

**Report / Decision on a Non-notified  
Resource Consent Application  
for a Controlled Activity**  
(Sections 95A / 95B and 104 / 104A )

**Application Number:** RMA92020450  
**Applicant:** Christchurch City Council  
**Site address:** Burwood Landfill (accessed via Landfill Road, Burwood (Bottle Lake Forest))  
**Legal Description:** A legal description of the sites is noted in the application.  
**Activity Status:** Controlled activity

**Description of Application:**

*Disposal of other earthquake waste (infrastructure material) at the Burwood Landfill (**Sites F and P**)*

**Introduction**

The purpose of this report is to make a recommendation to an Independent Commissioner on the land use consent application sought by the Christchurch City Council to allow the above activity at the Burwood Landfill and to recommend appropriate conditions to be imposed on the consent when granted.

This report should be read in conjunction with the officer's report on Site A at Burwood Landfill (RMA92020450) and the Burwood Resource Recovery Park (RMA92020447) (Sites B and D), as the three applications are closely aligned.

**The proposal**

Significant damage occurred to many buildings in the greater Christchurch area as a consequence of the earthquake events commencing on 4 September 2010. Many of these buildings have either since been demolished or are proposed to be demolished over the next few years. Although a portion of materials can often be salvaged at the source of the demolition, the Burwood Resource Recovery Park (BRRP), adjacent to the Burwood Landfill, has been established to receive the demolition waste stream and allow for further sorting and recycling activities. However, at the end of this process there will still remain a portion of earthquake waste which will require permanent disposal elsewhere.

The Burwood Landfill has been assessed as an appropriate place for deposition of the earthquake waste. A new cell within the Burwood Landfill is to be constructed to dispose of the waste stream from operations at the BRRP site (Site A). The cell will be designed to accept up to 750,000 tonnes of waste material, although the currently anticipated volume is less.

Sites F and P, subject of this report, are proposed to allow for the disposal of other earthquake waste (infrastructure material) at the Burwood Landfill. Much of the city's horizontal infrastructure has also been damaged due to the earthquakes. Significant damage has occurred to the water and wastewater infrastructure (pipelines) in the greater Christchurch area.

The applicant notes at section 1.1 of the AEE, p. 1 that the removal of the infrastructure, including surrounding soil and other material potentially contaminated by release of wastewater, is anticipated to involve the generation of up to 250,000 tonnes of material over the next 5 years.

**Site F** will contain up to 250,000 tonnes of earthquake waste, namely hardfill material (soil, bedding material, concrete haunching and concrete structures) from repair and replacement of Christchurch's sewer and water network.

**Site P** will contain tanker and sucker truck discharges, namely silt and sewerage material removed from Christchurch's sewer and water network.

All waste to be accepted at both sites will meet the definition of 'earthquake waste' and will be treated as contaminated material. No asbestos will be disposed of at the landfill.

It is expected up to 370 trucks (740 truck movements) can be expected to enter and leave the landfill site (Sites F and P) on a daily basis between 7am to 5pm Monday to Friday, and a lesser number between 8am and 12pm Saturday. Site P necessitates a 24hr operation, which means that an additional 50 trucks (100 truck movements) can be expected daily outside the above mentioned hours.

Trucks are proposed to access the Burwood Landfill site via the existing Landfill Avenue access however part of this access is now proposed to be realigned away from neighbouring properties and an acoustic fence constructed either side of the road to reduce noise and dust emissions. This is discussed further in the assessment below.

The applicant has provided at sections 3.2 and 3.3 of the AEE a more in depth analysis of the proposed activities at each site, the base preparation of each site, and the surface and groundwater conditions at each site.

The applicant has noted in their AEE that much of the adverse effects anticipated with the proposed Sites F and P will be limited to the next 5 year period with deposition of these two waste streams into the two sites. Effects relate primarily to noise, dust and traffic, and environmental effects. Once deposition activities cease, and rehabilitation and landscaping is completed, the longer term environmental effects will primarily be from the on-going discharge of residual contaminants from the cell to groundwater. The applicant considers in that respect, that the effects of the proposed discharge will largely be negligible relative to the existing consented discharge from the municipal solid waste facility.

A comprehensive landfill management plan has been prepared to manage both the temporary and ongoing effects relating to earthquake waste disposal at the landfill.

The applicant has advised that an agreement is in place that the forest immediately adjoining the location of Sites F and P will be retained for the period of time that the sites are in use, and for the length of the sites' rehabilitation period. Upon completion of rehabilitation the surrounding forest could then be removed if and when required. As Christchurch City Council is the owner of the land containing the forest this restriction should not be an issue for the duration of this consent. This will ensure any adverse visual effects are contained within the sites and will not adversely affect the surrounding environment.

Extensive pre-application work has been undertaken between Christchurch City Council, Environment Canterbury and the applicant in preparing the AEE and the conditions to be imposed on consent. There has also been extensive consultation with the relevant stakeholders identified below.

