainable development means by considering full externality cost. Pickford is pointedly critical of both the RMA's guidance and court's use of the "broad judgment approach" for actively avoiding the market mechanisms, instead of engaging upon them.<sup>197</sup> Perhaps New Zealand should then re-evaluate its usage of the RMA to require more robust analysis of costs under its section 5 duties. As resource management law is in a state of flux in New Zealand, the dairy industry issue serves as a prime example to incorporate change into the RMA.<sup>198</sup>

Whereas awareness can push government action, scientific awareness can radically reduce the impacts provided by dairy farmers. The Environment Court often engages in complicated scientific analysis calculating effluent effects, predicting cumulative effects, and contemplating potential mitigation efforts.<sup>199</sup> Uncertainty should be reduced, and this endeavour should not be left for the courts, frequently unfit to make orders concerning complex scientific problems, but rather by increasing the knowledge by farmers. DairyNZ have taken promising steps in industry self-management, not only by establishing guidelines under the Accord, but also by implementing a Nitrogen Management Advisor Certification Programme, a comprehensive program for robust monitoring at a farm-scale.<sup>200</sup> Most saliently, DairyNZ is incrementally rolling out its Sustainable Milk Plan, whose goal is specifically to help farmers assess their business for environmental risks.<sup>201</sup> Although this Plan is in its inception and is yet to be addressed by the ORC, it shows incredible promise of the power of industry self-regulation to address issues that legal mechanisms otherwise have difficulty with. Various scientific articles, often jointly funded by DairyNZ, have identified best management practices on dairy farmers to prevent water pollution, such as installing covered feedpads, using nitrification inhibitors, operating lower rates in irrigation, managing fertiliser effectively, creating sediment traps near water content, and limiting soil use.<sup>202</sup> As DairyNZ becomes a prominent influence in disseminating the industrial best practices, court judgments can become stricter in holding individual farmers to these standards, rather than engaging in its own consideration of what farmers 'ought to have done'. Consequently, standards ushered by DairyNZ can create clarity the courts can utilise when adjudicating decisions upon dairy farming.

## 2. Concluding Remarks

The dairy industry is the economic pulse of New Zealand. And water is the country's lifeblood. Dairying must judiciously use the water to satisfy its economic goals, without tarnishing or depleting its natural resource. New Zealand has a commendable legislative structure concerned specifically with water management, but inconsistencies remain in the ultimate application of how regional councils interpret the top-down guidance. Despite any drawbacks, the prevailing national notion of environmental protection is empowering both regional councils and individual farmers to perform their actions while respecting the nation's water, often from voluntary efforts that go beyond the black letter

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<sup>196</sup> Foote et al, above n 193, at 717.

<sup>197</sup> Michael Pickford "Economic Efficiency and the Resource Management Act" (2014) 18 NZJEL 149 at 170.

<sup>198</sup> David Grinlinton "Sustainability in New Zealand Environmental Law and Policy" in Peter Salmon and David Grinlinton (eds) *Environmental Law in New Zealand* (Thomson-Reuters, Wellington, 2015) 105 at 135.

<sup>199</sup> See especially *Marlborough District Council v Awarua Farm Marlborough Limited* [2013] NZEnvC 206 at [27-29].

<sup>200</sup> Scarsbrook and Melland, above n 9, at 115 (the 15 hour/year program establishes best industry practice, and is open to all advisers wishing to meet the standards set for New Zealand at <[www.nmacertification.org.nz](http://www.nmacertification.org.nz)>).

<sup>201</sup> Monica McQueen "Free Environmental Plan on Offer for Waipa Farmers" *DairyNZ News* (online ed, Hamilton, 8 June 2015).

<sup>202</sup> See especially RM Monaghan et al "Linkages between land management activities and water quality in an intensively farmed catchment in southern New Zealand" (2007) 118 *Agriculture, Ecosystems and Environment* 211 at 218-220; McDowell and Nash, above n 120, at 682-670. See also DairyNZ "Farmer's Guide", above n 190 (this comprehensive guide incorporates many of these scientific best management practices with detailed verbal and pictorial descriptions).

law. Several discrete tensions exist, ultimately relating to the conflict between economic production and environmental sustainability. However, as long as public and legal discourse continues on how to resolve this conflict, any apparent tensions should be smoothed over to pave a promising future for an economically and environmentally sound dairy industry in New Zealand - a future of productive milk *and* healthy water.

