

under: the Resource Management Act 1991

in the matter of: Submissions on Chapters 6, 13 and 15 of the Proposed One Plan

between: **Fonterra Co-operative Group Limited**
Submitter

and: **Manawatu-Wanganui Regional Council**
Respondent

Statement of evidence of Sean Matthew Newland on behalf of Fonterra Co-operative Group Limited

Dated: 30 October 2009

REFERENCE: S M Janissen (suzanne.janissen@chapmantripp.com)
N McIndoe (nicky.mcindoe@chapmantripp.com)

STATEMENT OF EVIDENCE OF SEAN MATTHEW NEWLAND

QUALIFICATIONS AND EXPERIENCE

- 1 My full name is Sean Matthew Newland.
- 2 I am the Sustainability Strategist, within the Sustainable Production Team of Fonterra Co-operative Group Limited (*Fonterra*) Milk Supply. My role is to provide advice to Fonterra suppliers on sustainability issues, and to identify sustainability issues and options for addressing these across Fonterra's supplier base. My role has a specific focus on water allocation and water use issues.
- 3 I hold a Bachelor of Science degree with majors in ecology and plant biology from Massey University. I have previously held roles as National Technical Manager for Meat & Wool NZ (national industry good organisation for the beef, sheep meat and wool and goat production industries), and several national roles within the Ministry of Agriculture, including that of National Adviser for Indigenous Flora and Fauna.
- 4 I am a Stebbing qualified lead auditor, have designed and managed national quality, audit, and compliance systems (MAF Horticultural Export Certification System), and implemented and audited such systems internationally.
- 5 I was the Meat & Wool NZ representative on the Rotorua Lakes Land Use Futures Board during the period when Rule 11 was under consideration.
- 6 I am familiar with the Proposed One Plan (*POP*) to which these proceedings relate, and presented evidence to the Hearing Panel in July this year in relation to administrative, waste, and air provisions of the POP. John Hutchings has also presented evidence on behalf of Fonterra to the Hearing Panel. His evidence was presented in July 2008 in relation to the Overall Plan.
- 7 This evidence does not repeat that presented for Fonterra in earlier hearings on the POP. However, in many cases, the concerns already raised in these hearings by Fonterra will be relevant to water quality and quantity issues (e.g. consent condition reviews and common expiry dates for resource consents).

SCOPE OF EVIDENCE

- 8 My evidence will deal with the following:
 - 8.1 Description of Fonterra, and its various interests in the Manawatu-Wanganui Region;
 - 8.2 Fonterra's programmes to improve on-farm performance, including those operating with the Region;

- 8.3 Fonterra's concerns at the lack of a proper section 32 analysis;
- 8.4 Fonterra's comments on the water chapters of the POP;
- 8.5 Description of Fonterra's alternative regime for managing Nitrogen leaching (*N-loss*), including why Fonterra considers this revised approach to be better than that proposed by the POP;
- 8.6 Administrative issues associated with N-loss regulation;
- 8.7 Fonterra's comments on the POP rules as they relate to allocating water; and
- 8.8 Other provisions Fonterra considers should be amended within the POP.

SUMMARY OF EVIDENCE

- 9 Fonterra is New Zealand's largest company, accounting for 23% of New Zealand's total export earnings and 95% of New Zealand's dairy production. Within the Manawatu-Wanganui Region, Fonterra currently employs approximately 653 staff, and approximately 878 dairy farmers in the Region supply milk to Fonterra. Approximately 7% of national milk production comes from the Horizons Region.
- 10 Fonterra is mindful of the impact of its operations on society and the environment, and is committed to ensuring that it carries on its business in a responsible and sustainable manner. This is captured within both Fonterra's Business Strategy, within the recently completed Fonterra Sustainability Strategy, is inherent in the Company's commitment to the Dairying and Clean Streams Accord and is reflected in related programmes such as the Effluent Improvement System.
- 11 Fonterra has a significant interest in the POP because of its potential to impact on dairy farms and milk processing facilities in the Region.
- 12 Fonterra considers that in relation to the water quality provisions of the POP:
 - 12.1 Horizons is demanding too big a change in land management practices too quickly;
 - 12.2 In determining water values, the community has not been informed of the potential costs of their achievement, nor given other options to achieve them;
 - 12.3 The ability to achieve the objectives of the Water Chapters and the costs of doing so are to a large extent unknown; and

- 12.4 The key drivers for the speed and extent of regulation (i.e. assumption that a water quality problem exists and is worsening and that this will be exacerbated by rapidly increasing movement of land use to dairying) do not actually exist to the extent portrayed within Horizons' Officers' reports.¹
- 13 Further, Fonterra considers that the mechanisms contained within the POP for managing N-Loss:
- 13.1 Are not the most efficient or effective approach, as they do not include non-regulatory or permitted activity components; and
- 13.2 Will force a proportion of the farming community into a position of choosing to either remain economically sustainable but non-compliant, or be compliant with the proposed rules but in doing so become economically unviable.
- 14 Fonterra submits that an entirely regulatory approach will not be the most effective way to get farmer involvement and year round awareness of the need for N-loss management.
- 15 Fonterra is concerned that the POP was developed and would be implemented without adequate knowledge of current on-farm practices (what N-loss mitigation practices are currently in use across the wide range of farms), the ability of land managers to change behaviour (what additional N-loss mitigation practices are practical to implement), and the impacts on the individuals, regional industry and the Region as a whole.
- 16 The approach proposed by the POP of conflating stock drinking water takes and other permitted takes is opposed because it undermines the statutory entitlement afforded by section 14(3)(b). Furthermore the limiting of takes over and above stockwater takes to 15m³ is of real concern to Fonterra as it could consign up to 72% of dairy farmers to requiring consents to meet critical animal welfare and food hygiene standards. Although the dairy industry understands the need to operate within a limited volume of available water, the design of the regime is flawed and based on arbitrary and outdated standards.

FONTERRA, AND ITS VARIOUS INTERESTS IN THE MANAWATU-WANGANUI REGION

- 17 Fonterra is New Zealand's largest company, accounting for 23% of New Zealand's total export earnings and 95% of New Zealand's dairy production.

¹ See the evidence of Dr Mike Scarsbrook for Fonterra.