## Existing environment

The application site is located at the Burwood Landfill. The applicant has provided a comprehensive analysis of the site location, site history and environmental setting at Section 2 of the AEE, and also the relationship of the current proposal (Sites F and P) to other nearby proposals (Sites B and D – BRRP / and Site A). I concur with the applicant's assessment in this regard and have visited the site and surrounding area. I am familiar with the Burwood Landfill site and have a complete understanding of the proposed activities.

In brief, the site is located well within the boundaries of the Bottle Lake Forest and land area owned by the Christchurch City Council, as shown on the aerial photo below. The Burwood Landfill occupies an area of approximately 54 hectares. The history of the Burwood Landfill is outlined by the applicant at section 2.2 of the AEE. Of note are the stages of the landfill over the past nearly 30 years and the municipal solid waste quantities, as well as the depth and construction of the landfill. It is worth noting also that the landfill does not have a constructed liner and relies on natural attenuation of the leachate as it flows east within the shallow unconfined aquifer below the site towards the Pacific Ocean. The capping of the landfill is also such that it is designed to absorb rainfall in the region and encourage evapo-transpiration of the rainfall, thus reducing the rainfall infiltration and therefore the volume of leachate generated in the landfill that ultimately penetrates to groundwater.

Site A is located approximately 400m from the coastline, within the Burwood Landfill, immediately to the south east of Site B. The two sites for the stockpiling, sorting and processing of earthquake waste (Site B) and for the stockpiling of the sensitive earthquake material (Site D) are also shown on the aerial photo below and form part of the Burwood Resource Recovery Park consent application, assessed concurrently to this proposal. Both sites are surrounded on all sides by forest. Sites F and P are located immediately to the south of Site A and are for the permanent disposal of other earthquake waste (infrastructure material).

The BRRP sites (B & D) as well as Sites A, F and P are all accessed from Waitakiri Drive and Landfill Avenue into Burwood Landfill. The main feeder roads to Waitakiri Drive are Burwood Road and Prestons Road. When Burwood Landfill was re-opened following the Canterbury earthquakes, the original transport route for trucks travelling from the CBD (where the majority of demolition was occurring) to Burwood Landfill was set down as Hills Rd – Akaroa St – Marshland Rd – Prestons Rd – Landfill Ave. As the demolition of a much wider area of Christchurch is now occurring (not confined to the CBD), and particularly in the eastern suburbs, trucks are now accessing Burwood Landfill from a number of other different roads as well, in particular Burwood Road, Mairehau Road and Putake Drive which has caused some disruption to nearby residents in the suburbs of Burwood, Parklands, Queenspark and North Shore.

A plan showing the location of BRRP and the Burwood Landfill is attached at **Appendix 1**.

The CCC as operator of the Burwood Landfill also has a number of other existing resource consents in place from Environment Canterbury for discharge of solid and hazardous wastes from domestic, commercial and industrial sources; consent for the disposal of 20,000 tonnes of demolition materials associated with the Canterbury earthquake event of 4 September 2010 and related events; and consent for the discharge of combustion products from the flaring of landfill gas. The applicant has described these in more detail at section 1.6 of the AEE.

## Planning Framework

### The Canterbury Earthquake Recovery Act 2011

The Canterbury Earthquake Recovery Act 2011 was passed following a 6.3 magnitude earthquake on 22 February 2011 that caused severe damage to buildings, land and infrastructure, as well as significant loss of life. An earlier 7.1 magnitude earthquake struck the region on 4 September 2010. The purpose of the Act is to

ensure that Christchurch recovers from the earthquakes in a focussed, timely and expedient manner and to restore the social, economic, cultural and environmental well-being of the greater Christchurch community.

In November 2010, a variation to the resource consent held by the Christchurch City Council for Burwood Landfill was approved by Environment Canterbury to re-open the landfill for a limited period of time and allow for the disposal of building demolition material resulting from the Canterbury Earthquake of 4 September 2010 and its subsequent aftershocks. However, the variation was strictly limited to building demolition material and as such would not allow for the disposal of silt and hardfill from the City's sewer, water and road network.

The Burwood Resource Recovery Park Limited (BRRP) made a request to the Minister for the Environment for an Order in Council in recognition that the existing Burwood Landfill located at Bottle Lake Forest, was an appropriate destination for the significant demolition waste resulting from the extensive damage to many buildings in the Central Business District (CBD) of Christchurch, surrounding suburban residential and industrial areas, and surrounding Districts, creating millions of tonnes of demolition rubble. The Order in Council was granted by the Minister to address the significant issue of earthquake demolition waste subject to appropriate conditions of consent to mitigate environmental effects, as contained within the provisions of the Order In Council. The material was to be stockpiled and sorted at Bottle Lake Forest and recycled by BRRP.

In addition to the BRRP OIC, a request was also made by Christchurch City Council to the Minister for Earthquake Recovery to allow for the permanent disposal of earthquake related waste at the Burwood Landfill. By way of a public notice on 24 November 2011 pursuant to Section 21(1)(a) of the Canterbury Earthquake Recovery Act 2011, the Minister for Canterbury Earthquake Recovery amended the Natural Resources Regional Plan (NRRP) and the Christchurch City Plan (City Plan) to allow the Burwood Landfill to be used as a permanent disposal facility for earthquake waste.

