

19 September 2012

Christchurch City Council, City Water
and Waste
PO Box 237
Christchurch 8140



Customer Services
P. 03 353 9007 or 0800 324 636

PO Box 345
Christchurch 8140

P. 03 365 3828
F. 03 365 3194
E. ecinfo@ecan.govt.nz

www.ecan.govt.nz

Dear Sir/Madam

NOTICE OF RESOURCE CONSENT DECISION(S)

RECORD NO: CRC130056

NAME: Christchurch City Council, City Water and Waste

The decision of Environment Canterbury is to grant your application(s) on the terms and conditions specified in the attached resource consent document(s). Your resource consent(s) commences from the date of this letter advising you of the decision. The reasons for the decision are:

- 1) Any adverse effects on the environment as a result of the proposed activity will be minor.

For some activities a report is prepared, with officer recommendations, to provide information to the decision makers. If you require a copy of the report please contact our Customer Services section.

If you do not agree with the consent authority decision, you may object to the whole or any part. Notice of any objection must be in writing and lodged with Environment Canterbury within 15 working days of receipt of this decision.

Alternatively you may appeal to the Environment Court, PO Box 2069, Christchurch. The notice of appeal must be lodged with the Court within 15 working days of receipt of this decision, with a copy forwarded to Environment Canterbury within the same timeframe. If you appeal this decision, the commencement date will then be the date on which the decision on the appeal is determined. If you are in any doubt about the correct procedures, you should seek legal advice.

You can find online information about your consent document at <http://ecan.govt.nz/publications/General/YourConsentDocumentBooklet09.pdf> and also information regarding the monitoring of your consent at <http://ecan.govt.nz/publications/General/monitoring-your-consent-booklet.pdf>. If you have a resource consent for a **septic tank**, please also visit <http://ecan.govt.nz/publications/General/FlushedWithSuccess.pdf> for information about your on site wastewater treatment system. These booklets contain important information about your consent and answers some commonly asked questions about what will happen next in the life of your resource consent. There is an Annual Compliance Monitoring Charge associated with every consent. For details of this, please refer to page 10 of the "Monitoring Your Consent" booklet.

Environment Canterbury takes every measure to improve both applications and processes, and we appreciate your feedback as an important component in ensuring this occurs. You can complete a consents survey on-line at <http://www.ecan.govt.nz/services/resource-consents/pages/surveys.aspx>.

Our Ref: CO6C/29197
Your Customer No: EC306442,EC121370
Contact: Customer Services

Alternatively, you can call our Customer Services Section on 0800 EC INFO who will be happy to complete the survey with you.

Charges, set in accordance with section 36 of the Resource Management Act 1991, shall be paid to the Regional Council for the carrying out of its functions in relation to the administration, monitoring and supervision of resource consents and for the carrying out of its functions under section 35 of the Act.

Thank you for helping us make Canterbury a great place to live.

For all queries please contact our Customer Services Section by telephoning (03) 353 9007, 0800 ECINFO (0800 324 636), or email ecinfo@ecan.govt.nz quoting your CRC number above.

Yours Sincerely

A handwritten signature in black ink, appearing to be 'J. S.', written in a cursive style.

CONSENTS PLANNING SECTION

CC Address:

URS New Zealand Limited, Christchurch
Attn To: Tim A D Ensor
PO Box 4479
Christchurch 8140

RESOURCE CONSENT CRC130056

Pursuant to Section 104 of the Resource Management Act 1991

The Canterbury Regional Council (known as Environment Canterbury)

GRANTS TO: Christchurch City Council, City Water and Waste

A LAND USE CONSENT: To install a groundwater interception trench.

Commencement Date: 19 Sep 2012

EXPIRY DATE: 31 Mar 2037

LOCATION: Landfill Drive, BURWOOD LANDFILL

SUBJECT TO THE FOLLOWING CONDITIONS:

- 1 The exercising of this resource consent is subject to compliance with;
 - a. The conditions of this resource consent; and
 - b. Schedule A which forms part of this consent.

