

**IN THE MATTER OF**

The Resource Management Act 1991

**AND**

**IN THE MATTER OF**

Application CRC200154 by Southern Proteins Limited for a discharge permit to discharge contaminants into air from a proposed low temperature rendering plant at Washdyke.

**BETWEEN**

**SOUTHERN PROTEINS LIMITED**

**Applicant**

**AND**

**CANTERBURY REGIONAL COUNCIL**

**Consent Authority**

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**REPORT AND DECISION OF HEARING COMMISSIONERS**

**John Iseli and Gina Solomon**

**8<sup>th</sup> April 2020**

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Heard on 24-25<sup>th</sup> February 2020 at the Canterbury Regional Council offices, Timaru.

## Representations and Appearances

### Applicant:

**Ms M Thomas**, Solicitor  
**Mr G Henderson**, General Manager Southern Proteins Ltd  
**Ms R Cudmore**, Air Quality Scientist  
**Ms M Copeland**, Consulting Economist  
**Ms D Barretto**, Planner

### Submitters:

**Mr I Geary**, 46-66 Timaru-Temuka Highway  
**Mr A Ayers**, 26 Flemington St  
**Mr M Coffey**, 22 Flemington St  
**Mr J Kane**, 305 Hilton Highway  
**Washdyke Action Group - Mr G Welford**  
**Wallace Group Limited Partnership - Ms A Hill**, Solicitor  
**Mr M Hintze**, Operations Manager

### Section 42A Reporting Officers:

**Mr S Mooney**, Consultant Planner

- **Ms D Ryan**, Consultant Air Quality Scientist
- **Mr M Nolan**, Incident Response Officer (Canterbury Regional Council)

### Decision Summary

Consent to discharge contaminants to air is approved for a term of 20 years, subject to a detailed set of conditions. These conditions are comprehensive and include peer review requirements for the design of the plant, two-yearly independent reviews of the odour control system, continuous monitoring of process parameters, regular liaison meetings with local residents and businesses, and a requirement to cease discharging if any complaints are substantiated as causing offensive or objectionable odour effects.

## BACKGROUND AND PROCEDURAL MATTERS

1. This is the report and decision of independent Hearings Commissioners Mr John Iseli (Chair) and Ms Gina Solomon. We were appointed by the Canterbury Regional Council (**CRC**) to hear and decide the application by Southern Proteins Limited (**SPL** or 'the applicant') pursuant to the Resource Management Act 1991 (**RMA** or 'the Act') for a resource consent

to discharge contaminants to air from a proposed low temperature rendering plant to be located at 144 Meadows Road, Washdyke.

2. The application site, legally defined as Lot 2 DP397304, is owned by Hilton Haulage Limited. This is commonly termed a “greenfield site” where a new development is proposed on land not currently occupied by buildings.
3. The application and accompanied assessment of effects (**AEE**) was prepared by Golder Associates (NZ) Limited (**Golder**). The application did not include final engineering plans for the rendering plant but rather specified design and operating parameters, including performance monitoring methods, as part of a concept design for the plant. The applicant proposes that, if consent is granted, the final design will be subject to a professional peer review process.
4. The application concerns only the discharge of contaminants to air from the proposed rendering plant. The applicant stated that other consents required for the construction and establishment of the plant, including a subdivision consent and land use consent from the Timaru District Council, would be sought following the decision on the discharge permit application. The CRC considered the requirements of Section 91 of the Act in determining to proceed with the hearing of this application. We have considered this matter further and provide commentary later in our decision.
5. The applicant requested that consent be granted for a duration of 35 years.
6. Prior to the hearing, a report was produced on behalf of the CRC pursuant to section 42A by Mr Sean Mooney, Consultant Planner. This ‘s42A Report’ included a technical review of the application by Ms Deborah Ryan, Consulting Air Quality Scientist.
7. The s42A Report provided an analysis of the matters requiring consideration and recommended that the resource consent sought should be refused on the basis of unacceptable risk of offensive or objectionable odour effects during the lifespan of the proposed rendering plant. In recognising that the Reporting Officer’s recommendation is not binding on the decision-makers, the s42A Report included draft consent conditions for our consideration.
8. The hearing to decide the application commenced on Monday 24 February 2020 and evidence was heard over two days. The hearing was adjourned on 25 February and we issued a minute requesting that the revised consent conditions proposed by the applicant during the hearing be circulated to all parties who requested to be heard or attended the hearing, in addition to the s42A reporting officers. Those parties were invited to provide comments specifically relating to the conditions, that were to be considered by the applicant in providing a written reply with final proposed consent conditions. We received the applicant’s reply on 18 March 2020 and, after considering all the information provided, determined that the hearing was closed on 19 March 2020.

9. We visited the application site and neighbouring areas during the evening of 23 February 2020, immediately prior to the hearing. We also visited the site and the surrounding properties and roads on the afternoon of 24 February 2020.

## **THE APPLICATION**

10. SPL seeks consents to discharge contaminants, primarily odour, to air from operation of a low temperature rendering plant and associated activities. It is proposed that raw animal by-products will be received and processed in a plant designed to meet current good practice standards for rendering. The plant will consist of two parallel low temperature rendering and meal processing lines, each with a capacity of 15 tonnes per hour, which produce meal and tallow products for export from the site.
11. A description of the rendering process and associated activities has been provided in the AEE and summarised in the s42A Report. That information is publicly available and we do not intend to repeat it herein.
12. The applicant intends to obtain thermal energy for operation of the plant from the adjacent Pioneer Energy Limited boiler plant. Consequently, the discharge of combustion products, commonly associated with the operation of rendering plants is not under consideration as part of this application.

## **NOTIFICATION AND SUBMISSIONS**

13. The application was publicly notified on 9 October 2019. A total of 25 submissions were received, with 20 submissions in opposition, two submissions in support of the application and three submissions adopting a neutral position. Eleven submitters, all in opposition, indicated that they wished to be heard.
14. The s42A Report summarised the matters raised in submissions. The issues raised included:
  - Regular reviews of best practice measures for odour control should be undertaken;
  - Odour control measures are not reliable and upset conditions will result in adverse effects;
  - Contingency measures should be put in place for when the plant breaks down;
  - The requested duration of consent is excessive;
  - Existing odour issues in the Washdyke area, including those relating to the existing South Canterbury By-Products (**SCBP**) rendering plant during the past 10 years;
  - Modern, fully contained trucks should be used for the transport of raw material and product;
  - Contribution of the discharge to cumulative effects of odour;
  - The lack of effectiveness of the CRC in handling of odour complaints, particularly in relation to the SCBP consent;
  - The close proximity of the proposed plant to residences and businesses that are sensitive to the effects of odour;

- Potential for odour to taint textile stocks and affect the business of Vendella International Limited (**Vendella**) that occupies the adjacent site;
  - Concerns regarding the design and effectiveness of the odour control and treatment system proposed;
  - Difficulty in identifying the source of odour when responding to complaints, given the location of two rendering plants in close proximity;
  - The proposal is not consistent with objectives and policies of the Regional Policy Statement (**RPS**) and the Canterbury Air Regional Plan (**CARP**).
15. The submissions also raised concerns in relation to property values, animal welfare and export standards that are not relevant matters for us to consider. The establishment of boundary trees for amenity purposes is a matter for consideration by the Timaru District Council.

## THE HEARING

### Applicant's Case

16. **Ms Monique Thomas**, solicitor at Greenwood Roche, presented opening legal submissions for the applicant. She provided a suite of draft proposed consent conditions that had been discussed with the council officers. Ms Thomas considered that the conditions addressed the matters raised in the s42A report by providing greater emphasis on odour prevention, and ease of monitoring and enforcement.
17. Ms Thomas noted that the conditions proposed at the hearing included (among other matters): strict controls on the type and condition of raw materials delivered to the site; a requirement for independent peer review of the design of the odour control system; a two-yearly odour control system review and a five-yearly review of the best practicable option (**BPO**); clear design and operating specifications for the odour control system; comprehensive monitoring of the odour control system, with key parameters measured continuously; weekly odour assessments, becoming daily in the event of any complaint; a requirement to undertake an odour assessment if a complaint is received, with cessation of processing if a complaint is substantiated; and regular community liaison meetings.
18. Ms Thomas stated that the rendering plant would be appropriately located in the Industrial H (Heavy Industrial) zone under the Timaru District Plan (**TDP**). She submitted that the TDP encourages activities which have significant discharges to air, including odour, to locate in that zone. The plant will use an existing source of energy (the adjacent coal-fired boiler plant) and has the potential to supply other neighbouring businesses with excess hot water.
19. With regard to odour effects, Ms Thomas stated that it is accepted that the discharge will cause additional odour within 300m of the plant. However, based on the evidence, she considered that this odour would be at minor levels and would consummate with odours from other existing sources. She submitted that there is no requirement under the RMA that all odour effects be internalised. Referring to case law, including *Waikato*

*Environmental Protection Society Inc v Waikato Regional Council and Sugrue v Selwyn District Council*, she noted that what is to be internalised is any unreasonable odours.

20. Ms Thomas addressed the concerns expressed by Mr Mooney in the s42A report that there is a significant risk of abnormal odour emissions caused by upset conditions, such as breakdowns, during the life of the plant. She submitted that the Act does not endorse a “no risk” regime and noted that the evidence of Mr Cudmore concludes that the significance of breakdowns at rendering plants and associated odour issues is overstated. She referred to Mr Cudmore’s assessment that any risk of abnormal emissions is low and would result in minor effects given the controls proposed.
21. Ms Thomas discussed the duration of any consent granted in some detail, referring to case law including *PVL Proteins v Auckland Regional Council*. She also noted the guidance as to appropriate consent duration contained within the CARP, specifically Policy 6.12. She submitted that there is no credible basis for the 10-year duration recommended in the s42A report, if consent is granted. Ms Thomas concluded that a 35-year consent duration, as applied for, remains appropriate.
22. Ms Thomas noted that there are significant differences between the SCBP rendering plant and the SPL proposal. She identified the key differences as: lack of a conditions on the SCBP consent requiring processing to cease in the event of non-compliance; no bottom-line limits on the SCBP consent with detail left to the management plan; no requirement on the SCBP consent that the odour control system continue to operate in the event of a breakdown; no requirement on SCBP for ongoing review of the odour control system; and lack of a condition requiring SCBP to engage with the community. She supported the comments made by the CRC monitoring officer in the s42A report that suggest the conditions of the SCBP consent are not sufficiently strict. Ms Thomas submitted that the position under the SPL proposal is quite different.
23. Turning to potential cumulative odour effects, Ms Thomas referred to the evidence of Mr Cudmore that concluded that it both SCBP and SPL comply with the conditions of consent, cumulative effects would be acceptable. She considered that odour effects that are acceptable on their own would not be problematic in combination. She noted that SCBP will be a direct trade competitor to SPL and therefore a level of caution should be applied when considering the evidence of Mr Hintze on behalf of Wallace Group, adding that Mr Hintze is not an air quality expert.
24. Ms Thomas concluded that granting consent subject to the conditions proposed would be in accord with the relevant objectives and policies of the RPS and the CARP, and with Part 2 of the Act.
25. **Mr Gordon Henderson**, General Manager of SPL, presented a summary of his evidence. He stated that the proposed plant will process animal waste products that would otherwise need to be disposed of at a cost to the producer. The selected plant location in the Heavy Industrial zone is near the port, separated from dwellings and avoids the need for a new

- coal-fired boiler plant. Mr Henderson stated that the plant has been designed with dual processing lines to ensure that all raw material received at the site on any given day is processed that same day or within 12 hours at the latest.
26. Mr Henderson stated that the plant has been designed to achieve better than current best practice in terms of efficient processing capability and odour control. He noted that the plant is designed by Rendertech who designed and commissioned New Zealand's newest rendering plant in Lorneville. He presented a slideshow of images of the Alliance Lorneville rendering plant that is of similar design to the proposed plant.
  27. Mr Henderson stated that SPL has engaged Mr Cudmore to design the odour control system because of his extensive knowledge and expertise in odour control in the rendering industry. He noted that the proposed biofilters were relocated to the eastern site boundary following consultation with Vendella that has a warehouse building on the western boundary. Three emission stacks for general building ventilation air, extending at least 3m above the building roof, are now proposed to reduce potential odour effects at the Vendella site.
  28. Mr Henderson stated that the total initial investment by SPL would be approximately \$34 million. He considered that a consent duration of 35 years is necessary in order to provide operational certainty and ongoing maintenance and capital replacement of plant items. In response to questioning, he stated that an annual repairs and maintenance budget of \$2.5-3 million is anticipated. He considered that major equipment replacement works would be required in approximately 15-20 years' time.
  29. In response to questions concerning odour control during power outages, Mr Henderson stated that information from other sites in the Washdyke industrial area indicated that power outages are infrequent. He stated that an additional 0.75 hectare of land is available for expansion onto the Hilton Haulage site, should an expansion of the biofilter be necessary in future.
  30. Mr Henderson addressed some of the issues raised by Mr Hintze. He stated that the augurs and metal detectors would be enclosed at the SPL plant, unlike the SCBP rendering plant. He stated that the meal bins would be fully enclosed with bag filtration to control dust. Hydrolisation of ovine heads and hocks would occur in a separate bin with fumes extracted to the concentrated sources biofilter for treatment. Mr Henderson noted that the tallow tanks would be fully enclosed and any associated odour would be mild and very localised.
  31. Mr Henderson stated that he is committed to consent compliance and confirmed his intention to hold 6-monthly community liaison meetings, if consent is granted.
  32. **Mr Roger Cudmore**, an air quality scientist at Golder, provided detailed evidence regarding the potential effects of odour discharged from the rendering plant. He stated that the odour control system and associated monitoring designed for the proposed rendering plant represents current best practice for the New Zealand rendering industry, and is consistent

with the BPO for this site. Standard operating procedures are proposed that cover key operational and monitoring procedures associated with the odour control system. Mr Cudmore considered that this would result in a considerable improvement in the day to day management and long-term performance of the odour control system, relative to existing rendering plants in New Zealand.

