



TRANSFER OF RESOURCE CONSENT:

DP100128A

DATE:

6th November 2012

To:

The Te Mata Mushroom Company Limited
PO Box 8137
Havelock North 4157

FROM:

Te Mata Mushrooms Limited

LOCATION:

174 - 176 Brookvale Road, Havelock North

LEGAL DESCRIPTION:

Site of discharge: Lot 1 & 2 DP16311, Lot 2 DP 7771,
Lot 3 DP 28543 & Section 28 &
Section 8 Blk IV Te Mata SD

A handwritten signature in black ink, appearing to read "Tim Waugh", is written over a horizontal line.

Tim Waugh
Consents Advisor
RESOURCE MANAGEMENT GROUP



RESOURCE CONSENT

Discharge Permit

In accordance with the provisions of the Resource Management Act 1991 (RMA), and subject to the attached conditions, the Hawke's Bay Regional Council (the Council) grants a resource consent for a discretionary activity to:

The Te Mata Mushroom Company Limited

PO Box 8137
Havelock North 4157

to discharge contaminants into the air from a composting and mushroom growing operation, and associated activities.

LOCATION

Address of site: 174 – 176 Brookvale Road, Havelock North

Legal description (site of discharge): Lot 1 and Lot 2 DP 16311,
Lot 2 DP7771
Lot 3 DP28543
Section 28 & Section 8 Blk IV Te Mata SD

Map reference: V21: 2845205 6164508

CONSENT DURATION

This consent is granted for a period expiring on 31 May 2025

LAPSING OF CONSENT

This consent shall lapse in accordance with s.125 on 31 May 2016 if it is not exercised before that date.

Darryl Lew
Group Manager

ENVIRONMENTAL MANAGEMENT GROUP
Under authority delegated by Hawke's Bay Regional Council
13th April 2011

CONDITIONS

1. All works and structures relating to this consent shall be installed to conform to best engineering practices and at all times maintained to a safe and serviceable standard.
2. The consent holder shall undertake all operations in accordance with any drawings, specifications, statements of intent and other information supplied as part of this application. Specifically this shall include:
 - a) Te Mata Mushrooms Limited – Resource Consent Application To Discharge Contaminants (Odour) Into Air, Planoramic Ltd Environmental Planning Consultants, 23 February 2010 090030.
 - b) DP100128A – Request for Further Information, Planoramic Ltd Environmental Planning Consultants, 10 December 2010 090030

Where a conflict arises between any conditions of this consent and the application, the conditions of this consent will prevail.

3. For the purposes of this consent, 'Phase 1' activities are defined as:
 - a) The filling of Phase 1 bunkers with a mixture of straw, chicken litter, and gypsum;
 - b) Composting of this mixture (after it has been placed in the Phase 1 bunkers) including aeration of the compost and ventilation of the Phase 1 bunkers to odour control equipment;
 - c) The turning of the compost during the composting process; and
 - d) Removal of compost and final turning (prior to transferring the compost to the Phase 2 bunkers).
4. For the purposes of this consent 'Phase 2' activities are defined as:
 - a) The filling of Phase 2 bunkers with compost;
 - b) Ventilation of the Phase 2 bunkers during their filling with compost;
 - c) Aeration of compost to achieve pasteurisation, and ventilation of the Phase 2 bunkers during this process; and
 - d) The removal of pasteurised compost from the Phase 2 bunkers.
5. The contaminants discharged to air shall be from the operation of a mushroom compost plant producing not more than 120 tonnes of compost per 7 days. The consent holder shall record the tonnage of compost manufactured over any 7 day period and make the records available to the Council on request and at the time of the site visits.

Note: For the purposes of this condition 'compost' is defined as the product produced from the Phase 2 pasteurisation process prior to it being placed within the compost trays.