- 2 The works shall be limited to:
 - a. The excavation of land up to a depth of 3 metres for the installation of two groundwater interceptor trenches (Gallery BX24/0258 and Gallery BX24/0259)
 - b. Deposition of permeable clean fill material into the excavated areas.
 - c. Rehabilitation of the site

- 3
 - a. Gallery BX24/0258, (proposed 180 metres, width one metre and proposed depth of three metres beneath the ground surface, and orientated in a southern direction), shall be located at or about map reference Topo50 BX24:7666-8801 (NZMS 260 M35:8666-4962) marked on Location Plan CRC130056 which forms part of this consent.
 - b. Gallery BX24/0259, (proposed 180 metres, width one metre and proposed depth of three metres beneath the ground surface, and orientated in a south eastern direction), shall be located at or about map reference Topo50 BX24:7667-8781 (NZMS 260 M35:8667-4943) marked on Location Plan CRC130056 which forms part of this consent.

- 4 A sealing layer shall be installed to confine the infiltration gallery system and prevent contaminants from surface sources leaking or leaching to groundwater.

- 5 The excavated area shall be backfilled to prevent contamination of the underlying groundwater.

- 6 The infiltration trenches shall be easily identifiable by a permanent label, which may be welded or engraved on the casing, or on the equivalent fixed part of the gallery construction or associated building. The numbering on the label shall be the bore number assigned by Environment Canterbury and referred to in Condition (2).

- 7 The Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, shall be notified not less than two working days prior to the commencement of works.

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- 8 In the event of any discovery of archaeological material:
- a. The consent holder shall immediately:
 - i. Cease earthmoving operations in the affected area and mark off the affected area; and
 - ii. Advise the Canterbury Regional Council of the disturbance; and
 - iii. Advise the New Zealand Historic Places Trust of the disturbance.
 - b. If the archaeological material is determined to be Koiwi Tangata (human bones) or taonga (treasured artefacts) by the New Zealand Historic Places Trust, the consent holder shall immediately advise the office of the appropriate runanga (office contact information can be obtained from the Canterbury Regional Council) of the discovery.
 - c. If the archaeological material is determined to be Koiwi Tangata (human bones) by the New Zealand Historic Places Trust, the consent holder shall immediately advise the New Zealand Police of the disturbance.
 - d. Work may recommence if the New Zealand Historic Places Trust (following consultation with runanga if the site is of Maori origin) provides a statement in writing to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager that appropriate action has been undertaken in relation to the archaeological material discovered. The Canterbury Regional Council shall advise the consent holder on written receipt from the New Zealand Historic Places Trust that work can recommence.

Advice Note: *This may be in addition to any agreements that are in place between the consent holder and the Papatipu Runanga. (Cultural Site Accidental Discovery Protocol).*

Advice Note: *Under the Historic Places Act 1993 an archaeological site is defined as any place associated with pre-1900 human activity, where there is material evidence relating to the history of New Zealand. For sites solely of Maori origin, this evidence may be in the form of accumulations of shell, bone, charcoal, burnt stones, etc. In later sites, artefacts such as bottles or broken glass, ceramics, metals, etc, may be found or evidence of old foundations, wells, drains, tailings, races or other structures. Human remains/koiwi may date to any historic period.*

It is unlawful for any person to destroy, damage, or modify the whole or any part of an archaeological site without the prior authority of the New Zealand Historic Places Trust. This is the case regardless of the legal status of the land on which the site is located, whether the activity is permitted under the District or Regional Plan or whether a resource or building consent has been granted. The Historic Places Act provides for substantial penalties for unauthorised damage or destruction.

- 9 The information requirements of the BORE COMPLIANCE REPORT CRC130056 and BORE COMPLIANCE PLAN CRC130056 shall be completed and returned to Environment Canterbury within 20 working days of the completion of construction of the gallery.
- 10 The information requirements of the BORE INSTALLATION REPORT, including the installer's or driller's GPS eight digit map reference (e.g. M35:1234-5678), shall be completed and returned to Environment Canterbury within 20 working days of the completion of construction of the gallery.

