

BEFORE THE HEARING PANEL OF SOUTHLAND REGIONAL COUNCIL

In the matter of sections 88 to 115 of the Resource Management Act 1991

And

In the matter Applications for resource consents by:

WORLDWIDE FOUR LIMITED, WORLDWIDE FIVE LIMITED,
Applicants

BRIEF OF EVIDENCE OF ALBERT DE WOLDE

19 September 2019

INTRODUCTION	3
WORLDWIDE FOUR	4
WORLDWIDE FIVE	5
OTHER WORLDWIDE COMPANIES	6
Regarding Worldwide Five 45ha Collie Block	7
Regarding Worldwide Run-Off Inclusion in Application	7
UNDERPINNING PHILOSOPHY	8
ENVIRONMENTAL PRINCIPLES ALREADY UNDERPINNING MANAGEMENT OF W4 AND W5....	11
CURRENT ENVIRONMENTAL PRACTICES ON WORLDWIDE FOUR AND WORLDWIDE FIVE	12
NON-COMPLIANCES AND REPORTING	12
WHAT WILL HAPPEN IF W4 and W5 DO NOT RECEIVE THE CONSENTS SOUGHT	13
KEY ENVIRONMENTAL AND OTHER GAINS THAT WILL NOT BE REALISED IF THE CONSENTS ARE REFUSED	13
Environmental	13
Economic	14
Social	16
Animal Welfare.....	16
CONCLUSION.....	17

INTRODUCTION

- 1 My full name is Albert (Abe) de Wolde. I am authorised by both Woldwide Four Ltd (W4) and Woldwide Five Ltd (W5), to provide this evidence on behalf of these companies, each of which is an applicant for its own distinct suite of land use consents, discharge permits and water permits. This brief has been prepared together with my wife, Janita (Anita) de Wolde, who is a fellow director, and shareholder, as this brief covers issues in which we are jointly involved as a team. She agrees with the contents of this brief and will also be available at the hearing to provide answers and clarification, along with me.
- 2 W4 and W5 are companies that operate two dairy platforms with corresponding names. They do this under existing consents and in reliance on the permitted activity for land use set out in Rule 20 of the Proposed Southland Water and Land Plan (“pSWLP”), because they are dairy platforms that were in existence before the notification of the pSWLP. As long as they do not increase cow numbers or the land area of the dairy platform to beyond what existed lawfully at 3 June 2016 (the “Status Quo”), they can rely on the permitted activity rules and their existing consents. The original resource consent applications and Mike Freeman’s planning evidence set out in more detail what consents they hold and what they are be able to do under those and the permitted activity within that Status Quo.
- 3 They will be economically viable if they continue to operate under the Status Quo, but we have identified each applicant can improve environmental, social and economic outcomes with the changes it has applied for. This is also part of future-proofing these two applicants in line with the pSWLP
- 4 Both these companies were set up by my wife Anita and me. We are the directors of both and equal shareholders of both. We set them up to ensure that they can run as self-sustaining businesses independently, while implementing our vision for a more sustainable efficient way of dairy farming. The key is that each needs to be profitable its own right, while maximising the opportunities for reducing environmental impact.
- 5 A cornerstone of the philosophy behind these companies is to find balance and equilibrium between animals, people and the environment. We believe that long term viability profitability and sustainability will be enhanced when these three factors align. That effectively means a very significant drop in nutrient loss per kilo of milk solids produced, as well as an overall reduction in nutrient losses from the dairying activities of the companies.
- 6 The ultimate goal is to have independent companies running efficient dairying operations that are far better at producing economic gains with minimal adverse effects on the environment. It is an approach that will see dairy farming with sustainable profitability and lower adverse effects on the environment well after we have ceased to have any involvement in these

companies. We have been inspired by the Dutch dairy industry: pairing nutrient loss reductions with increased productivity over a sustained period. Pivotal to that is the paradigm shift of viewing slurry and effluent as a nutrient; a crop requirement, rather than a waste product. It is in effect a very effective form of recycling; replacing artificial fertiliser with what could otherwise be viewed as waste product. In fact, it does more than the artificial product, as it also restores biomass, which artificial fertiliser does not do.

7 Because my wife and I currently do have director roles with both applicants we are able to implement changes that will increase productivity and reduce adverse effects so that the most efficient and effective use of each applicant's properties involved can result.