6. There shall be no objectionable or offensive odour to the extent that it causes an adverse effect at or beyond the boundary of the site (see Advice Note 1).
7. The consent holder shall undertake all operations in accordance with a written Odour Management Plan held on site that includes (but is not limited to):

- a) A description of the purpose of the plan;
 - b) The names and contact phone numbers and addresses of key personnel;
 - c) A general description of the activities undertaken at the site;
 - d) Identification of the potential sources of odour, including the stockpiling and transfer of spent mushroom compost;
 - e) A full description of the odour mitigation system;
 - f) Relevant operating procedures that need to be undertaken to minimise odour emissions;
 - g) A diagram that clearly identifies the locations across the surface of the biofilter, or biofilters, where moisture and pH sampling will be carried out to provide representative data (see Advice Note 2);
 - h) A detailed description of the method used to determine the pH of the media in the biofilter, or biofilters.
 - i) An inventory of odour mitigation equipment and materials;
 - j) An equipment maintenance programme;
 - k) A contingency plan in the event that there is an adverse effect as a result of an offensive or objectionable odour beyond the boundary;
 - l) A list of records that need to be kept including maintenance and control parameters, weather records and odour complaint and investigation records;
 - m) A description of staff training including methods, frequency and training records;
 - n) A description of the process for reviewing the overall system performance.
8. The consent holder shall review the Odour Management Plan at least every two years and update as appropriate. A copy of the Odour Management Plan shall be submitted to the Council (Manager Compliance) within one month of completing each review.
 9. By 1 March 2012 all chicken litter, gypsum, and chicken litter/gypsum mix shall be stored in three-sided and roofed bunkers that are enclosed with soft door flaps.
 10. By 1 December 2011 the consent holder shall continuously measure and record the dissolved oxygen (DO) concentration (mg/L) at the point where wastewater flows from the storage pond into the aerated pond. The DO records shall be made available to the Council on request and at the time of each site inspection.
 11. By 1 December 2012 the consent holder shall ensure that the aeration of wastewater is sufficient to maintain dissolved oxygen (DO) concentrations at no less than 1.0 mg/L at all times.
 12. By 1 March 2015 the consent holder shall ensure that all Phase 1 composting and turning as defined in Condition 3(b), and 3(c), is undertaken in a fully enclosed building, or buildings, that is/are ventilated to a biofilter with sufficient design capacity.

Note: The physical emptying and loading of the Phase 1 bunkers during the Phase 1 turning processes will involve compost being transferred from one bunker to another via a front-end loader operating in an outdoor environment; with one door of each bunker being open at any one time to facilitate this process.

13. By 1 March 2017 the consent holder shall ensure that all Phase 1 turning, as defined in Condition 3(d), is undertaken in a fully enclosed building, or buildings, that is/are ventilated to a biofilter with sufficient design capacity.

Note: The physical emptying of the bunker containing the compost and the loading of the bunker containing the turning machine will involve compost being transferred from one bunker to another via a front-end loader operating in an outdoor environment; with one door of each bunker being open at any one time to facilitate this process.

Note: The transfer of compost from the Phase 1 bunker containing the turning machine to the Phase 2 bunker will involve compost being transferred from one bunker to another via a front-end loader operating in an outdoor environment; with one door of each bunker being open at any one time to facilitate this process.

14. The consent holder shall ensure that negative pressure within the enclosed Phase 1 bunkers, and within buildings required by Condition 12 and 13, is sufficient to reduce fugitive odour emissions to the extent that condition 6 can be complied with, and is maintained at all times when the doors are closed while composting activities are being carried out.
15. The consent holder shall ensure that the design of the ventilation system and the design of all access ways (to and from the bunkers) will reduce any fugitive odour emissions that may occur when the enclosed bunker doors and doors of buildings required by Condition 12 and 13 are open, to an extent that condition 6 can be complied with.
16. The loading rate of the biofilter, or biofilters shall not exceed 50 m³ air per hour per m³ of bark media.
17. If the biofilter existing at the time this consent was granted does not comply with the loading rate stated in Condition 16, the consent holder shall, by 1 December 2011, engage a professional biofilter designer to provide written evidence, to the satisfaction of the Council (Manager Compliance), that the biofilter design will be fit for purpose over a specified period of time.
18. If the biofilter existing at the time this consent was granted is upgraded to receive additional air flow and/or additional biofilters are installed, and the existing biofilter or new biofilters will not comply with the loading rate stated in Condition 16, the consent holder shall engage a professional biofilter designer to determine the rate of odourous air flow to be treated per m³ of media. The designer shall provide written evidence, prior to upgrading the existing biofilter or before new biofilters are constructed, to the satisfaction of the Council (Manager Compliance), that the biofilter design will be fit for purpose over a specified period of time.
19. The temperature of the inlet air to the biofilter, or biofilters, shall not exceed 40°C.
20. The consent holder shall ensure that the design parameters of the ventilation air biofilter, or biofilters, are consistently maintained in order to minimise the emission of odour so that condition 6 is able to be complied with. This maintenance shall include, but is not limited to:
- a) Maintaining satisfactory moisture levels in the biofilter, or biofilters, at all times;
 - b) Maintaining the design depth of active media in the biofilter or biofilters;