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- 11 All best practicable options shall be undertaken to prevent oil and fuel leaks from vehicles and machinery, including but not limited to the following measures:
- a. There shall be no storage of fuel or refuelling of vehicles and machinery within 20 metres of excavated land;
 - b. Fuel shall be stored securely or removed from site overnight;
 - c. A spill kit, that is capable of absorbing the quantity of oil and fuel that may be spilled on site at any one time, shall be kept on site at all times during the exercise of this consent;
 - d. A written spill response plan shall be developed and communicated to all persons undertaking activities authorised by this consent and a copy kept on site at all times;
 - e. In the event of a spill of oil or fuel, the consent holder shall clean up the spill as soon as practicable in accordance with the spill response plan detailed in Condition (11)(d) and take measures to prevent a recurrence;
 - f. The consent holder shall inform the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager within 24 hours of any spill of greater than five litres of oil or fuel and shall provide the following information:
 - i. The date, time, location and estimated volume of the spill;
 - ii. The cause of the spill;
 - iii. The type of contaminant(s) spilled;
 - iv. Clean up procedures undertaken;
 - v. Details of the steps taken to control and remediate the effects of the spill on the receiving environment;
 - vi. An assessment of any potential effects of the spill;
 - vii. Measures to be undertaken to prevent a recurrence.
- 12 The consent holder shall ensure that all personnel working on the site are made aware of and have access to the contents of this consent document and all associated erosion and sediment control plans and methodology prior to the commencement of site construction.
- 13 The consent holder shall:
- a. Adopt the best practicable options to prevent the discharge of sediment and contaminants into excavated land, including, but not limited to the following measures:
 - i. Progressive backfilling of open excavations as soon as practicable;
 - ii. All disturbed areas shall be stabilised and re-grassed or sealed as soon as practicable following completion of the works.
 - b. Ensure that erosion and sediment control measures are constructed and maintained in accordance with the, Environment Canterbury Erosion and Sediment Control Guidelines (Report R06/23, February 2007), and any amendments to that document.
 - c. Remove from site all spoil and other waste material from the works on completion of works.
- 14 Works shall only be carried out between the hours of 7am and 7pm, Monday to Sunday inclusive; with no works to be carried out on public holidays.
- 15 The consent authority may, on any of the last five working days of any month of each year, serve notice on the consent holder of its intention to review the conditions of this consent, for the purpose of:
- a. 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
 - b. Specifying, and requiring the consent holder, to adopt the best practical option to remove or reduce any such effect.

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- 16 The material deposited into land shall only be:
- a. The material that was excavated from the same site; and
 - b. Concrete foundations.
- 17 The lapsing date for the purposes of section 125 shall be 30 September 2017

Issued at Christchurch on 19 September 2012

Canterbury Regional Council

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Everything is connected

Consent No: CRC130056

Exercising of resource consent

It is important that you notify Environment Canterbury when you first start using your consent.

GRANTED TO: Christchurch City Council, City Water and Waste
A LAND USE CONSENT: To install a groundwater interception trench.
LOCATION: Landfill Drive, BURWOOD LANDFILL

Even if the consent is replacing a previous consent for the same activity, you need to complete and return this page.

Providing this information will:

- Validate your consent through to its expiry date
- Minimise compliance monitoring charges
- Help provide an accurate picture of the state of the environment.

If consent CRC130056 is not used before 30 Sep 2017 this consent will lapse and no longer be valid.

Declaration:

I have started using this resource consent.

Action taken: (e.g. pasture irrigated, discharge from septic tank/boiler/spray booth etc).

Approximate start date (*Note: this may be different to the date the consent was granted*): _____

Signed: _____ **Date:** _____

Full name of person signing (please print): _____

Please return to:

Environmental Protection - Administration
Environment Canterbury
PO Box 345
Christchurch 8140

Schedule A – General Conditions

Conditions attached to resource consents:

CRC130055, CRC130056, CRC130057, CRC130058, CRC130059, CRC130060, CRC130061 and CRC130062.