## IV: Bibliography

### A) Case Law

- Aoraki Water Trust v Meridian Energy* [2005] 2 NZLR 268 (HC).
- Bay of Plenty Regional Council v Fonterra Limited* DC Tauranga CRI 2015-087-385, 27 July 2015.
- Burrows v Otago Regional Council* [2015] NZHC 861.
- Central Plains Water Trust v Synlait Ltd* [2009] NZCA 609.
- Day v Manawatu-Wanganui Regional Council* [2012] NZEnvC 325.
- Director General of Conservation v Marlborough District Council*, NZEnvC Christchurch C113/04, 17 August 2004.
- Director General of Conservation (Nelson-Marlborough Conservancy) v Marlborough District Council* [2010] NZEnvC 403.
- Environmental Defence Society Inc v The New Zealand King Salmon Company Ltd* [2014] NZSC 38.
- Fonterra Co-Operative Group Ltd v Gillespie* [2013] NZEnvC 250.
- Long Bay-Okura Great Park Soc Inc v North Shore City Council* NZEnvC Auckland A078/08, 16 July 2008.
- Machinery Movers Ltd v Auckland Regional Council* [1994] 1 NZLR 492 (HC).
- Marlborough District Council v Awarua Farm Marlborough Limited* [2013] NZEnvC 206.
- McIntyre v Christchurch City Council* (1996) 2 ELRNZ 84 (PT).
- McKnight v NZ Biogas Industries Ltd* [1994] 2 NZLR 664 (CA).
- Meridian Energy Ltd v Central Otago District Council* [2011] 1 NZLR 482 (HC).
- Ngati Kahungunu Iwi Inc v Hawkes Bay Regional Council* [2015] NZEnvC 50.
- North Shore City Council v Auckland Regional Council* [1997] NZRMA 59 (EnvC).
- Otago Regional Council v Aitken* DC Dunedin CRI-2014-012-1581, 18 August 2014.
- Otago Regional Council v Alpine Dairies Ltd* DC Dunedin CRI-2014-045-183, 23 January 2015.
- Otago Regional Council v Christensen* DC Invercargill CRI-2014-107-132, 30 June 2014.
- Otago Regional Council v Hannah* DC Dunedin CRI-2015-012-1104, 16 July 2015.
- Otago Regional Council v Hooked on Cows* DC Dunedin CRI-2015-012-906, 16 July 2015.
- Otago Regional Council v Lambz Farmz Ltd* DC Dunedin CRI-2015-017-52, 16 July 2015.
- Otago Regional Council v Little Oak Dairies Ltd* DC Dunedin CRI-2015-017-136, 16 July 2015.
- Otago Regional Council v LK & NK Limited* DC Dunedin CRI-2014-017-127, 26 May 2014.
- Taranaki Regional Council v Fonterra Ltd* DC New Plymouth CRI-2014-043-1198, 2 July 2015.
- Taranaki Regional Council v Fonterra Ltd* DC New Plymouth CRI-2014-043-1198, 3 August 2015.
- Waikato Environmental Protection Society Inc v Waikato Regional Council* [2008] NZRMA 431 (EnvC).
- Waikato Regional Council v GA & BG Chick Ltd* (2007) 14 ELRNZ 291 (DC Thames).
- Waikato Regional Council v Lichtwark* DC Huntly CRN07024500009, 14 August 2007.
- Wilson v Selwyn District Council* [2005] NZRMA 76 (HC).
- Works Infrastructure Ltd v Taranaki Regional Council* [2002] NZRMA 517 (HC).

### B) Legislation and Other Statutory Instruments

- “National Policy Statement for Freshwater Management 2014” (4 July 2014) 71 *New Zealand Gazette* 1991.
- Otago Regional Council *Regional Plan: Water for Otago* (1 January 2004, amended 1 September 2015).
- Otago Regional Council *Regional Policy Statement for Otago* (1 October 1998).
- Resource Management Act 1991.

