

**From:** [Josie | Pye Group](#)  
**To:** [Plan Hearings](#)  
**Cc:** [Michelle Pye | Pye Group](#)  
**Subject:** Proposed Plan Change 7 to the Canterbury Land and Water Regional Plan - Pye Group Evidence  
**Date:** Thursday, 16 July 2020 12:52:23 pm  
**Attachments:** [Pye Group Hearing Evidence - Submitter PC7-352.pdf](#)

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Hi,

Please find attached Pye Group's (Submitter Number: PC7- 352) Hearing Evidence.

If there are any issues, please let me know.

Thanks,  
Josie

**Josie Hampton** | Environmental Compliance and Enhancement Manager | **Pye Group Limited** | 251 Rise Road | RD 26 | TEMUKA 7986 | Mobile 0210 266 9919 | [www.pyegroup.co.nz](http://www.pyegroup.co.nz)



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## **BEFORE INDEPENDENT HEARING COMMISSIONERS**

**IN THE MATTER** of the hearing of submissions on Proposed Plan  
Change 7 to the Canterbury Land and Water  
Regional Plan

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### **HEARING EVIDENCE OF PYE GROUP**

Including companies: Barnscroft Dairy Ltd, Cloverdene Dairy Ltd,  
Dialan Dairy Ltd, Grantlea Dairy Ltd, Long Lane Farm Ltd, Pye Group  
Ltd, South Park Farm Ltd, South Stream Dairy Ltd, Straven Dairy Ltd,  
collectively known as Pye Group.

**14 July 2020**

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## **Introduction**

- 1 Pye Group is a family owned agricultural business comprising of contracting, dairying, cropping, grazing and transport operations based at 276 Rise Road, Temuka. Pye Group is owned by Leighton and Michelle Pye who, through different ownership structures, have farmed in Canterbury for the last 17 years.
- 2 Pye Group farms approximately a total of 6,504 hectares in Canterbury. This consist of 2,744 hectares in dairy farms, 2,273 hectares in arable, 507 hectares in dairy support and 980 hectares in pastoral support farms.
- 3 This total area farmed of 6,504 hectares is made up of different land ownerships including: 5,874 hectares of freehold land owned by Pye Group, 103 hectares of private landowner lease, 247 hectares of Environment Canterbury grazing licences, 81 hectares of Department of Conversation grazing licences, 89 hectares of Land Information New Zealand licence to occupy land and 110 hectares of AMF rights.
- 4 Pye Group is made up of different legal entities with a total of 90 consents held by 9 different companies with land in different nutrient allocation zones including Red, Orange and Green and land in different Canterbury water management zones including Orari-Temuka-Opihi-Pareora and Ashburton.
- 5 Irrigation water for the farms is sourced through a mixture of groundwater takes, surface water takes and irrigation scheme including: Acton Irrigation, Mayfield Hinds Valetta Water and Rangitata South Irrigation. Stock water and dairy shed water is sourced from groundwater takes.
- 6 Pye Group employs a peak number of approximately 70 staff members. At least 50 of these are full time employees with another 20 employed for 4-6 months of seasonal work. This number does not include staff who are employed by our contract milkers as they have their own business employment structure. If this number is included, it could be said that Pye Group employs and provides an income for approximately 120 people in the Canterbury area. In addition to this Pye Group supports a large number of local businesses through normal farm working expenditure and capital projects.

- 7 Pye Group value their staff immensely with the current longest serving staff member being here for 30 years which can be seen alongside with other long serving staff members on the 'Legends Board' which is proudly displayed in the staff tearoom
- 8 Pye Group are largely involved in the local community and the wider agriculture industry. With staff mid-year parties, Christmas parties, local fundraising for those in need, supporting the Canterbury West Coast Air Rescue Trust, having stands local A & P shows, providing career experience for students by attending local secondary school career expos, work experience programmes with Pye Group and sponsoring local sports teams.

Michelle was elected for the Fonterra Shareholder Council in 2016 to current, to represent Fonterra Farmers in the South Canterbury area. Leighton and Michelle also were one of three finalists for the 2020 New Zealand Fonterra Responsible Dairying awards. They were also the South Canterbury Chamber of Commerce Business Excellence Awards Supreme Winners in 2017.

