

## Recommended Conditions for Consent Application: CRC175345

**Proposed Activity: Discharge permit for the discharge of contaminants to land that may enter water, as a result of composting and stockpiling of compost on land**

	Limits
1	<p>a. The discharge of contaminants to land that may enter water shall be only from composting and stockpiling of compost associated with a composting activity located at 97 Diversion Road, Swannanoa, at or about map reference NZTM2000 1560289 mE, 5192108 mN, as shown on Plan CRC175345A, attached to and forming this consent.</p> <p>b. <u>Except where necessary to comply with the following conditions, the organic composting operation shall be managed in accordance with the information and plans submitted with the consent application dated 05 April 2017, as amended by the further information provided on 05 April 2018.</u></p> <p>-</p>
2	<p>The discharge from the material being stockpiled and composted shall only be from:</p> <ul style="list-style-type: none"><li>a. Sawdust and bark;</li><li>b. Gypsum powder;</li><li>c. Dewatered paunch grass;</li><li>d. Scoured wool fragments;</li><li>e. Mussel shells (pre-crushed);</li><li>f. Green waste;</li><li>g. Egg shell;</li><li>h. <u>Solids from meat and milk processing wastewater treatment;</u></li><li>i. Compostable packaging with some residual food waste;</li><li>j. Grease trap waste;</li><li>k. Bio solids that meet Grade A or B of the <i>Guidelines for Safe Application of Biosolids to Land in New Zealand (2003)</i> or any variation or replacement; and</li><li>l. Leaf Litter.</li></ul>
3	<p>The volume of material for composting on-site shall not exceed a combined volume of 40,000 cubic metres at any time.</p>
4	<p>The material to be composted and/or compost being stockpiled shall not be</p>

	<p>located:</p> <ul style="list-style-type: none"> <li>a. Within 250 metres of any property boundary;</li> <li>b. Within 20 metres of any surface water body;</li> <li>c. Within 20 metres of an existing bore.</li> </ul>
5	The composting process shall not result in the ponding of liquid containing contaminants on the ground surface.
	<b>Operation</b>
6	All practicable measure shall be taken to prevent oil and fuel leaks from vehicles and machinery used on site.
7	<p>All practicable measures shall be taken to avoid spills of fuel or any other hazardous substances within the site.</p> <ul style="list-style-type: none"> <li>a. In the event of a spill of fuel or any other hazardous substance, the spill shall be cleaned up as soon as practicable, the stormwater system shall be inspected and cleaned and measures taken to prevent a recurrence;</li> <li>b. The Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance, shall be informed within 24 hours of a spill event and the following information provided: <ul style="list-style-type: none"> <li>i. The date, time, location and estimated volume of the spill;</li> <li>ii. The cause of the spill;</li> <li>iii. The type of hazardous substance(s) spilled;</li> <li>iv. Clean up procedures undertaken;</li> <li>v. Details of the steps taken to control and remediate the effects of the spill on the receiving environment;</li> <li>vi. An assessment of any potential effects of the spill; and</li> <li>vii. Measures to be undertaken to prevent a recurrence.</li> </ul> </li> </ul>
8	<ul style="list-style-type: none"> <li>a. <del>Subject to Condition</del><u>Until implementation of the aerated static pile (ASP) process in accordance with (8(d)),</u> all new compost windrows that are less than 12 weeks old shall be placed on a bed of sawdust and/or bark fines, with a minimum depth of 500 millimetres at the time of formation;</li> <li>b. <u>Until implementation of the ASP process in accordance with Condition 8 (d),</u><del>m</del>Material in composting windrows that are between 12 <del>weeks</del> and 20 weeks old shall be placed on a bed of sawdust and/or bark fines, with a minimum depth of 500 millimetres at the time of formation;</li> <li>c. Composted material that is more than 20 weeks old is mature and can be located on the ground surface;</li> <li>d. <del>Within six months from the granting of this consent, all new composting windrows that are less than 12 weeks old shall be located on a composting pad constructed of compacted aggregate and filter fabric and placed on a bed of sawdust and/or bark fines with a minimum depth of 500 millimetres; and By no later than 31 December 2018, the consent holder shall implement the ASP process referred to in the further information dated 05 April 2018;</del></li> <li>e. <u>From the time of implementation of the ASP process in accordance with Condition 8 (d), all "curing" compost rows (i.e. rows between 6</u></li> </ul>