33. Mr Cudmore stated that the conditions of consent proposed at the hearing are considerably more onerous and prescriptive than those conditions imposed on discharge permits for existing rendering plants in this country. He noted that the consent conditions and odour management plans for existing plants had not always been effective at preventing gradual loss of performance of the odour control system over time. He considered that the proposed conditions focus on more relevant parameters that would provide real-time information on the performance of the odour control system and enable proactive maintenance.
34. Mr Cudmore's assessment of odour effects concluded that industrial neighbours surrounding the SPL site would be expected to experience only minor odour effects, due to the high degree of odour control, monitoring and management that is proposed. He considered that the location of the biofilters and the building air ventilation design, which would be optimised and reviewed at the detailed design phase, would protect the neighbouring Vendella operation from odour nuisance effects. Mr Cudmore considered that the separation distance to dwellings and the residential area to the west of the plant is sufficient to ensure that sensitive locations do not experience any significant adverse effects associated with the odour discharge. This was supported by analysis of local meteorological conditions and assessment of the potential frequency of exposure for various receptors. He confirmed his view that significant cumulative odour effects, in combination with the SCBP discharge, would not arise if both sites routinely complied with their consent conditions.
35. Mr Cudmore made several comments in response to the evidence of Mr Hintze. He noted that there are significant differences between the odour control system at SCBP and the system proposed for the SPL plant. He considered that the numerous reported odour complaints in relation to the SCBP discharge suggest a low degree of odour control that is more typical of the New Zealand rendering industry in the 1990s. Mr Cudmore stated that it is not unusual to have building air vented to atmosphere, particularly where the odour control strategy is focussed on an effective concentrated sources extraction and treatment system.
36. Mr Cudmore stated that dispersion modelling of odour emissions from biofilters is of little value for this type of discharge. He considered that well designed and operated biofilters can routinely remove 100% of odours associated with rendering, and should only discharge a "bark/soil" type odour. In response to questions, he stated that such odours typically dissipated within tens of metres from the biofilter. He noted that the location of the biofilter now proposed offered sufficient separation from the Vendella property. In relation to the proposed tallow tanks, he stated that these would be located 70-80 metres from the



Vendella outdoor area where people may be exposed to odours. Mr Cudmore stated that the tallow odours could be treated if an issue arose. Overall, he concluded that the discharge would cause only minor effects at the Vendella property. He considered that textile tainting effects would be unlikely given the odour control measures proposed.

37. In reply to questioning regarding odour monitoring, Mr Cudmore stated that the 750m separation distance between the SCBP and SPL rendering plants would allow for effective odour monitoring. He considered that standard odour monitoring procedures could be used to identify the source of odour in the event of a complaint.
38. **Mr Michael Copeland**, consulting economist, assessed the economic effects of the proposed rendering plant. He stated that the proposal is consistent with the efficient use of resources. In this regard, the plant would utilise waste products which would otherwise be disposed of in landfills or composted, would reduce transport costs, would increase competition for raw materials, would utilise thermal energy from a neighbouring plant, would increase use of the local port, and would increase population and economic activity levels in the Timaru District.
39. Mr Copeland considered that granting of consent would provide for the economic wellbeing of people and communities in the district. He found that the plant would: provide additional direct and indirect employment opportunities for local residents during both construction and operation; would provide additional wages and salaries for local residents; provide levels of direct and indirect expenditure with local businesses; enhance the breadth and quality of services available to local residents and businesses; provide greater employment choice locally; and reduce costs for other businesses.
40. Mr Copeland was questioned as to whether a dollar value could be assessed for any adverse amenity impacts caused by odour discharged from the rendering plant. In response, he considered that such “intangibles” could not be adequately quantified in monetary terms and it would not be appropriate to attempt to do so.
41. **Ms Deanne Barretto**, a planner with Golder, prepared planning evidence in relation to the proposal. She noted that the TDP policies for the Industrial H zone specifically provide for heavier industrial activities having more adverse environmental effects. The provisions aim to identify activities producing odour and dust as permitted within that zone. She explained that a future expansion of the industrial zone, extending to the north and northwest of the site, is provided for in the TDP.
42. Ms Barretto noted that the CARP, specifically through Policies 6.9 and 6.12, is directive in seeking to ensure that activities discharging to air are appropriately located, taking into account land use anticipated by district plans. She stated that where such activities are appropriately located, Policy 6.12 provides for a longer consent duration that would offer long-term operational certainty. Based on the evidence of Mr Cudmore and Mr Henderson, she considered that the proposed rendering plant is appropriately located in terms of the relevant planning provisions. She concluded that the adverse effects of the proposal on

the environment are likely to be minor or less and that those effects are acceptable and consistent with the expectations of the Industrial H zone.

43. Ms Barretto considered that, subject to the consent conditions proposed, granting of consent would be consistent with Part 2 of the Act and also with the relevant objectives and policies of the RPS and the CARP. She also observed that the proposal is consistent with the relevant Iwi Management Plans.

### Submitters

44. **Mr Ian Geary** stated that he resides at 46-66 Timaru-Temuka Highway which includes three rental properties and a small organic vineyard. He considered that the notification period had not allowed him sufficient time to research and prepare a response to the application. He considered that the application disregards the proximity of the residential area to the west of the site and noted that consultation with residents has not been undertaken. Mr Geary expressed his concerns about the potential offensive and objectionable odour effects in an area that has a residential component.
45. Mr Geary stated that local residents have consistently opposed, protested and contended with odour effects cause by the SCBP plant for many years and that these issues are still unresolved. He observed that the CRC had a history of failure to implement competently the appropriate guidelines for monitoring and enforcement when responding to odour complaints. He said that the SPL proposal would incur the same issues with odour and compliance. He told the hearing he was worried about the psychological effects, including depression, anger and frustration, on the health and wellbeing of the local residents of Washdyke.
46. The following day Mr Geary further reiterated his concerns about the CRC's ability to monitor and enforce conditions of any consent granted and the council's alleged incompetence in relation to handling of previous odour complaints. He stressed his concern about the potential impact of cumulative effects of odour on the residents, should consent be granted for another rendering plant in the local area.
47. **Mr Anton Ayers** stated that he has lived at 26 Flemington St, Washdyke for 36 years. Mr Ayers expressed his concerns about air pollution and particularly odour experienced in the local area. He noted that there is already one by-products rendering plant in the area which regularly discharges foul odours. He said the odour issues have been a continuous concern to himself, his family and the Washdyke community. He does not want another rendering plant to establish near his home. Mr Ayers stated that he was also concerned about the effects on his health. He said he would like any new plant to be situated in an area where the prevailing winds do not carry the odours through the Washdyke community.
48. In response to questions, Mr Ayers stated that during the last 10 years he has been affected by odours from the SCBP plant every summer. This has affected his ability to have barbeques and host guests.

49. **Mr Michael Coffey** stated that he and his wife Carol have lived at 54 Seadown Road for 27 years, down-wind of the proposed site. In their submission they noted that the SPL proposed site is close to the existing rendering plant which is still causing them odour problems. Mr Coffey submitted that operating two processing plants so close together is going to cause more odour problems.
50. In relation to the odour discharge from the existing SCBP plant, Mr Coffey noted that he was informed by experts that prevailing winds would not carry the odour to his property at Seadown Road. He stated that he was informed by Environment Canterbury that odour cannot leave SCBP's boundary and if it did the council would address the problem. Mr Coffey stated that this information has not been proven to be correct on both fronts. He stated that his wife has rung Environment Canterbury on several occasions regarding odour and received no response. He was aware that neighbours have also complained and no action has been taken, with investigations by the council often being inconclusive regarding the source of the odour.
51. Mr Coffey stated that he has done work at the SCBP plant in the past and would ring the factory manager at any time of day when odour was experienced. He considered that the odour issue would be sorted quickly with this approach, noting that often the issue was caused by a door being left open at the plant. Mr Coffey questioned the ability of Environment Canterbury to adequately monitor any consent granted. He stated that he is not against other industries coming to Washdyke, but this should not be at the cost of his wellbeing. He said he cannot go outside his home and smell fresh air, he does not want the sheets on his line to be tainted by odour and he wishes to be able to go outside and have a BBQ. Mr Coffey considered that these are basic rights of every New Zealander.
52. **Mr James Kane** stated that he and his wife Beverley had lived at 305 Hilton Highway, Washdyke for 33 years. Their submission stated that they have tolerated "abominable stench" for several years and have complained to the CRC several times, but no improvement has been forthcoming. He submitted that allowing further contamination of their air would make life unbearable. Mr Kane noted that the odour from SCBP causes embarrassment when people visit his property, particularly during garden visits that occur on occasion. He considered that if any further odour was allowed it would devalue all the properties in Washdyke and the residents should not have this imposed on them.
53. With regard to the 35-year duration of consent sought by the applicant, Mr Kane considered that term to be inappropriate. He stated that a 10-year term of any consent would be "very generous" given the known odour problems caused by the existing SCBP plant. He noted that there are other locations where a rendering plant could be built, including further east, with greater separation from businesses and residences.
54. In response to questions, Mr Kane stated that odour from SCBP has been experienced for several years, despite numerous complaints being made to the CRC. He considered that complaining about the odour has proven to be a waste of time. He noted that odour was

experienced on approximately three days per week, primarily during the summer period. Odour was experienced nearly every day when light easterly winds transported the discharge from the SCBP plant to his residence.

55. In relation to the proposal for 3m high ventilation stacks above the SPL plant roof, Mr Kane stated that raising the stacks would disperse the odour discharge further and potentially exacerbate adverse effects at residential properties.
56. **Mr Graeme Welford** presented a submission on behalf of the **Washdyke Action Group**. Mr Welford has lived at his residence at 9 Randwick Place for 35 years. In the Washdyke Action Group's submission, Mr Welford noted that residents have had ongoing problems with SCBP releasing "foul odour" into the local Washdyke residential area. These odours had prevented residents, children and visitors from sitting, working and using the outdoors. The odour makes residents feel ill and is very unpleasant. Mr Welford stated that the psychological and physical health of residents had been affected and he was worried about the increase in these conditions that could be caused by the establishment of another rendering plant.
57. Mr Welford said that the prevailing wind would carry the odours on a very regular basis to the residential area, as occurs with the SCBP discharge. He noted that residents need to keep their windows shut to prevent the foul odour contaminating everything in their homes. He said these issues had not been resolved in relation to SCBP for over 10 years and ringing the Environment Canterbury hotline on a regular basis had been without success. Mr Welford further stated that it is difficult to work outside for long periods of time without having to stop and start as the odour from SCBP is so offensive that it is necessary to move indoors and shut the windows to avoid the odour.
58. During the hearing, Mr Welford stated that CRC monitoring officers that respond to odour complaints have difficulty ascertaining the source of the odour. He also raised concerns about the monitoring equipment and methodology employed by the council and its usefulness. Mr Welford stated that previously he had worked from home and found that the unpleasant odour from SCBP had been an ongoing issue. He submitted that a new rendering plant would have similar odour effects on the residents of Washdyke.
59. **Ms Amy Hill**, solicitor with Chapman Tripp, presented legal submissions on behalf of Wallace Group that owns SCBP. Ms Hill submitted that the SCBP plant has almost identical specifications to the proposed SPL plant. She considered that the applicant had underestimated the extent of likely odour effects and had not adequately considered the risk of cumulative effects caused by odour discharges from both rendering plants. Because odour issues were already a sensitive matter in the Washdyke area, she stated that this application could result in significant adverse odour and amenity effects which would ultimately extend to adverse impacts on the SCBP plant. Ms Hill raised the issue that residents were unlikely to be able to distinguish between odour sources and may mistakenly identify the SCBP plant as an odour source.

60. Ms Hill submitted that the applicant should have applied for the full suite of resource consents, rather than just the discharge permit, so that the project could be considered as a whole. She considered that section 91 of the Act is applicable as the air discharge aspect cannot be separated out from the land use aspects of the proposal. She noted that the proposal may not be able to meet TDC standards for permitted activities in the Industrial H zone.
61. Ms Hill stated that the application is inconsistent with several regional planning provisions relating to the proximity of discharges to air to sensitive land uses. She noted that the proposed plant would be 380m away from the closest residential dwelling and 800m from the closest residential zone. She also noted the sensitivity of the Vendella site adjacent to SPL.
62. With reference to the CARP, Ms Hill noted that the plan is directive towards activities achieving no objectionable or offensive odour effects beyond the property boundary. She stated that the current consent issued to SCBP includes a buffer zone of approximately 500m applied to the achievement of no offensive or objectionable odour effects. Ms Hill considered that activities that cannot meet this standard are classified as non-complying, not discretionary, under the CARP.
63. **Mr Manfredo Hintze** is Operations Manager with Wallace Group, overseeing the operations of the SCBP rendering plant at 122 Aorangi Road, Washdyke. He raised concerns that the application will result in significant adverse odour effects. Mr Hintze stated that the cumulative effects in combination with existing air discharge sources in Washdyke will result in negative impacts on SCBP because local residents may not be able to distinguish between odour sources and mistakenly identify the SCBP Plant as the source of any additional odour. This could result in complaints and potentially inhibit Wallace Group's ability to operate their SCBP Plant.
64. Mr Hintze raised concerns about the design of the proposed SPL plant. He noted that the internal building ventilation will be vented to the atmosphere untreated; the augers that transport material all day long are open; metal detectors will be exposed; and trucks need to open the bin covers during load outs. He said the assumption that material is enclosed at all times with odours vented to the biofilters is not realistic. Mr Hintze stated that untreated odour would be vented out of the 3m stacks above the SPL roof, would be discharged from external tallow tanks and would also be emitted from open doors during load in/out of raw materials and product.
65. Mr Hintze questioned the odour control proposed for the milling operation and meal drying area, submitting that the odour was not "low and neutral" as per Mr Henderson's evidence. He stated that there was insufficient space in the proposed plant layout for a bin for ovine heads and hocks which will require hydrolisation and that these would be offloaded onto the floor and would cause discharge of untreated odour. He said this odour source requires dedicated treatment prior to being vented to biofilters because it is caustic and can affect the biofilter media.