### **Dairy Farms**

- 9 Pye Group farms 2,744 total hectares with 2,555 hectares of this being effective. 2,486 hectares is irrigated over the months of October to March (including the shoulder seasons of September and April if rainfall has been insufficient to bring soils up to field capacity).
- 10 There is a total of 9,000 milking cows milked through 10 dairy sheds. We are currently focussing on our youngstock and breeding programme to ensure we have a more efficient milking herd with the aim to reduce our overall stocking rate over time.
- 11 We bring supplementary feed onto the farms at different times of the year to fill feed deficits. This includes feeding grain and palm kernel expeller through in shed feeders. Harvested fodder beet is used to transition cows onto winter fodder grazing to ensure their digestive system is used to the different nutritional contents of the crop before they go onto the crop full time. Grass/oat silage along with straw is also fed while cows are grazing pasture during colder months when pasture growth is low.
- 12 There is a range of irrigation infrastructure across all farms including pivots, rotorainers, towable sprinklers and a small amount of border dyke irrigation. Six of our pivots have variable rate installed on them which allows us to avoid irrigating critical source areas and non-

effective areas such as lanes. The majority of our farms have their own irrigation storage ponds which are filled using irrigation scheme water to increase irrigation reliability during the drier summer months.

- 13 There is a range of soil types across all the dairy farms therefore soil moisture monitoring technology has been installed which shows us soil moisture levels and soil temperature in hourly intervals. This allows us to make smarter irrigation scheduling decisions in real time using the records and prediction tools such as the weather forecast. This increases our irrigation water efficiency and ensures we are not over irrigating.

We also have our own weather station which records air temperature, wind speed, evaporation rates, rainfall, humidity, wind direction and atmospheric pressure.

- 14 One of our dairy farms is a research partner farm of the DairyNZ 'Meeting a Sustainable Future' project in the Hinds catchment. This project focuses on the necessary changes needed on farm to meet environmental regulations while still running a resilient and profitable business. It involves partner farms meeting along with technical experts to discuss the science and solutions to meeting new environmental regulation. We are currently in Year 1 of the project and have received a report from DairyNZ with recommendations to implement specific changes which will reduce our nutrients losses while maintaining farming profits. We are very excited to be a part of this project and look forward to seeing some results.

### **Arable Farms**

- 15 Pye Group farms 2,273 total hectares with 2,193 hectares of this being effective. 2,034 hectares is irrigated over the months of November to March (this depends on what crop is being irrigated and when it is to be harvested). The amount of water applied to each crop varies due to different crop water demands.
- 16 Pye Group produces a mixture of crops and vegetables across this area. Wheat and barley are grown and harvested for the dairy farms to be used as feed on farm. Clover and ryegrass seed are grown under contract to seed suppliers. Oats and Lucerne are grown and cut to make silage which is either feed out to dairy cows and replacements or sold. Potatoes are grown and supplied to McCain Foods in Washdyke to be processed into fries for both domestic and export supply. Carrots are grown and washed at one of two carrot washing facilities on Pye Group farms. These carrots are then juiced at JPNZ in Washdyke with the majority of product

exported to Japan. Other speciality seed crops such as radish and peas are also grown on farms to be sold.

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### **Dairy Support**

18 The 507 hectares of dairy support land is used to provide cows with sufficient feed over the winter months before calving back at the dairy farms and feed for replacement milking cows.

19 The two main fodder crops planted are fodder beet and kale which is grazed over the months of May, June and July.

20 The predominant crop rotation goes from grass to fodder beet or kale, then into oats which are cut off carried off the farm to make supplementary feed, and then back into either fodder beet or kale. One our support blocks is currently growing maize for silage.

21 While cows are grazing fodder crops, supplementary feed such as straw and silage is fed out to ensure they are getting a sufficient amount of dry matter each day and to include some fibre in their diet.

### **Pastoral Support**

22 The 980 hectares of pastoral land is used to graze young stock which either become dairy cow replacements or are sold to the works. We also graze breeding bulls on this land.

23 This land will vary year to year as it is used to rotate winter fodder crops through to avoid soil structure damage and nutrient losses.