- 18 Fonterra's corporate structure is unusual – effectively it is owned by the individual farmers who supply milk to it. Fonterra has approximately 10,500 supplier farms nationally, and processed more than 13.6 billion litres of milk in New Zealand in the 2007-2008 year. Fonterra's revenue for the year ended 31 May 2008 was \$19.5 billion.
- 19 Within the Manawatu-Wanganui Region, Fonterra currently employs approximately 653 staff, and approximately 878 dairy farmers in the Region supply milk to Fonterra. Approximately 7% of national milk production comes from the Horizons Region. As well as their economic contribution, dairy farmers make an important social contribution to the Region. Dairy farmers and their families are on school boards of trustees, take part in local sports, and volunteer their time for a wide range of causes. Their farms provide a pastoral landscape and amenity which is valued by the community and reflects the agricultural heritage and identity of many in the Region.
- 20 Fonterra has significant assets in the Manawatu-Wanganui Region:
- 20.1 Manufacturing sites located at Longburn and Pahiatua; and
- 20.2 The Fonterra innovation research institution in Palmerston North. This campus makes a key contribution to the Region, and in particular, Palmerston North's reputation as a centre for scientific excellence.
- 21 The evidence of Dr John Russell describes Fonterra's processing activities in the Region, and concerns about the impact of the POP water chapters on those activities.
- 22 Fonterra is mindful of the impact of its operations on society and the environment, and is committed to ensuring that it carries on its business in a responsible and sustainable manner. This is captured within both Fonterra's Strategy² and Values.³
- 23 Fonterra has a significant interest in the POP because of its potential to impact on dairy farms and milk processing facilities in the Region. As currently drafted, the POP may require approximately half of Fonterra's suppliers in the Region to obtain a land use consent for dairy farming. These suppliers have not been regulated in this way before.

² Fonterra's Strategic Objective 1, as outlined in the 2009/10 Business Strategy is to "Ensure Fonterra remains one of the lowest cost, **sustainable** dairy co-operatives in the world". (Emphasis added)
<http://www.fonterra.com/wps/wcm/connect/fonterracom/fonterra.com/our+business/fonterra+at+a+glance/about+us/our+strategy>

³ The following are two of Fonterra's four key values:
 (1) Respect our people, communities and the environment.
 (2) Prepare for tomorrow's world while respecting today's.

- 24 Growth of dairying within the Region has been less than the national average and still only sees dairying use 4.8% of the total land area within the Region. Rather than a boom in dairying, as has been seen in such regions as Canterbury and Southland, Horizons may be better described as having experienced gradual and natural growth due to the ebbs and flows of land use flexibility. Mr Newman's evidence is that growth is expected to continue at about the same rate as has occurred during the last 10 years.

FONTERRA'S PROGRAMMES TO IMPROVE ON-FARM PERFORMANCE

Existing Programmes

- 25 Fonterra strives to lead the way toward better environmental performance on dairy farms.
- 26 Fonterra, either individually or in conjunction with others within the dairy or primary sector, undertakes a number of activities with the purpose of improving on-farm environmental performance. While the Dairying and Clean Streams Accord⁴ (*Accord*) is the best known of these, it is only one of a number of activities currently underway.
- 27 They include:
- 27.1 The Dairy Industry Strategy for Sustainable Management (*Dairy Environment Strategy*), which encompasses the targets from the Accord, but which also includes outcome targets (30% reduction in N-losses) for sensitive catchments, and which integrates research and leadership;
 - 27.2 The Primary Sector Water Partnership commitments, which encompass the practices of the Accord and the outcomes of the Dairy Environment Strategy. These commitments contain targets, action plans, and linkages to other primary sector players; and
 - 27.3 The Effluent Improvement System (details below).
- 28 These industry-led programmes are essentially non-regulatory. In general their first aim is to increase awareness of sustainability issues across the industry, including farmers, farm staff, and across the supporting sector of rural professionals and suppliers. By increasing farmer awareness Fonterra looks to increase industry ownership of both issues and solutions.
- 29 The second aim of these programmes is to provide decision-makers (farmers, share milkers etc) with information and support that encourages the consideration, and uptake, of sustainable dairying practices.

- 30 Other aims of the programmes are to:
- 30.1 Motivate change (Effluent Improvement System);
 - 30.2 Align dairy industry and primary sector action and research (Primary Sector Water Partnership); and
 - 30.3 Ensure the rules within which the sector operates are practical, well thought through, and understood.
- Dairying and Clean Streams Accord**
- 31 The use of a non-regulatory approach is best exemplified through the Accord. This was developed by Fonterra, in partnership with regional councils, Local Government New Zealand, and the Ministry for the Environment and Ministry of Agriculture, to promote, via non-regulatory means, sustainable dairy farming in New Zealand. It was signed in 2003 and runs, in its present form, until 2012.
- 32 The Accord contains a number of action-based targets for achievement over time covering key areas of dairying activity which were the focus of concern at the time the Accord was developed. These are:
- 32.1 Dairy cattle excluded from 50% of Accord streams, rivers and lakes by 2007, 90% by 2012;
 - 32.2 50% of regular crossing points have bridges or culverts by 2007, 90% by 2012;
 - 32.3 100% of farm dairy effluent discharges to comply with resource consent and regional plans immediately;
 - 32.4 100% of dairy farms to have in place systems to manage nutrient inputs and outputs by 2007; and
 - 32.5 50% of regionally significant wetlands to be fenced by 2005, 90% by 2007.
- 33 Achievement of these targets varies between targets and regions, however the national results can be summarised as follows (for the 2007/08 season):
- 33.1 99% of Fonterra suppliers have a nutrient budget or Nutrient Management Plan (from 18% in 2003/04);
 - 33.2 78% of farms have stock excluded from streams (from 54% in 2003/04);
 - 33.3 Of the 64% of farms that have Accord waterways, 98% of regular race crossing points have bridges or culverts (up from 92% of farms in 2003/04);

33.4 Many regional councils have yet to identify regionally significant wetlands and Fonterra is working with individual councils to achieve this target as they are able to.

34 **Table 1** below provides more data regarding progress towards Accord targets⁵:

Table 1: Progress towards Accord targets – 2003/04 to 2007/08

Accord target	2003/04	2004/05	2005/06	2006/07	2007/08
Dairy cattle are excluded from streams, rivers and lakes (2007 target: cattle excluded from 50 percent of Accord waterways) (a, b)	54%	59%	64%	75%	78%
Regular race crossing points have bridges or culverts (2007 target: 50 percent of regular crossing points bridged or culverted)	92%	93%	93%	97%	98%
Farm dairy effluent is appropriately treated and discharged. (Target: Full compliance with Regional Council resource consent and/or permitted activity conditions immediately) (c)	n/a	67%	67%	68%	70%
All farms have a system in place to manage nutrient inputs and outputs (2007 target) (d)	17%	19%	33%	97% (e)	99%

(a) Based on farms with Accord waterways – deeper than a red band gumboot (ankle deep), wider than a stride (1 metre) and permanently flowing.

(b) Progress for all years has been revised to more accurately measure performance, and only includes farms that have Accord water ways (previously this was based on all farms, including those without Accord waterways).

(c) Prior to 2007/08 different criteria were used between regions for reporting on non-compliance. While comparisons were made in earlier Snapshots to provide an indication of the overall level of compliance achieved, there are doubts as to accuracy of these comparisons. The data presented for these periods should be used as a guide only as to the level of compliance achieved. A standardised system of reporting between councils was introduced in 2007/08 to improve the reliability of the data presented.