8 We have found that it is possible to reduce the overall environmental effects of each of these two units, while still maintaining their profitability, by increasing efficiencies and production, which will result in extra funds being available to implement significant environmental upgrades. The key is that even though cow numbers and farmed areas will increase slightly, the increased productivity will provide an economic justification for the costs involved with obtaining an overall reduction in environmental effects on each applicant's dairy unit when compared with the Status Quo. These improvements are not available under the Status Quo, because there is no economic justification to provide them.

9 The most significant of these improvements is the abandonment of IWG for 1650 cows in a catchment that is under some water quality pressure. That is however not the only advance. It will enable these companies to improve environmental performance all round, which I trust will become obvious from the evidence that will be presented.

10 If the applications are not granted, those opportunities for improvements will be lost and the two companies will be forced to continue with the Status Quo, with all that that entails. As the expert evidence will show, that will be less efficient and worse for the environment. I will provide some further explanations and clarifications of the Status Quo below, which will show that the s42A officer has misunderstood it and why that is so.

11 I also provide some more detailed comments on a few issues.

WORLDWIDE FOUR LTD

12 As indicated in my introduction, Woldwide Four Ltd is a company that owns and operates a dairy platform known as Woldwide Four. Although Anita and I are both shareholders and directors of this company, it is a business in its own right, that has to be profitable in its own right. The company was incorporated in 2015

- 13 In 2007 Woldwide Farm Ltd purchased 106 ha from O. Collie and leased 157ha from Y-Bar (but later purchased that leased block) These blocks were converted into a dairy farm.
- 14 At the time there was a very promising young couple working on Dairy 1 who were interested in progressing in the dairy industry. Keen to give them a change Woldwide Farm Ltd sold this dairy farm then known as Dairy 4 to Mayfield Partnership Ltd. My wife and I were directors of the company that was in partnership with Luijten Ltd (the other partner)
- 15 In 2011 78.53 ha was purchased by the Partnership at Gladfield Road so all cows and some young stock could be wintered on farm.
- 16 In 2015 the partnership was dissolved and sold to Woldwide Four Ltd who have continued to milk and winter the 850 cows on the parcels of land described above.
- 17 Since 2010 Anita and I as directors of the companies who have since owned it, have looked at the possibilities of building a wintering shed for the cows on this farm and have done financial sums numerous times. The only way that we could make the sums work was if we could milk extra cows.
- 18 When in 2017 the Cochran land next door came for sale and W4 was approached by WF, the wheels were set in motion for expansion that will enable the justification for the desired wintering barn and hence the application now before you.
- 19 Woldwide Four Ltd is run by Contract Milkers Ashmore Limited who own vehicles, employ own staff and set own management goals in consultation with company directors. They pay part of the farm costs and share in the milk income.

WOLDWIDE FIVE LTD

- 20 As with Woldwide Four, Woldwide Five Ltd is a company that owns and operates a dairy platform known as Woldwide Five. Likewise, although Anita and I are both shareholders and directors of this company, it is also a business in its own right, that has to be profitable in its own right. The company was incorporated in 2009
- 21 In 2015 Woldwide Farm Ltd purchased two properties; from F. Collie (148ha) and Philpott (44 ha) WF then converted this land into a dairy farm
- 22 In 2016 Woldwide Five Ltd purchased this land and dairy farm and continued farming on the land described.

23 Woldwide Five is run by a TEAL management team. Teal management is an organisational structure that is based on self-management versus a hierarchical power system. This means that the whole TEAL team of 5 people is responsible for the day-to-day management of the dairy unit. For communication purposes we do have a TEAL leader in “charge” and his name is Nathan Andrews.

OTHER WOLDWIDE COMPANIES



24 Above is a table above that provides an overview of the various companies in which Anita and I are involved. There are three more separate dairy farming companies called Woldwide Three Ltd, Woldwide One Ltd and Woldwide Two Ltd. These are all fully independent Limited Companies, with their own set of accounts and independent business arrangements. They do have arrangements with Woldwide runoff for grazing of young stock and cull cows, and it has arrangements with Woldwide Farm for contracting, logistics, feed supply and advisory services. All these arrangements are run on a strictly commercial basis and all dairy farms are free to pursue a better deal with a third party. Woldwide Three Ltd is still fully consented until 2026 and no intensification or other changes are proposed, so no new consent is sought. Woldwide One and Woldwide Two also have consent applications pending.

