

PHILLIP WYLIE - EVIDENCE SUMMARY

My name is Phillip Jacob Wylie. I am a director of Canterbury Landscape Supplies Limited, and am authorised to provide this evidence on the Company's behalf.

I have been directly responsible for the establishment of the composting operation at Diversion Road. I have also implemented a number of changes to the operation to address potential odour and leachate effects, and have implemented a system of regular monitoring and testing of the composting rows. I have instructed staff as to daily management of the operation and, generally speaking, visit the site at least weekly. I am also the main contact point for local residents to co-ordinate site visits and to respond to issues that arise.

CLS is one of the largest manufacturers and suppliers of landscaping and gardening products in the South Island. CLS employs 30 staff, of whom 4 are directly employed on the Diversion Road Site, and with 12 staff employed in marketing, sales and supply of the products we develop on both the Kainga and Diversion Road sites. CLS presently operates its bulk material processing and storage, wholesale and retail yard at 1250 Main North Road, Kainga, Christchurch. The Kainga operation has been in existence for in excess of 20 years now and, with the exception of a small number of incidents occurring in mid-2016, has not caused any adverse odour impact on nearby residents. Where these incidents have occurred, CLS has been able to readily identify the cause of the adverse effect and to remedy the effect without delay.

CLS has been searching for a new site for bulk processing and storage since 2014. CLS chose the site at Diversion Road after assessing a number of different locations in the Waimakiriri and Hurunui regions. We assessed more than 12 different sites in areas including: Coutts Island, Oxford, Rangiora, Loburn and Balcairn. The sites were assessed based on size of the site, contour and positioning of the site, logistical location for both receiving materials from our contracted sawmills and delivering product to our customer base, and the location of closest residents. The sites were ruled out for either being uneconomical, too logistically prohibitive or too close to residential neighbours. The location in Swannanoa is ideal due to its close distance to the CLS Kainga site and to Christchurch, as well as being situated close to two of the largest sawmills that CLS remove material from daily (in Rangiora and Sefton). The site at Diversion Road was also considered the most suitable location in terms of being in a rural setting, surrounded by an established pine tree plantation, and being part of a much larger parcel of land with few rural dwellings in close proximity.

The site at Diversion Road is extremely important to the future of the company, in order to allow CLS to expand its current activities; and to operate the bulk supply and manufacturing part of the business in a more organised and efficient manner. Diversion Road allows CLS to store our materials on a larger site than at Kainga, which allows us to better manage the manufacture of our products. CLS has identified organics recycling and bio energy activities as an area of growth for the company. The site allows CLS to develop these markets, which we see through our involvement with sector groups such as Bioenergy Association and WasteMINZ, will continue to grow both in demand and in importance as interest in sustainable activities continue to increase. The location of the site, being in an area containing farming and horticultural activities, provides the opportunity for CLS to develop new markets into these sectors; including supplying compost into the rural sector and wood materials for animal bedding.

CLS works in partnership with several Canterbury businesses to recycle organic material produced from the growing and/or processing of wood products, animals, poultry, and mushrooms, and off-cuts from gypsum plasterboard manufacture and installation. CLS is developing opportunities to use waste organic material by-products of wastewater treatment processes, and compostable packaging in the composting operation. CLS is working with the pastoral and cropping farming community trialling compost spread onto land to increase soil organic matter and slow release fertiliser as a means of reducing nitrate leaching to groundwater. CLS's view is that using compost in place of more traditional fertilisers has a number of significant benefits. A stabilised compost product will add organic matter into the soil, which over time directly improves the soil structure.

Since establishment of the Diversion Road site, approximately 7'500m³ has been spread on local dairy farms and cropping farms to increase soil organic matter and as a direct replacement for mineral and synthetic fertilisers. CLS has recently signed a 3-year supply agreement with a dairy farmer near the Diversion Road site, to supply 8'000m³ per year of compost for this purpose. The farm is located west of the CLS Site, is within the same catchment and is up-gradient of the CLS Site in terms of groundwater flow. In the last week, I can confirm that CLS has begun supplying another local farm; that is also located up-gradient of the site, with an order of 3'000m³ of compost. CLS believes that the production and use of the compost is already making a direct contribution to improving the sustainability of pastoral farming systems in Canterbury, maintaining productivity while reducing adverse impacts on water quality.