(d) These figures represent the percentage of farms with a nutrient budget, which is an important step in the development of a nutrient management system. Data on the number of farmers actively using a nutrient management plan is not yet collected.

(e) In 2006/07, Fonterra's *On-Farm Assessment* showed 64 percent of farms had nutrient budgets. The 97 percent reported for the 2006/07 year is more comprehensive data from Fert Research's analysis of the fertiliser industry's customer databases.

35 Compliance with effluent rules remains problematic, and performance variable (for a variety of reasons, not all within the control of farmers nor the dairy industry). However, even in the 2007/08 year, which was the worst I have dealt with in my role, significant non-compliance dropped from 12% to 11% nationally.

36 Nonetheless, Fonterra and the wider dairy industry are disappointed with the level of effluent compliance, and have therefore undertaken a range of steps to address the issue. These include:

36.1 Increased programmes and focus on raising farmer (and farm staff) awareness (e.g. increased effluent field days, media releases, industry communications);

36.2 Development and delivery of effluent management specific training programmes (e.g. development of the AgITO effluent

⁵ Details on Accord progress can be obtained at <http://www.maf.govt.nz/mafnet/rural-nz/sustainable-resource-use/resource-management/dairy-clean-stream/dairycleanstream-07-08.pdf>

- training module and delivery of the Farm Environment Walk self-assessment tool);
- 36.3 Development of an Industry Code of Practice for the design and building of effluent management systems, and the accreditation of designers;
- 36.4 Implementation of the Effluent Improvement System by Fonterra (more details below); and
- 36.5 Hiring of staff to provide specialist effluent management advice to Fonterra suppliers with the aim of achieving a 50% reduction in significant non-compliance with effluent management requirements by the end of the 2011/12 season.
- 37 Contrary to the assertion in Mr Carlyon's Section 42A Report that there has been a lack of progress in the Accord⁶, there has been, via this non-regulatory approach, a major shift in the dairy industry in relation to performance against the targeted areas within the Accord. The Accord has also supported the regulatory approach for management of effluent.
- 38 Further, where progress to these targets has not been satisfactory, the industry has taken it upon itself to modify its approach and activities to improve performance. Again, this has been achieved through a non-regulatory approach.
- 39 Achievement of Accord targets is mentioned repeatedly within the Horizons farm case studies as a means to achieve N-loss mitigation. The question needs to be asked: if there is increasing uptake of these practices, via a non-regulatory approach, why is Horizons suggesting that a regulatory approach is the only option?
- 40 It should be noted that the Accord contains action targets and not specific water quality improvement targets. This is for two simple reasons:
- 40.1 The action targets give the industry something to aim for; and
- 40.2 The actions and impacts of the dairy industry, or more specifically of Fonterra suppliers, are not the sole determinant of water quality. It makes no sense to set targets that your own best efforts will still not necessarily allow you to achieve, due to the action or inaction of others.
- 41 In June 2008 Fonterra initiated an Effluent Improvement System across the national supply base, to help improve dairy farmer

⁶ Para 23 bullet 5

compliance with regional council effluent rules. This system will see all Fonterra suppliers who are found to be significantly non-compliant by a regional council for effluent management matters have a sum deducted from their milk payment. The purpose of this action is to reinforce the importance of the correct prioritisation and management of effluent management on-farm. This is an approach that Fonterra suppliers have not previously had imposed on them. To raise supplier awareness and provide an opportunity to trial the approach and associated systems, a two season "lead in" is being used. Suppliers were made aware of the consequences of the System in year 1 (2008/09 season); in year 2 (2009/10) the process will be applied to suppliers but deductions not made (they will receive advice of what the deductions would have been); and in year 3 (2010/11 season) deductions will occur.

- 42 Along with the deduction (a financial disincentive) and as noted previously, Fonterra is working in conjunction with the wider industry (e.g. DairyNZ) to increase farmer awareness, knowledge, and skills so they can achieve improved compliance rates. The need to align, and more importantly lead, regulatory action with a non-regulatory approach will be dealt with later in this evidence.

Primary Sector Water Partnership

- 43 The Primary Sector water Partnership (PSWP)⁷ is another programme Fonterra, and other dairy sector bodies or support industries (e.g. NZ fertiliser and irrigation sectors), are part of. The PSWP has the goals of:
- 43.1 Maintaining or enhancing water quality from primary production land, with demonstrable and accelerated progress on the resolution of water quality issues from agricultural land within 5 years; and
- 43.2 Demonstrable improvements in water use efficiency by the primary sector within 5 years.
- 44 The PSWP has set a number of action targets, with individual targets alongside these. The dairy sector has two such targets relevant to this hearing:
- 44.1 A target for nutrient loss reductions by 2016 of 30% reduction (as an interim stretch target i.e. something for us to aim for in our research and on-farm activities) at catchment scale where water quality is identified as being "at risk"; and

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<http://www.fonterra.com/wps/wcm/connect/48cfe400453f0777a388ff9a8f155673/Primary%2BSector%2BWater%2BPartnership%2BLeadership%2BDocument.pdf?MOD=AJPERES>

44.2 The commissioning of research that progressively delivers tools, technologies and management practices capable of off-farm loss reductions of 50% less N, 50-80% less P, and microbial levels at contact water standard.

45 Contrary to the inference in Ms Helen Marr's evidence, these targets are just that – targets. They are not outcomes we can achieve now, nor may they be outcomes we can achieve in 2016, but they are being used to provide the sector with direction when conducting research and developing tools for farmers. They should not be portrayed as anything other than this. I am concerned that Horizons (see p 29 of Ms Marr's evidence) refer to these targets and seek to apply them in ways for which they were never intended.

46 One of the drivers for the formation of the PSWP was the acceptance by the different primary sector industries that they each operate in a landscape or catchment in conjunction with other industries and each must play its part if improvements in water quality are to be achieved. A co-ordinated approach is viewed as the most appropriate way to achieve this and the PSWP provides a structure for this to occur.

47 The first annual report of the PSWP on progress towards targets will be released later this year.

Fonterra's Environmental Activities within the Region

48 Fonterra currently has a Sustainable Dairying Team of 11 full time staff, plus two part time staff. The majority of these staff operate regionally, to provide advice to dairy farmers on sustainability issues such as the Accord. A key area of focus currently is improving sector performance with regard to effluent management and compliance.

49 In 2009 a further staff member was recruited to the Fonterra Sustainability team to provide additional targeted effluent improvement advice to suppliers in the Horizons Region.

50 As the dairy industry has become aware of the concerns relating to N-loss from pasture, it has worked with those councils that have raised it as a growing issue. This has occurred with Environment Waikato and Environment Bay of Plenty in relation to Variation 5 and Rule 11 respectively, and is occurring now with Environment Canterbury (currently considering such a rule). A number of research projects which focus on this particular issue are also underway⁸.