General

- (1) When undertaking the activities authorised by these resource consents, all practicable steps shall be undertaken to minimise adverse effects on property, air quality, water quality and amenity values.
- (2) The consent holder shall ensure that all persons undertaking works associated with these resource consents has access to a copy of all resource consents, and all management plans prepared in accordance with the conditions of the resource consents, or Schedule A.
- (3) For purposes of clarity:
 - (a) Conditions (8)(d)(v-vii), (10) to (13), (22) to (36), (38) and (39) shall not apply to the resource consents on the Burwood Resource Recovery Park site;
 - (b) All other conditions shall apply to both the Burwood Resource Recovery Park consents and the Burwood Landfill consents.

Management Plans

- (4) All management plans and the Remedial Action Plan provided in accordance with Schedule A shall address all the relevant matters identified within this schedule and demonstrate how compliance with the relevant conditions shall be achieved.

Advice note: it is acceptable for a single management plan document to be produced covering all required management plans under the conditions in Schedule A.
- (5) Unless stated otherwise, all management plans shall be provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, within two months of the granting of these consents.
- (6) Any amendments to the management plans shall be:
 - (c) Consistent with the conditions of these resource consents; and
 - (d) Submitted in writing to the Canterbury Regional Council (CRC), Attention: RMA Compliance and Enforcement Manager, as soon as practicable.
- (7) At least once every three months, the consent holder shall meet with a representative of the Canterbury Regional Council to discuss the management plans. The meeting shall be for the purpose of:
 - (a) Discussing the management plans and the effectiveness of the mitigation measures;
 - (b) Amending the management plans to improve mitigation or add new mitigation to minimise any adverse effects and/or exceedances of the trigger levels set out in Schedule A; and

- (c) Discussing the Complaints Register and Waste Management Register.

The first meeting shall be held within three months of the granting of these consents.

Site Management Plan

- (8) A Site Management Plan (SMP) shall be prepared, submitted in accordance with condition (4) and implemented. The SMP shall address, but not be limited to:
 - (a) Responsibilities for site management;
 - (b) Methods used to identify waste and how records will be maintained;
 - (c) The process to be followed if unacceptable waste enters the site;
 - (d) Methods used to manage environmental effects, including but not limited to:
 - i. Signage;
 - ii. Perimeter fencing;
 - iii. Stormwater management;
 - iv. Control of nuisance, in particularly dust, noise, litter and vermin;
 - v. Landfill gas management;
 - vi. Placement, compaction and capping of waste;
 - vii. The use of the interceptor trench;
 - (e) Emergency procedures;
 - (f) Reinstatement and rehabilitation procedures; and
 - (g) Any other relevant matters.

Waste Management Register

- (9) A Waste Management Register shall be prepared and the consent holder shall record all incidents of unacceptable waste entering the site and how those incidents were managed. Where it has been deemed that it is not reasonably practicable to separate unacceptable waste in accordance with the definition of "earthquake waste" in the Canterbury Earthquake (Resource Management Act – Burwood Resource Recovery Park) Order 2011, the consent holder shall record:
 - (a) The type of waste that was accepted;
 - (b) An estimation of the volume of waste accepted;
 - (c) An explanation of the measures taken to remove the waste;
 - (d) Why the waste was accepted; and
 - (e) Any additional treatment or management practices used to handle the waste.

