



**TABLED AT HEARING**

Application: Canterbury  
Landscapes  
Date: 8/3/2018

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*Before the Hearing Panel at Christchurch*

*in the matter of:* a resource consent application by **Canterbury  
Landscape Supplies Limited** (Resource Consent  
Application CRC175344 & CRC175345)

*to:* **Environment Canterbury**

*submitter:* **Silver Fern Farms**

Brief of evidence of Daryn Jemmett on behalf of Silver Fern Farms

Hearing Date: 8<sup>th</sup> Mar 2018



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**STATEMENT OF EVIDENCE OF DARYN JEMMETT****INTRODUCTION**

- 1 Kia Ora, my name is Daryn Jemmett.
- 2 I am the Group Environmental Manager for Silver Fern Farms group of companies (*Silver Fern Farms*). I have been in this role since 2009.
- 3 I hold a New Zealand Certificate in Science (Chemistry), New Zealand Certificate in Quality Assurance, Post-Graduate Diploma in Applied Sciences (Environmental Management and Natural Resource Engineering) from Lincoln University, and nearly completed Masters in Applied Sciences (Environmental Management and Resource Management) at Lincoln University – leaving only due to an attractive offer of employment.
- 4 I have over 30 years' experience in the application of quality systems, environmental systems, resource management and sustainability guidance to various areas of business and government agencies both in New Zealand and overseas.
- 5 In addition I have held previous representation positions on the Sustainable Business Network Advisory Board, the New Zealand Business Council for Sustainable Development, and have represented these NGOs on the New Zealand OECD Guidelines for Multinational Enterprises liaison group.
- 6 As the Silver Fern Farms Group Environmental Manager, my role is to:
  - 6.1 Bring together a small specialised team within Silver Fern Farms providing environmental advice, expertise, skills, leadership, and understanding of environmental regulatory matters across all aspects of the company;



- 6.2 Assist sites with environmental and consenting support for their operations;
  - 6.3 Develop group-wide strategies to ensure operations comply with resource consents and environmental expectations; and
  - 6.4 Help implement strategies for environmental improvement across all company operations.
- 7 In preparing my evidence I have reviewed:
- 7.1 The Assessment of Environmental Effects prepared for Canterbury Landscapes Limited by **Loe Pearce and Associates Ltd**; and
  - 7.2 The section 42A **Officer's Report** provided by the Canterbury Regional Council (*ECan*).

#### SCOPE OF EVIDENCE

- 8 In my evidence I will discuss:
- 8.1 Silver Fern Farms history with composting;
  - 8.2 Silver Fern Farms history with Canterbury Landscape Supplies ('CLS');
  - 8.3 A brief outline of Silver Fern Farms submission;
  - 8.4 A brief commentary on the s.42A Officer's Report; and
  - 8.5 Final remarks.



## BACKGROUND SILVER FERN FARMS HISTORY WITH COMPOSTING

- 9 In the mid-1980's a forced aeration composting operation was installed at our Belfast meat processing operation to provide for nutrient recovery from a much improved combined wastewater treatment plant servicing our Canterbury plant, Vital Petfoods plant and Belfast plant; the alternative was sending the collected organic material to landfill.
- 10 In simple terms the collected organic material from wastewater treatment was blended with bark chips purchased from CLS, and the resultant composted product, 'Bio-Blend', was sold directly to the public on-site.
- 11 During 1994 to 1995 Silver Fern Farms had similar issues as that recently observed with CLS, the composting site became overloaded with raw material due to: insufficient aeration, the ideal carbon / nitrogen ratio was not being maintained, and overall the activity had poor management controls. I understand it was during this period that significant odours became apparent, these extended beyond the consented notional boundary.
- 12 Upgrading to positive forced air concrete aeration beds, rather than static piles, and keeping the correct bark to organic material ratio permitted the composting operation to operate in balance with the supply of raw material, decreased the need to turn the compost material whilst on the static piles, and reduced the time taken in the aeration phase of composting (potentially the most odour generating phase).
- 13 Within a relatively short-period of the upgrade, odour complaints due to composting activities plummeted from around 160 in one year to none substantiated over a 10 year period.
- 14 There were also some concerns raised with leachate management over the years, it was thought rainfall would carry significant nutrients



into groundwater and surface water. However, dewatering in a contained bunker was the first stage of the composting operation ensuring minimal leachate being generated throughout the rest of the process.