In addition to supplying local farms with our compost, we also provide commercial potting mix to a wide range of rural based customers including:

- Riverside Horticulture
- T & M Nurseries
- Gough's Nursery
- Fernside Trees
- The Gorge Nursery

Year round we supply animal bedding to Horse Stables, Chicken Farms, Piggeries and Agricultural Farming for Calf bedding. These are all rural based customers who are very important to the ongoing viability of our business. As animal bedding products (excluding calf bedding) are required all year round, these markets supply CLS with consistent business. The requirement for supply of calf bedding materials occurs in Winter, assisting CLS to maintain its business when demand for horticultural and landscape supplies are traditionally low. The products used for these animal bedding markets are white wood products (such as sawdust, shavings or woodchip), which are generally supplied from material removed directly from sawmills. As CLS is contracted to remove both bark and white wood materials from local sawmills, the animal bedding market is extremely important in allowing CLS to adhere to its contracted supply agreements.

The composting operation at the Site will produce approximately 16,000 tonnes of compost per year. Currently, approximately 10,000 m³ of compost at various stages is on- Site with up to 40,000 m³ of compost expected as a maximum volume on the Site.

The composting process to date has predominantly involved a mixture of either three or, more recently, two ingredients. Dewatered paunch grass and scoured wool fragments are delivered to a receiving area, which is a concrete pad with an attached run-off water collection pit. The compost is blended using a large front-end loader where the proportions are measured out in bucket loads. The receiving pad for paunch grass and wool is cleared every day if wind conditions and time allow, otherwise this material is covered with a layer of bark in order to prevent odour escaping.

Once compost piles are mixed in the correct proportions, they are formed into windrows. Initially, these are piles approximately 3 metres wide and 2 metres high to ensure good oxygenation within the pile by limiting compaction of material. Each windrow is turned on a weekly basis using an excavator to provide further aeration and oxygenation to the compost (oxygen concentrations of at least 12-14% and never less than 5% are required), and the material is mixed during the turning of the row to minimise gradients in the composting mass and provide consistent processing. Temperature monitoring is conducted after each time the windrow is turned, and again a week later before the windrow undergoes the next turning. This is to assess the temperature increase over the course of a week, and to identify the level of microbial activity and whether the compost is undergoing the Mesophilic phase, or has moved into the more rapid decomposition Thermophilic phase to achieve pasteurisation and sterilisation of any weed seeds. Weekly turning of windrows lasts a minimum period of 8 weeks, in which time full decomposition and pasteurisation of the compost should be complete. From our experience, this phase can however take up to 12 weeks, particularly in colder weather during the winter. Weekly turning ensures that the composting process remains aerobic, due to the re-introduction of oxygen to the windrows weekly, and that the whole composting mass experiences pasteurising temperatures of at least 55°C for at least 15 days. Once composting is complete and the material is ready for the curing phase it is stored in larger windrows approximately 4 metres high for the 2 month curing process to ensure the compost is mature. In the final stage, the mature compost is stored in even larger windrows of up to 4.5 metres high. This is the product that is screened and supplied to our customers. Overall, the composting process is carried out in accordance with either New Zealand Standard (NZS) 4454:2005 for Composts, Soil Conditioners and Mulches or industry best practice as developed since the adoption of that particular Standard.

Given my industry experience, I fully appreciate the potential for composting operations to generate odour. I also acknowledge that there have been some issues relating to the management of a number of compost piles on the Site. Rows stored in the North East corner of the site became anaerobic in July/August 2107. To avoid the reoccurrence of this issue on the site, I instructed CLS staff to adopt a number of measures. First, staff are required to line the base of all newly created piles with sawdust and bark fines so as to absorb ponded rainwater. The sawdust and fines around the piles can be removed as soon as they become saturated and the sawdust and fines below the compost piles removed and replaced with fresh dry material when the piles are turned. Secondly, I instructed CLS staff to commence removal of the NE compost rows. CLS reached an agreement with local residents to remove all of the NE piles prior to 09 December 2017. This was achieved slightly later than anticipated (by 15 December 2017), with the end destination for the majority of compost within these piles being local farms to be used as a replacement for synthetic fertiliser and as a soil conditioner. CLS also purchased a trash pump which can vacuum up any excess water which is then stored in a tank for reuse as appropriate.

We are also proposing to establish a composting pad on which all composting windrows in the 1-12 week active composition phase will be undertaken. The composting pad will be approximately 2500m² in area and will be constructed of compacted gravel/ aggregate to a depth of 400mm over a lining of filter fabric. A particular benefit of the composting pad is that it will provide a raised platform on which to place the active compost windrows, thereby further minimising the possibility of a reoccurrence of the issue that affected the rows in the NE corner of the site. To ensure that potential effects on groundwater are minimised, all compost rows on the composting pads will also sit on top of a bed of sawdust/bark, a requirement included in the proposed consent conditions.