### **C) Books and Chapters in Books**

- Ceri Warnock and Maree Baker-Galloway *Focus on Resource Management Law* (1<sup>st</sup> Ed, LexisNexis NZ, Wellington, 2015).
- David Grinlinton “Sustainability in New Zealand Environmental Law and Policy” in Peter Salmon and David Grinlinton (eds) *Environmental Law in New Zealand* (Thomson-Reuters, Wellington, 2015) 105.

### **D) Scholarly Articles and Presentations**

- Abigail McWilliams and Donald Seigel “Corporate Social Responsibility: A theory of the firm perspective” (2001) 26 *Academy of Management Review* 117.
- Andrew Hayward “Freshwater Management: Water Markets and Novel Pricing Regimes” (2006) 10 *NZJEL* 215.
- Cameron Holley and Neil Gunningham “Natural Resources, New Governance and Legal Regulation: When Does Collaboration Work?” 24 *NZULR* 309.
- David Grinlinton “Sentencing under the RMA” (2009) 8 *BRMB* 33.
- Elinor Ostrom “Sustainable Development of Common-Pool Resources” (2008) 50 *Environment: Science for Sustainable Development* 8.
- Ezekiel Hudspith “Freshwater Management in New Zealand: a Challenge for Ecology, Equity and Economic Efficiency” (2012) 16 *NZJEL* 277.
- Greg Severinsen “Letting our Standards Slip? Precaution and the Standard of Proof under the Resource Management Act 1991” (2014) 18 *NZJEL* 173.
- Jeremy D Foltz, Douglas Jackson-Smith, and Lucy Chen “Do Purchasing Patterns Differ Between Large and Small Dairy Farms? Econometric Evidence from Three Wisconsin Communities” 31 *Agricultural and Resource Economics Review* 28.
- Kyleisha J Foote, Michael K Joy and Russell G Death “New Zealand Dairy Farming: Milking our Environment for all its Worth” (2015) 56 *Environmental Management* 709.
- MA Zonderland-Thomassen and SF Ledgard “Water Footprinting – A comparison of methods using New Zealand dairy farming as a case study” (2012) 110 *Agricultural Systems* 30.
- Maree Baker-Galloway “The Inconsistent Regional Management of Farming Effects” *New Zealand Agricultural and Resource Economics Society Conference 2013* (Anderson Lloyd Lawyers, Dunedin, August 2013).
- Michael Pickford “Economic Efficiency and the Resource Management Act” (2014) 18 *NZJEL* 149
- MR Scarsbrook and AR Melland “Dairying and water quality issues in Australia and New Zealand” (2015) 55 *Animal Production Science* 106.
- Rachel Devine and Eliza Prestidge-Oldfield “New Policy but No Rules for Freshwater Management” (2011) 9 *BRMB* 41.
- Richard W McDowell and David Nash “A Review of the Cost-Effectiveness and Suitability of Mitigation Strategies to Prevent Phosphorus Loss from Dairy Farms in New Zealand and Australia” (2012) 41 *J Environ Qual* 680.
- RM Fisher and S Russell “Water Policy and Regulatory Reform in New Zealand” (2011) 27 *Water Resources Development* 387.
- RM Monaghan et al “Linkages between land management activities and water quality in an intensively farmed catchment in southern New Zealand” (2007) 118 *Agriculture, Ecosystems and Environment* 211.
- Russell Harding “Muddying the Waters: managing agriculture water quality in New Zealand” (2007) 3 *Policy Quarterly* 16.
- Timothy M Devinney “Is the Socially Responsible Corporation a Myth? The good, the bad, and the ugly of corporate social responsibility” (2009) 23 *Academy of Management Perspectives* 44.
- Tineke Lambooy “Corporate Social Responsibility: Sustainable Water Use” (2011) 19 *Journal of Cleaner Production* 852.