- 15 The first stage of composting was carried out on concrete pads with drainage channels to drain any liquid phase to a sump before being pumped to the wastewater plant; as a result there was no standing water.
- 16 Composting is a generally dry process with not much, if any, moisture making it through the static maturation / conditioning piles. Rain that lands on compost does not simply become leachate, prolonged contact time between compost and water is needed for leachate to develop. Rain travelling through compost is generally just 'through fall' and was captured in the drainage network surrounding the site; as a result there was no standing water due to rainfall.
- 17 Following on from the Belfast plant compost operation success, the company successfully installed composting operations at two other company sites, one on aerated beds and the other as static windrows. In addition, the company provided technical advice for third-party operations to set up around the country. As a result of the initiative to divert nutrient rich waste solids from landfill to a marketable compost product saw the Belfast compost operation receive an environment award for the process, and for that resource recovery process to be highlighted in numerous international scientific and technical journals.
- 18 What Silver Fern Farms has learnt about composting operations over the years is whilst it is important to ensure minimum operational requirements are in place, the actual day-to-day operation is an art learnt over time; understanding what works, what doesn't, and where to fine-tune. The successful operation of an industrial based composting system is based on harnessing the processes that occur in nature and imposing on them control systems that maintain the



biological reactions within prescribed boundaries. Good composting is like baking, it is both an art as well as a science.

## **SILVER FERN FARMS HISTORY WITH CANTERBURY LANDSCAPE SUPPLIES (CLS)**

- 19 As previously outlined bark chips for the Belfast plant compost operation were purchased from CLS.
- 20 In the mid 1990's when the compost facility was upgraded, public safety required on-site sales to stop; requiring another marketing approach. In addition, the upgrade also generated more compost, and the need to move as much material as possible. Given the arrangement with CLS to supply bark chips, when the need to find a company to market and sell the end-product offsite it was relatively straight forward to extend the arrangement with CLS.
- 21 Following several years of different proposals, in 2010 the NZTA finally landed on a proposal for the Belfast northern arterial motorway. The proposal, included part of the motorway going through one of the Belfast plant composting aeration pads, the pre-mixing area, and removing trees planted to buffer the activity from neighbours.
- 22 When the motorway proposal was finalised and scoping for the construction project began, this provided an opportunity for Silver Fern Farms to take stock of our ancillary activities at Belfast. In respect to the composting operation there were several options available:
  - 22.1 The previous strategic decision to close the Canterbury plant and connect the Belfast wastewater treatment plant to the Christchurch City Council had already decreased the volume of organic material being collected and composted. Given the decreased compost volume, the question was whether the loss of an aeration pad would cause any long-term issue. The answer was yes, this was largely due to the proximity of the



motorway to the remaining aeration pads, resulting in no buffer for compost operations. Potentially resulting in localised odour and steam issues on winter mornings to motorway traffic; something we were not comfortable with.

- 22.2 Whilst the operation could be moved to another location on-site, this would likely trigger the need for a variation to the recently renewed resource consent. We had sought, and were granted, a short-term ten year consent to allow time to understand the implications of the motorway construction and make a decision what would be the best approach in the long-term.
- 22.3 As the motorway would encircle the available land, the same localised odour and steam issues could also potentially occur from any other relocated operation.
- 22.4 Following the earthquakes, and to accommodate rebuilding the City alongside the proposed motorway development, Silver Fern Farms were receiving pressure to free up industrial land at Belfast for relocation of industrial businesses, largely due to limited unaffected industrial zones being available in Christchurch.
- 22.5 Silver Fern Farms were acutely cognisant that industry is often subject, through progressive changes, to the gradual erosion of buffers / separation between industrial areas and activities that are more sensitive. This can increase the number of parties potentially affected by operations on a day-to-day basis as has been evidenced in the Woolston industrial area over the past few years in respect to the long-standing Gelita operation.
- 22.6 Whilst Silver Fern Farms has been in the same location for around 130 years, currently employing around 600 people, and actively protects the rights of the heavy industrial area, moving the composting operation off-site rather than onsite was seen that it would free up industrial zoned land that the City needed,



and potentially minimise any reverse sensitivity issues that may arise once other 'surplus' land across Belfast was sold and developed.

- 22.7 An important question for Silver Fern Farms was whether a third-party compost operator were available, and able, to carry out the required composting operation at an off-site location without entailing excessive transportation or operational costs. Any arrangement would need to be both practically and financially viable.
- 23 Given the long-standing arrangements Silver Fern Farms had with CLS, we approached them whether they could process the compost at their Belfast operation. Following those discussions, Silver Fern Farms entered into an arrangement where CLS would take over all composting activities at a nearby off-site location, and some of our industrial land at Belfast was put up for sale. Selling the land would also free up equity, and avoid the need to replace the composting operation mobile plant that was worn out. Both decisions helping the Company move into a sustainable financial position by strategically reducing / avoiding debt.

## BRIEF OUTLINE OF SUBMISSION

- 24 As outlined in our submission, Silver Fern Farms generally supports the applications of CLS relating to their composting operation. Essentially having an off-site compost operator in relatively close proximity has allowed us to close our Belfast compost operation, free up land for industrial development to help the City recover, and minimise reverse sensitivity matters from development across the district.
- 25 Whilst Silver Fern Farms has disposed of land holdings across the local area, we have also protected the heavy industrial activities from



reverse sensitivity by adding no complaints encumbrance on land we sold. However this can only go so far, the increase and encroachment of developments, including residential, across the Belfast area was likely to become untenable in the long-term if we did nothing.