- 25 Woldwide Runoff is a commercial grazing business, grazing young stock in return for a weekly grazing fee. Animals are accepted there and sent back to the dairy farms after two years under strict, commercial standards. It also has forestry interests for the log market and for Carbon Credits and it operates a rock quarry. Contrary to what was put in the s42A officer's report and the public notice, there has been no application by Woldwide Runoff for any land use consents as part of the current suite of applications. The only applicants relevant to this hearing are Woldwide 4 and Woldwide 5.
- 26 Woldwide Farm Ltd owns various other parcels of land where it grows grass and winter crops and sells that to dairy farmers. It has arrangements with Woldwide One, Two and Three Ltd, where it removes the slurry from the storage facilities adjacent to the free stall barns and applies it to its own land in exchange for the value of the nutrients. The effluent from the milking sheds is not concentrated enough to be economically transported and is left outside this arrangement. Woldwide Farm's non-direct farming income includes contracting (pasture renewal, slurry cartage, arable, mowing, lane and farm maintenance, on- farm cartage), logistics (concentrates from Bluff, baleage, hay, straw, grain), it trades feedstuffs and farm supplies (grain and other feed stuffs), and it provides advisory, accounting and educational services.

Regarding Woldwide Five 45ha Collie Block

- 27 When in 2015, the land use consent AUTH-20157537-04 was granted to establish a dairy farm on the property (Collie and Philpott) it also included a 45ha block that the previous owners (Collie) wanted to keep in ownership for another 5 years. A sale and purchase agreement was drawn up between Woldwide Farm Ltd and Collie's to purchase the remaining 45ha in March 2020. It was always planned from the beginning to milk off that and hence it was part of the consents and a loan to purchase that land was granted on the basis that it would become part of the milking platform. When the milking shed was finished and the conversion of the main two blocks (excluding the 45ha), we were encouraged by Environment Southland and Fonterra to sign off the conversion so that milk collection could begin. We did as we were asked not realising at all that we in fact were surrendering the 45ha that was not converted yet (since we did not own it yet). On the document that I signed was actually a list of actions still to be undertaken on the 45 ha, reconfirming the perception that it was understood that the 45 ha would be converted once it "came in". Removal of this consent puts us in great difficulty; financially and due to the fact that the conversion planning was undertaken with the 45 ha included. The water pipes do not match and the lanes do not connect. We seek land use consent under Rule 20(e) as per explained in Landpro report point 3.2 in recognition of the fact that the land use consent was previously approved.

Regarding Woldwide Run-Off Inclusion in Application

- 28 As indicated above, as a director of Woldwide Runoff Ltd, I can confirm that it has not lodged an application for land use consent. The applications that were lodged were lodged only by

Woldwide Four Ltd and Woldwide Five Ltd. The only reason those applicants agreed to include in their applications land use consent for this block is because the processing officer had indicated that the other applications would be rejected as incomplete under s88(3) if they did not include them. I know that we could have objected to that rejection under s357 and then appealed to the Environment Court under s358 if that was not successful, but the timeframes and procedures for that would have meant months of delay, extra cost and uncertainty, which the applicants could not afford. It was clear that even if the blocks were included that would not change the fact that overall there would be an improvement, so we simply authorised WW4 and WW5 to extent their land use consent applications in this way, to avoid delay.

29 Having read the letter that our lawyer Mr Van der Wal wrote to the processing officer on 22 August 2019 I am very strongly of the view that Woldwide Runoff's block is not part of the same landholding as WW4 or WW5. Each are separate properties and businesses. Woldwide Runoff is situated more than 20 km away; it is not a dairy farm and it is in a completely different catchment. Mr Freeman's planning evidence and Mr. Van der Wal's opening legal submissions will address this issue further. I can confirm that if the Panel agrees with Mr Van der Wal's interpretation of the term "landholding", both applicants will reduce their applications by removing the aspect that seeks land use consent for the Woldwide Runoff block.

30 I also want to make it clear that the applicants understand that if they are offering mitigation or positive effects on the Woldwide Runoff block to justify the grant of their land use consents on their own land, then they will need to enter into arrangements with Woldwide Runoff Ltd that make sure that that mitigation remains in place or find some other mitigation instead.