66. Mr Hintze expressed concern that the the proposed system for ventilation of the SPL plant, including 3m stacks above the roof, has not been modelled. He noted that Mr Cudmore's evidence concentrated on the odours emitted through the biofilter, which are not the only odours that will be generated from the plant.
67. Mr Hintze commented on the s42A report which recorded that the site's physical constraints would not allow expansion of the biofilter capacity if required. Mr Hintze considered that this aspect caused uncertainty concerning the long-term effectiveness of the odour control system. He noted that biofilters are not 100% effective in controlling odour and considered that neighbours such as Vendella would be exposed to odour. He submitted that there are no buffer zones proposed which are crucial to managing odour from rendering plants. Mr Hintze considered that dispersion modelling of odour emissions from the SPL plant should have been undertaken.
68. In relation to the neighbouring Vendella site, Mr Hintze said that the tallow tanks will be located in close proximity and will cause odour effects. He observed that tallow tanks normally have valve leaks and need to be bunded and cleaned weekly. He said valve leaks from these tanks can generate fugitive odour emissions. Mr Hintze also noted that the cooling towers are close to the Vendella site and the discharge of vapour may travel over that area, creating another source of localized odour impact. He questioned the ability of SPL to operate in a way that avoids offensive and objectionable odours being experienced beyond the site boundary at the proposed location.
69. Mr Hintze submitted that the applicant did not properly address the potential for an acute odour event associated with any abnormal emissions and how that would be managed. He stated that Mr Cudmore's assessment did not account for the many fugitive odours that are inevitable in any rendering operation. Mr Hintze expressed concern that the application did not fully consider the restrictions of the chosen site, including a lack of separation from neighbours, and had not demonstrated that offensive or objectionable odour effects would be avoided.

#### **Section 42A Report**

70. **Mr Sean Mooney**, Consultant Planner, prepared a s42A report on behalf of the CRC that was circulated to the parties prior to the hearing. His report included a technical review prepared by Ms Ryan and comments from the compliance monitoring team regarding the handling of odour complaints. The report recommended that the application be refused, due to a lack of clarity concerning key management practices, the risk of odour effects during plant upset conditions (such as equipment breakdowns), and the potential risk to the adjacent Vendella business. Based on the information available at the time of writing, Mr Mooney considered that there was an unacceptable risk of offensive or objectionable odour occurring during the lifespan of the proposed rendering plant. In the event that consent was granted, his report recommended a 10-year duration.

71. Mr Mooney presented a brief supplementary report that summarised his revised conclusions based on evidence and proposed conditions provided at the hearing. He noted that key changes to the proposal at the hearing included relocation of the biofilter to the eastern boundary of the site, further away from Vendella, and the addition of 3m high stacks discharging ventilation air above the roof of the SPL building. He observed that a more comprehensive set of consent conditions had been proposed by the applicant at the hearing and a Repair and Maintenance Management Plan is included.
72. Based on the updated information available, Mr Mooney considered that consent could be granted if the panel is satisfied that the discharge would not cause objectionable or offensive odour effects. In relation to the duration of any consent granted, Mr Mooney noted that Policy 6.12 of the CARP is relevant. In terms of this policy, he considered that 15-25 years would be considered a “longer duration”. He pointed out that the policy does not guarantee a maximum duration of 35 years and recommended that a term in the order of 20-25 years would be appropriate based on the revised information provided at the hearing.
73. **Ms Deborah Ryan**, air quality scientist with Pattle Delamore Partners Ltd (**PDP**), prepared the technical review report in association with Dr Mark Ellis of that firm. The report noted that system failures at the rendering plant would pose a real risk of objectionable odour effects beyond the property boundary. Additional monitoring was recommended to address this issue. The report determined that the small size of the proposed site would likely contribute to fugitive odour being experienced beyond the SPL site boundary.
74. Ms Ryan provided comments at the hearing to address the changes to the application and consent conditions proposed by the applicant. She noted that continuous monitoring of key performance parameters using a SCADA system is a significant shift forward from the business as usual operation associated with rendering plants historically. She considered that the proposed plant design, monitoring and preventative repair and maintenance programme would represent the BPO for the proposed site.
75. Ms Ryan concluded that the separation distances to sensitive residential areas are sufficient that, subject to compliance with the proposed consent conditions, the potential for adverse odour effects at residential properties is considered to be minor. She found that the proposed conditions are comprehensive and provide certainty as to the outcomes expected. Her updated conclusion was therefore that odour from normal operations would be acceptable and that potential effects from abnormal operations would be minimised as far as practicable to a relatively low incidence and duration.
76. **Mr Michael Nolan**, Incident Response Officer based at the CRC’s Timaru office, answered questions regarding the council’s response procedures for odour complaints. He stated that he is currently the primary officer responding to odour complaints from the Timaru area. Mr Nolan said that typically he would respond to odour complaints within approximately 10 minutes. Following an initial odour assessment for a 10-minute period at the location of the complaint, he stated that he would work upwind and assess the width of the odour

plume. He would undertake a “360-degree assessment” around the suspected discharger to confirm the source of the odour. Mr Nolan stated that the discharger, where identified, would normally be contacted regarding the odour and mitigation measures that could be applied. He confirmed that the odour monitoring procedure would follow the guidelines set out in Schedule 2 of the CARP.

### **Further evidence**

77. The hearing was adjourned on 25<sup>th</sup> February 2020 and we sought further comment from the parties in attendance concerning the conditions proposed by the applicant at the hearing. Those updated conditions included considerable additional detail regarding proposed mitigation measures and monitoring. The parties were requested to provide comment on the conditions before the applicant submitted a written reply with a final set of proffered conditions.
78. In accordance with our directions we received the following further information:
- (a) A detailed set of proposed consent conditions presented by the applicant at the hearing;
  - (b) Written comment on those conditions from the parties who requested to be heard or attended the hearing, and the council officers;
  - (c) Updated final proposed conditions from the applicant, taking into account the comments received from the parties;
  - (d) A final written reply from Ms Thomas, on behalf of the applicant.

### **Applicant’s Right of Reply**

79. Ms Thomas provided a written right of reply on behalf of the applicant on 18 March 2020. With regard to the effectiveness of the biofilter to treat odours, she submitted that monitoring and performance is assured by the proposed conditions of consent. She referred to the evidence of Mr Cudmore that no rendering-type odour would be expected to be discharged from the biofilter. She also noted that Mr Henderson confirmed that an additional 0.75ha of land would be available for future biofilter expansion, if required.
80. In respect of the concerns raised by Mr Hinze relating to the design of the plant, Ms Thomas stated that the meal and cake bins would be fully enclosed with odours extracted to the biofilter treatment system. Dried meal would be enclosed until it is containerised. The augurs would be enclosed and would not be opened for cleaning. She emphasised that the proposed plant is very different from the existing SCBP plant in terms of odour control. Ms Thomas referred to the evidence of Mr Cudmore that the negative pressure system at SCBP with full building air extraction to biofiltration has proven ineffective. She further noted that the SCBP discharge permit does not have a condition that limits the age of the raw material received.



81. Ms Thomas noted that the effects of trade competition are not relevant considerations. She submitted that caution should therefore be applied in relation to the Wallace Group submission, emphasizing that Mr Hintze is not an air quality expert.
82. In relation to the requirements of section 91 of the Act, Ms Thomas submitted that all applications do not need to be considered together because the discharge to air does not relate to the subdivision or land use activities. She noted that the land use is controlled with respect to financial contributions.
83. Ms Thomas stated that the proposed ventilation of building air via stacks 3m above the SPL roof was intended as a contingency to provide additional odour protection to Vendella in the event of abnormal or upset operating conditions. She noted that the proposed conditions require modelling of the odour discharge from this source, with independent peer review of that modelling also required. She confirmed that Mr Cudmore is very confident that odour effects at the Vendella property would be acceptable. She submitted that the zoning of the Vendella site is relevant, being located in the Heavy Industrial zone where potentially odorous activities are permitted under the TDP.
84. With regard to the potential effects of odour during a network power outage, Ms Thomas referred to the evidence of Mr Henderson that the risk of power outage is low. She noted that a backup generator is also now proposed as a condition of consent.
85. Ms Thomas submitted that the conditions of consent now proposed, updated in response to submitter and officer comments, are unlike the conditions imposed on existing rendering plants in New Zealand and Australia. She stated that the condition requiring independent expert peer review of the detailed design of the plant is unique. She added that continuous monitoring of key parameters via a SCADA system is a “significant step forward” in the assessment of Ms Ryan.
86. Ms Thomas considered that, subject to the conditions now proposed, the effects of the discharge are predictable and a precautionary approach is not required in this case. She referred to the *PVL Proteins* decision and submitted that the circumstances indicating a shorter duration of consent do not apply to the proposal. Ms Thomas confirmed that applicant’s position that consent should be granted for a duration of 35 years.

## **ASSESSMENT**

87. In assessing the applications, we have considered the application documentation and AEE, the s42A Report and technical reviews, all submissions received and the all evidence provided after the hearing adjournment in accordance with our directions. We have summarised this evidence above.
88. Submitters raised concern regarding potential adverse effects on property values. We note that case law indicates that taking into account adverse effects on property values in addition to adverse effects on amenity values and air quality could result in double counting

adverse effects. We acknowledge this. We accept that adverse effects on amenity values and air quality can impact on property values.

### **Status of the Application**

89. The starting point for our assessment of the application is to determine the status of the proposed activity.
90. Both Mr Mooney and Ms Barretto concluded that the proposal is classified as a discretionary activity under the CARP. Ms Hill submitted that the proposed discharge is likely to cause objectional and offensive odour beyond the site boundary and therefore should be classified as a non-complying activity under the CARP.
91. Our evaluation of odour effects concludes that, subject to the amended conditions proposed, the discharge is not expected to cause offensive or objectionable odour effects. Consequently, we find that the application should be considered as a discretionary activity under section 104B the Act.

### **Procedural Matters Raised**

92. In relation to the requirements of section 91 of the Act, we accept the views of Mr Mooney and Ms Thomas that all consent applications do not need to be considered together because the discharge to air does not relate to the subdivision or land use activities. We consider that applications for other consents do not need to be made to allow better understanding of the effects of the discharge. We are satisfied that the hearing of this application did not need to be deferred under section 91.
93. Submitters, including Mr Geary, raised concerns regarding the notification process for this application. We are satisfied that the application was appropriately notified by the Council and find that there are no procedural matters that prevent us from reaching a decision.
94. Some submitters also raised concerns about the ability of parties to respond to the applicant's proposed conditions presented at the hearing, as directed by our minute at the adjournment of the hearing. We have allowed an extension of the response time to be sure that all parties have had sufficient time to consider the conditions and reply. All parties who attended the hearing or requested to be heard were given opportunity to comment on the conditions. This is appropriate and consistent with standard practice in these circumstances. We conclude that it was not necessary to seek comment from submitters who were not involved in the hearing process as these parties would not have been familiar with all the additional information provided during the hearing.
95. Mr Geary also expressed concern that he was not afforded full opportunity to express his concerns regarding competence of the CRC in handling odour complaints. We explained to Mr Geary and all the parties that the submissions and evidence should focus on the effects of the proposal at hand, rather than the effects and monitoring of the existing SCBP

discharge. Nevertheless, we allowed considerable scope to consider the ability of the Council to effectively monitor any conditions of consent, including the “no offensive or objectionable odour” condition. We further allowed Mr Geary a second opportunity to expand on his concerns re odour monitoring and we also questioned Mr Nolan in some detail on this subject. We are therefore satisfied that all parties were given ample opportunity to express concerns relevant to the proposal.

### **Statutory Considerations**

96. In terms of our responsibilities for giving consideration to the applications, we are required to have regard to the matters listed in sections 104, 104B, and 105 of the Act.
97. In terms of section 104(1), and subject to Part 2 of the Act, which contains the Act’s purpose and principles, we must to have regard to-
- (a) *Any actual and potential effects on the environment of allowing the activity;*
  - (ab) *Any measure proposed or agreed to by the applicant for the purpose of ensuring positive effects on the environment to offset or compensate for any adverse effects on the environment that will or may result from allowing the activity;*
  - (b) *Any relevant provisions of a national environmental standard, other regulations, a national policy statement, a New Zealand coastal policy statement, a regional policy statement or a proposed regional policy statement, a plan or proposed plan; and*
  - (c) *Any other matters the consent authority considers relevant and reasonably necessary to determine the application.*
98. Section 104(2) states that when forming an opinion for the purposes of section 104(1)(a), we may disregard an adverse effect of the activity on the environment if a national environmental standard or the plan permits an activity with that effect. This is referred to as consideration of the ‘permitted baseline’.
99. In terms of section 104B for a discretionary activity, we may grant or refuse the application, and if granted we may impose conditions under section 108.
100. In terms of section 105, when considering section 15 (discharge) matters, we must, in addition to section 104(1), have regard to-
- (a) *The nature of the discharge and the sensitivity of the receiving environment to adverse effects; and*
  - (b) *The applicant’s reason for the proposed choice; and*
  - (c) *Any possible alternative methods of discharge, including discharge to any other receiving environment.*
101. We consider each of these sections of the RMA below and our consideration of the environment as it exists at the time this application is determined, referred to as ‘the existing environment’.

### **Permitted baseline**

102. We do not consider there are any permitted activities that are relevant to our consideration of the applications. We do not accept that the odours caused by proposed rendering plant will be similar in character, nature or scale to typical odours associated with activities permitted by the CARP.

### **Section 104(1)(a) Actual and potential effects on the environment**

103. The following actual and potential effects on the environment have been assessed:
- (a) Effects of the discharge of odour, including effects on amenity values;
  - (b) Effects of the proposal on Tangata Whenua values; and
  - (c) Positive effects of the proposal.
104. We record we have considered all of these actual and potential effects in relation to the proposal.
105. On the basis of the evidence presented, our assessment focusses on adverse air quality effects of the proposed operation. Our assessment of air quality effects below includes impacts on amenity values.

### **Air Quality Effects**

106. Many of the submissions have focussed on the odour effects caused by the existing SCBP rendering plant at Washdyke. We have carefully considered the information provided and the CRC odour complaints record and we accept that the SCBP discharge is the likely cause of adverse odour effects, particularly for occupants of the residential area bounded by Highway 1 and Seadown Road. We also accept the advice from Council monitoring officers that the conditions of the SCBP discharge permit do not contain sufficient process and operational limits to enable effective compliance monitoring and enforcement in response to odour complaints. We have no authority to address compliance issues associated with the SCBP consent, but we do recommend to the CRC that a review of the conditions of that consent be considered as a matter of urgency.
107. Due to the identified odour issues caused by the existing rendering plant established in the Washdyke industrial area, we are conscious of potential cumulative effects that could be caused by allowing an additional discharge causing similar effects. It is therefore important to have regard to the specific design of the SPL plant and the proposed odour control system to determine any extent to which odour effects may differ from those caused by the SCBP plant. In this regard we find on the evidence that there are substantial differences between the proposed SPL rendering plant and the existing SCBP plant.
108. The assessment of effects of the proposed discharge has been subject to a technical review by Ms Ryan and Dr Ellis on behalf of the CRC. Following review of the further evidence and proffered consent conditions presented at the hearing, Ms Ryan concluded that the

proposed odour control and monitoring system constitutes a significant shift from the “business as usual” approach adopted by existing rendering plants in New Zealand. She accepted that the proposed odour control system designed by Mr Cudmore is appropriate and did not dispute his evidence that the design and monitoring measures are consistent with best practice.