	<p><u>and 14 weeks old) shall be placed on a bed of sawdust and/or bark fines with a minimum depth of 500mm at the time of formation</u></p> <p>f. After each turning of the composting windrows the bed of sawdust and/or bark fines shall be reinstated to a depth of 500 millimetres.</p>				
	<b>Monitoring</b>				
9	<p><del>Within four months of the exercising of this consent a monitoring well system shall be installed. The monitoring system shall include:-</del></p> <ul style="list-style-type: none"><li><del>a. Wells with a depth that intersects shallow groundwater;-</del></li><li><del>b. One upgradient well located within 20 metres of the site;-</del></li><li><del>c. Two wells located within 40 metres downgradient of the composting windrows;-</del></li><li><del>d. The wells shall be screened across the water table, with sufficient screen length to encompass the expected long term maximum and minimum seasonal water table elevations</del></li></ul>				
<del>9</del> 10	<p><del>Samples of up gradient and down gradient groundwater shall be taken every six months from the monitoring wells identified in condition (9). The Consent holder shall undertake the following programme of soil sampling:</del></p> <ul style="list-style-type: none"><li><del>• Within 3 months of the consent being exercised, the Consent Holder shall collect a soil sample from a control site which will be an area of the site not previously used for any aspect of the Consent Holder's operation;</del></li><li><del>• Within 4 months of the consent being exercised, the Consent Holder shall collect no less than 6 soil samples from within areas of the site that are used for the storage of curing compost. The soil samples shall be collected from underneath sawdust piles used for the capture of stormwater run-off from curing rows;</del></li><li><del>• All soil samples shall be taken at a depth of [ 100 x mm?] below ground surface</del></li></ul>				
<del>11</del> 10	<p>All samples taken in accordance with condition (<del>109</del>) shall be analysed as follows:</p> <ul style="list-style-type: none"><li>a. The analyses shall use the most appropriate method by a laboratory that is certified for that method of analysis by an accreditation authority such as International Accreditation New Zealand (IANZ);</li><li>b. Samples taken in accordance with Conditions (10) shall be analysed for the following contaminants:<table><tr><td>Nitrate Nitrogen</td></tr><tr><td>Ammonia Nitrogen</td></tr><tr><td>pH</td></tr><tr><td><del>Electrical Conductivity</del></td></tr></table></li><li>c. The results of the analyses, the name of the person taking the samples and the date and time of sampling shall be provided to the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance, within 10 working days of receipt of the analytical results from the laboratory.</li><li>d. The weather conditions, including but not limited to rainfall</li></ul>	Nitrate Nitrogen	Ammonia Nitrogen	pH	<del>Electrical Conductivity</del>
Nitrate Nitrogen					
Ammonia Nitrogen					
pH					
<del>Electrical Conductivity</del>					

	<p>information at the site for the seven days preceding the date the samples are taken under Condition (10) shall be provided to the Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance with the records provided as specified under Condition (11)(c).</p>
12.11	<p><del>Results from samples collected under Condition (10) shall be used to calculate a two-year rolling average to represent background conditions from the upgradient wells and to calculate a two-year rolling average from downgradient wells. The two-year rolling average in the downgradient wells for:</del></p> <ol style="list-style-type: none"> <li><del>Ammonia-nitrogen should be no more than five percent or 0.05-milligrams per litre (mg/L) higher, whichever is greater, than the rolling two-year average ammonia concentration in the upgradient wells; and</del></li> <li><del>Nitrate-nitrogen should be no more than five percent or 0.2 mg/L higher, whichever is greater, than the rolling two-year average nitrate-nitrogen concentration in the upgradient wells.</del></li> </ol>
12.3	<p>If the <del>calculations results of the analysis</del> under Condition (11) show that the concentration of <del>ammonia-nitrogen and nitrate-nitrogen analysed in the downgradient location(s) exceeds the following allowed increases, as specified in Condition (12(a) and (b)), above the two-year rolling average for the upgradient well, the consent holder shall:</del> <u>[nitrate nitrogen] and [ammonia nitrogen] exceeds the levels identified for the control site by [5%], the Consent Holder shall:</u></p> <ol style="list-style-type: none"> <li>Prepare an Action Management Plan (AMP) which details measures to be taken to investigate and if necessary remediate, the cause of the <u>relative increase in ammonia-nitrogen and nitrate-nitrogen above the allowed increases from the two-year rolling average for the upgradient well under Condition (12(a) and (b)); in contaminants in the soil;</u></li> <li>The AMP shall be submitted to Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance within one month of the sample which exceeded the limits occurred;</li> <li>The AMP shall be reviewed and approved by Canterbury Regional Council, Attention Regional Leader – Monitoring and Compliance before implementing any of the measures identified in the AMP;</li> <li>Once the AMP is approved the consent holder shall implement the measures within the AMP within the timeframe defined in the AMP;</li> <li>Measures in the AMP to reduce the contaminants in the receiving environment may include, but are not limited to: <ol style="list-style-type: none"> <li>Cessation of activities that may have caused the excessive increase in contaminants;</li> <li>Installation of additional treatment methods;</li> <li>Revision of compost management procedures;</li> <li>Removal of contaminant source(s).</li> </ol> </li> </ol>
14	<p><del>Samples from the base of compost windrows shall be taken a minimum of four times per year from compost up to 12 weeks old, with at least two</del></p>