- 26 In light of this, Silver Fern Farms has strategically made a number of significant improvements to our operations across Belfast to reduce the potential for sources of odour, including the recent closure of the onsite compost operation. We have made these hard decisions, to ensure the long-term sustainability of the Belfast meat processing operation.
- 27 Today the plant primarily processes beef largely received from around the Canterbury and Marlborough region. This is butchered, cut and packaged into chilled or frozen cuts for local and export markets.
- 28 The current volume of organic material, predominantly paunch grass, recovered from the wastewater treatment plant is estimated to be around 8,000 tonnes per year. Logistically moving this volume of material costs significantly, having a local compost operation is only what makes offsite composting feasible.
- 29 CLS provides a service by taking raw materials that would otherwise potentially be destined for landfill, if a suitable one is available. If the local compost service was not available, it would likely impede operations through additional and avoidable costs for alternatives. As we outlined in our submission it would also be a missed opportunity to divert and recycle these organic materials for beneficial reuse.

## BRIEF COMMENTARY ON S.42A OFFICER'S REPORT

- 30 I have read the s.42A Officer report and would like to highlight a couple of comments.



- 31 At paragraph 134 the Officer notes: *"... I consider the location of the proposed composting activity is appropriate provided the composting is appropriately managed and in a way that will not cause offensive and objectionable effects from the odour on surrounding residents."*
- 32 Similarly, at paragraph 286 it is noted: *"... if drainage conditions were better managed on site it would be possible that for the proposed composting activity, effects of odour could be reduced to a minor level. Considering this and provided all the recommended conditions are adhered to. I consider the effects of the discharge of odour could be reduced to an acceptable level such that it would be appropriate to recommend granting this application. "*
- 33 In respect to the potential effects on groundwater, at paragraph 288 the Officer also notes: *"... if the applicant can prove that effects of the discharge on groundwater, surface water and drinking water quality will be mitigated by such measures as collecting the discharge of contaminants, to an acceptable level where water quality limits will not be exceeded. I would recommend the granting of this consent."*
- 34 Given Silver Fern Farms experience of managing composting operations over many years, we see all of these comments reflect the importance of management systems and controls as being key to the granting of consents. Whilst not ideal, rather than using the recent issues as an excuse to not grant the consent, the focus should be on providing practical solutions to provide the appropriate level of control.

#### FINAL REMARKS

- 35 Silver Fern Farms brand reflects natural aspects of the New Zealand spirit and nature relating to purity of place, lush pastures, rolling hills, and free range grass fed stock.
- 36 With such a large business, and more particularly, one that markets to the world on the reputation of New Zealand's spirit and nature, Silver



Fern Farms is mindful of the effect our activities have on society and the environment. We are committed to ensuring that we carry out our business, or contract others to carry out services on behalf of us, in a responsible and sustainable way.

- 37 Silver Fern Farms long-term goal is to diminish effects on the receiving environment from activities without jeopardising continued operations, and have worked toward achieving that outcome for the composting operation at Belfast.
- 38 Any restriction on the CLS composting operation would place a significant risk to the Silver Fern Farms Belfast operations that was not foreseen at the time of making the arrangement with CLS. Continuation of operations is important for Silver Fern Farms.
- 39 Were the consent not granted this would put Silver Fern Farms in an untenable position, of either placing a higher level of risk on continued operations than is likely to be acceptable with continued development across Belfast. Potentially jeopardising continued long-term operation of Silver Fern Farms Belfast operations by needing to reinstate onsite composting, or progressing with disposal to landfill which is neither economically or environmentally beneficial.
- 40 Composting would appear to be the embodiment of the purpose of the RMA in that it represents the sustainable re-use of natural resources to enhance the quality of the environment. This should be supported wherever possible.
- 41 As outlined Silver Fern Farms onsite controls ensured that discharges to air from composting avoided offensive or objectionable effects beyond the odour notional boundary. From an environmental effects point of view it is very simple, if the process is not controlled it will smell and potentially have unwarranted leachate. However, Silver Fern Farms has demonstrated over many years that clearly outlined operational constraints can in fact ensure a compost operation does



not present nuisance effects to neighbours or the receiving environment; there is no reason that CLS cannot achieve the same.

- 42 The main components of the CLS consent application appear to be to recognise issues to date, and move forward to operate the business in the successful manner required.
- 43 Overall, Silver Fern Farms considers the less than minor effects of a well-managed composting operation would far outweigh the effects and economic constraints of not granting the consent to CLS.
- 44 On the basis of providing objective evidence toward getting their process under control, Silver Fern Farms respectfully request that the Hearing Panel grants the consents sought by CLS.

Dated: 8 Mar 2018

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Daryn Jemmett