51 Until the release of the POP, there was no indication from Horizons that I am aware of, that N-loss from pasture was an issue of such priority that movement directly to regulation would be required. As such, no programmes were carried out within the Region to raise

⁸ See for example: AgResearch "Pastoral 21 Environment Programme, April 2009

farmer awareness and provide tools for reducing N-loss from pasture other than relevant Accord based targets and programmes. At that time, the key issues being raised by Horizons were:

51.1 Effluent management;

51.2 Water takes; and

51.3 Stock access to waterways (including crossings).

52 Hence, these issues were the ones upon which industry effort has been focussed.

Future Programmes for the Region

53 Fonterra and the wider dairy industry are now aware that the environmental impacts of non-point source N-loss on the achievement of water values is of concern to the community and the Council. Neither the N-loss regulation proposed in the POP, nor Fonterra's alternative approach to managing N-loss, will themselves be enough to reach Horizons' water quality goals. Regardless of the regulatory model chosen, a complementary programme of research, monitoring, information provision and awareness raising will be required.

54 Fonterra and the wider dairy industry intend to develop and undertake a non-regulatory programme of work to address this concern, regardless of the outcome of these POP hearings. This programme of work is currently under development, however it will have, as its primary objective informing dairy farmers:

54.1 Of the potential impacts of N-loss on the environment, and specifically on the waterways within the Region;

54.2 How their land use and farm system decisions can influence the quantum of N lost from their property;

54.3 The range of options for reducing N-loss; and

54.4 Details of the yet to be determined POP rules and the subsequent farm systems implications that these will have.

55 Monitoring and support systems are also under consideration (details below) at the time this evidence is being written.

56 This programme of work will occur in parallel with existing programmes that support achievement of Accord targets.

57 The range of supporting activities currently underway and/or under consideration are designed to:

- 57.1 Determine the current level of N-loss mitigation technology that is currently in place within the Region and the mitigation technology that is therefore still available to individual farmers to use;
 - 57.2 Determine the range of potential farm systems and economic impacts across those farmers operating within target water management zones;
 - 57.3 Provide N-loss benchmarking opportunities for dairy farmers under a range of conditions faced within the Region; and
 - 57.4 Increase farmer awareness of the POP and its potential consequences so appropriate forward planning can occur.
- 58 These programmes and activities will be phased in over the next year and we expect then to be fully operational and producing meaningful results within five years. This will be a continuing investment by Fonterra. Fonterra hopes and expects that Horizons will support these programmes and activities, including with supplementary work of its own, to increase the chances of meeting Horizons' water quality aspirations.

COST BENEFIT ANALYSIS AND SECTION 32 REPORT

- 59 Fonterra remains concerned that even at this late stage of the process limited credible analysis of the costs and benefits of the POP, along with any viable alternatives, has occurred.
- 60 I note that in the evidence of Mr Carlyon, the need for balancing between competing water uses is acknowledged.⁹ However, I was unable to find any indication within Mr Carlyon's evidence, or within other Horizons officer reports or evidence, that the costs of alternative options for addressing water quality issues, other than "do nothing", had been considered or assessed in any detail.
- 61 Similarly, while Mr Carlyon notes community concerns around water quality being a key driver for the POP,¹⁰ and the need for balancing different environmental, social and economic outcomes¹¹, I was unable to determine from his evidence or other officer reports whether the question "what are the water values you want to see?" had been couched in terms of various options (for water values and quality) and the differing social, environmental and economic outcomes that would be associated with each one.
- 62 It is unclear to me whether the sampled members of the community would have made the same decisions on values if they had

⁹ Para 15.

¹⁰ Paras 16-25

¹¹ Para 56

information on the likely impacts of a range of options for water quality, or means to achieve them – and in particular, the economic consequences of pushing too hard too fast. I would suggest that ensuring the community had been fully informed of the consequences of their choices would have provided Horizons with a much sounder position to balance economic, social and environmental objectives.

- 63 In the absence of this direction from the community, Horizons itself must have undertaken this balancing decision making process – but again the question is: based on what analysis of the various options and consequences?
- 64 No one can say with any certainty what the impacts of the POP will be, except on a very small group of individual land managers who have been subject to specific case studies – and even then, the economic consequences appear to have been assessed only at the margin. Fonterra has little confidence that the extremely small sample size of dairy farmers involved (20 within the Horizons case studies carried out) is representative of the very variable environmental, farm management and economic position of the 433 Fonterra suppliers who would be affected by rule 13.1.
- 65 Farms vary greatly in where they are starting from economically, skill wise, and in N-loss mitigation practice. The impacts of meeting the Land Use Capability linked N-loss targets, even if only considering these parameters and not considering the additional issues of rainfall, slope, and soil types, raises the question of whether the small sample size adequately accounts for region-wide variability, and therefore whether it provides a sound basis for asserting the potential economic (and social) impacts of the One Plan.
- 66 The evidence of Mr Matthew Newman assesses and comments on the limited cost-benefit analysis carried out to-date. In summary, Mr Newman’s evidence supports Fonterra’s view that the Section 32 report fails to provide a comprehensive Cost Benefit Analysis demonstrating that benefits to society outweigh the costs of regulation. Further, the Section 42A (Neild and Rhodes) Report lacks clarity and fails to address annual production loss, annual costs, and impacts on profitability and land value.
- 67 In my review of the officer reports, I could find only limited consideration of compliance costs associated with the POP, or any alternative approaches, and in the main these were limited to consideration of whether Horizons could charge monitoring costs under a permitted activity approach. It would have been appropriate for these costs to have been modelled and considered within the section 32 report. However, at present there is limited to no information available on how Rule 13.1 will be implemented in practice and therefore no scope to assess the costs of:

- Monitoring;
 - Auditing;
 - Reporting;
 - Support infrastructure requirements (administration, data collection, audit and storage);
 - Additional compliance staff and staff training (given the move into regulation of a new area for these compliance staff – on-farm nutrient management and loss); and
 - The type and extent of approach that will be taken if non-compliance is detected.
- 68 These costs will accrue to both Horizons and to those affected by the POP.
- 69 Fonterra has, since the hearing of evidence on the Overall Plan in July 2008, repeatedly offered to take part in further discussions with Horizons on the means, objectives, skills required and options for carrying out a robust section 32 analysis, as was directed by the Hearing Chair in the Minute dated 10 July 2008.
- 70 In response, Fonterra was invited to (and attended) a meeting on Tuesday 2 June 2009 called by Horizons to discuss “options for economic analysis”¹². At this meeting Fonterra and other stakeholders were told who would carry out the work and asked for their initial thoughts on what should be undertaken as part of the analysis. No recorded outcomes from this meeting were available as *“At the meeting it was agreed that minutes would not be produced, to facilitate a free and frank discussion, but that any agreed outcomes would be recorded. No agreed outcomes were reached as such, so there are no notes to circulate”*¹³.
- 71 No follow up to this meeting eventuated.
- 72 Fonterra recognises that Horizons has at times requested information from it on possible alternatives, but at the time Fonterra itself was undertaking the equivalent of a section 32 analysis of the options under consideration (particularly the option of industry self regulation) and no firm direction on favoured industry alternatives could be provided. The issue of alternatives to the POP are discussed in greater detail later in this evidence.