	<p><del>samples taken annually between June and August inclusive. The samples shall analysed as follows:</del></p> <ul style="list-style-type: none"> <li><del>a) Be tested for saturation moisture content;</del></li> <li><del>b) If the moisture content exceeds 75 percent of the saturation water content in any sample, dry sawdust or dryer compost or bark fines shall be mixed with the compost to reduce the saturation level to below 60 percent. Additional samples should be collected to verify that moisture content has reduce to less than 60 percent saturation.</del></li> <li><del>c) The saturation moisture content for Condition (14c) shall be taken as the average of the four samples collected within the preceding 12 month period. The saturation moisture content is assumed to be 185 percent for the 12 month period following the date this consent is granted.</del></li> </ul>
135	<p>The activity at the site shall be operated in accordance with the Compost Management Plan (CMP). The CMP shall:</p> <ul style="list-style-type: none"> <li>a. Set out the measures to be used to minimise the discharge of contaminants caused by the composting activity;</li> <li>b. Reflect best practice guidelines for commercial vegetative waste composting in New Zealand;</li> <li>c. Include but not be limited to; <ul style="list-style-type: none"> <li>i. Areas where the storage of raw materials is to occur;</li> <li>ii. Location of composting rows; and</li> <li>iii. Areas where composting will not occur including, but not necessarily limited to, the north-east corner of the site identified on Plan CRC175345B, attached to and forming part of this consent.</li> </ul> </li> <li>d. A list of on-site management and monitoring procedures, including: <ul style="list-style-type: none"> <li>i. Minimum oxygen concentrations within composting rows</li> <li>ii. Maintenance of minimum temperature requirements within composting rows</li> <li>iii. Minimum turning frequencies of composting rows</li> <li>iv. Minimum moisture content within composting rows</li> <li>v. Maintenance of carbon to nitrogen ratios within active stage (1-12-6 weeks) composting rows</li> <li>vi. Maximum height of composting rows</li> <li>vii. Minimum separation distances between composting rows.</li> </ul> </li> <li>e. Be prepared and submitted for certification to the Canterbury Regional Council, Attention: Regional Leader – Monitoring and Compliance, within 20 working days of exercise of this consent; and</li> <li>f. Be displayed on site at all times.</li> </ul>
146	<p>The CMP may be amended at any time. Any amendment shall be:</p> <ul style="list-style-type: none"> <li>a. Only for the purpose of improving efficacy of the composting process and shall not result in a decrease in groundwater quality;</li> <li>b. Consistent with the conditions of this resource consent and any other consent relating to the composting activity at the site; and</li> <li>c. Submitted in writing to the Canterbury Regional Council, Attention: Regional Leader - Monitoring and Compliance, prior to any</li> </ul>

	amendment being implemented.
	<b>Records</b>
157	<p>Records of the sampling and analysis undertaken in Conditions (9), <del>(10), (11),</del> (12) <del>and (14)</del> shall be <del>recorded</del><u>maintained.</u> <del>and the records shall detail the:</del></p> <ul style="list-style-type: none"> <li>a. <del>Well the sample was taken from;</del></li> <li>b. <del>Location and results of moisture content sampling;</del></li> </ul> <p><del>Date the sample was taken.</del></p> <p>An annual report of the records shall be submitted annually to the Canterbury Regional Council, Attention: Regional Leader – Monitoring and Compliance</p>
	<b>Community Group</b>
168	<p>Within two months of the commencement of this consent, the consent holder shall offer to establish a Community Liaison Group. The consent holder's organisation of the Community Liaison Group shall include:</p> <ul style="list-style-type: none"> <li>a. Being responsible for convening the meetings of the group and offering the opportunity for meeting at least twice annually during the term of the consent;</li> <li>b. Being responsible for the keeping and distribution of the group's minutes to all participants of the group;</li> <li>c. Providing an opportunity for the Community Liaison Group to receive and discuss the results of all monitoring and reports as required by the conditions of these consents; and</li> <li>d. As a minimum invite the following to participate in this group: <ul style="list-style-type: none"> <li>i. Two representatives of landowners within two kilometres of the site and who are also submitters to the consent application; and</li> <li>ii. A representative of the Eyre District Environmental Protection Society.</li> <li>iii. A representative of the Canterbury Regional Council in an observer capacity.</li> </ul> </li> </ul> <p><b>Advice Note:</b></p> <p>The objective of the Community Liaison Group is to facilitate information flow between the consent holder and the community and to be an ongoing point of contact between the consent holder and the community.</p> <p>The functions of the group may also include acting as a forum for relaying any community concerns about the operation of the composting facility and reviewing the implementation of measures to resolve and manage any community concerns regarding the effects of the facility.</p>
	<b>Administration</b>
179	<p>The Canterbury Regional Council may annually, on the last working day of May or November, serve notice of its intention to review the conditions of this consent for the purposes of:</p> <ul style="list-style-type: none"> <li>a. Dealing with any adverse effect on the environment which may arise</li> </ul>

	<p>from the exercise of this consent and which is appropriate to deal with at a later stage; or</p> <p>b. Requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment.</p>
1820	<p>If this consent is not exercised before 31 March 2023 then it shall lapse in accordance with Section 125 of the Resource Management Act 1991.</p> <p><b>Advice note:</b> 'Exercised' is defined as implementing any requirements to operate this consent <u>and</u> undertaking the activity as described in these conditions and/or application documents.</p>