Landfill Gas Management Plan

- (10) Monitoring shall occur at least annually and for at least five years following the commencement of the consent. Results of the monitoring shall be provided to the Canterbury Regional Council on request.
- (11) The following trigger levels shall apply at the surface of the landfill:
 - a. 5000 parts per million of methane; and
 - b. 10 parts per million of hydrogen sulphide.
- (12) If the trigger levels in condition (11) are exceeded, measures shall be taken in accordance with the Landfill Gas Management Plan to manage the gas discharge to bring concentrations below the trigger values.
- (13) A Landfill Gas Management Plan (LGMP) shall be prepared, submitted in accordance with condition (5) and implemented. The LGMP shall address, but not be limited to:
 - (a) An explanation of the methods used to undertake surface monitoring of landfill gas in capped parts of the landfill and the locations of the monitoring.
 - (b) Measures that will be taken to ensure the trigger levels set out in Condition (11) are not exceeded.
 - (c) Measures to be taken in the event that the trigger levels set out in Condition (11) are exceeded. This may include, but not be limited to:
 - i. Changing the capping material, or increasing the depth of the cap;
 - ii. Extracting gas and discharging it through the gas flaring system established on site under consent CRC040415; and
 - iii. The timeframe for bringing gas levels below the trigger levels.

Dust Management Plan

- (14) A Dust Management Plan (DMP) shall be prepared, submitted in accordance with condition (5) and implemented. The DMP shall address but not be limited to the following matters:
 - (a) Details of the dust control measures to be used and when and where they will be implemented, including, where appropriate, the following:
 - i. The use of water sprays and water carts to suppress dust;
 - ii. Ceasing the sorting, shredding, crushing or deposition of material during high winds;
 - iii. Methods to remove fine particles from roadways, particularly Landfill Avenue;
 - iv. Methods to reduce the dust generation from vehicles, including speed controls and covering vehicle loads that have the potential to generate nuisance dust. This may include truck washing and/or wheel washing facilities;

- v. The use of covers to reduce dust generation from process lines and machinery;
 - vi. Limiting the size of exposed areas, including the working face to reduce dust generation; and
 - vii. Progressive capping of exposed areas
- (b) Designated responsibilities for dust management;
 - (c) A record of maintenance requirements and contingency plans for dust suppression equipment.
 - (d) A record of the results of the monitoring carried out in accordance with conditions (15) to (20).
 - (e) Additional mitigation measures that will be taken in the event that any alert level is exceeded in accordance with condition (16) or the standard is exceeded in accordance with condition (20).

Air Quality Monitoring

- (15) Within two months of the commencement of this consent, an air quality continuous particulate monitor shall be installed at the property boundary immediately adjacent to Landfill Avenue. The exact location of the continuous particulate monitor shall be determined by a person who is suitably qualified and experienced in the field of air particulate monitoring.
- (16) The continuous particulate monitor shall:
 - (a) Monitor PM₁₀ and be capable of providing of providing 1 hour and 24 hour averages;
 - (b) Alert staff when levels exceed the following alert levels;
 - i. Level 1 : 50 micrograms per cubic metre as a one hour average;
 - ii. Level 2: 75 micrograms per cubic metre as a one hour average;
 - iii. Level 3: 100 micrograms as a one hour average and 50 micrograms per cubic metre as a 24 hour average.
 - (c) Shall be operated for the entire time the Burwood Resource Recovery Park is operating, and until capping on Site A and Site F are complete.
- (17) The consent holder shall:
 - (a) Review all particulate mitigation measures if alert Level 1 is exceeded;
 - (b) Implement additional particulate mitigation measures if alert Level 2 is exceeded; and
 - (c) Immediately take action to reduce air borne particles and sources of air borne particles if alert Level 3 is reached.

- (18) The consent holder shall undertake occupational health monitoring for asbestos and respirable particulate every six months. The monitoring shall:
- (a) Be undertaken in accordance with the Membrane Filter Method for estimating Airborne Asbestos Fibres, 2nd edition NOHSC: 3003 (2005) or equivalent for asbestos.
 - (b) Be undertaken in accordance with NIOSH Method 0600 Particulates not otherwise regulated, respirable particles or equivalent for respirable particulate; and
 - (c) Be undertaken from at least one location near to the load-in hopper to the recovery operation.
- (19) The results of the asbestos and respirable particulate monitoring shall be provided to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager within 14 days of the sampling being undertaken.
- (20) If the results of the asbestos monitoring exceeds 0.1 fibre per millilitre in a 4 hour period or the respirable particulate monitoring exceeds 3 mg/m³ over an 8 hour period the consent holder shall undertake an investigation into additional dust mitigation that can be implemented to control dust. This investigation shall be completed with 1 month of the results being received and shall be forward to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager within 14 days of being completed. Any recommended mitigation shall be implemented within 1 month of the report being completed.