109. The detailed set of proposed consent conditions has been amended by the applicant to incorporate matters raised by the officers and submitters. Apart from some relatively minor changes, we find that these conditions are appropriate and include key operating and monitoring procedures that could be readily monitored by the CRC to determine ongoing performance. In particular, we note that the proposed conditions include: continuous monitoring of key process parameters via a SCADA system; strict raw material acceptance criteria; independent peer review of the odour control system and vent design; two-yearly independent review of the performance of the odour control system; six-monthly liaison meetings with residents and neighbours; and cessation of processing if “offensive or objectionable” odour effects are verified in response to any complaint.
110. Overall, we are satisfied that the comprehensive mitigation and monitoring methods now proposed are such that the potential odour effects caused by the SPL discharge would be significantly less than the effects caused by the existing SCBP discharge. We have carefully considered the specific matters concerning design of the proposed plant and odour control raised by Wallace Group and Mr Hintze. We accept that Mr Hintze is not an air quality expert and therefore have placed limited weight on his evidence. Nevertheless, we find that the technical matters raised by Wallace Group have been adequately addressed in the responses provided by Mr Cudmore and Mr Henderson. We note the substantial expertise of Mr Cudmore in the design of odour control systems and accept his evidence that the proposal is consistent with current best practice.
111. Concerns have been raised regarding the potential for significant odour effects to occur as a result of abnormal or upset conditions at the proposed rendering plant. Following revisions to the proposal and monitoring, as contained in proffered conditions, the Council officers considered the risk of upset conditions had been appropriately minimised. We agree and accept the evidence of Mr Cudmore that continuous monitoring via the SCADA system will be sufficient to prevent the gradual loss of performance in the odour control system experienced by some existing rendering plants in New Zealand. The applicant has proposed that a generator will be used to maintain odour control in the event of network power outage, and we have amended the condition to specify that such a generator should be available and immediately used to operate extractor fans in these circumstances.
112. With regard to odour effects at the Vendella property, we are conscious of the lack of buffer and the potential exposure to fugitive odours from the site. In accordance with proposed conditions, the design of the vents extending at least 3m above the SPL roofline would be reviewed by an air quality expert and we accept the evidence of Mr Cudmore that this is expected to be sufficient to prevent significant odour effects associated with building

downwash. The proposed biofilters have been relocated to the eastern side of the SPL site to maximise the separation distance from Vendella.

113. Notwithstanding the mitigation proposed in relation to the adjacent Vendella site, it is expected that a degree of odour effect would be experienced at this location during prevalent daytime easterly winds, particularly if staff are present in the outdoor seating area at the northern end of the site. Mr Cudmore stated that the tallow tanks will be located approximately 80m from this outdoor seating area and concluded that adverse odour effects at Vendella would be acceptable. We have considered the Industrial H zoning of the Vendella site and the level of mitigation proposed, and find that adverse odour effects are likely to be acceptable at this location. It is reasonable for businesses that establish in a heavy industrial zone (where odorous activities are permitted) to expect that a degree of odour is likely to be experienced at times. We find on the evidence that this effect is unlikely to be offensive or objectionable and therefore conclude that tainting of stored product is an unlikely outcome.
114. The assessment of Mr Cudmore concluded that the SPL discharge would be expected to cause some additional odour effects at properties within 300m of the discharge. He indicated that a distinct meal-type odour could be experienced at times on neighbouring industrial properties. The nearest dwelling is located approximately 380m from the plant, within the industrial zone, with the next closest dwelling being 500m from the site. The residential area bounded by Highway 1 and Seadown Road, where many of the submitters reside, is approximately 850m to west of the SPL site. Ms Ryan concluded that the separation distance from sensitive activities is sufficient. We accept the evidence that the proposed discharge, subject to the comprehensive mitigation and monitoring now proposed, is predicted to cause no more than minor odour effects at this residential area.
115. We are very mindful of the submitters' concerns regarding potential cumulative odour effects, in combination with the SCBP discharge. Based on the evidence, we consider that a significant additional odour effect caused by the SPL discharge at the location of residentially zoned properties is unlikely. We reiterate that the complaints record, the submissions, and our observations during site visits, indicate that non-compliance with the conditions of the SCBP consent may be occurring. During our visit to the SPL site on the afternoon of 25 February 2020 we detected odour at a distance of 750m from the SCBP site that is likely to be associated with that discharge. We accept the evidence of Mr Cudmore that, if both the SCBP and SPL plants are complying with the conditions of their respective consents, cumulative effects of odour at the residential area are not predicted to be significant. We further find that the 750m separation distance between the two rendering plants is sufficient to allow effective compliance monitoring to identify the source of the odour in the event of a complaint.
116. The difficulties experienced in by the CRC in monitoring the “no objectionable or offensive odour” condition on the SCBP consent have been stressed by submitters. We acknowledge their frustration. However, we also note the evidence of Mr Nolan and find that the odour monitoring procedures adopted by Council staff are generally appropriate. The process

monitoring conditions proposed for the SPL consent represent a substantial improvement and would allow Council officers to take action in response to any complaints without principally relying on the “no offensive or objectionable” odour condition. We consider that the appropriate pathway to reducing adverse odour effects experienced by Washdyke residents would be for the CRC to initiate a review of the SCBP consent conditions. It would not be appropriate to limit the establishment of new activities in the industrial zone due to the potential non-compliance of an existing discharger.

117. We have determined that some further, relatively minor, changes to the proposed consent conditions are appropriate. These amendments are as follows:

- A requirement that the professional independent reviewer of the odour control system detailed design report certifies that the design of the odour control system complies with the conditions of the consent (Condition 18).
- Expansion of the scope of Condition 46 to require cessation of all processing, not just one line, if monitoring by the consent holder or the CRC, including in response to any complaint, determines a breach of the “no offensive or objectionable odour” condition (Condition 2).
- Additions to notified parties for 6-monthly community liaison meetings required by Condition 50 to specifically include the properties of Mr Coffey (54 Seadown Road), Mr Geary (46-66 Timaru-Temuka Highway) and Mr Kane (305 Hilton Highway). The amended conditions provided with the applicant’s reply include the residential area bounded by State Highway 1 and Seadown Road where several submitters live.
- An addition to Condition 50 to require notice of liaison meetings to include a summary of any odour complaints, response action taken and the odour monitoring over the preceding 6-month period.

118. Overall, we conclude that the degree of odour mitigation and process monitoring proposed is consistent with best practice and we find on the evidence that the adverse effects of odour discharged from the proposed rendering plant are acceptable. The conditions of consent we intend to impose are comprehensive and represent a significant improvement over the conditions of existing consents for rendering plants such as SCBP. We find that compliance with these conditions would achieve a degree of odour effect at neighbouring properties that is not offensive or objectionable.

### **Effects on Tangata Whenua Values**

119. Arowhenua Rūnanga were advised by the CRC when the application was lodged and Te Rūnanga o Ngāi Tahu were served notice when the application was notified. No response or submissions were received from these parties.

120. Neither the applicant nor the CRC have a duty to consult any person, including Maori, under s36a of the Act. Section 8 of the Act requires us to take into account the principles of the Treaty of Waitangi which include the principles of partnership, active protection and

consultation. In this regard we consider it would have been useful for the applicant to attempt to discuss the application with Arowhenua Rūnanga to understand their interpretation of their values and their iwi management plans.

121. The Washdyke Lagoon area is located approximately 600 metres to the south of the proposed rendering plant, with the coast stretching north and south of the lagoon. This is an area where Arowhenua whanau and Māori may well have enjoyed cultural practices such as mahinga kai and kaitiakitanga. However, given the distance to the site, we are satisfied on the evidence that significant odour effects are unlikely to be experienced in this area. Based on the conditions of consent now proposed, we find that any adverse effects of the discharge on Tangata Whenua values are likely to be minor.

### **Positive Effects**

122. The evidence of Mr Copeland concluded that the proposal is consistent with the efficient use of resources. He noted that the plant would utilise waste products which would otherwise be disposed of in landfills or composted, would reduce transport costs, would increase competition for raw materials, would utilise thermal energy from a neighbouring plant, would increase use of the local port, and would increase population and economic activity levels in the Timaru District.
123. Mr Copeland further considered that granting of consent would provide for the economic wellbeing of people and communities in the district. He stated that the plant would provide additional employment opportunities for local residents during both construction and operation, would provide levels of direct and indirect expenditure with local businesses, would enhance the breadth and quality of services available to local residents and businesses, would provide greater employment choice locally and would reduce costs for other businesses.
124. We accept the evidence of Mr Copeland and find that the proposed rendering plant would provide for the economic wellbeing of the local community and that the proposal is consistent with the efficient use of resources. We have taken these positive effects into account in evaluating the proposal under section 104(1) and Part 2 of the Act.

### **Section 104(1)(b) Relevant objectives and policies**

#### Canterbury Regional Policy Statement (RPS)

125. Objectives 5.2.1, 14.2.1 and 14.2.2 of the RPS were identified by Mr Barretto and Mr Mooney as relevant to the proposal. We have found that the discharge is not expected to cause significant adverse localised effects or nuisance effects. The activity will be appropriately located in a heavy industrial zone that reduces potential for conflict between incompatible activities. Whilst we are conscious of the sensitivity of Vendella to odour, we have also had regard to the land zoning and the presence of odour from other existing



activities. Overall, we consider that the proposal is not inconsistent with the objectives of the RPS.

126. Policy 14.3.5 states that new activities discharging to air should locate away from sensitive land uses and receiving environments, unless adverse effects can be avoided or mitigated. We conclude, based on the evidence, that there would be sufficient separation to sensitive land uses and receiving environments, including the Washdyke residential area. We find that the proposal is consistent with this policy.

#### Canterbury Air Regional Plan (CARP)

127. Ms Barretto and Mr Mooney have outlined the relevant objectives and policies of the CARP, although there is some dispute over the relevance of the various policies. We consider that Policies 6.1, 6.8, 6.9, 6.12, 6.13, 6.15, 6.22 and 6.28 are relevant to the application. In relation to Policy 6.17, we consider that the effects of the proposed discharge are well understood and adoption of a precautionary approach is not necessary.
128. With regard to Policies 6.9 and 6.28, we find that the proposed plant is appropriately located in the Industrial H zone. Taking into account the mitigation proposed and the separation distance to residential properties, we consider that the proposal is consistent with these policies.
129. Policy 6.8 states that objectionable and offensive effects are unacceptable. We have determined that such odour effects are not anticipated and therefore find that the proposal is consistent with this policy.
130. Policy 6.1 of the CARP relates to cumulative effects and seeks avoidance of unacceptable degradation of ambient air quality. We accept the evidence of Mr Cudmore that a significant cumulative odour effect would only be likely to occur if one or both of the SPL and SCBP rendering plants are producing excessive emissions that are not compliant with their consent conditions. Based on the odour control measures proposed for the SPL plant, we find that the discharge would not be a significant contributor to cumulative effects at the residential area or other sensitive locations. We therefore conclude that the proposal is consistent with Policy 6.1.
131. Policy 6.22 requires identification of the BPO to be adopted to minimise adverse effects and Policy 6.13 directs that the BPO be applied to minimise cumulative effects. We accept the evidence of Ms Barretto regarding interpretation of the BPO. We conclude based on the evidence that the BPO is being applied in this case and therefore find that the proposal is consistent with these policies.
132. Policy 6.15 recognises that changes in technology may allow for improvements in the quality of discharge over the term of consent which can be acknowledged by imposing management and review conditions. Ms Barretto stated that conditions to this effect have been proposed by the applicant, including a 5-yearly BPO review by an independent expert. We find that the proposal is consistent with Policy 6.15.

133. Policy 6.12 states that where activities locate appropriately to mitigate adverse effects on air quality a longer consent duration may be available to provide on-going operational certainty. We have determined that the proposed plant is appropriately located in an industrial zone and consider that Policy 6.12 is relevant to our consideration of consent duration. We discuss this policy further below when evaluating matters relevant to consent duration.

### **Findings**

134. We confirm we have considered the all of the objectives and policies of the above statutory documents in making our determination.
135. Overall, we find that the application is either consistent with or not contrary to the key objectives and policies of the RPS and CARP that seek to protect air quality from significant adverse effects of allowing the activity.

### **Section 104(1)(b) Other matters**

#### Iwi Management Plans

136. The Kati Huirapa Iwi Management Plan (IMP) 1992 applies to the area from Rakaia to Waitaki, in the rohe of Te Rūnanga o Arowhenua. The two Kati Huirapa IMP policies that specifically relate to the proposal state: *“The Takata Whenua says that all discharges of harmful contaminants into air which threaten the life support capacity of air, land and water should cease. All harmful contaminants removed from air discharges.”*
137. The evidence is that the discharge does not include harmful contaminants which are likely to threaten the life supporting capacity of air, land or water. With respect to the odour discharge, we accept the advice of Mr Mooney that odour can nevertheless have an effect on people’s health and wellbeing. We find on the evidence, given the mitigation proposed, that the effects of odour in the local area are likely to be acceptable. Therefore, we consider that the proposal is consistent with the Kati Huirapa IMP.

#### Previous Council and Environment Court Decisions

138. Ms Ryan discussed a relatively recent council decision (January 2018) on an application by Greenlea Premier Meats Limited to discharge contaminants to air from a new rendering plant proposed at Morrinsville. We were provided with a full copy of the decision. The proposed plant included wastewater treatment ponds and was situated in a sensitive area with the nearest dwelling being approximately 230m distant. The application was assessed as a non-complying activity.
139. Consent was granted to Greenlea Premier Meats subject to a suite of comprehensive conditions that are more robust than conditions of consent that have typically been

imposed for existing rendering plants in New Zealand. Ms Thomas explained that the set of conditions proposed at the hearing are based on the conditions of the Greenlea consent. In particular, they include requirements for regular review of the odour control system and cessation of processing if any odour complaints are substantiated as causing objectionable or offensive effects.