In the time since establishment of our composting operation at the Site, I have ensured that it adhered to the odour management plan that CLS adopted from our Kainga operation. Since becoming aware of complaints, I have also engaged the assistance of BECA to advise on potential odour effects and also to advise on the contents of an updated Odour Management Plan. Further to instigating the updated Odour Management Plan, I have instructed my staff at Diversion Road to conduct odour assessments three times per day. In my experience to date of the day to day management of the site, all members of staff are very aware of the need to avoid or minimise to the extent possible any adverse odour effects escaping from the Site. In particular, staff familiarise themselves with weather forecasts for at least 3 days in advance, as they understand that aspects of the operation may be constrained in particular weather conditions. In addition, the on-site wind monitoring equipment allows them to immediately respond to a change in wind conditions, cease any activity that would potentially result in odour effects and take remedial action to, for example, cover any exposed windrows that may be the source of odour. In my view, this level of responsiveness helps to prevent any prolonged or continuous off site odours. I also believe that providing local residents with the ability to contact our Site Manager directly will further improve practices on site and awareness of times and conditions where off-site odour effects may arise.

A number of submitters have suggested that the composting operation be fully enclosed and bunded, similar to the Living Earth operation at Bromley in Christchurch. I am familiar with the Living Earth facility at Bromley and there are a number of differences between its operation and Diversion Road. For one thing there are a significant number of residential houses (approximately 190) located within 1 km of the boundary of the Living Earth site. This contrasts with 3 residences within the same distance from the Diversion Road site. Living Earth also produce a much larger volume of compost than CLS (62'000 tonnes processed over 2016/17), this is far greater than what CLS will ever be processing into compost. These differences between Living Earth and CLS operations aside, the cost associated with fully enclosing the operation are likely to be in the order of excess of \$10 million per 5000m² and, as such would be financially prohibitive for CLS. As such I do not consider it to be a practicable option.

As part of discussions at mediation, I readily agreed to host regular site meetings with local residents and submitters on the consent applications. The initial meeting took place on 9th November at 5.30pm and was attended by approximately 20 residents. The main focus of the meeting was to explain some of the key components of the composting operation and to confirm progress with removal of the compost rows in the NE corner of the site. I conducted a full site visit, and was able to discuss all aspects of the site. I had the opportunity to explain how the site is managed on a day to day basis, and the refinements we had made to improve our processes. And importantly, I was able to explain our waste minimisation and recycling activities, and why CLS views adopting sustainable

initiatives as extremely important both socially and environmentally. My impression of the site meetings is that they have been extremely productive and have allowed CLS the opportunity to receive feedback from local residents (particularly via Mr. Fraser) and to keep them up to date with what is happening on the site. Given the benefits of these meetings, I have asked Mr. Loe to include a community liaison condition if consent is to be granted.

CLS requests that a longer term of consent than recommended be granted. In view of the fact that CLS has already spend significant investment in developing the site, and with the continued improvements we will need to continue investing in the site infrastructure; we request that this is taken into account when determining the duration of consent. Our waste minimisation activities and customers who are diverting materials to CLS also require certainty that they have a long term solution for their materials. These companies have committed to finding sustainable alternatives for their materials, and CLS has spent considerable time and effort into developing re-use strategies and markets for the recycled products. CLS needs to provide reassurance to our customers that we can support them over the long term.

CLS have made refinements to our processes and management of the site to date. These refinements have demonstrated our commitment for continual improvement, as process that will continue to evolve, and a pro-active approach to listening to concerns and addressing them. To date CLS has made refinements to the site management including: introducing an Odour Management Plan, conducting daily odour assessments, training staff for better responsiveness for changing weather conditions, introducing a wind sock and weather station to the site, re-positioning materials on-site to more suitable locations, revising our compost management plan to ensure aerobic conditions are maintained, establishing contact and conducting site visits with the local residents, and agreeing to establish an compost pad for storing the compost as it undergoes its active decomposition phase. Every refinement we have made has assisted in improving our operation on the site, and outlined that we are willing to continually improve in order to operate without any effect on the local community. Throughout this process CLS has completed everything we have been asked to do, and showed a desire to work with our neighbours. With the refinements on the site we are demonstrating that we can operate without any adverse effect, and CLS is committed to ensuring we continue operating in this manner.

CLS wishes to be a good neighbour and part of the local community. We are confident that we can operate without any effect on our local residents, and we intend on trying to create products which can assist in benefiting the local area. CLS would like to continue to provide an open door policy for residents to contact us if they have any concerns; as this would allow us to address any issues as soon as possible.