UNDERPINNING PHILOSOPHY

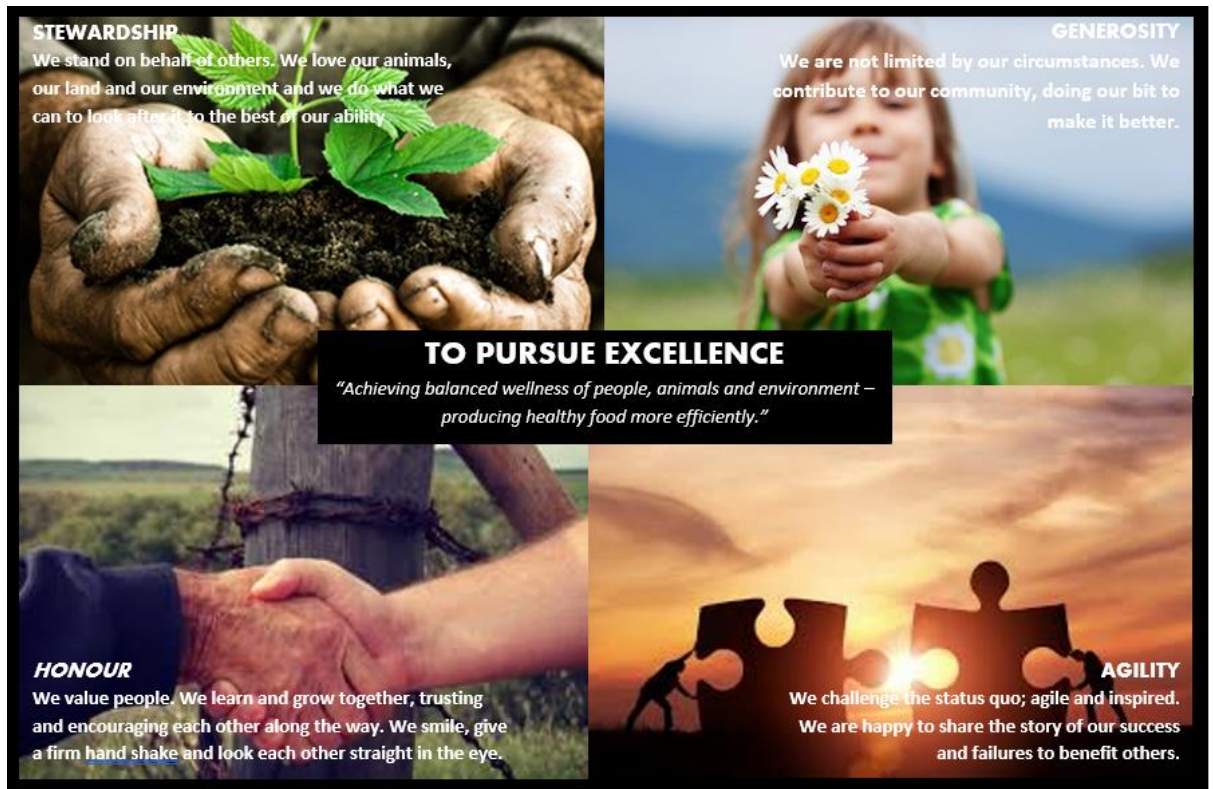
31 We (Anita and I) started farming in the Netherlands in 1985 on my family's farm. The location of the farm was not ideal - an urban zone- and there were no growth prospects, so we decided to emigrate to New Zealand 1991. We chose New Zealand for its pasture-based farming systems. Our desire even then, crossing the world with our young family was to blend farming systems from around the globe into an optimal, sustainable mix. We purchased our first farm (Now Woldwide One) 1992 and performed one of the first dairy conversions in the area.

32 This sustainability model has enabled us to expand our holdings over the last 27 years, enabling us to add several more companies that are operated accordance with our ethic. Central to this in our opinion, is finding a balance between economic, environmental and social sustainability, while ensuring sound animal welfare standards old fashioned farming concepts of stewardship or kaitiakitanga that have sustained farming systems for hundreds of years in other parts of the world.

33 Environmental Sustainability has always been a key driver how our companies are run. This is demonstrated by the following initiatives of companies we own or by us as directors:

- 33.1 1994 Purchase of a runoff block at Merrivale (Woldwide Runoff) to take pressure off the dairy farms in a sensitive Nitrogen area (among the first doing that)
- 33.2 1995 Commence planting pine forest on the hills at Merrivale (over 100 ha planted)
- 33.3 1996 60 ha Beech forest placed under a Sustainable Management Plan
- 33.4 2005 First free stall barn in Southland built (On Woldwide Two)
- 33.5 2005 Import of a Joskin manure spreader (first one New Zealand) with flotation tyres and a steering tandem to minimise soil compaction
- 33.6 2006 I studied the effects and wrote a dissertation on the impacts of wintering indoors versus Intensive winter grazing (for a Lincoln Professional Master's Degree)
- 33.7 2007 Winners of the Lincoln University Foundation Farmer of the Year Award for innovation
- 33.8 2008 Purchase of a central block (Horner) for feed harvesting and nutrient exchange
- 33.9 2008 Designed and built a scraper system to reduce water use in the new milking shed at W4
- 33.10 2007 and 2010 Built two more Free stall barns (Woldwide Two and -Three)
- 33.11 2007 I was part of the initiating board of the Southland Demonstration Farm (currently Southern Dairy Hub), providing a platform for dissemination of information and farming knowledge to the local farming community and also accepted a role in the Southern Dairy Development Trust
- 33.12 2008 Covenanted the Donut a combined project with Heddon Bush School, preserving a stand of Totara trees on the Horner bock and providing educational opportunities for the school children
- 33.13 2010 I accepted the role of Board Chair for the Southland Demonstration Farm
- 33.14 2012 Import of a manure spreader with a trailing shoe machine, minimising nitrogen volatilisation and odour
- 33.15 2013 Anita and Abe Southland Supreme Winners of the Balance Farm Environment Awards.

- 33.16 2014 installation of solar technology on WoldWide Three
- 33.17 2015 investment by Woldwide group companies in GPS technology on their tractors to provide manure proof of placement
- 33.18 2016 Invested in new machinery to enable the feeding of fresh grass to housed cows late autumn to minimise nitrogen loss and silage leachate risk autumn silage
- 33.19 2016 Decision to work towards wintering young stock away from nutrient-loaded areas and ultimately housing all our cows indoors.
- 33.20 2017 Securing of a lease block at Orawia that would enable the wintering of young stock outside the Heddon Bush area (after a positive scoping visit with ES consent staff)
- 33.21 The current applications are part of attempts to obtain the resource consents required to enable the cessation of IWG of our adult cattle and to winter our young stock outside the (nitrogen sensitive) Heddon Bush area.
- 34 These initiatives were not the result of rule changes, nor were they necessarily the best way to improve profitability. Rather, they were driven by the desire to use innovation to find ways of enabling improved environmental stewardship by increased production efficiency and better technology. There would have been far simpler perfectly lawful, but less environmentally sustainable ways of making more money with the assets owned by the various companies involved. The proposals in front of you now are a continuation of that theme
- 35 I provide below the Woldwide Mission Statement- demonstrating key pillars that underpin the approach of the group of companies of which Anita and I are directors.



ENVIRONMENTAL PRINCIPLES ALREADY UNDERPINNING MANAGEMENT OF W4 AND W5

- 36 As proof of W4 and W5’s track record of using innovation to improve efficiency that in turn enables improved environmental stewardship and better environmental outcomes while maintaining economic viability, I have set out the principles that these two companies already apply.
- 37 High energy starch feed is fed to the cows in order to balance the diets of the herds of both applicants.
- 38 This feed enables full utilisation of the protein in the grass, which assists to increase nitrogen efficiency and reduce methane emissions
- 39 Per- cow production is around 6500 litre per lactation on both W4 and W5 (in contrast to NZ average of 4200), enabling more efficient production and a higher allocation of consumed feed towards milk production
- 40 Milk production is more than 21000 litres of milk per hectare on both farms versus a Southland average of 12000 l. This makes for lower nutrient losses per litre produced.
- 41 The cows on Woldwide Five are equipped with individual “fitbits” and their individual health and activity are monitored around the clock- improving health and welfare and efficiency
- 42 The milking shed yards on Woldwide Four and Woldwide Five are cleaned out daily by mechanical scrapers, minimising water usage and effluent problems

CURRENT ENVIRONMENTAL PRACTICES ON WOLDWIDE FOUR AND WOLDWIDE FIVE

- 43 R2 heifers arrive before winter from Woldwide Runoff and are intensive winter grazed on Fodder Beet crops in the Heddon bush for each applicant by Woldwide Farm at a weekly rate.
- 44 Baleage requirements is met on the individual dairy platforms on Woldwide Four and Woldwide Five or purchased from Woldwide Runoff
- 45 Mixed age cows are also wintered on Fodder Beet crops, from the moment of drying off until about a week before they are due to calve. Both applicants follow the same procedures; the dairy teams of the individual applicants are responsible for stock care.
- 46 Calves stay on the dairy farms until they weigh a minimum of 90 kg and then send to the grazier. In both cases the grazier is Woldwide Run-off. This procedure and the standards are identical for both farms.
- 47 Both applicants believe that significant improvements can be made by constructing free stall barns and by the cessation of FBIWG. Woldwide Five has some lighter soils along the river where the mud does not get quite as deep, but nitrogen loss would be worse there. Woldwide Four has very heavy soils throughout and animal welfare and soil compaction are severely compromised anywhere on the farm (and the Gladfield block) under FBIWG systems.