## **Section 105**

140. Ms Barretto and Mr Mooney addressed section 105 matters. We record that we have had regard to the nature of the discharge and sensitivity of the receiving environment, the applicant's reasons for the proposed choice, and possible alternative methods of discharge in reaching our decision. We find that the proposed plant is appropriately located in the Industrial H zone and accept that there are sound logistical reasons, including the availability of energy from a neighbouring boiler plant, for choosing the site. We are satisfied on the evidence, taking into account the comprehensive consent conditions now proposed, that there is sufficient buffer distance to sensitive residential areas. We note that the proposed biofilters have now been located at the eastern side of the site to optimise separation from the Vendella site.

## **Part 2 of the Act**

141. Ms Barretto provided an analysis of Part 2 matters in her evidence. Mr Mooney also undertook a brief Part 2 analysis in the s42A Report. The parties agreed that there was no specific reason to revert back to consideration of Part 2 matters in this case, as relevant considerations are encapsulated in the regional planning documents. For completeness, we have considered the proposal against Part 2 of the Act.
142. In accordance with Part 2, we consider that granting the application is likely to achieve the purpose of the Act and the principles of the sustainable management of natural and physical resources, as defined in section 5. We accept that construction and operation of the rendering plant would contribute to economic wellbeing and increase resource use efficiency. Taking into account the separation from sensitive activities and the mitigation measures proposed, we consider that the proposal would safeguard the life supporting capacity of the air and provide for the health and safety of communities.
143. We consider that there are no matters of national importance (section 6) that require specific consideration in relation to this application. Our evaluation of potential effects on Tangata Whenua values gave consideration to section 6(e) matters.
144. We have had particular regard to section 7(b), (c) and (f) matters, and find that the application, subject to the comprehensive conditions now proposed, would adequately maintain amenity values and the quality of the environment. We are satisfied that the proposal represents efficient use and development of resources.

145. In achieving the purpose of the Act, we have taken into account the principles of the Treaty of Waitangi/Te Tiriti o Waitangi (section 8).

### **Duration of Consent**

146. The applicant has requested a consent duration of 35 years. After considering the changes to the proposal and the conditions proffered at the hearing, Mr Mooney stated that a term of 20-25 years would be appropriate if consent was granted. Submitters in opposition have indicated that any consent should be for no more than 10 years.
147. Ms Thomas has provided considerable discussion on matters relevant to consent duration in her legal submissions. We have considered that information, including the matters referenced in the *PVL Proteins* decision, when reaching our decision on the term of consent.
148. We do not consider that substantial changes that would increase the sensitivity of the receiving environment are likely, noting that land to the north and northwest of the site is zoned for heavy industrial development. The applicant recognises that significant expenditure will be required on an ongoing basis for repairs and maintenance and also for capital replacement of rendering and odour control equipment. Mr Henderson stated that significant capital replacement works would likely be required in 15-20 years.
149. Policy 6.12 of the CARP provides that: *“Where activities locate appropriately to mitigate adverse effects on air quality a longer consent duration may be available to provide on-going operational certainty.”*
150. We consider that the activity is appropriately located and determine that a term of 20 years would be consistent with a “longer consent duration” provided for by Policy 6.12. Such a duration offers sufficient operational certainty to SPL and is consistent with the expected life of the plant until major equipment replacement works are likely to be required. There remains a degree of uncertainty regarding the ability to consistently comply with the conditions of consent as the rendering plant becomes aged and equipment breakdowns become more frequent. We therefore do not consider that a 35-year term is appropriate in this case.
151. Having considered all the relevant information we determine that a consent duration of 20 years is appropriate in the circumstances of this proposal.

### **Overall Conclusion**

152. Based on the comprehensive and robust consent conditions we intend to impose, we find that any adverse effects of the discharge of odour from the proposed rendering plant will be acceptable. The plant is appropriately located in an industrial zone with sufficient separation from sensitive residential areas. We are mindful of the residents’ concerns regarding odour effects caused by the existing rendering plant in the Washdyke industrial area. However, the evidence is that the proposed plant is very different to the existing SCBP

operation and will be subject to significantly more stringent conditions. We conclude that consent can be granted for a term of 20 years.

### **Decision**

**153. For the above reasons, it is the decision of the Canterbury Regional Council, pursuant to sections 104, 104B and 105, and subject to Part 2 of the Resource Management Act 1991, to approve the application by Southern Proteins Limited for Discharge Permit CRC200154 to discharge contaminants into air, for a duration of 20 years and subject to the conditions attached.**

Dated this 8<sup>th</sup> day of April 2020.



**John Iseli**  
**Hearing Commissioner (Chair)**



**Gina Solomon**  
**Hearing Commissioner**

**Southern Proteins Ltd Decision 8<sup>th</sup> April 2020 – Attached Conditions of Consent CRC200154**

|                         |  |
|-------------------------|--|
| <b>Consent Holder</b>   | Southern Proteins Limited  |
| <b>Consent Location</b> | 144 Meadows Road, Timaru   |
| <b>To</b>               | Discharge contaminants to air from a low temperature rendering plant |
| <b>Term</b>             | 20 years   |

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|   | <b>General</b>   |
| 1 | <p>The discharges to air shall only be odour from the operation of a low temperature rendering facility and associated odour generating operations located at 144 Meadows Road, Washdyke (legally defined at the date this consent was granted as Lot 2 DP 397304), as shown on Plan CRC200154-1 which forms part of this consent.</p> <p>The activities authorised by this consent shall be undertaken in general accordance with the following documents:</p> <ul style="list-style-type: none"> <li>(a) The application and Assessment of Environmental Effects prepared by Golder Associates (NZ) Limited dated July 2019 (Canterbury Regional Council electronic record c19c/10834-3);</li> <li>(b) The response to request for further information prepared by Golder Associates (NZ) Limited dated 12 September 2019 (Canterbury Regional Council electronic record c19c/148199); and</li> <li>(c) The Environmental Management Plan, Odour Control Systems Management Plan, and the Repair and Maintenance Management Plan required by these conditions.</li> </ul> <p>Should there be any inconsistencies between the above documents and these consent conditions, the consent conditions shall prevail.</p> |
| 2 | The discharges shall not cause effects which are noxious, dangerous, offensive or objectionable beyond the boundary of the property on which this consent is exercised as shown on Plan CRC200154-1.   |
|   | <b>Operation Scale</b>   |
| 3 | This consent authorises the discharge of odour to air from the operation of two low temperature rendering lines processing not more than 15 tonnes per hour of raw material on each line, and a blood plant processing not more than 3.5 tonnes per hour.  |
|   | <b>Discharges to Air</b>   |
| 4 | The discharges to air shall occur via soil-bark biofilter beds located adjacent to the eastern boundary of the site and from three roofline vents that discharge building air extracted from the rendering process and raw material receipt buildings vertically at a discharge height of at least 3 metres above the respective rooflines of those buildings.   |
| 5 | The discharges to the Concentrated Sources Biofilter shall be a combined, pre-cooled air flow resulting from the targeted extraction of rendering process equipment (including the hydrolyser), the meal dryer exhaust streams from the waste heat evaporators, all wet side material transfer conveyors, liquor holding tanks and the blood coagulator and blood dryer exhaust. The Biofilter shall achieve the temperature and humidity specifications set out in Condition 41.  |
| 6 | The discharges to the Building Air Biofilter shall be a combined air flow extracted from various diffuse odour sources (within and outside the rendering process building), including the main wastewater drain, sump and screen, raw material bins, building air above the meal dryers and filtered air discharged from the cake and meal storage bins.   |
| 7 | The consent holder shall at all times operate, supervise, monitor, maintain and control all processes and equipment on the site so that the discharges authorised by this consent are kept to the minimum practicable level. The procedures for achieving this shall be documented within the Odour Control System and Repair and Maintenance Management Plans as described in Conditions 19, 20, 25 and 26 of this consent.   |
|   | <b>Raw Material Quality</b>  |
| 8 | The following conditions apply to raw material quality:  |

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|    | <p>(a) Animals that have died from natural causes shall not be accepted for processing, with the exception of up to 2.5% of inwards raw material per week which may be incidental carcasses and raw material from animals that have died as a result of natural causes in transit to or at the processing facility; and</p> <p>(b) Sulfuric acid shall be dosed at source onto raw material which is not chilled, to inhibit microbial decay and odours, as required by Condition 9.</p>   |
| 9  | <p>Raw material to be processed shall only comprise of:</p> <p>(a) Soft offal that has been cut and washed substantially free of paunch material which is adequately stabilised as soon as practicable by cooling at the source the whole mass to less than 20°C, which shall be rendered within 24 hours from the slaughter of the animal; or</p> <p>(b) Soft offal that has been cut and washed substantially free of paunch material, and any hard offal mixed with it, which is adequately stabilised as soon as practicable by treating at the source with acid to ensure the whole mass maintains a pH less than 5.0 until it is received, which shall be rendered within 12 hours of receipt at the site; or</p> <p>(c) Hard offal (which may include fat and meat trimmings) if kept chilled to 15°C or less, which shall be rendered within 48 hours from dismemberment from the carcass; or</p> <p>(d) Hard offal mixed with soft offal that is managed as for the soft offal it is mixed with.</p> <p>Any raw blood including coagulated blood received as a dedicated load shall be processed within 12 hours of slaughter of the animals from which the blood is derived providing the blood is maintained at a temperature of less than 25°C. Any raw blood including coagulated blood received as a dedicated load can be processed within 24 hours of slaughter providing the blood is preserved with at least 0.3% by weight of sodium metabisulphite as soon as possible but within 6 hours from slaughter of the animals from which the blood is derived.</p> <p><b>Advice Note:</b> No raw materials processed by the consent holder shall be degraded such that it does not comply with criteria specified within Condition 9. For the avoidance of doubt, acceptable raw materials include, but are not limited to skinned calves and fleshings from skin and hide processors, and gassed chickens provided they meet the criteria set out above. Fish shall not be processed on site.</p> |
| 10 | <p>The consent holder shall only accept material for which the supplier has a quality control programme that ensures the quality of the material meets the requirements of Condition 9.</p>  |
| 11 | <p>The consent holder shall implement a monitoring program (as described in the Odour Control System Management Plan required by Condition 19) to qualitatively assess raw material odour on receipt.</p> <p>This shall include undertaking representative raw materials sampling for temperature, the liquid drained from raw materials, and pH. The sampling and measurement methodology, frequency, and method of recording data shall be specified in the Odour Control System Management Plan required by Condition 19 of this consent.</p> <p>The results of the sampling undertaken shall be kept on site for a period of at least 12 months and any occasions on which raw material did not meet the acceptance criteria in Condition 9 shall be reported in the Annual Environmental Report required by Condition 56 of this consent. All sampling records shall be made available to the Canterbury Regional Council within 1 week of a request.</p>   |
|    | <p><b>Raw Material Handling and Processing</b></p>   |
| 12 | <p>The following conditions apply to raw material handling and processing:</p> <p>(a) Raw material shall be delivered to the plant in enclosed containers and shall only be unloaded into bins in the enclosed raw material reception hall;</p> <p>(b) Once on site, the load shall remain covered until inside the enclosed reception hall;</p> <p>(c) Raw material bins shall be designed so as to enable efficient material clearing (first material in = first out operation);</p> <p>(d) The hall shall have fast closing doors which shall remain closed while trucks discharge their loads into the raw materials bins;</p>   |

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|    | <ul style="list-style-type: none"> <li>(e) Raw material bins shall have actuated lids which remain closed between incoming loads;</li> <li>(f) Air from the bins shall be directed to the Building Air Biofilter for odour removal;</li> <li>(g) Raw material shall be inspected when it enters the enclosed receiving hall in accordance with the Odour Control Systems Management Plan. Material which does not meet the acceptance criteria set out in Condition 9 shall not be unloaded at the site and shall be removed from the site within 1 hour and diverted or lawfully disposed of;</li> <li>(h) All used containers and trucks shall be cleaned within the enclosed material receiving hall before leaving the site;</li> <li>(i) All material received at the site shall be processed within the timeframes identified in Condition 9; and</li> <li>(j) The consent holder shall maintain records of the weight, source, approximate age and condition of all raw materials delivered to the site. These records shall be maintained on site and shall be available for review by Canterbury Regional Council staff upon request.</li> </ul>  |
| 13 | <p>In the event that there is a mechanical failure of both rendering lines (or any other incident or situation) that is likely to cause a delay in processing raw materials of less than 8 hours, the raw material bins shall be dosed with acid before the material pH increases above 6.5. The material in the bins shall be re-treated as necessary to keep the pH below 5.</p> <p>In the event that there is a mechanical failure (or any other incident or situation) of both rendering lines that is likely to cause a delay in processing raw materials of greater than 8 hours, any raw material in the raw material bins or under processing shall be removed and loaded on to trucks for removal off site. This process shall be undertaken within the building with all doors closed, and no further raw material shall be received until the failure is remedied.</p>  |
| 14 | <p>The consent holder shall maintain contingency arrangements with alternate processors where material can be rendered, or disposed of to a landfill authorised to receive such material, in the event of a plant shut down or receipt of raw material which does not meet the raw material standards set out in Condition 9.</p> <p>The consent holder shall also ensure that in the event of a power outage, a generator is available and immediately used to operate the extractor fans within the odour control system until such time as the outage ceases and power is restored.</p> <p><b>Advice note:</b> This condition does not authorise any discharge to air from the generator. Resource consent to operate a generator may be required under the Canterbury Air Regional Plan.</p>   |
|    | <p><b>Extraction and Treatment of Odours</b></p>   |
| 15 | <p>The following conditions apply to the odour control systems at the site:</p> <ul style="list-style-type: none"> <li>(a) The Concentrated Source Extraction System (CSES) and Building Air Extraction System (BAES) shall effectively contain concentrated source odour emissions to an extent that the discharge of rendering building ventilation air and fugitive emissions from the waste heat evaporator do not cause a breach of Condition 2 of this consent;</li> <li>(b) The Building Air Extraction System (BAES) shall effectively contain diffuse odour emissions from raw material bins, wastewater sump &amp; screening plant, airspace above the meal dryers and filtered air from the meal storage bins, and wastewater drains to an extent that fugitive odours associated with diffuse emissions do not cause a breach of Condition 2 of this consent;</li> <li>(c) The systems for cooling all extracted concentrated source emissions shall achieve the temperature limits for the concentrated sources biofilter inlet air flows specified in Condition 41;</li> <li>(d) The Concentrated Sources Biofilter shall have a nominal design flow of 14,600 cubic metres per hour (m<sup>3</sup>/hr) and a maximum bed loading rate as specified in Condition 41;</li> <li>(e) The Building Air Biofilter shall have a nominal design flow of 17,000 cubic metres per hour (m<sup>3</sup>/hr) and a maximum bed loading rate as specified in Condition 41;</li> </ul> |