## **Nutrient Management**

- 24 All of our farms have a Farm Environmental Plan (FEP) in place which allows us to identify environmental risks and put a plan in place to manage and monitor the risks. The FEP is an important tool to each farm and it is forever evolving to ensure all farm management areas are included. These plans are updated each year and actions are put in place that the farm manager and Pye Group work together to achieve within a certain time frame. These FEPs are audited by a certified independent auditor who gives the farm a grade and new actions that need to be achieved.
- 25 All farms have a nutrient budget completed each year on OverseerFM by a certified nutrient management advisor which allows us to track our nutrient losses each year. These nutrient budgets also allow us to look at each farm in detail and assess where changes can be made to different farm management areas such as fertiliser, effluent, irrigation, stock etc, to reduce nutrient losses even further.
- 26 All farms are soil tested each year to ensure nutrient levels are within optimal levels and so we have the best data to make informed fertiliser decisions. Fertiliser and lime plans are produced each year by a fertiliser specialist. These plans are then uploaded into Hawkeye which is a web base programme which the farmer can order fertiliser through, keep a record of what has been spread, mark exclusion zones where fertiliser is not to be spread plus many other functions. This combination of soil test data, fertiliser plans and a web-based management system gives us the ability to ensure the correct amount of fertiliser is being spread in the right area and at the right time.
- 27 Irrigation applications are recorded throughout the irrigation season and bucket tests are completed to test the actual application depth and distribution uniformity so we know exactly what the irrigator is applying and if we need to address any issues. Irrigators are also serviced annually by a specialist technician and a maintenance record is kept. Farm managers attend the irrigation management and operator course with Irrigation New Zealand to ensure they are well educated around the management and operation of irrigators.
- 28 Effluent is utilised on the dairy farms as a nutrient supply and is spread out of farm via irrigators. Effluent applications and location applied to are recorded. Effluent systems are well maintained to reduce the risk of infrastructure failure.

29 We are currently rolling out winter grazing and wet weather management plans for farms to ensure there is extra management in place during the winter months where nutrient losses can be higher and accumulate in the soil.

30 All farms have stock excluded waterways and plantings are planted to increase stock shelter, biodiversity and protection of waterways.

### **Environmental Actions**

31 Below are some of the measures (mostly voluntary) we have taken over the last 5-10 years to support enhanced environmental outcomes.

- Created a new full-time role of Environmental Enhancement and Compliance Manager - \$100,000 per annum.
- Created another full-time role by employing a gardener responsible for establishing new on farm plantings including extensive riparian planting of waterways - \$50,000 per annum excluding cost of plantings.
- Consent monitoring and compliance including; application and monitoring of all resource consents, using CSVue to manage compliance with our numerous consents, preparation and auditing farm environment plans for every farm, telemetry monitoring of all irrigation takes and soil moisture probes to ensure we are not over watering. Total annual costs excluding hardware - \$140,000 per annum.
- Installing flow meters and telemetry monitoring on 42 water takes at an approximate cost of \$380,000.
- Installing 25 sets soil moisture probes at an approximate cost of \$75,000 and we have plans to install another 25 sets.
- Investing in two dedicated fertiliser spreaders with proof of placement and variable rate technology ensuring fertiliser and urea is applied in the right place at the right rate - \$690,000 capital cost plus annual charges per year of \$5,500 per year.
- Upgraded old inefficient border dyke and travelling gun irrigation systems to pivot irrigation - approximate cost \$3m.
- Upgraded existing effluent ponds - \$200,000.
- Created a biodiversity area in conjunction with DOC, ECAN, and TDC to protect the common skink – approximate cost \$20,000.
- Focused on increased cow production so we can reduce cow numbers over time - \$485,000 increased expenditure on animal health and breeding over a year.



- Taking part in a DairyNZ programme targeted at reducing N leaching over time – paid for by DairyNZ levies that every farmer pays for.
- Started using N-protect to reduce Nitrogen leaching – cost neutral.
- Installed variable rate irrigation on six pivots at an approximate average cost of \$70,000 per pivot. Ideally, we would like to install these on all of our irrigators (approximately 70).
- Invested in four irrigation schemes including Rangitata South Irrigation Scheme to reduce reliance on groundwater. The cost of Rangitata South Irrigation Scheme to 23 families farming 13,000 hectares was approximately \$135m. Our personal cost of investing in the four different irrigation schemes is at least \$9.4m plus approximately \$3.75m on irrigation storage ponds. In addition to this we pay for annual irrigation charges per annum of \$2,011,000.

### **Concerns with Proposed Plan Change 7**

- 32 The proposed plan change fails to recognise the investment and positive on farm actions that farmers have implemented to date. This investment is currently not reflected in the current water quality state due to the delayed lag effect of nutrients moving through soil and water which can be anywhere between 50 – 200 years. This puts farmers in an impossible position of having to continue to make nitrogen reductions on top of what they have already done.
- 33 Mitigation strategies become limited which could put farmers in a negative financial position which has undesirable flow on effects for social and economic aspects for rural communities.
- 34 We accept that all New Zealanders, including farmers, need to play a part in protecting and enhancing water quality. However, under current Environment Canterbury policies we have already made substantial changes, are highly regulated and have nutrient reduction targets and/or nutrient limits to meet.
- 35 We have concerns regarding the timeframes and deadlines which are set with in the proposed plan and do not think the timeframes will be achieved due to limited staffing abilities within regional councils. Especially with the recent announcement of the Essential Freshwater Package, regional and district council's resources are going to be stretched as they try to implement, manage and monitor these regulation changes.