Air Quality Complaints Register

- (21) The consent holder shall record details of any complaints received. The record shall include, but not be limited to, the following:
- (a) Location where the discharge was detected by the complainant;
 - (b) Date and time when the discharge was detected by the complainant;
 - (c) A description of the wind speed and wind direction when the discharge was detected by the complainant;
 - (d) The most likely cause of the discharge;
 - (e) Any corrective action(s) undertaken by the Consent Holder to avoid, remedy or mitigate the discharge detected by the complainant.

This record shall be provided to the Canterbury Regional Council on request.

Water Quality Monitoring

- (22) The consent holder shall measure the depth to groundwater below ground level at six monthly intervals in the wells listed in Schedule (2).

- (23) The consent holder shall record water levels at not greater than hourly intervals at continuous water level recorder in one of the monitoring bores located on the landfill site and one in the Riccarton Gravel Aquifer.
- (24) The consent holder shall sample and have analysed the water in the monitoring wells listed in Schedule (1) at six monthly intervals for the following parameters:
- (a) pH
 - (b) Alkalinity
 - (c) Temperature
 - (d) Ammoniacal-Nitrogen
 - (e) Conductivity
 - (f) Nitrate-Nitrogen
 - (g) Total Hardness
 - (h) COD
 - (i) Iron (soluble)
 - (j) Chloride
 - (k) Nitrite Nitrogen
- (25) The consent holder shall sample and have analysed the water in the monitoring wells listed in Schedule (2) on annual basis for the following parameters:
- (a) pH
 - (b) Alkalinity
 - (c) Temperature
 - (d) Conductivity
 - (e) Total Organic Carbon
 - (f) Total Hardness
 - (g) Ammoniacal Nitrogen
 - (h) Nitrate Nitrogen
 - (i) Total Phosphorus
 - (j) Sulphate
 - (k) Total Sulphide
 - (l) COD
 - (m) Aluminium

- (n) Arsenic
 - (o) Cadmium
 - (p) Calcium
 - (q) Chromium
 - (r) Copper
 - (s) Iron (soluble)
 - (t) Iron (total)
 - (u) Lead
 - (v) Magnesium
 - (w) Manganese
 - (x) Nickel
 - (y) Zinc
 - (z) Potassium
 - (aa) Sodium
 - (bb) Boron
 - (cc) Chloride
 - (dd) Nitrite Nitrogen
 - (ee) Cation/anion balance
- (26) The consent holder shall sample and have analysed the water in the monitoring wells listed in Schedule (3) on an annual basis, for:
- (a) Volatile Organic Compounds
 - (b) Semi-Volatile Organic Compounds
- (27) In the event of an ammoniacal nitrogen plume breakthrough at a routinely monitored well, the following action steps will be undertaken:
- (a) If the sampling frequency at the well is annual, then it will be increased to six monthly monitoring.
 - (b) The density of groundwater monitoring being conducted around the breakthrough well will be assessed regarding its adequacy for delineation of the leachate plume extent. Where appropriate, available additional wells will be restored to the annual monitoring program.
 - (c) If there is a monitoring well screened within the deeper aquifer that is in proximity to the breakthrough well, then it will be included in the annual monitoring program to monitor any effects on the deeper aquifer.