¹² Email from H Marr dated 27/5/2009

¹³ Email from H Marr dated 11/6/2009

FONTERRA'S COMMENTS ON THE WATER CHAPTERS OF THE POP

Fonterra's submission

- 73 Fonterra lodged a submission on the POP (dated 28 September 2007), and further submissions on 18 December 2007.
- 74 Broadly speaking, Fonterra's submission supported the overall intention of the POP, but raised a number of significant concerns. These significant concerns remain and relate to the following areas:
- 74.1 Values and aspirations of community. Fonterra is concerned that the public has not been provided with adequate information to assess the cost-benefit, achievability and regional consequences of the POP targets, especially meeting the values, management objectives, and water quality standards provided in Schedule D (and now Schedule Ba).
- 74.2 Water Quality Targets. Fonterra has serious concerns about whether the values, management objectives, and water quality standards provided in Schedules Ba and D are causatively linked or achievable, and if so, at what cost to the community and individuals involved.
- 74.3 Speed of Achievement. Similarly, Fonterra is concerned that the POP and supporting documents do not adequately recognise the requirement to:
- (a) Raise land manager awareness of the need to manage N-loss from pasture to the level that will be required if regulation is to occur;
 - (b) Gain uptake of existing, and the development of new, mitigation technology to allow land managers to achieve N-loss targets, and
 - (c) Provide adequate timeframes for implementing these new tools on farms across the Region.

Furthermore, based on analysis of the water quality trend data for the Region provided in the evidence of Dr Mike Scarsbrook, Fonterra considers that there is no critical need to take action immediately.

- 74.4 Understanding Present Systems and Impacts of Change. Fonterra is concerned that the POP was developed and would be implemented without adequate knowledge of current on-farm practices (what N-loss mitigation practices are currently in use across the wide range of farms), the ability of land managers to change behaviour (what additional N-loss mitigation practices are practical to implement), and the impacts on the individuals, regional industry and the Region

as a whole. Fonterra considers that the appropriate starting point for developing water quality management policies should be to gain an understanding of current on-farm practices, especially in relation to nutrient management. This information currently does not exist outside of a small number of case study farms that may or may not be representative of the broader 433 dairy farms to be affected by the proposed N-loss rules.

74.5 Insufficient Consideration of Non-Regulatory Mechanisms.

Fonterra considers that a hybrid of regulatory and non-regulatory arrangements may be a more appropriate mechanism to achieve the N-loss and therefore water quality goals of the POP. The total regulatory process that has been proposed is a significant step from current regulation, without Horizons considering an intermediary step. This issue is dealt with in more detail later in my evidence.

74.6 Science, Information, and Knowledge. Fonterra considers that the affected parties need to agree on the underlying science supporting the water quality targets, in order for the POP to be sustainable. While recognising the research Horizons has carried out to support the POP, Fonterra considers significant questions remain over whether this work in fact supports the POP approach.

Water Quality and Non-Regulatory Approaches

- 75 Fonterra considers, on the basis of the evidence of Dr Mike Scarsbrook, that water quality trends within the Region are at worst stabilised and, in some instances, improving. Accordingly, Fonterra considers there is no immediate need to take drastic action now. Considered action, informed by a less cursory knowledge of the impacts of that action, is what is called for.
- 76 A considered approach is also justified because this is the first time a regulatory (or non-regulatory) approach has been taken to managing N-loss from pasture within the Region. As currently drafted, Rule 13.1 will require 463 dairy farmers within the Region (of which 433 are Fonterra suppliers) to obtain resource consent for the land use activity of dairy farming. This is in stark contrast to what Horizons states¹⁴, has been only "passing acknowledgement of non-point source contamination as being an issue", and very limited attempts to manage it by Horizons to-date.
- 77 These acknowledgements also sit uncomfortably with Mr Carlyon's contention¹⁵ that a regulatory approach is the only option because (his reasons):

¹⁴ G Carlyon evidence para 50

¹⁵ G Carlyon evidence para 36

- 77.1 “ample warning of upcoming changes” has been given;
- 77.2 “there has been reluctance to make changes required by existing policy frameworks”; and
- 77.3 “continued poor performance” has occurred.
- 78 Similarly, Mr Carlyon states¹⁶ that Horizons has been forced down the regulatory path by:
- 78.1 The rate at which water quality is declining;
- 78.2 The limited uptake of non-regulatory approaches; and
- 78.3 Continued poor environmental performance (amongst some within the agricultural sector).
- 79 Fonterra disputes all of these assertions made by Mr Carlyon. The evidence of Dr Mike Scarsbrook is that water quality is not declining. As to limited uptake of non-regulatory approaches, where such approaches are in place (e.g. the Accord) these have proven to be successful in gaining farmer support and uptake.
- 80 Horizons appears to have given very little consideration to the use of non-regulatory methods (or less onerous regulation), let alone the benefits of doing so, either alone or in conjunction with regulatory methods, as a means of achieving changes in activity or water quality.
- 81 On the basis of the results of the non-regulatory approaches taken by the dairy industry to-date (as discussed earlier in my evidence), I would suggest that non-regulatory programmes, with the aim of increasing farmer awareness and comfort with reducing N-loss from their farming operations, are likely to achieve a significant change in behaviour and N-loss. At the very least such an approach will provide an opportunity for farmers to become better informed and assess and look for opportunities to modify their farming systems prior to a regulatory approach being imposed to manage N-loss from pasture.
- 82 The evidence of Dr Terry Parminter explores the benefits of non-regulatory and less onerous regulatory approaches when dealing with behaviour change.
- 83 It is worth noting that this is only the third time such an approach to the regulation of N-loss from pasture has been proposed in New Zealand. The other instances are Variation 5 within the Taupo catchment, implemented by Environment Waikato, and Rule 11, in the Rotorua Catchment, implemented by Environment Bay of Plenty.