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|    | <p>(f) In the event of any odour control systems equipment failure or malfunction that causes the odour control system not to operate effectively as required by (a) and (b) above, processing shall cease and not resume until the failure(s) are addressed and the system returns to normal operation as designed; and</p> <p>(g) The odour control system shall be designed, installed, maintained and operated to ensure that in the event of a plant breakdown, the system will continue to operate and will direct extracted air to the biofilters.</p>   |
|    | <p><b>Odour Control System Detailed Design Report (OCS-DDR)</b></p>   |
| 16 | <p>Prior to exercising this consent, the consent holder shall submit to Canterbury Regional Council (Attention: Regional Leader – Monitoring and Compliance Manager) a detailed design report prepared by a suitably qualified and experienced independent person for the odour control system described in the Assessment of Environmental Effects. The OCS-DDR shall address:</p> <ul style="list-style-type: none"> <li>(a) The concentrated and building air extraction systems (i.e. the CSES and BAES);</li> <li>(b) The process air cooling system;</li> <li>(c) The CS and BA Biofilters; and</li> <li>(d) The design of the roofline vents.</li> </ul>   |
| 17 | <p>The OCS-DDR shall certify that the OCS will comply with the following requirements:</p> <ul style="list-style-type: none"> <li>(a) The design of the odour control system shall be in accordance with the concept design, operating and monitoring parameters for the CSES and BAES, the process air cooling system and the Concentrated Sources and Building Air Biofilters described in Table 1 of Condition 36, Table 2 of Condition 39 and Table 3 of Condition 42;</li> <li>(b) For the air extraction systems, the OCS-DDR shall include engineering drawings of the main Concentrated Sources and Building Air extraction manifolds and associated ducting branches, materials, duct sizes, air flow modulation valves, sample port locations and design, vacuum/pressure and temperature gauge specifications and locations, ventilation fan specifications and motor size, and provisions to enable access for routine clearing of material from within the CSES and BAES ducts;</li> <li>(c) For the air-cooling systems, the OCS-DDR shall specify heat loadings estimated from the extraction of concentrated source air streams and the non condensable gases exiting the WHE plant, including cooling duties required for condensing evaporated vapour streams;</li> <li>(d) The OCS-DDR shall provide process information diagrams (P&amp;ID) drawings detailing the layout of all water-cooled air heat exchangers (i.e. condensers), direct contact water scrubbing towers, their associated specifications and design cold water supply flows. Further, the process and instrumentation diagrams shall include a list of specifications for all system components including spray towers, spray nozzle pressure drop, scrubber recirculation pumps, in-situ and pressure and temperature probes, piping and automatic and manual flow control valves;</li> <li>(e) The OCS-DDR shall provide engineering drawings of the Concentrated Sources and Building Air biofilter bed designs that meet the finalised maximum design flow rate, including instrumentation for inlet air temperature, pressure and the monitoring of lateral and media backpressures. The design flows of the Concentrated Sources and Building Air biofilter beds shall be confirmed in the detailed design report and updated in the OCS-DDR; and</li> <li>(f) The roofline vents shall be designed so as to avoid any significant downwashing of ventilated rendering building air into Lot 2 Deposited Plan 454416.</li> </ul> |
| 18 | <p>The consent holder shall have the OCS-DDR peer reviewed by a similarly qualified and experienced independent reviewer approved by the Regional Council, and shall submit both the OCS-DDR and the peer review to Canterbury Regional Council (Attention: Regional Leader – Monitoring and Compliance Manager) at least three months prior to installation of the plant.</p> <p>The independent reviewer shall be approved in writing by the Canterbury Regional Council prior to the commencement of the review. The reviewer shall certify that the design of the odour control system complies with the conditions of this consent.</p>  |

**Advice note:** All costs associated with the independent review shall be met by the consent holder.

**Odour Control System Management Plan (OCS-MP)**

19 Prior to exercising this consent and following completion of the OCS-DDR, the consent holder shall submit to the Canterbury Regional Council (Attention: Regional Leader – Monitoring and Compliance Manager) an Odour Control System Management Plan (OCS-MP) prepared by a suitably qualified and experienced independent person which addresses the operation, system monitoring and contingency measures for the odour control system so as maintain the system’s operation within the range of key performance parameters specified in the OCS-DDR.

The OCS-MP shall also include raw material quality management procedures including raw material stabilisation and contingency procedures, key items for regular maintenance and trigger levels for implementing actions (including shut down, maintenance, remedial actions) in the event that the odour control system does not perform as designed.

20 The OCS-MP shall specifically address the following:

- (a) Raw Material Handling and Stabilisation Procedures:
  - (i) Raw material specifications as required by Condition 9 of these conditions– age, pH, condition;
  - (ii) The Standard Operating Procedure (SOP) to be used for receiving raw material, and monitoring/inspection procedures;
  - (iii) The SOP to be used for material stabilisation at source, and on site;
  - (iv) The SOP to be used for responses to plant breakdowns and receipt of material that is out of specification;
  - (v) The SOP to be used for management of raw material bins; and
  - (vi) The SOP to be used for information logging and reporting;
- (b) Air Extraction Systems:
  - (i) Process and information diagrams of extraction system and instrumentation for the following:
    - (A) concentrated sources;
    - (B) dryer exhaust; and
    - (C) ambient sources items (building air system);
  - (ii) SOP for monitoring and data logging procedures (ventilation flows, pressure/vacuums, temperatures):
    - (A) Operating parameter ranges and trigger values;
  - (iii) SOP for responses to trigger value exceedance/equipment failure;
  - (iv) SOP for routine cleaning and inspection;
  - (v) SOP for routine performance reporting; and
  - (vi) Location of engineering drawings with specifications of the fan, fan motor, main manifold, sub-manifold and duct connections; and
- (c) Concentrated Source Cooling:
  - (i) Process and information diagrams for concentrated source cooling system and instrumentation;
  - (ii) SOP for monitoring and data logging (air and cooling side temperatures/flows):

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|    | <ul style="list-style-type: none"> <li>(A) Normal operating ranges and trigger values;</li> <li>(iii) SOP for responses to trigger value exceedance/equipment failure;</li> <li>(iv) SOP for routine cleaning and inspection;</li> <li>(v) SOP for routine performance reporting; and</li> <li>(vi) Location of manufacturer’s manuals for cooling equipment and specifications;</li> </ul> <p>(d) Dryer Exhaust Cooling:</p> <ul style="list-style-type: none"> <li>(i) Process and information diagrams for WHE with focus of dryer exhaust cooling and instrumentation;</li> <li>(ii) Monitoring and data logging relevant to dryer exhaust condition: <ul style="list-style-type: none"> <li>(A) Normal operating ranges and trigger values;</li> <li>(iii) SOP for responses to trigger value exceedance/equipment failure;</li> <li>(iv) SOP for routine cleaning and inspection;</li> <li>(v) SOP for routine performance reporting; and</li> <li>(vi) Location of WHE manufacturer’s manuals;</li> </ul> </li> </ul> <p>(e) Biofilter Systems;</p> <p>(f) Biofilter material composition and configuration:</p> <ul style="list-style-type: none"> <li>(i) Process and information diagrams for biofilters and instrumentation;</li> <li>(ii) SOP for monitoring and data logging (media, air temperatures/flows, pressure drops): <ul style="list-style-type: none"> <li>(A) Normal operating ranges and trigger values;</li> <li>(iii) SOP for responses to trigger value exceedance/equipment failure;</li> <li>(iv) SOP for routine monitoring and maintenance;</li> <li>(v) SOP for routine performance reporting; and</li> <li>(vi) Location of biofilter design drawings and specifications;</li> </ul> </li> </ul> <p>(g) Processes for cleaning the plant and how this will be managed to minimise fugitive odours;</p> <p>(h) OSC-MP review procedures; and</p> <p>(i) Document control and record keeping.</p> |
| 21 | <p>The OCS-MP shall be available for inspection at the site at all times. It shall be reviewed at least annually by a suitably qualified and experienced independent person and updated as necessary to ensure ongoing compliance with the conditions of this consent and to reflect the outcomes of the odour control system review (required by Condition 30 of this consent) and the BPO review (required by Condition 33 of this consent). A copy of any updated plan shall be forwarded to the Canterbury Regional Council (Attention Regional Leader – Monitoring and Compliance Manager) within two weeks of it being updated.</p>   |
|    | <p><b>Environmental Management Plan</b></p>   |
| 22 | <p>Prior to exercising this consent, the consent holder shall submit to Canterbury Regional Council (Attention: Regional Leader – Monitoring and Compliance Manager) an Environmental Management Plan (EMP) prepared by a suitably qualified and experienced independent person which describes the measures to be taken to ensure compliance with the conditions of this consent.</p>  |

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|    | The plan shall be available for inspection at the site at all times.   |
| 23 | <p>The consent shall be exercised in accordance with the EMP which shall address the following:</p> <ul style="list-style-type: none"> <li>(a) Purpose, Scope, Environmental Objectives;</li> <li>(b) Use of Plan;</li> <li>(c) Responsibilities;</li> <li>(d) Description of Activities;</li> <li>(e) Supporting Documents – OCS-MP, R&amp;M Plan;</li> <li>(f) Performance Monitoring: <ul style="list-style-type: none"> <li>(i) Offsite impacts – odour, dust; and</li> <li>(ii) Information logging and reporting;</li> </ul> </li> <li>(g) Complaint Response &amp; Reporting: <ul style="list-style-type: none"> <li>(i) Receipt and response;</li> <li>(ii) Recording and investigation; and</li> <li>(iii) Reporting actions and outcomes;</li> </ul> </li> <li>(h) Contingency Measures (reference OSC-MP);</li> <li>(i) Community Liaison;</li> <li>(j) Plan Review; and</li> <li>(k) Document Control and Record Keeping.</li> </ul> |
| 24 | <p>The EMP may be updated or amended at any time but shall be reviewed at least annually by a suitably qualified and experienced independent person and updated as necessary to update the measures to be taken to ensure ongoing compliance with the conditions of this consent, and to reflect the outcomes of the odour control system review (Condition 30 of this consent) and the BPO review (Condition 33).</p> <p>A copy of the updated plan shall be forwarded to Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance within two weeks of it being updated.</p>  |
|    | <b>Repair and Maintenance Plan (RMP)</b>   |
| 25 | <p>Prior to exercising this consent, the consent holder shall develop a RMP outlining the maintenance schedule required to ensure compliance with the conditions of this consent. The RMP shall be prepared by a person or persons with industrial expertise and knowledge of rendering plant components and shall be available onsite for Canterbury Regional Council staff or agents to review upon request.</p>   |
| 26 | <p>The consent shall be exercised in accordance with the RMP which shall include the following:</p> <ul style="list-style-type: none"> <li>(a) Contingency plans for mechanical breakdowns, and utility supply failures (with reference to the OSC-MP);</li> <li>(b) A preventative maintenance program which identifies the policies and checks required to maintain every machine and the system to ensure this work is completed in accordance with that program;</li> <li>(c) The preventative maintenance system shall include all equipment integral in the effective operation of the odour control system, and in avoiding off-site objectionable odour;</li> <li>(d) Maintenance programme for all key components of the odour extraction, cooling and biofilter systems;</li> </ul>  |

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|    | <p>(e) Identification of critical spares and procedures to ensure timely availability of critical spares on site so as to ensure compliance at all times with this resource consent; and</p> <p>(f) Contingency procedures for each emergency, plant breakdown, equipment failure and malfunction to ensure compliance with this resource consent.</p> <p>The RMP may be updated or amended at any time but shall be reviewed at least annually and updated as necessary to update the measures to be taken to ensure ongoing compliance with the conditions of this consent and to reflect the outcomes of the odour control system review (Condition 30 of this consent) and the BPO review (Condition 33).</p> <p>A copy of the updated plan shall be forwarded to Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance within two weeks of it being updated.</p>                             |
| 27 | Preventative maintenance systems shall be in place to minimise the risk of process, ventilation system (CSES and BAES) and biofilter malfunction including equipment failure that may result in non-compliance with any conditions of this consent, and to ensure any malfunctions that do occur can be rectified as soon as practicable.  |
| 28 | There shall be appropriately detailed documentation of the preventative maintenance undertaken, which shall be available at the site for Canterbury Regional Council staff or agents to review on request.   |
| 29 | Prior to the plant becoming operational, the consent holder shall invite the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance to attend a pre-commissioning meeting with the consent holder. The meeting shall be held for the purposes of discussing the points of contact for the consent holder and the Council in relation to the obligations set out in this consent.   |
|    | <b>Odour Control System Review</b>   |
| 30 | Every two years after rendering activity on the site has commenced, the consent holder shall engage a suitably qualified and experienced independent person to conduct a review of the odour control system.   |
| 31 | <p>The odour control system review shall:</p> <p>(a) Review the odour control system monitoring data against the CSES and BAES performance requirements specified in Conditions 36 and 39, as well as the biofilter specifications specified in Conditions 41 and 42;</p> <p>(b) Include an inspection of the biofilter beds;</p> <p>(c) Consider the results of the previous two years of Annual Environmental Reports; and</p> <p>(d) Identify any measures which are required to achieve the design specifications for the CSES, BAES and biofilters as set out in Conditions 36, 39, 41 and 42.</p> <p>The consent holder shall submit the odour control system review to the Canterbury Regional Council within one month of receipt of the review report, and shall repeat the review and submit the review reports to the Council two-yearly throughout the term of this consent.</p>                                   |
| 32 | <p>The Consent Holder shall implement the recommendations of any reviews conducted in accordance with Condition 30 as soon as practicable unless;</p> <p>a. the applicant can provide expert analysis that demonstrates that the changes are not practicable or necessary to ensure compliance with the conditions of this consent; and</p> <p>b. the Canterbury Regional Council is satisfied with the analysis provided in (32)(a) and that the consent holder will continue to comply with Condition (2) of the consent.</p> <p>If the consent holder requests an exception to the implementation of any review(s) in accordance with Conditions 32(a) and (b), the Canterbury Regional Council shall provide their written decision of any request within 20 working days. The Canterbury Regional Council may seek advice from a suitably qualified and experienced independent person in determining their decision.</p> |
|    | <b>BPO Review</b>  |
| 33 | Every five years after rendering activity on the site has commenced, the consent holder shall engage a suitably qualified and experienced independent person to conduct a review of whether the odour control system is the best method for preventing or minimising the adverse effects of the discharge on the environment having regard to:   |