- (d) If, over time, the influence of leachate in the breakthrough well is considered to have reached steady state, as confirmed by five consecutive moving means (calculated from five data points), then monitoring of the breakthrough well will be returned to annual monitoring.
 - (e) If, over time, the monitoring data for the breakthrough well decreases to below the trigger concentrations/levels for all measured parameters, then the monitoring wells that were restored to the annual monitoring program in response to the detection of ammoniacal nitrogen breakthrough, will be removed from the monitoring program.
- (28) The consent holder shall examine the integrity of the casing of any new bores drilled subsequent to the granting of this consent within one year of drilling.
- (29) Sampling shall be undertaken by a competent person in accordance with the most appropriate scientifically recognised and current method.
- (30) The consent holder shall:
- (a) Within 12 months of the granting of this consent, prepare a map indicating areas of the site where shallow groundwater can result in ponded water above the ground surface; and
 - (b) sample and analyse areas of ponded water occurring above the ground surface referred to in condition (30)(a) and any other areas of ponded water greater than 500 square metres in area present at the time of sampling, on an annual basis in July, for the constituents listed in condition (24), until advised otherwise in writing by the Canterbury Regional Council.
- (31) Within six months of the commencement of the consent, the consent holder shall:
- (a) Undertake an assessment of the zone of groundwater discharge to calculate the trigger concentrations/levels at the site boundary to ensure ANZECC 2000 Marine Water Aquatic criteria are met in coastal marine waters.
 - (b) Prepare, and provide to the Canterbury Regional Council, a preliminary report which details:
 - i. the trigger concentrations/levels, including those assessed under condition (31)(a), against which groundwater quality compliance monitoring data will be evaluated; and
 - ii. the contingency measures which will be taken in the event of a trigger concentration/level being exceeded.
- (32) Within 18 months of the commencement of the consent, the consent holder shall prepare and provide to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager, a Remedial Action Plan (RAP). The RAP shall:
- (a) detail the most effective and practicable measures that will be taken to minimise or mitigate potential risks arising from the migration of leachate to the ground surface, to the coast and/or to the Riccarton gravel aquifer.
 - (b) be prepared in accordance with the requirements of the Ministry for the Environment Contaminated Site Guideline No. 1 (April 2011); and

- (c) shall be reviewed at least three yearly and an updated version of the plan shall be submitted to the Canterbury Regional Council every three years from the date of submission of the original Remedial Action Plan or subsequent review. The Remedial Action Plan shall be updated and without limitation shall incorporate current knowledge of the effects of the activity and of remediation techniques and technologies.
- (33) The consent holder shall implement appropriate remedial measures as defined in the Remedial Action Plan, if monitoring of boreholes in the Riccarton Gravel Aquifer detect concentrations of leachate constituents as a result of the Burwood Landfill, that do not comply with the New Zealand Drinking Water Standards 2000.
- (34) The consent holder shall implement contingency and/or remedial measures set out in the Remedial Action Plan if monitoring of boreholes at the down gradient landfill site boundary (BH1, BH3, BH5s, QRA1, QRA2s, QRA2d, QRA3 and QRA4 inclusive) indicate, using the methodology defined in the preliminary report, that the groundwater at the point of discharge will contain leachate constituents at concentrations which exceed the greater of:
- (d) The 99 percentile of background concentration in groundwater; or
 - (e) The ANZECC 2000 Guidelines for Recreational Water Quality and Aesthetic criteria for primary contact.
- (35) The consent holder shall provide the Canterbury Regional Council with the following:
- (a) The results of the analyses of groundwater quality undertaken in accordance with conditions (24) to (27) (inclusive) and (30)(b) within one month of the results becoming available.
 - (b) Results of the measurement of groundwater levels undertaken in accordance with conditions (22) and (23) within one month of the results becoming available.
 - (c) An annual report by 31 August on:
 - i. the results of all water level, hydraulic gradient and water quality monitoring for the last 12 months including an interpretation of those results in terms of the direction and velocity of leachate dispersion and the potential risks posed by any ponded water occurring above ground surface as described in condition (30).
 - ii. any remedial measures undertaken in accordance with conditions (33) and/or (34).
- (36) All chemical and microbiological analyses undertaken as a requirement of conditions of this consent shall be undertaken by a laboratory with independent accreditation for those analyses. Where there is no laboratory in New Zealand for accreditation for a required analysis, that analysis may only be undertaken in a laboratory that has accreditation for similar analyses. Accreditation must be by International Accreditation New Zealand (IANZ) or an equivalent accreditation organisation that has Mutual Recognition Arrangement with International Accreditation New Zealand.