¹⁶ G Carlyon evidence para 68

- 84 In paragraph 63 of his evidence Mr Carlyon suggests that the significant difference between the POP approach and that taken by Variation 5 and Rule 11 for the management of non-point source N-loss is the need for a consent. I disagree. In my view the most significant differences are:
- 84.1 Both the Variation 5 and Rule 11 approaches set a grand-parented cap on N-loss with no decrease in N-loss limits overtime. This approach would seem to have occurred due to Environment Waikato at least being concerned that the effects of even a cap would cause economic hardship¹⁷;
 - 84.2 Both Variation 5 and Rule 11 deal with water bodies that could be considered "iconic", in comparison with the Manawatu catchments which are not in the same category;
 - 84.3 Both Variation 5 and Rule 11 focus on lakes, as opposed to the POP which primarily controls N-loss into rivers and streams;
 - 84.4 A mixture of regulatory and non-regulatory approaches will be used in both Taupo and Rotorua, while only a regulatory approach is being considered by Horizons; and
 - 84.5 Within the Horizons Region the allowable rate of N-leaching is linked to Land Use Capability and only indirectly linked to water quality standards (noting also that a similar N-loss rate is applied across all affected WMZs – this seems at odds with Mr Carlyon's evidence¹⁸ that "... a one-size-fits-all approach to the application of values and standards will not work.").
- 85 Mr Carlyon states in his evidence¹⁹ that the POP has detractors and that this is driven by fear of the "new and untested". In part he is right. In this instance those potentially affected by POP may well be affected in a manner that makes their business economically unviable. For farmers this is a special concern because the business (farm) is most often directly linked to the family home and family lifestyle. They have no confidence on the basis of the limited cost/benefit work carried out to-date.
- 86 These farmers have been provided with limited information as to how the rule will be implemented in practice (what will a discretionary consent mean for a farmer who is in a high rainfall area and therefore unlikely to ever meet the N-loss limits while remaining profitable?). They lack certainty going forward.

¹⁷ Section 2.2.4 b) Managing the Cumulative Effects of Intensive Land Uses on Water Quality – Bell A, van Voorthuysen R 2008 - A report produced for Environment Canterbury

¹⁸ G Carlyon evidence para 57 bullet 3

¹⁹ G Carlyon evidence para 34

- 87 These farmers are also dealing with a regulator with whom, until recently, there has been very limited trust. While Horizons staff are working to address this last matter via the Dairy Forum²⁰, the level of trust currently remains fragile.
- 88 These three issues, when seen through the eyes of affected farmers, give reasonable cause for concern.
- 89 Accordingly, Fonterra considers a cautious approach is the best to take, with time taken to gather further information, and allow both farmers and Horizons to trial the implementation of the final rules under less onerous regulation.
- 90 In short, Fonterra considers that in relation to the water quality provisions of the POP:
- 90.1 Horizons is demanding too big a change in land management practices too quickly;
 - 90.2 In determining water values, the community has not been informed of the potential costs of their achievement, nor given other options to achieve them;
 - 90.3 The ability to achieve the objectives of the Water Chapters and the costs of doing so are to a large extent unknown; and
 - 90.4 The key drivers for the speed and extent of regulation (i.e. assumption that a water quality problem exists and is worsening and that this will be exacerbated by rapidly increasing movement of land use to dairying) do not actually exist to the extent portrayed within Horizons' Officers' reports.²¹
- 91 Further, Fonterra considers that the mechanisms contained within the POP for managing N-Loss:
- 91.1 Are not the most efficient or effective approach, as they do not include a non-regulatory or permitted activity component; and
 - 91.2 Will force a proportion of the farming community into a position of choosing to either remain economically sustainable but non-compliant, or be compliant with the proposed rules but in doing so become economically unviable.
- 92 Fonterra submits that an entirely regulatory approach will not be the most effective way to get farmer involvement and year round

²⁰ A very recently established mechanism to better link Horizons to affected dairy farmers

²¹ See the evidence of Dr Mike Scarsbrook for Fonterra.

awareness of the need for N-loss management. This is discussed in greater detail in the evidence of Dr Terry Parminter.

- 93 A regulatory approach has less ability to change as either objectives change or where unforeseen issues or impacts in the implementation of the regulatory approach are discovered.
- 94 As information becomes available (e.g. the cost of imposing regulatory actions to achieve a certain water value), and concerns change, the community's water values can also change. The most recent survey²² of community water quality values carried out by Horizons indicates that the community is most concerned about bacteria in waterways rather than N-loss. A continuing regulatory focus on N-loss management will not necessarily address bacteria, however this is addressed in the non-regulatory approach taken by the Accord (via targets for stock exclusion and improved effluent management and associated industry extension/support activities).
- 95 Fonterra is surprised Horizons has not given greater consideration to non-regulatory or permitted activity approaches to managing N-loss, when it is promoting a fully non-regulatory approach to the management of sediment in the highly erodible hill country (Policy 6.7(c)i).
- 96 The equity of this approach is questioned given:
- 96.1 Sediment loss is associated with phosphorus loss, another nutrient of concern when considering water quality and the achievement of community water values;
 - 96.2 Erodible hill country and the sediment loss that results affects a much greater area of the Region than intensive land use does;
 - 96.3 Sediment loss occurs in the headwaters of many waterways and therefore has an impact throughout the length of the waterway; and
 - 96.4 The issues associated with sediment loss have been known for several decades by regulators and hill country land managers.

FONTERRA'S ALTERNATIVE REGIME FOR MANAGING N-LOSS

Development of Fonterra's alternative

- 97 Fonterra's initial submission indicated that an industry managed, code of practice approach was the outcome most likely to be sought. After intensive analysis of this approach (and other alternatives), Fonterra has decided against such an approach. Positive discussions

²² Horizons Regional Council Water Survey June 2009

have been held with Horizons in an attempt to clarify its needs, so that any alternative could gain Horizons' support. Fonterra recognises and welcomes Horizons' input of time and resource.

- 98 An extremely pleasing outcome of the discussions between Fonterra and Horizons was the statement by Horizons Officers that the proposed rules would not result in resource consent conditions which would render existing dairy farms (and presumably other affected intensive land uses) economically unviable. Fonterra welcomes this clarification as it addresses one of the key uncertainties facing existing farmers, especially those in high rainfall areas that have already been identified by Horizons as unlikely to be able to meet the N-loss limits.
- 99 Fonterra has opted to propose a modified version of the POP rules regarding N-loss. This modified version is explained in the evidence of Mr Gerard Willis, and in Fonterra's view provides sufficient space to make maximum gains from using non-regulatory and permitted activity approaches, while also focussing more onerous regulation where it can be most effective.
- 100 The FARM Strategy currently contains sections relating to effluent management, water take, nutrient loss and other farm activities. If Fonterra's proposed alternative was to be accepted there would no longer be a need for these.
- 101 Fonterra suggests that effluent management and water takes occur under the POP provisions that apply to these activities generally. Fonterra sees limited value in the "One Consent" approach to land use activities.
- 102 Fonterra suggests N-loss could be managed through the use of nutrient budgets and/or nutrient management plans produced by accredited individuals (these are already produced for dairy farmers by accredited individuals) to allow affected farmers to determine their allowable N-loss limits.
- 103 Faecal contamination associated with the dairy industry could be continued to be managed via effluent management and through the ongoing activity supporting the Accord.
- 104 The sediment loss associated with the dairy industry, while a very small proportion of that lost from highly erodible hill country, would continue to be managed through the ongoing activity supporting the Accord.
- 105 Other activities such as offal holes, farm dumps etc would be dealt with under the proposed permitted activity rules for these activities.
- 106 Fonterra suggests that for a period of at least five years from the date the POP becomes operative a non-regulatory approach be

taken to the management of non-point source N-loss from intensive land use activities. This period will allow industry, in conjunction with Horizons, to raise awareness, gather information and trial aspects of the proposed regulatory approach. As noted above, even Horizons' suggested regulatory approach will not by itself be enough to achieve its water quality goals. Both Horizons and the dairy industry will need to invest in non-regulatory approaches as well.