- 36 For our farming business, the majority of our concerns in the detail of the plan change relate to the commercial vegetable growing proposed rules and policies. Ideally, we would like to see any reference to commercial vegetable growing be removed from Plan Change 7. We fail to see how some of the proposed changes are going to be applied in a practical manner. We feel that the proposed rules have been written without having a correct understanding of how commercial vegetable growers form part of much larger farming operations.
- 37 We believe that commercial vegetable is already regulated and managed by existing policy, land use consents, nutrient budgets and farm environment plans.
- 38 We have concerns surrounding the proposed 'baseline area' to be used as an area limiting strategy. Too many questions remain unanswered as to how this area would be demonstrated, how it would be managed at a farm level and how it would be monitored from a regulatory compliance perspective. From our point of view, we cannot see how this would work.
- 39 There are no clear guidelines surrounding what provisions would be in place if an enterprise has areas of land under a nutrient discharge consented irrigation scheme and area under an individual land use consent to farm. It needs to be clearly understood what pathway is taken for this situation which is not demonstrated in the currently proposed Plan Change 7
- 40 We propose that growth in vegetable growing operations is promoted and this is reflected in both the Essential Freshwater Policies which have no restriction on vegetable production and the recently published Primary Sector Council's Fit For a Better World document which seeks to invest further in horticulture. Horticulture and vegetable growing still needs to be managed to Good Management Practice (GMP) like all farming systems. We have concerns with the lack of scientific modelling for vegetables within Overseer and the farm portals to produce GMP figures. There is an absence of confidence in the actual numbers produced through the farm portal against what is actually happening within the farm system. Overseer needs to better reflect the cropping system losses through improved scientific research.
- 41 We have concerns that operations will be held to a single nutrient allocation zone or sub region due to the fact of this limiting mitigation options of relocating rotation land to less environmentally sensitive locations. It will also have a negative impact on land owners by

severely limiting who they can lease land to and from and it limits potential land buyers' options for their farming operations. Therefore, we believe the point of restricting vegetable growing operations to a single nutrient allocation zone or sub region should be removed.

- 42 The second most concerning issue for our farming business and the wider community is the proposed High Nitrogen Concentration Area Staged Reductions. We have 10 individual farms that would be affected within the Rangitata Orton High Nitrogen Concentration Area. All these farms have had to apply for a land use consent and were required to be operating at GMP level by 1<sup>st</sup> July 2020. Therefore, we have already made significant improvements on these farms to reduce nitrogen losses to ensure we meet our GMP loss limit.
- 43 These implemented changes do not have happened overnight and the lag time to see the improvements is delayed. By having to reduce our nutrient losses again by 2030 and then again by 2035 is unachievable for our farms that have already made huge reductions.
- 44 We have concerns around the spatial extent of the Rangitata Orton High Nitrogen Concentration Area on the proposed PC7 Planning Maps, on the basis of insufficient water quality supporting evidence. This is on the grounds that proposed reductions have been applied in a 'blanket approach' across three different nutrient allocation zones which all have different water quality status under the Canterbury Land and River Regional Plan.
- 45 It is unrealistic for all farms to make the same reductions when they are located within different Nutrient Allocation Zones where water quality has different classifications ranging from 'water quality outcomes being met' in the Green Zone, 'bring at risk' in the Orange Zone and 'water quality outcomes not being met' in the Red Zone. We propose that the Green Nutrient Allocation Zone be excluded from the Rangitata Orton High Nitrogen Concentration Area in its entirety and only be held to GMP levels.
- 46 We have concerns with the water quality limits set within Table 14 (c) under the columns Dissolved Inorganic Nitrogen (DIN) and Nitrate – Nitrogen (row 5) for the Ohapi Creek upstream Orari River Confluence.
- 47 The original proposed changes to the National Policy Statement for Freshwater Management stated a national bottom level of 1 mg/L of DIN but this has been excluded from the final policy

due to members of the Science and Technical Advisory Group not being able to agree on the number due to lack of scientific evidence and proposed blanket approach to all types of rivers. As we stated in our submission, we believe this the proposed target level of 0.7 mg/L DIN for the Ohapi Creek upstream Orari River Confluence is completely unachievable and the level needs to be reviewed and adjusted target level an achievable target.


- 48 We would like to emphasise our deep concerns with some of these proposed policies becoming operative and the negative effects that would be felt throughout New Zealand. Maintaining compliance with Environment Canterbury and Central Government policies has become so complex that no farmer can navigate this on their own without the assistance of a consultant adding further cost, complexity and management of any farming business.

Pye Group Director – Leighton Pye



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Pye Group Director – Michelle Pye



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14/07/2020