- c) Ensuring that the biofilter media is maintained to avoid short-circuiting of the gases being treated through the bed;
 - d) Replacing the biofilter media at an appropriate time. This shall be considered to be when the pressure differential is unable to be maintained within its normal design operating range, and/or evaluation of representative samples of media indicates that it is approaching or has reached the end of its effective life, or at any time when it is evident that the biofilter, or biofilters, are no longer performing to a satisfactory level in respect to odour removal and cannot be remediated.
21. The consent holder shall monitor and maintain records of the operational parameters of the biofilter, or biofilters, as follows:
- a) The inlet air temperature shall be monitored continuously, and recorded once between 6:00 am and 10:00 am and once between 2:00 pm and 5:00 pm per operating day;
 - b) The pressure differential within representative inlet air distribution laterals of the biofilter, or biofilters, shall be monitored continuously and recorded once between 6:00 am and 10:00 am and once between 2:00 pm and 5:00 pm per operating day, with a note as to significant rainfall that has occurred for an hour or more preceding each recording (see Advice Note 3);
 - c) The media moisture level and the condition of the biofilter bed, or beds, at a depth of 20 to 25 cm from the surface of the bed and at the locations specified in the Odour Management Plan, shall be qualitatively monitored and visually inspected at least once every week, and the observations shall be recorded (see Advice Note 4);
 - d) The media moisture content within the biofilter bed, or beds, at depths of 25 cm **and** 50 cm from the surface of the bed, and at the locations specified in the Odour Management Plan, shall be measured via gravimetric method each year in February and August and the results shall be recorded. (see Advice Note 5);
 - e) The pH within the biofilter bed, or beds, at a depth of 50 cm from the surface of the bed and at the locations specified in the Odour Management Plan, shall be measured by an appropriate method, as documented in the Odour Management Plan, each year in February and August and the results shall be recorded. (see Advice Note 6);
 - f) The records collected in accordance with this condition shall be made available to the Council on request and at the time of each site inspection.
22. The consent holder shall log all odour complaints received. The log shall include:
- a) The date and time of the odour incident;
 - b) The date and time the complaint was received;
 - c) A detailed description of the odour incident, taking into account the FIDOL factors outlined in Advice Note 1 as far as it is possible to ascertain these from the complainant;
 - d) The name, telephone number, and address of the complainant;
 - e) Weather conditions (including an estimate of wind speed and direction) at the time of the odour incident;
 - f) Details of key operating parameters at the time of the odour incident;

g) Any corrective action taken.

The log of complaints shall be made available to the Council at the time of any site visit, and on request.

23. That where, for any cause, contaminants associated with the consent holder's operations are discharged to air such that an adverse effect does, or is likely to, occur beyond the boundary of the site, the consent holder shall:

- a) Immediately take all practicable steps to cease the emission of the contaminants, and;
- b) Immediately notify the Council, and;
- c) Report to the Council, if requested, in writing and within 7 days, describing the manner and cause of the discharge and steps taken to control it and prevent its recurrence.

REVIEW OF CONSENT CONDITIONS BY THE COUNCIL

The Council may review conditions of this consent pursuant to sections 128, 129, 130, 131 and 132 of the RMA. The actual and reasonable costs of any review undertaken will be charged to the consent holder, in accordance with s. 36(1) of the RMA.

Times of service of notice of any review: During the month of May, of any year.

- Purposes of review:
- To deal with any adverse effect on the environment which may arise from the exercise of this consent, which it is appropriate to deal with at that time, or which became evident after the date of issue.
 - To require the adoption of the best practicable option to remove or reduce any effects on the environment.
 - To modify any monitoring programme, or to require additional monitoring if there is evidence that current monitoring requirements are inappropriate or inadequate.
 - To impose a discharge standard if it is considered necessary.
 - To require the installation of an electric bale breaking line to reduce the time bales are kept wet and the time it takes to create the compost substrate.
 - To require the process of transferring Phase 1 compost from bunker to bunker for Phase 1 turning purposes to be ventilated to a biofilter with sufficient design capacity.
 - To require the process of transferring Phase 1 compost from any Phase 1 bunker to a Phase 2 bunker, to be ventilated to a biofilter with sufficient design capacity.
 - To require the Phase 2 bunkers to be ventilated to a biofilter with sufficient design capacity, to ensure that the Phase 2 compost process, after filling and before emptying, does not create objectionable or offensive odour to the extent that it causes an adverse effect at or beyond the boundary of the site.