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|    | <ul style="list-style-type: none"> <li>(a) The nature of the discharge and the sensitivity of the receiving environment to adverse effects; and</li> <li>(b) The financial implications, and the effects on the environment, of that option when compared with other options; and</li> <li>(c) The current state of technical knowledge and the likelihood that the option can be successfully applied.</li> </ul> <p>The consent holder shall submit the BPO review to the Canterbury Regional Council, together with a report on any changes it intends to make having considered the BPO review, within one month of receipt of the review report, and shall repeat the review and submit the review reports to the Council five yearly throughout the term of this consent.</p>  |
|    | <p><b>CSES Requirements</b></p>  |
| 34 | <p>For equipment that is identified in the AEE as being subject to point source extraction, air shall be extracted directly via the concentrated sources extraction system (CSES) at all times that the rendering plant is in operation. Sources for extraction shall at least include:</p> <ul style="list-style-type: none"> <li>(a) Dryer exhaust exiting the waste heat evaporator;</li> <li>(b) Dryer feed and discharge conveyors;</li> <li>(c) Press and drainer conveyors;</li> <li>(d) Decanters (including blood decanter);</li> <li>(e) Separators;</li> <li>(f) Solid presses;</li> <li>(g) Pre-cookers;</li> <li>(h) Tallow, blood, concentrate, stick water (including blood stick water), separator feed and decanter liquid feed tanks; and</li> <li>(i) The hydrolyser.</li> </ul>  |
| 35 | <p>The target design vacuum for process equipment items that are connected to the CSES shall achieve effective containment of odorous process emissions.</p> <p><b>Advice note:</b> <i>As a guide this is achieved when the vacuum within CSES ducts (near the point of connection to targeted equipment) is -100 Pa gauge.</i></p> <p>The CSES operating vacuums for specific process equipment items shall meet values as set in the most updated version of the OCS-MP, unless a lower value can consistently achieve the outcome of no visible process emissions, or associated release of odour and humidity from the process equipment item.</p> <p><b>Advice note:</b> <i>It is important to maintain sufficient vacuums across odorous processing equipment while minimising carryover of solids and liquids into extraction ducting and excessive heat loss which eventually leads to malfunctioning of the CSES.</i></p> |
| 36 | <p>Monitoring of the CSES shall include the following:</p> <ul style="list-style-type: none"> <li>(a) Continuous monitoring, real time display of trends to operators, and archiving on the site's SCADA of vacuums from five locations (three within the main manifold of CSES and one for each meal dryer exhaust) to ensure optimum operation of the CSES. These monitoring locations shall include the (1) inlet duct to the CSES fan, (2) the mid-section, (3) furthest extent of the main CSES extraction manifold and (4) the exhaust ducts from the two meal dryers;</li> <li>(b) Six monthly manual monitoring and recording of vacuums of all process equipment items and/or ducts connecting these to the CSES. These are to be compared to the concurrent continuously recorded vacuums listed in (a) and observations of fugitive process emissions, or absence of these;</li> </ul>                                  |

- (c) Annual monitoring of the total inlet flow to the CSES Biofilter; and
- (d) The consent holder shall maintain records of the monitoring required in (a), (b) and (c) and report in the Annual Environmental Report along with a summary of continuously recorded data throughout the year.

**Table 1: CSES design, operating parameters and monitoring.**

| Component                                     | Guideline values              | Method & frequency  | Location   |
|---|-------------------------------|---|--|
| <b>CSES duct connections</b> to process items | -100 Pa gauge (-10 mm WG)     | Differential pressure (gauge)<br><b>Continuous and logged</b> | Extraction duct and within 500 mm of targeted process item.<br>Via installed Ø10 mm access port and plug |
| <b>Main CSES Manifold</b>                     |                               |   |  |
| Vacuum  | TBC via detailed design phase | Magnehelic gauge<br><b>Continuous and logged</b>              | Inlet to the CSES fan  |
| Vacuum  | TBC via detailed design phase | Instrumental gauge<br><b>Continuous and logged</b>            | Mid-section of the main CSES extraction manifold.  |
| Temperature                                   | n/a                           | Thermocouple probe<br><b>Continuous and logged</b>            | Inlet and outlet air flow to/from the CSES cooling system  |
| <b>Building Environment</b>                   |                               |   |  |
| Temperature                                   | n/a                           | Thermocouple probe<br><b>Continuous and logged</b>            | Building air discharge to atmosphere<br>Building air inlet vent (ambient air)                            |

37 The CSES ducts and manifolds shall be cleaned out at least annually (and greater frequency as necessary) to maintain target vacuum values as specified within the OCS-MP.

**Building Air Extraction System (BAES) Performance Requirements**

38 Diffuse sources of odour emission to be targeted by the BAES shall at least include:

- (a) Raw material bins;
- (b) Wastewater sump;
- (c) Wastewater screen;
- (d) Filter air discharged from meal storage bins; and
- (e) Main wastewater drain.

The BAES shall extract air from above sources that are covered and enclosed to a practical extent that achieves effective containment of odour emissions from these sources and to maintain a healthy working environment for rendering plant staff which as a minimum, complies with WorkSafe NZ temperature and carbon monoxide criteria for worker exposure.

39 Monitoring of the BAES shall include the following:

- (a) Continuous monitoring, real time display of trends to operators, and archiving on the site's SCADA of humidity and temperature within the air discharged from the rendering building roofline ventilation stack;
- (b) Continuous monitoring and archiving via the site's SCADA of vacuums at two locations within the main manifold of BAES. The monitoring locations shall include the (1) inlet duct to the BAES fan, and (2) the mid-section of the main BAES extraction manifold;

- (c) Annual monitoring of the total inlet flow to the BAES Biofilter; and
- (d) The consent holder shall maintain records of the monitoring required in (a), (b) and (c) and report in the Annual Environmental Report along with a summary of continuously recorded data throughout the year.

**Table 2: Building air design, operating parameters and monitoring.**

| Component   | Guideline values              | Method & frequency  | Location   |
|---|-------------------------------|---|--|
| <b>Building air duct connections</b> to bins and overhead extraction hoods. | TBC via detailed design phase | Differential pressure (gauge)<br><b>Continuous and logged</b> | Extraction duct and within 500 mm of targeted process item/hood.<br>Via installed Ø10 mm access port and plug. |
| <b>Main Building Air Manifold</b>   |                               |   |  |
| Vacuum  | TBC via detailed design phase | Magnehelic gauge<br><b>Continuous and logged</b>              | Inlet to the building air fan.   |
| Vacuum  | TBC via detailed design phase | Instrumental gauge<br><b>Continuous and logged</b>            | Mid-section of the CSES extraction manifold.   |
| Temperature   | Monitor trend                 | Thermocouple probe<br><b>Continuous and logged</b>            | Inlet and outlet to CSES cooling system  |
| <b>Building Environment</b>   |                               |   |  |
| Temperature   | Monitor trend                 | Thermocouple probe<br><b>Continuous and logged</b>            | Building air discharge to atmosphere<br>Building air inlet (ambient)   |

40

Building cladding and access door requirements are as follows:

- (a) The rendering building roof and wall cladding shall be maintained so it has no visible holes, and so that fresh air enters the building via doorways and air entry vents that are located at or close to ground level;
- (b) The consent holder shall inspect the roof and walls annually to identify any non-essential holes or gaps and shall subsequently have those sealed as soon as practicable;
- (c) The vehicle access doors for the raw material reception room shall be open to allow trucks to enter into the reception room and then for as short a time as practicable. Raw material shall not be unloaded unless the BAES system is operational and working in accordance with the BAES design vacuum; and
- (d) Staff access doors can be used for the additional purpose of providing pathways for ground level entry of fresh air into the rendering buildings. These doors can remain open, or closed as necessary to ensure a healthy working environment for rendering plant staff and which, as a minimum, complies with WorkSafe NZ temperature and carbon monoxide criteria for worker exposure. Internal doors shall remain closed when not in use.

**Biofilter Design and Operating Specifications**

41

The design and operating specifications for the biofilters are as follows:

- (a) The biofilters shall not discharge rendering odour and shall only discharge an earthy/bark type odour immediately adjacent to the biofilters;
- (b) The soil-bark media shall be maintained at 1.2 metre depth. This can consist of 1.2 m of a graded soil-bark mixture, or 1.0 m of a graded soil-bark mixture and a bottom 200mm layer consisting of coarse bark. Specifications for media size ranges are:
  - (i) Graded bark - 95 wt. % within 10 mm – 30 mm;



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|  | <ul style="list-style-type: none"> <li>(ii) Top-soil mix with graded bark shall be &lt; 10 vol. % of bark; and</li> <li>(iii) Coarse bark - 99 wt. % ≤ 75 mm;</li> <li>(c) The air inlet temperature to the biofilter shall be within the limits of: <ul style="list-style-type: none"> <li>(i) ≤35 °C for more than 95 % time;</li> <li>(ii) ≤40 °C for more than 99 % time; and</li> <li>(iii) Maximum: 45 °C;</li> </ul> </li> <li>(d) The media pH shall be: <ul style="list-style-type: none"> <li>(i) pH 5 or higher at &lt;600 mm from the top of the media surface; and</li> <li>(ii) pH 3.5 or higher at &gt;600 mm from the top of the media surface;</li> </ul> </li> <li>(e) The bed moisture content, at representative locations and depths within the biofilter, shall be recorded monthly, and shall be maintained in the range of 50 wt.%-65 wt.%;</li> <li>(f) Media microbial density counts which do not have specified limits shall be monitored annually as specified in Condition 42 and compared to a monitoring guideline of ≥ 10<sup>4</sup> cfu/gram (dry basis);</li> <li>(g) The air flow backpressure across the bed media shall be no greater than 0.5 kPa (50 mm water gauge);</li> <li>(h) The concentrated sources biofilter shall have a maximum air loading rate of 35 m<sup>3</sup><sub>air</sub>/hr per m<sup>3</sup><sub>media</sub>;</li> <li>(i) The building air biofilter shall have a maximum air loading rate of 50 m<sup>3</sup><sub>air</sub>/hr per m<sup>3</sup><sub>media</sub>;</li> <li>(j) There shall be no significant channelling of air through the biofilter beds and associated inactive areas of the bed; and</li> <li>(k) The leachate from the biofilters shall be collected and discharged to the main wastewater drain.</li> </ul> |
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**Biofilter Monitoring and Maintenance**

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| 42 | <p>Monitoring of the Biofilters shall include the following:</p> <ul style="list-style-type: none"> <li>(a) Continuous monitoring, real time display of trends to operators, and archiving on the site's SCADA of air temperature and pressure of inlet air streams to the site Biofilters;</li> <li>(b) Bed pH and moisture shall be monitored and recorded every 3 months;</li> <li>(c) Media microbial density counts within the media (cfu/gram) shall be monitored annually using a standard aerobic plate count method;</li> <li>(d) Media composition and size distribution shall be monitored annually using either accepted sieve or other appropriate mass-size distribution methods;</li> <li>(e) The inlet air flow and media volumes for each biofilter shall be measured annually and annual records kept so to that long-term trends can monitored;</li> <li>(f) All methods of determining and recording of biofilter parameters and the frequency of sampling shall be included in the OCS-MP;</li> <li>(g) A standard list of visual biofilter checks shall be completed and documented on a weekly basis, including those for air channelling, bed cracking or clogging, excessive bed moisture or dryness, excessive media back pressure, the presence of rendering odour, and maintaining a record of inspections;</li> <li>(h) Annual inspection by a suitably qualified and experienced independent person on the</li> </ul> |
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condition of the biofilter bed with recommendations where issues/potential issues are identified; and

- (i) Replacing the biofilter media as necessary to ensure operating and performance parameters in Condition 41 are routinely achieved.