### **E) Reports (Government and Industrial)**

- Clutha Agricultural Development Board *Agricultural Statistics for the Clutha District: June 2013 update* (June 2013).
- DairyNZ *A farmer's guide to managing farm dairy effluent – A good practice guide for land application systems* (DairyNZ, Hamilton, September 2015).
- DairyNZ *Making Dairy Farming Work for Everyone: Strategy for Sustainable Dairy Farming 2013-2020* (DairyNZ, Hamilton, July 2013).
- DairyNZ *One Year On... Summary* (DairyNZ, Hamilton, December 2014).
- DairyNZ *Sustainable Dairying: Water Accord – A Commitment to New Zealand by the Dairy Sector* (DairyNZ, Hamilton, July 2013).
- Jan Wright *Managing Water Quality: Examining the 2014 National Policy Statement* (Parliamentary Commissioner for the Environment, June 2015).
- Jan Wright *Update Report: Water Quality in New Zealand: Land use and nutrient pollution* (Parliamentary Commissioner for the Environment, June 2015).
- Jan Wright *Water Quality in New Zealand: Land use and nutrient pollution* (Parliamentary Commissioner for the Environment, November 2013).
- Land and Water Forum, *Report of the Land and Water Forum: A Fresh Start for Freshwater* (Land and Water Forum, 2010).
- Land and Water Forum, *Second Report of the Land and Water Forum: Setting Limits for Water Quality and Quantity Freshwater Policy- and Plan-Making Through Collaboration* (Land and Water Forum, 2012).
- Ministry for the Environment *A Guide to the National Policy Statement for Freshwater Management 2014* (Ministry for the Environment, Wellington, 2015).

### **F) News Articles and Press Releases**

- “Effluent ponding brings \$40,500 fine” *Otago Daily Times* (online ed, Dunedin, 17 July 2015).
- Federated Farmers of New Zealand “Dairy Industry ‘Paper’ Flawed” (media release, 29 April 2015).
- Federated Farmers of New Zealand “Farmers for the Sustainable Dairying: Water Accord” (media release, 7 October 2013).
- Jamie Morton “Dairying’s environmental arm a ‘zero sum’ – study” *The New Zealand Herald* (online ed, Auckland, 28 April 2015).
- Kevin Ikin “Water accord making some progress” *Radio New Zealand* (online ed, Wellington, 11 December 2014).
- Mark Price “Water plan takes stock” *Otago Daily Times* (online ed, Dunedin, 19 May 2012).
- Monica McQueen “Free Environmental Plan on Offer for Waipa Farmers” *DairyNZ News* (online ed, Hamilton, 8 June 2015).
- Otago Regional Council “ORC and dairy industry adopt collaborative approach to achieving improved water quality” *LAWA News and Stories* (online ed, Dunedin, 14 September 2015).
- Peter Watson and Ali Tocker “New accord takes tougher stance” *Nelson Mail* (online ed, Nelson, 26 February 2013).
- Rob Tipa “Otago water plan non-compliance level disturbing” *Stuff: NZFarmer* (online ed, New Zealand, 27 October 2014).

### **G) Correspondence**

- Letter from Nick Smith (Minister for the Environment) to Alastair Bisley (Land and Water Forum Chair) regarding deliverables sought from the land and water forum by the government over the next three years (2 February 2015).
- Personal e-mail from Martin King (Manager Environmental Services, Otago Regional Council) regarding dairy farm compliance in the Otago Region (29 July 2015).

## ***H) Websites***

Fonterra Co-Operative Group “Company Overview” (2014) Fonterra <[www.fonterra.com/nz/en](http://www.fonterra.com/nz/en)>.

Land Air Water Aotearoa (LAWA) “About the LAWA Project” (2015) The Land Air Water Aotearoa Project <<http://www.lawa.org.nz>>.

Land and Water Forum “A Common Direction for Water Management in New Zealand” (2015) Land and Water Forum <[www.landandwater.org.nz](http://www.landandwater.org.nz)>.

Ministry for the Environment “About the National Policy Statement for Freshwater Management” (13 August 2015) New Zealand’s Ministry for the Environment <<http://mfe.govt.nz>>.

Otago Regional Council “Lakes – Lake Waihola” (2015) The Land Air Water Aotearoa Project <[www.lawa.org.nz/explore-data/otago-region/lakes/lake-waihola](http://www.lawa.org.nz/explore-data/otago-region/lakes/lake-waihola)>.

Otago Regional Council “River Quality – Clutha River” (2015) The Land Air Water Aotearoa Project <[www.lawa.org.nz/explore-data/otago-region/river-quality/clutha-river](http://www.lawa.org.nz/explore-data/otago-region/river-quality/clutha-river)>.