To require the adoption of suitable measures to ensure odour arising from the disturbance of spent mushroom compost does not create objectionable or offensive odour to the extent that it causes an adverse effect at or beyond the boundary of the site.

REASONS FOR DECISION

The activity will have minor actual or potential adverse effects on the environment and is not contrary to any relevant plans or policies. The activity is also consistent with the purpose and principles of the Resource Management Act 1991.

ADVICE NOTES

1. When assessing whether odour is offensive or objectionable to the extent that it causes an adverse effect at or beyond the boundary of the site the Council shall generally follow the procedure outlined in section 6.1.4 of the Hawke's Bay Regional Resource Management Plan (RRMP). This assessment will take into account the FIDOL factors – frequency, intensity, duration, offensiveness and location; and shall be undertaken by a Council officer who has experience in odour complaints and has had his/her nose calibrated using olfactometry.
2. The number of locations across the surface of each bed should be not less than 10.
3. The pressure differential across any biofilter containing bark media generally should not exceed 100 mm water gauge.
4. Qualitative assessment is squeezing a sample of media in the palm of the hand – as a guide it should feel damp and when released the palm should not be obviously wet, and the squeezed media “ball” should easily disaggregate and not be sticky (see also Advice Note 5).
5. As a guide, bark media moisture content should be within 40 – 60 % by weight (determined on a wet basis) for optimum performance. The assessment description of media in Advice Note 4 applies to this moisture range. However, moisture content of 70% by weight or higher may still ensure good performance. Moisture content much less than 40% by weight can result in “dry” media and substandard biofilter performance.
6. If pH is determined from actual media samples, the most appropriate depths are 50 cm or deeper because acidification of the media from oxidation of hydrogen sulphide and other reduced sulphur compounds is more pronounced at depth, with the acidification ‘rising’ as deep media becomes sulphate-bound. Shallow depths are not appropriate because they can be influenced by the natural acidity of rainwater (clean rainwater has a pH of approximately 5.6 due to its CO₂ content but it may be less than this if there are acid gas emitters in the area), or higher than this if the bed has been surface-topdressed with lime. Bed pH can also be reasonably estimated from sampling the biofilter drainage water providing it does not come into contact with concrete which may neutralise acidity. However, drainage water pH does not provide an indication of varying pH through the bed (a pH profile) that may occur due to changes in media composition and consistency and other factors. In addition, during dry periods there may be no drainage of water from the media. The optimum operating range for most biofilters is between pH 5 to 8.

MONITORING BY THE COUNCIL

Routine monitoring

Routine monitoring inspections will be undertaken by Council officers at a frequency of no more than twice every year to check compliance with the conditions of the consent. The costs of **any** routine monitoring will be charged to the consent holder in accordance with Council's Annual Plan of the time.

Non-routine monitoring

“Non routine” monitoring will be undertaken if there is cause to consider (e.g. following a complaint from the public, or routine monitoring) that the consent holder is in breach of the conditions of this consent. The cost of non-routine monitoring will be charged to the consent holder in the event that non-compliance with conditions is determined, or if the consent holder is deemed not to be fulfilling the obligations specified in section 17(1) of the RMA.

Section 17(1) of the RMA states:

Every person has a duty to avoid, remedy, or mitigate any adverse effect on the environment arising from an activity carried on, by or on behalf of that person, whether or not the activity is in accordance with a rule in a plan, a resource consent, section 10, section 10A, or section 20.

Consent Impact Monitoring

In accordance with section 36 of the RMA (which includes the requirement to consult with the consent holder) the Council may levy additional charges for the cost of monitoring the environmental effects of this consent, either in isolation or in combination with other nearby consents. Any such charge would generally be set through the Annual Plan process.

DEBT RECOVERY

It is agreed by the consent holder that it is a term of the granting of this resource consent that all costs incurred by the Council for, and incidental to, the collection of any debt relating to the monitoring of this resource consent shall be borne by the consent holder as a debt due to Council, and for that purpose Council reserves the right to produce this document in support of any claim for recovery.

CONSENT HISTORY

Consent No. (Version)	Date	Event	Relevant Rule Number Plan	
DP100128A	13/04/2011	Consent initially granted	52	Regional Resource Management Plan