NON-COMPLIANCES AND REPORTING

- 48 The Council officer's report contains a list of issues she has identified. We have to accept that there have been some minor oversights in the past three or so years. These have been caused by two main issues:
- 48.1 The history behind the processing of the initial applications for these properties and the way the current applications have been processed has made a lot of this a bit of a moving feast, where things had to be changed and adapted;
- 48.2 Anita and I no longer run these properties, which have become their own separate business units, so we no longer have the oversight and involvement we might have had originally when we were more directly involved. We have lost sight of some of the details.
- 49 Although I am relieved that none of these issues have led to any environmental harm, we both accept that these oversights fell well short of the high standard that goes with the ethic I have just outlined. As a result, we have decided to ensure that both companies have an annual audit of their environmental compliance, which will be provided to Environment Southland at the end of each season. Mr Freemans planning evidence has set out a condition that the applicants are proposing in order to ensure this is met. This will introduce a discipline that will

ensure that independently of our involvement, both companies will have to remain fully on top of all compliance and reporting requirements.

WHAT WILL HAPPEN IF W4 and W5 DO NOT RECEIVE THE CONSENTS SOUGHT

50 If Woldwide Four and Woldwide Five would be unable to receive the consents they seek, they would have to do what they are able to do within the Status Quo as described by Dr Freeman's evidence. I comment more below on what that means in terms of lost benefits and opportunities to provide better environmental mitigation.

KEY ENVIRONMENTAL AND OTHER GAINS THAT WILL NOT BE REALISED IF THE CONSENTS ARE REFUSED

51 There are several key positive outcomes that Woldwide Four and Woldwide Five pursue by this proposal - and that will not be realised if the consent applications are refused:

Environmental

52 If these consents are not granted WW4 and WW5 would have to continue to rely on intensive winter grazing to feed their stock in winter. Because the soils are inundated with oily weed seeds related to brassica's, Fodder beet would be the preferred option. 850 cows on W4 and 800 cows on W5 would therefore still rely on FBIWG. Woldwide Four and Woldwide Five would require about 25 ha of Fodder Beet with 1150 bales of baleage each. For W5, selecting the paddocks for these crops on the lighter soils along the river would be the preferred option from an animal welfare, soil compaction and sediment loss point of view, but nitrogen loss would be a lot higher. For W4 selecting the paddocks on the heavier Braxton soils would not be as bad from a nitrogen loss viewpoint, but it would be very bad from a soil compaction, sediment and phosphorus loss point of view. It would also have animal welfare effects, which I address elsewhere below.

53 One of the significant key motivations behind the move away from the fodder beet Intensive Winter Grazing system (the **FBIWG System**) is the damaging impact it has on the environment. This applies for both applications.

54 The FBWIG System causes the soil to compact. Soil compaction leads to increased overland flow, increased phosphate loss, and an increase of *E. coli* contamination in waterways. It has also been established that groundwater and waterways become vulnerable to contamination during winter leaches. This contamination arises when nitrogen is deposited below the 'root zone' before a new crop can be established.

55 Additionally, the volume of chemicals required to harbour and develop a good Fodder Beet Crop is astronomical. For example in order to grow 60ha of Fodder Beet Crop you would use \$47000 on chemicals. The impacts that this volume of chemical use can have on one's health is worrying. These health worries are becoming increasingly topical due to the high level of cancer rates that are recorded in rural areas and among our rural peers.