- 107 A review of the success of this approach would be carried out after 5 years, with a decision made at that time as to whether the non-regulatory approach was providing sufficient results or whether a regulatory approach should be implemented.

Rationale for the alternative regime for regulating N-loss

- 108 Fonterra considers that its proposed changes will allow for:
- 108.1 The implementation of non-regulatory approaches to reducing N-loss to be implemented in the short to medium term;
 - 108.2 A more equitable, efficient, less costly, less intrusive regulatory approach;
 - 108.3 Incentives for land managers to act early (to reduce the need to gain a consent for N-loss), while providing an equivalent potential for water quality improvements to occur and water values to be achieved (where this is possible); and
 - 108.4 A reduced risk that when a regulatory approach is implemented that it will have the same potential for unforeseen impacts on affected farmers to occur.
- 109 Fonterra's suggested amendments will also restore some equity to the POP. There is no extra level of risk or potential environmental impact justifying similar activities (e.g. application of fertiliser, management of offal pits, farm dumps etc) to be managed as consentable activities on some farms and as permitted activities on other, less intensive farms within the same WMZ, or on similar farms in other WMZs. If the level of risk and potential impact is the same, then there seems no effects-based reason for such an approach.
- 110 Fonterra suggests that where compliance with a specific condition can be demonstrated and monitored simply and without subjectivity, a permitted activity status offers the most appropriate, and most efficient regulatory tool. For this reason, Fonterra recommends that where a land manager can show their current N-loss is less than their allowable N-loss limit, a permitted activity status should be used. Fonterra sees no benefit in requiring a consent in this instance.

- 111 Fonterra accepts that Land Use Capability (*LUC*) classes allow for the average natural capital of differing land classes to be assessed. Nonetheless, there are several issues relating to the use of LUC in relation to the proposed rules:
- 111.1 Allocation of LUC classes to land is subjective and different people can reach different conclusions. Fonterra seeks clarity as to how Horizons will address such subjectivity in administering the final rules that make use of LUC classes, with special interest in how such subjectivity will be addressed in matters of compliance and consenting;
- 111.2 Using LUC classes as the basis for allocation of N-loss limits may have validity where land use decisions have not already been made. However, in an existing agricultural area such an approach does not recognise existing land use decisions and investments. An N-loss grand-parenting regime represents a more equitable regime if only for determining the starting point for N-loss reductions.
- 111.3 The use of LUC class to allocate N-loss across WMZs is also potentially inefficient in the absence of a trading regime. N-loss may well be allocated to areas of land which will never be able to make use of it (small or isolated areas of highly productive land within a low intensity land use environment). Trading would allow this allocation to be transferred to someone who can make use of it.
- 111.4 The N-loss limits for LUC classes III, IV, V and VI are in Fonterra's view too low, and do not adequately account for the natural capital of this land.
- 112 For these reasons Fonterra has incorporated grand-parenting of starting N-loss limits, trading of N-loss allocations, and increased N-loss limits into its alternative approach as a way to address both future as well as existing land use decisions.

ADMINISTRATIVE ISSUES ASSOCIATED WITH N-LOSS REGULATION

- 113 Fonterra is concerned about how the POP N-loss rules will be administered by Horizons. Given that the current proposal and even Fonterra's proposed alternative, have some regulatory basis to them, the potential impacts on affected land managers if found non-compliant may be significant. Only limited information has been provided about monitoring, audit and compliance aspects associated with implementation of the Plan. This lack of clarity is causing significant concern to farmers and industry.
- 114 Fonterra would welcome the opportunity to develop an agreed administrative approach to those rules that are finally implemented, in conjunction with Horizons and other affected industries. Given

Horizons will need to develop this for its own purposes it would not add extra work and would allow industry to have a much clearer understanding of how Horizons intends to operate the Plan in practice.

- 115 As an example, Fonterra would like to gain a better understanding of how Horizons proposes to use Overseer in the monitoring and compliance aspects of implementing the POP. Given Overseer is a long term equilibrium model (i.e. it assumes the system is in equilibrium and operates on the basis of long term averages and thereby, for example caters for highly variable annual climate inputs) Fonterra would consider its use to model and assess compliance with N-loss allocation limits on an annual basis problematic. Fonterra would be interested in a response to this in a Supplementary Officer Report from Dr S Leggard. Is it possible to change input data such as rainfall, on an annual basis for a property to "model actual N-loss" and have confidence in the results Overseer will provide?
- 116 Fonterra would also like to understand how Horizons intends to take into account the large degree for potential difference between N-loss as modelled by Overseer and actual N-loss when monitoring N-loss limits and carrying out associated compliance activities. Overseer itself states²³ that there can be up to + or - 30% differences between the (Overseer) modelled and actual N-loss from a farm. This seems rather a lot for a tool that will be used by council officers, and in some instances the Court, to determine a land manager's compliance or otherwise with Plan rules or consent conditions. Fonterra would welcome the opinion of Dr S Leggard on the potential margin for discrepancy, as well as whether he considers the model to be robust enough to support prosecution of a land manager who was 5% over their N-loss allocation limit (e.g. modelled at 21kg N/ha rather than 20 kg N/ha).

WATER ALLOCATION

Fonterra's concerns regarding POP provisions regulating water allocation

- 117 Fonterra recognises the vital importance of freshwater resources environmentally, socially, culturally and economically. Water managers currently find themselves in the difficult position of managing for future needs within the constraints of legislation that was designed in a time when pressures on water resources were less. Fonterra supports the responsible management of water resources using those tools currently available to resource managers.
- 118 Fonterra submitted on the following three key water allocation issues:

²³ Ave nitrate conc. line within the Whole farm page of Overseer

118.1 Controls on stock drinking water takes;

118.2 The manner of determining permitted activity volumes; and

118.3 Priority of takes, including the provision of priority to hydro-electric generation.

Water takes for stock drinking water purposes

- 119 Adequate supply of stock drinking water is essential for animal health and welfare. The RMA itself acknowledges the deeply held principle that land owners have the right to allow stock to drink. To do otherwise would be to countenance cruelty to animals and/or directly limit livestock farming (either in stock numbers and/or in production per animal). This is reflected in the presumption that takes for stock drinking are allowed (unless the take is unreasonable or likely to have an adverse effect on the environment). This, of course, contrasts with the approach that applies to takes for most other purposes which must be expressly allowed by a regional plan or resource consent.
- 120 Having stock drinking water available to meet the needs of stock (which fluctuate seasonally and with changes in farming systems and practices) is the fundamental prerequisite for any form of farming. Given the variability of demand it would be, quite frankly, impractical to try and limit drinking water takes to match on-farm needs. Thus allowing takes (without artificial limit) save only for an obligation that the take is not likely to have an adverse effect, is appropriate. The approach does, however, place an onus on the Regional Council to ensure that when and where there is potential for stock takes to individually or cumulatively produce an adverse effect there is some mechanism by which those takes may be limited in some way.
- 121 Fonterra considers that the POP does not appropriately manage the taking of water for stock drinking water and domestic use purposes as currently provided for within section 14(3)(b) of the Resource Management Act (RMA). Rule 15.1 provides for the taking of water for these allowed (under the RMA) purposes within a volume constrained limit as part of the "permitted" take. In doing so the "adverse environmental effects" test required under section 14(3)(b) is not applied other than in the crudest sense.
- 122 Horizons staff have indicated in discussions with Fonterra that in their view it is for the water user to demonstrate that the adverse environmental effects test in section 14(3)(b) has been complied with. Such an approach seems inappropriate given that both the responsibility for managing the resource and the access to expertise and information on that resource resides with the Regional Council.
- 123 A similar issue was raised at hearings on Environment Waikato's Variation 6 (Water Allocation Variation). In that instance the Commissioners found that a similar proposed rule did not

differentiate between “allowed” takes, (i.e. section 14(3)(b) takes) and permitted takes, and that the adverse environmental effects test must be applied. Environment Waikato accepted this decision and amended the rule in question as a result.

- 124 Fonterra submits that the policies and rules of the POP must be amended to allow for the taking of water under section 14(3)(b) as required by the RMA to allow for the reasonable needs of an individual’s animals for drinking water to be met. For dairy cattle the industry assesses these reasonable needs as being 70 litres per cow per day. The proposed “permitted take” of 30m³ for stock water would only provide sufficient drinking water for 214 cows given that half of the permitted take would need to be reserved for shed washdown and milk cooling. Given that 598 Fonterra suppliers within the Region have more than 214 cows, this rule would prevent those farmers from accessing the water they are otherwise allowed to take under Section 14(3)(b). This would occur regardless of whether the taking of the extra water required would in fact cause adverse environmental effects.

Determining permitted activity volumes

- 125 In allocating permitted takes, Horizons has allowed for a take of 15m³ for any use other than those uses allowed for under Section 14(3)(b).
- 126 The average dairy farm requires 70 litres per cow per day for dairy shed washdown and milking cooling purposes. On that basis, for farmers milking more than 214 cows (72% of Fonterra suppliers in the Region), 15m³ per day will be insufficient for dairy shed needs. From a dairy farmers’ perspective, there is little point in having access to sufficient drinking water for the herd if there is not also access to the water needed to milk them in accordance with practices necessary to maintain animal health and food hygienic standards. Fonterra supports making water available on a permitted basis to enable the majority of dairy farms to operate, on the basis of reasonable use, without the need for resource consent.
- 127 For 72% of the Regional dairy farmers the permitted (non drinking water) take might as well be zero as they will need consent anyway. In that sense, 15m³ is about as valuable as half a cow. Furthermore, a permitted take of 15m³ per day has no real basis in terms of modern dairy shed needs (or on any other rational basis). I can only assume that the 15m³ per day limit is a legacy of the standard that applied under the General Authorisations of the Water and Soil Conservation Act 1967. When those “authorisations” were developed, 15m³ per day was probably adequate for the vast majority of dairy farms. However, the industry has changed significantly over recent years with farms now on average significantly bigger in terms of both physical size and cow

numbers²⁴. In that context a continued entitlement to an arbitrary 15m³ per property makes little sense.

- 128 Furthermore the approach applies irrespective of land use so that 15m³ per day is theoretically made available for users that will never use that volume. Dry stock farming and rural residential uses in particular are allocated volumes (in addition to stock drinking and domestic water) through the permitted rule that they will never use. This seems to Fonterra to be an irrational way to allocate (through permitted activity rules) the water that can be taken without risk of adverse effect.
- 129 Fonterra considers the currently available "permitted take" volume could be better allocated through a rule that makes use of land use activity or area (or both) to allocate water within the current permitted take volume.
- 130 Such an approach has the potential to see the same volume of permitted water allocated in a way that better matches entitlement to need and hence minimises the need for resource consents.
- 131 Fonterra is currently exploring a similar rule for the allocation of permitted take water with Environment Waikato as part of the pre-appeal mediation process for Variation 6 to the Waikato Regional Plan. The planning evidence of Mr Gerard Willis describes a possible rule to allow this to occur.
- 132 The planning evidence of Mr Gerard Willis also describes specific amendments to rules needed to remedy this conflation of permitted and allowed takes.

Priority of takes during water shortage

- 133 Fonterra accepts that at times of water shortage there is a need to prioritise takes so that water remains available for the most essential users.
- 134 In that context we are concerned to ensure that appropriate level of priority is accorded to stock water takes (which, if limited, have severe animal welfare implications) and takes associated with the production and processing of perishable food (for which storage capacity is limited). Cows need to be milked and milk needs to be processed. Both these activities need water. While cows can be dried off at times of water shortage, this takes time and unlike other production systems, cannot be "turned on" again when water becomes available. For these reasons, the POP needs to ensure that water is available to dairy production through the production chain during times of water shortage, ahead of other users that have greater flexibility.

²⁴ In the Wanganui/Manawatu/Wellington region the average dairy farm has increased in size (hectares) by 27% since 1999.

- 135 With regard to takes for hydro electric power (*HEP*) generation, Fonterra is of the view that there is no robust argument for favouring such takes above takes for the dairy industry. I do note that in the Manawatu-Wanganui Region competition between hydro and dairy takes does not appear to be a significant issue at the present time. Although there are hydro schemes in the Region, storage is upstream of dairy areas and there seems limited likelihood that this will change. Nevertheless I would point out that there is no economic justification for favouring HEP ahead of dairying when making water allocation decisions. Research undertaken in Canterbury (NZIER 2006) suggests that water for dairy pastoral irrigation will provide a return to the economy of 2.5 times that of allocating the same volume of water, at median price, to HEP. We also know from work undertaken by Simon Harris in 2008 (Christchurch based agricultural economist) that storage for pastoral irrigation purposes is capable of generating 33 jobs and \$7.7 million per 1000 hectares of land irrigated. For these reasons Fonterra believes that any move to accord, through the provisions of the POP, priority to HEP (beyond existing schemes) would be inappropriate and unwise on economic grounds
- 136 This matter is further discussed in the evidence of Gerard Willis.

Sean Newland
30 October 2009.