**Table 3: Biofilter operating and design parameters and monitoring.**

| Component                             | Guideline values   | Method & frequency  | Location   |
|---------------------------------------|--|---|--|
| <b>Biofilter Inlet Duct</b>           |  |   |  |
| Inlet flow                            | <i>CSES Biofilter</i><br>14,600 m <sup>3</sup> /hr<br><i>Building Air Biofilter</i><br>17,000 m <sup>3</sup> /hr   | Pitot tube* (access via 2 x Ø50 mm BSP fittings to be installed at 90° from each other)<br><b>Annual</b>  | Straight section of Inlet duct between fan and biofilter beds (maximise distances from pipe bends)   |
| Pressure                              | <150 mm water gauge  | Vacuum gauge<br><b>Continuous and logged</b>  | Biofilter inlet air duct   |
| Temperature                           | <35 °C for more than 95 % time;<br><40 °C for more than 99 % time;<br>Maximum: 45 °C   | Continuous temperature probe<br><b>Continuous and logged</b>  | Inlet duct to the biofilters   |
| <b>Biofilter Media</b>                |  |   |  |
| Back pressure                         | <50 mm water gauge   | Magnehelic gauge<br><b>Monthly</b>  | Biofilter bottom stone layer   |
| Moisture content                      | 50 wt. % to 65 wt. %   | Oven drying at 100 °C<br><b>2-Monthly</b>   | Anywhere within each quadrant of the bed and at two depths including 200 mm and > 500 mm (8 samples) |
| pH                                    | pH 5 or higher (<600 mm deep)<br>pH 3.5 or higher (>600 mm deep)   | Soil pH #<br><b>3-Monthly</b>   | As above   |
| Air loading rate                      | 35 m <sup>3</sup> <sub>air</sub> /hr per m <sup>3</sup> <sub>media</sub><br>CSES<br>50 m <sup>3</sup> <sub>air</sub> /hr per m <sup>3</sup> <sub>media</sub><br>Building                             | From annual flow data<br><b>Annual</b>  | As above   |
| Media microbial density counts        | >10 <sup>4</sup> cfu/g   | Aerobic Plate Count @ 35 °C,<br><b>Annual</b>   | As above   |
| Media composition & size distribution | <u>Graded bark</u> :<br>95 vol. % within 10 – 30 mm size range for first 1.0 m of media.<br><u>Coarse bark base</u> :<br>20 - 75 mm (Bottom 0.2 m of the media)<br><u>Topsoil</u> :<br>Max. 8 vol. % | Mass-size distribution of Bark:<br>Bark oven dried, sieved using a Fritsch analysette 3 at 2 mm amplitude 5 minutes.<br><b>Bi-Annually (2 yearly)</b> |  |
| Organic carbon:nitrogen ratio         | <50:1  | <i>Combustion elemental analyser: Thermal conductivity detection.</i><br><b>Biannually (2 Years)</b>  | As above   |

**Notes:** \*ISO 10780 Measurement of Velocity and Flow Rate, or equivalent method. NB: 2 access ports to be installed for sampling at 90° (side and top of ducts). # Sub-sample 10 grams of media and add 50 ml de-ionised water. Stir for 60 seconds and allow solids to settle. Measure pH of clarified water after 3 hours of settling time.)

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| 43 | The consent holder shall provide a summary of all biofilter monitoring information within the Annual Environmental Report as required by Condition 56, and/or within two weeks of a request from the Canterbury Regional Council.  |
|    | <b>Contingency Measures</b>  |
| 44 | In the event that the continuous monitoring of the biofilters required by Condition 42 shows that the biofilters are not achieving the operating specifications for air inlet pressure set out in Condition 42, the consent holder shall immediately cease all further cooking or drying operations, and shall divert any unprocessed raw material to another site, until the biofilter is repaired and capable of treating the air emissions to achieve compliance with Condition 2 of this consent.  |
|    | <b>Odour Monitoring</b>  |
| 45 | <p>The consent holder shall conduct a routine odour monitoring programme as follows:</p> <ul style="list-style-type: none"> <li>(a) Complete weekly downwind ambient odour assessments at a location closest to the nearest downwind receptor beyond the site boundary and using methods documented within the most current Ministry for the Environment Odour Management Guideline;</li> <li>(b) Record the date and time, assessment location and status of rendering operations, as well as the wind direction and speed;</li> <li>(c) Increase the monitoring frequency to daily downwind odour assessments should odour complaints from the public be reported to the consent holder or to the Canterbury Regional Council and maintain daily assessments until otherwise agreed by the Canterbury Regional Council;</li> <li>(d) Maintain a record of all odour monitoring results on site, including any actions taken in response to any specific monitoring; and</li> <li>(e) The records of odour monitoring shall be provided to the Canterbury Regional Council within one week of a request.</li> </ul> <p>To ensure accurate identification of odour, the person undertaking the monitoring shall be trained by a suitably qualified person in the assessment of ambient odours via methods documented within the most current Ministry for the Environment Odour Management Guideline.</p> <p>The consent holder shall provide a summary of the results of the routine odour monitoring programme within the Annual Environmental Report as required by Condition 56, and within two weeks of a request from the Canterbury Regional Council.</p> |
|    | <b>Complaints</b>  |
| 46 | <p><b>Complaint Response</b></p> <p>In the event of an odour complaint being received by the consent holder, or the Canterbury Regional Council notifying the consent holder that a complaint has been made to the Council about odour from the site, the consent holder shall undertake a downwind ambient odour assessment as soon as practicable beyond the site boundary, as near as possible to the location of the complainant's address if that address is known and also upwind of the site, using methods documented within the current Ministry for the Environment Odour Management Guideline.</p> <p>The consent holder shall record the date and time of the assessment, the assessment location, wind direction and speed, and intensity and character of any odour detected and provide the results together with a description of the rendering activities being undertaken at the time the complaint was received as well as the wind direction and speed at that time, to the Canterbury Regional Council within 24 hours of the assessment being completed.</p> <p>Should the assessments required by Conditions 45 or 46 confirm a breach of Condition 2 of this consent, or should the consent holder be notified by the Canterbury Regional Council that a breach of Condition 2 has occurred, the consent holder shall:</p> <ul style="list-style-type: none"> <li>(a) Cease processing raw material and subsequently divert away from the site any incoming raw material that cannot be processed;</li> <li>(b) Ascertain the cause or likely cause of the objectionable odour as soon as practicable and</li> </ul>                     |

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|    | <p>subsequently rectify the cause; and</p> <p>(c) Regarding raw material that has already been unloaded, take actions to ensure the raw material quality conditions are not breached.</p> <p>The plant may resume receiving raw material and begin processing once the consent holder has reason to be confident that the cause of the breach has been rectified.</p> <p>The consent holder shall immediately notify the Canterbury Regional Council upon resumption of processing.</p> <p>Subsequently, within 3 working days of a complaint being received, the consent holder shall provide a written report to the Canterbury Regional Council that specifies:</p> <p>(a) The date and approximate time of the commencement of the odour event and the source of the information;</p> <p>(b) The date and time the plant ceased processing raw material;</p> <p>(c) The cause or likely cause of the objectionable odour event and any factors that influenced its severity;</p> <p>(d) The nature and timing of any measures implemented by the consent holder to correct the cause of the odour event and mitigate its effects;</p> <p>(e) The date(s) and time(s) the plant recommenced processing raw material; and</p> <p>(f) The steps that have been or will be taken in future to prevent recurrence of similar events.</p>             |
| 47 | <p>The consent holder shall maintain a 24-hour phone number to enable any complainants to contact the consent holder at any time of the day or night.</p>   |
| 48 | <p>The consent holder shall maintain a complaints register recording any and all odour complaints received by the consent holder. The register shall record:</p> <p>(a) The date, time and duration of the event as reported by the complainant;</p> <p>(b) The name, phone number and address of the complainant, unless the complainant refuses to provide these details;</p> <p>(c) The most likely cause of the event complained of;</p> <p>(d) The weather conditions including wind direction at the time the event was experienced by the complainant and for the hour prior to the event being experienced;</p> <p>(e) Any corrective action undertaken by the consent holder in response to the complaint, including the timing of that corrective action; and</p> <p>(f) The consent holder's activities at the time the event was experienced.</p> <p>The register shall include those complaints received directly from the public and notified to the consent holder by the Canterbury Regional Council. The consent holder shall forward to the Council details of any complaint/s it has received as soon as practicable and at least within 24 hours of the complaint being received. The register shall also be provided to the Council within one week of a request and shall be included in the Annual Environmental Report.</p> |
| 49 | <p>If requested by the Council, the consent holder shall provide the following as soon as practicable but within 48 hours of a request:</p> <p>(a) Data over any time period regarding the performance of the CSES, BAES and biofilters;</p> <p>(b) Operational data/information that demonstrates what rendering equipment was or was not running over any time period; and</p> <p>(c) Type and quantity of raw material that has been processed over a stated time period.</p>  |
|    | <p><b>Community Liaison Meetings</b></p>  |

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| 50 | <p>The Consent Holder shall, at its own cost, facilitate regular community liaison meetings with invitations sent by letter or email to Arowhenua Rūnanga, 54 Seadown Road, 46-66 Timaru-Temuka Highway, 305 Hilton Highway, all current occupiers of properties within the areas shown on Plan CRC200154-2 which forms part of this consent, and monitoring staff from the Canterbury Regional Council. The invitation letter or email shall include a summary for the preceding six-month period of any odour complaints received in relation to this consent, any actions taken in response to those complaints, and the results of odour monitoring undertaken in accordance with Conditions 45 and 46. Meetings shall be held at not more than 6 monthly intervals unless a longer interval is otherwise agreed by the Council.</p> <p>The purpose of the meetings shall be:</p> <ul style="list-style-type: none"> <li>(a) For the Consent Holder to report to the community on compliance with the conditions of this consent and in particular odour complaint records and the results of ambient odour monitoring; and</li> <li>(b) For attendees to raise any issues regarding odour emissions from the plant; and</li> <li>(c) For the Consent Holder to report to the community on any past or proposed changes to plant operations that may affect emissions to air including odour.</li> </ul> <p>The Consent Holder shall keep minutes of the meetings and shall provide them to the Canterbury Regional Council within two weeks of the meeting.</p> |
|    | <p><b>Monitoring and Reporting</b></p>   |
| 51 | <p>All records, logs, monitoring data and test results required by the conditions of this consent shall be made available to the Canterbury Regional Council within one week of a request unless otherwise specified in these conditions, and shall be retained for a minimum period of 10 years.</p>  |
|    | <p><b>Breach Notification</b></p>  |
| 52 | <p>The consent holder shall notify the Canterbury Regional Council as soon as practicable, and as a minimum requirement within 24 hours, of the consent holder becoming aware of any accidental discharge, mechanical failure, or other circumstances which has resulted in, or is likely to result in, a breach of these consent conditions.</p> <p>The consent holder shall, within 7 days of the incident occurring, provide a written report to the Canterbury Regional Council identifying any actual exceedance, possible causes, steps undertaken to remedy the effects of the incident and the effectiveness of those efforts, and measures that will be undertaken to ensure future compliance.</p>   |
|    | <p><b>Weather Monitoring</b></p>   |
| 53 | <p>The consent holder shall operate and maintain a weather station on the site to measure and record the air temperature, wind direction and wind velocity on a continuous basis (at no less than 10-minute intervals).</p> <p>The weather data shall be retained for a period of 10 years.</p>  |
| 54 | <p>The weather station shall:</p> <ul style="list-style-type: none"> <li>(a) Be installed at a height of at least four metres above ground level and in accordance with AS 2923 – 1987 Ambient Air Guide for Measurement of Horizontal Wind for Air Quality Applications;</li> <li>(b) Wind speed resolution of measurement shall be not more than 0.1 metres per second and wind speed accuracy of measurement shall be at least within +/-0.2 metres per second;</li> <li>(c) Continuously record wind speed and direction with an averaging time for each parameter of one minute; and</li> <li>(d) Record using an electronic data logging system and retained for a period of 10 years.</li> </ul>  |
| 55 | <p>Weather data for any period shall be provided to Canterbury Regional Council within 48 hours of a request.</p>  |

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|    | <b>Annual Environmental Report</b>  |
| 56 | <p>The consent holder shall, no later than 30 September of each year, provide an Annual Environmental Report to the Canterbury Regional Council which:</p> <ul style="list-style-type: none"> <li>(a) Addresses compliance with each condition of this resource consent, particularly with respect to odour emissions;</li> <li>(b) Contains all monitoring and reporting results required by the conditions of consent and their interpretation by a suitably qualified and experienced independent person;</li> <li>(c) Comments on the performance and condition of odour control systems including the biofilters and implementation of the OCS-MP;</li> <li>(d) Describes any works that have been undertaken to improve the environmental performance of the odour control systems or that are proposed to be undertaken in the upcoming year to improve or that may affect the environmental performance of the odour control systems; and</li> <li>(e) Reports on and discusses feedback received from community liaison meetings.</li> </ul>       |
|    | <b>Review</b>   |
| 57 | <p>The Canterbury Regional Council may, once per year, on any of the last five working days of April or October, serve notice on the consent holder under section 128(1) of the Resource Management Act 1991 of its intention to review the conditions of this consent for the purposes of:</p> <ul style="list-style-type: none"> <li>(a) Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or</li> <li>(b) Dealing with any adverse effect on the environment which may arise from the exercise of this consent and which it is appropriate to deal with at a later stage; or</li> <li>(c) Requiring monitoring in addition to, or instead of, that required by the consent; or</li> <li>(d) To review the effectiveness of the conditions of this resource consent in avoiding or mitigating any adverse effects on air quality from the exercise of this resource consent and if necessary to avoid, remedy or mitigate such effects by way of further or amended conditions.</li> </ul> |
|    | <b>Lapse</b>  |
| 58 | <p>The lapsing date of this resource consent for the purposes of section 125 of the Resource Management Act 1991 shall be 5 years after the consent commences.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent and undertaking the activity as described in these conditions and/or application documents.</p>   |

Plan CRC200154-1



**LEGEND**  
 Proposed site  
 Parcel boundaries

**NOTES**  
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REFERENCE SCALE: 1:5,000 (M.A.S.)  
 PROJECTION: NZGD 2000 New Zealand Transverse Mercator

CLIENT: SOUTHERN PROTEINS LIMITED

PROJECT: CRC200154

TITLE: SITE LOCATION PLAN

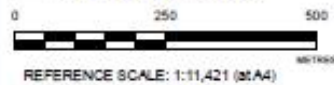
|           |            |            |
|-----------|------------|------------|
| CONVEYANT | YYYY-MM-DD | 2020-02-21 |
| PREPARED  | AE         |            |
| REVIEW    | DB         |            |
| APPROVED  | DB         |            |

|             |        |      |        |
|-------------|--------|------|--------|
| PROJECT NO. | REPORT | REV. | FIGURE |
| 10156618    | 001    | 0    | 01     |





- LEGEND**
- SPL Site
  - ⋯ Community Liaison Meeting Invitation Area
  - ▭ Parcel boundaries



PROJECTION: NZGD 2000 New Zealand Transverse Mercator

**NOTES**

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CLIENT  
 SOUTHERN PROTEINS LIMITED

PROJECT  
 CRC200154

TITLE  
 COMMUNITY LIAISON MEETINGS – INVITATION AREA

|            |            |            |
|------------|------------|------------|
| CONSULTANT | YYYY-MM-DD | 2020-05-18 |
|            | PREPARED   | AE         |
|            | REVIEWED   | DB         |
|            | APPROVED   | DB         |



|                         |               |          |                     |
|-------------------------|---------------|----------|---------------------|
| PROJECT NO.<br>19118618 | REPORT<br>001 | REV<br>0 | FIGURE<br><b>02</b> |
|-------------------------|---------------|----------|---------------------|

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