- 56 Other environmentally damaging outcomes that result from the practice of the FBWIG system are as follows:
- 56.1 The ultra- fine seed bed required for successful fodder beet cultivation is very prone to erosion and soil loss before the crop is established.
 - 56.2 Baleage is required for a balanced diet, and it takes 80 metres of plastic to wrap one bale (W4 and W5 combined would need 2300 bales annually on their Fodder Beet crops; 184 km plastic).
 - 56.3 Extra carbon is released to the atmosphere due to ploughing and cultivation
 - 56.4 Nitrous Oxide is released to the atmosphere due to anaerobic mud
 - 56.5 Cows wintered outside requiring 60 % more feed to maintain body temperature- requiring more land for the same stock numbers and wasting energy and nutrients.
 - 56.6 Cows wintered on Fodder Beet struggle to reach their full production potential, reducing feed efficiency throughout lactation.
- 57 The reduction in cow numbers would make the lease of the Merriburn block unviable, because each applicant would have less young stock. There would be 100 ha spare in total on W4 (including Gladfield), W5 and Woldwide Farm however, that would be utilised for IWG R1's- trucked in from Merrivale. Woldwide Farm would probably also winter empty cows and/or bulls to try to utilise all its land effectively at the reduced dairy stock numbers of the various applicants. There would be no need for a silage block because our cows would eat crops in winter.
- 58 There is no guarantee that the Merriburn block will be run under the same environmentally sustainable practices once W4 & W5 exit the lease and another lessor is found
- 59 If the first stage of the two consents would not be granted either, all the FBIWG would need to be done repeatedly on the Cochran and Gladfield road blocks and on the Collie block that we are committed to purchase. Especially the Gladfield road block and the Cochran block are probably the worst, heaviest places on the farm for repeated IWG. The Gladfield road block is very close to the Drummond peat bog; an environmentally sensitive area.

Economic

- 60 W4 would be farming 150 fewer cows; lowering production by 87000 kg MS (580 kg MS/cow).
- 61 The 850 cows that will be wintered outside by W4 will not produce as much compared to being inside (shorter lactation season costing 60 kg MS per cow). Another 51000 kg MS gone. Total loss of production 138000 kg MS, \$897.000 turnover and \$276.000 profit lost for W4 (worked on \$6.50 milk price and \$2 margin).

- 62 W5 would be farming 130 fewer cows; lowering production by 75400 kg MS (580 kg MS/cow).
- 63 The 800 cows that will be wintered outside by W5 will not produce as much compared to being inside (shorter lactation season costing 60 kg MS per cow). Another 48000 kg MS gone. Total loss of production 123.400 kg MS, \$802.100 turnover and \$246.800 profit (worked on \$6.50 milk price and \$2 margin).
- 64 Our projections have shown, however, that most of the extra income is required to cover the interest, depreciation and maintenance costs of the investments in extra infrastructure (\$3.5 MLN per barn); not a lot of extra profit would be made by the applicants under the new scenario.
- 65 Also, it needs to be stated that without the increase in stock numbers and milk income it would be impossible for the applicants to make the required investments without jeopardising the continuation of their operations
- 66 The financial situation has deteriorated significantly for both applicants since the inception of these plans over three years ago
- 66.1 The 425000 Fonterra shares owned by Woldwide Four Ltd devalued from about \$6.50 to about \$3.25 each, losing a total value of approximately \$1.4 MLN
- 66.2 The value of the land holding owned by Woldwide Four has devalued by approximately \$ 6000 per ha, from \$43000 to \$37000, or approximately \$1.9 MLN in total
- 66.3 The 270000 Fonterra shares owned by Woldwide Five Ltd devalued from about \$6.50 to about \$3.25 each, losing a total value of about \$877.500
- 66.4 The land holding owned by Woldwide Five Ltd has devalued by approximately \$ 6000 per ha, from \$43000 to \$37000, or approximately \$1.15 MLN in total
- 66.5 The direct costs of this consent procedure will be close to a million dollars. It is difficult to attribute the individual costs to each Company at this stage, but a half to W1/W2 and a quarter to W4 and a quarter to W5 seems a good estimate, leaving about ¼ of a Million Dollars for each applicant. We have no idea how much the Council's processing and hearing costs will add to that.
- 66.6 Trying to navigate the various separate operations, their feed, stock, labour and maintenance requirements around shifting timelines and erroneous information throughout this application procedure has cost well in excess of a million dollars when the losses incurred by each company are added up. The same applies here, it is difficult to accurately allocate this to the individual companies at this stage, and we

might only be able to do that once the outcome of this application is known. A split four ways; 50 % to W1/W2 and 25 % to W4 and 25 % to W5 seems a fair split with what is know at this stage. All companies are equally affected by unused feed that is stacked up and plans that need to be changed last minute. Only W3 is more or less unaffected by it all.

66.7 While it can be argued that the value of our real estate might self-correct in the future, the costs of this consent procedure are real money, lost to the ability to improve environmental outcomes for each individual applicant.