Advice note: Conditions (22) to (36) have been taken from existing consent CRC011364.3 (conditions 6.1 to 6.16). The sampling and reporting required in these conditions may occur in conjunction with that carried out in accordance with CRC011364.3.

Community Liaison

- (37) Within two months of the commencement of this consent the consent holder shall advertise by way of a mail-out, and hold a public meeting to offer local residents the opportunity to establish a Community Liaison Group (CLG).
- (a) The CLG shall be made up of, as far as possible, representatives of the Residents Associations in the Burwood area, at least two representatives of the property owners on Landfill Avenue and one representative of each of the consent holders.
 - (b) The members of the CLG shall be given the opportunity of a quarterly site inspection, a quarterly meeting opportunity and provision of any information to which the CRC is entitled to, at the consent holder's expense.
 - (c) The prime purpose of the CLG meetings will be to:
 - i. Explain the progress of site operations;
 - ii. Listen to and discuss any community and cultural concerns;
 - iii. Develop additional mitigation measures when appropriate;
 - iv. Present and discuss the complaints register and the results of any monitoring and/or reporting required under the consents.

Rehabilitation

- (38) Within two years of the granting of the resource consents, the consent holder shall update the Burwood Landfill Closure Plan (BLCP) and submit a copy to the Canterbury Regional Council, Attention: RMA Compliance and Enforcement Manager. The BLCP shall identify:
- (a) The final capping details, contouring and re-vegetation of the site;
 - (b) Any on-going after-care and maintenance activities, including maintenance of the capping, site fencing and groundwater monitoring;
 - (c) Suitable and unsuitable future uses, including relevant health and safety matters; and
 - (d) Responsibility for on-going after care.
- (39) Rehabilitation of the site shall occur in accordance with the updated BLCP.

Groundwater Quality Monitoring

Borehole Number	Schedule 1(a)	Schedule 1 (b)	Schedule 2	Schedule 3
Description	Quarterly Indicators	6 Monthly Indicators	Annual Full Suite Inorganics	Annual Organics
A14	*		*	
B15		*	*	*
B22	*		*	*
BB3		*	*	*
BB4	*		*	*
BH1s	*		*	
BH2s	*		*	*1
BH2d		*	*	
BH3s	*		*	
BH4s	*		*	*1
BH4d		*	*	
BH5s		*	*	
BH6s	*		*	*
BH6d		*	*	
BH7	*		*	*

Borehole Number	Schedule 1(a)	Schedule 1 (b)	Schedule 2	Schedule 3
Description	Quarterly Indicators	6 Monthly Indicators	Annual Full Suite Inorganics	Annual Organics
BH8s	*		*	* ¹
BH8d	*		*	* ¹
BH9s		*	*	
BH9d			*	
PBH1s	*		*	*
PBH2s	*		*	
PBH3s	*		*	*
PBH4	*		*	*
PBH5s	*		*	
PBH6	*		*	*
BH15	*		*	
BH16	*		*	
BH17	*		*	
BH18	*		*	
BH19s			*	
BH19d			*	
BH20			*	
BH21s			*	
QRA1			*	
QRA2s		*	*	
QRA3			*	
QRA4			*	
UGS			*	
UGD			*	
three existing bores screened in the Riccarton Gravel Aquifer within 1500 metres of the		*		

Borehole Number	Schedule 1(a)	Schedule 1 (b)	Schedule 2	Schedule 3
Description	Quarterly Indicators	6 Monthly Indicators	Annual Full Suite Inorganics	Annual Organics
landfill site.				



BURWOOD LANDFILL CONSENT VARIATION REPORT

BURWOOD LANDFILL
PROPOSED GROUNDWATER
MONITORING PROGRAMME

CHRISTCHURCH CITY COUNCIL

URS New Zealand
Proposed Groundwater Monitoring Programme

FIGURE 3-1
A