67 Crop wintering is very costly on tractors and machinery increasing maintenance costs and decreasing lifespan.

68 The Fletts would have to find someone else to lease their block at Orawia because the applicants would not be able to utilise all the produced feed and because there would be land in the Heddon Bush area that they could not milk off. They would have to find another use for it.

Social

69 At least two fewer persons would be employed by the two applicants (potentially fewer kids at Heddon Bush school)

70 The affected farm employees would face muddy hardship for 70 days of the year vs being dry and comfortable inside a free stall barn

71 We would not be able to guarantee sound animal welfare standards on these unsuitable soils.

72 W4 and W5 employees would feel further stigmatised by negative sentiment around farming and an inability to do something about it.

73 It takes 12 kg MS annually per year per person to bring a positive contribution to someone's health> nearly 21.700 people would not get the benefit of dairy nutrition because of the lower milk production on Woldwide Four and Woldwide Five combined

74 About \$1.1 MLN of costs (turnover- profit) annually would not going be spent on equipment and farm requirements by Woldwide Four and -Five in total

Animal Welfare

75 IWG practices and effect on animal welfare are very much under scrutiny right now. As indicated above, selecting the paddocks on the heavier Braxton soils would not be as bad from a nitrogen loss viewpoint, but the applicants could not ensure that animal welfare standards would always be acceptable to the wider public (and to us!). Recommendation is to take animals to dryer ground in adverse weather conditions, but especially on W4 there is no

dry ground when it gets wet. In August 2015 the W4 cows lost 70 kg each in one month due to stress caused by weather conditions and inability to find a dry spot to lie down.

- 76 Specific animal welfare issues associated with IWG are:
- 76.1 Cow lying times would be challenged during wet spells
 - 76.2 Bovine hardship during driving rain and snow events
 - 76.3 Both planned barns will also have facilities for the cows to calve in, avoiding cows calving in mud and calves dying of hypothermia- cows would not be able to benefit of this.
 - 76.4 The soils are not suitable for wintering; mud has been at least 60 cm deep in places on the Cochran and Gladfield blocks in previous years (as viewed by present ES consents staff)
 - 76.5 Fodder Beet can cause acidosis with the risk of large numbers of cows dying during introduction to the crop
 - 76.6 Fodder Beet wintering can cause liver damage with lesions and internal bleeding
 - 76.7 Fodder Beet wintering can cause Phosphorus deficiency in cows (creeper cows) like milk fever and osteoporosis when wintered on crop repeatedly
 - 76.8 Cows ingest a large quantity of soil with the beet, not conducive to herbivores
- 77 The proposed new system on each platform has been developed in direct response to these concerns and we believe it performs better and ensures better economic, environmental, and health outcomes on each platform for cows and our communities

CONCLUSION

- 78 We, on behalf of the applicants W4 and W5, really believe that for each applicant, getting the consents for which it has applied provide for a big step forward, because it allows them to make improvements in environmental, social and economic sustainability (all of them; not one or two out of three) while also improving animal welfare and future proofing our operation in line with the WLRP
- 79 The proposal therefore involves a lot of innovation and “thinking outside the square”. As a result, it stands to reason that it does not fit neatly within the models and established ways of assessing proposals that do not perhaps try to employ this degree of innovation. In that sense we can appreciate that it will have presented real challenges for the processing officers, because it does not fit the same rules and assumptions as less innovative proposals.

- 80 Nevertheless, new or different is not necessarily bad. On the contrary, that is how progress is made. We do want to stress that it is important that progress and better ways of doing things are not excluded simply because they are different and do not fit existing paradigms. Einstein said: “We cannot **solve our problems** with **the same level of thinking** that created them.” We trust that the hearing process will be flexible enough to allow a broad “big picture” analysis that enables us to make these important positive steps in sustainability and good practice while maintaining profitability and the economic benefits to the community.
- 81 Looking beyond our proposals, we believe the wider issue for our industry is the need to be able to structure farming operations around the required investments in environmentally sustainable infrastructure. If there is no increase in productivity or profitability, loan applications will be challenging and innovation and investment will grind to a halt.
- 82 We invite your scrutiny, and we hope that you can agree with us that the consent we seek would result in key improvements and a sustainable way forward for our people, planet, animals and profit.

Dated 19 September 2019

A handwritten signature in black ink, appearing to read 'Abe de Wolde', with a large, stylized initial 'A'.

Abe de Wolde (for Janita and Albert de Wolde)