### **Christchurch City Plan**

The Christchurch City Plan became operative in part on the 21<sup>st</sup> of November 2005. All rules applicable to this application are operative and therefore assessment is only required under the City Plan.

The Burwood Landfill site is zoned Special Purpose (Landfill) Zone under the City Plan. The Landfill Zone originated as a designated facility which replaced a number of separate landfill sites around the city in the early 1980s. The zone provides for staged filling of land in the zone, with refuse derived primarily from three transfer stations in the city at Bromley, Parkhouse Road and Styx Mill Road. These latter facilities, but not the landfill, are available to the general public for disposal of refuse.

The landfill site holds a resource consent from Environment Canterbury to discharge solid and hazardous waste from domestic, commercial and industrial sources. The consent has an expiry date of 31 May 2037, with a condition requiring the disposal of solid waste to cease by 30 June 2005. By this time Kate Valley was established as the City's principal refuse facility. However as stated previously the Minister for Canterbury Earthquake Recovery has amended the City Plan to allow the Burwood Landfill to be used as a permanent disposal facility for earthquake waste. The landfill is located in the north-east of the city near the coast, and is bounded by the Conservation 1 Zone to the east and the Rural 1 Zone to the west. It covers an area of approximately 90 hectares.

For reference, earthquake waste is defined as:

*(a) means –*

*(i) solid waste resulting from the Canterbury earthquakes, including liquefaction silt;*

*(ii) solid waste resulting from any construction work (within the meaning of section 6 of the Construction Contracts Act 2002) undertaken as a result of the Canterbury earthquakes (within the meaning of section 4 of the Canterbury Earthquake Recovery Act 2011);*

- (iii) hardfill from the City's sewer, water and road network; and*
- (iv) liquid waste extracted from the City's infrastructure network; but*
- (b) does not include any of the following unless it is not reasonably practicable to separate it from the waste specified in paragraph (a):*
  - (i) general domestic refuse; or*
  - (ii) human waste; or*
  - (iii) building insulation and building materials containing asbestos; or*
  - (iv) hazardous waste; or*
  - (v) waste material from an industrial process or trade process*

Environmental results anticipated in the Special Purpose (Landfill) Zone include:

*The continued permanent disposal of refuse and/or earthquake waste in a progressively restored landfill site, in a manner which:*

- (a) avoids groundwater contamination;*
- (b) remains segregated from residential activities;*
- (c) is progressively restored by resoiling and planting;*
- (d) minimises visual, dust, smell and noise impacts on adjoining land.*

For all activities in the Special Purpose (Landfill) Zone, Clause 8-7.1.1 of the City Plan states that:

- (a) Any activity which complies with all of the critical standards under Clause 7.2 shall be a permitted activity.*
- (b) Any activity, other than in relation to earthquake waste, which does not comply with any one or more of the critical standards under Clause 7.2, shall be a non-complying activity.*
- (c) Any activity, in relation to earthquake waste, which does not comply with any one or more of the critical standards under Clause 7.2, shall be a non-notified controlled activity, with the Council's control limited to:*
  - o effects on the amenity of residences and business areas along the designated access routes illustrated in Appendix 7;*
  - o effects in terms of traffic, dust and noise, also taking account of the hours of operation;*
  - o effects on the coastal environment;*
  - o proposed method of site rehabilitation.*

The application currently sought to deposit up to 250,000 tonnes of earthquake waste, namely hardfill material (soil, bedding material, concrete haunching and concrete structures) from repair and replacement of Christchurch's sewer and water network at Site F and to deposit tanker and sucker truck discharges, namely silt and sewerage material removed from Christchurch's sewer and water network, at Site P, within the Burwood Landfill fails to comply with the following provisions of the City Plan:

- **Critical Standard 8-7.2.1 Compaction and containment of refuse** Refuse and/or earthquake waste permanently placed in the landfill shall be compacted using specialised compaction equipment, and shall be covered by sand or soil to a minimum depth of 150mm on a daily basis, except materials collected for composting. The working surface of each daily refuse cell shall not exceed an area of 500m<sup>2</sup>. Mesh fences and screens shall be maintained around working areas to contain windblown refuse, and any material blown beyond this containment area shall be collected on a weekly basis, or more frequently if required.

*The method for depositing earthquake waste does not involve compaction or daily cover.*

- **Critical Standard 7.2.3 Access to the zone**
  - a) All refuse and/or earthquake waste going to the landfill site, shall be transported in a container or covered except where because of the nature of the load and/or the method of securing it, no problem of litter or dust can arise.

- b) Vehicles carrying refuse to the landfill shall adhere to a route of access including Marshland Road, Prestons Road and thence the driveway via Rothesay Road and Bottle Lake Forest, as illustrated in Appendix 7.
- c) Vehicles carrying earthquake waste from various sources within the City and possibly from neighbouring Territorial Authorities to the landfill for permanent disposal shall adhere to the routes shown in Appendix 7 as soon as reasonably practicable.
- d) At no place shall the designated route to the landfill site, as illustrated in Appendix 7, be closer than 300 metres from the land at Parklands within the Living 1 Zone. (Any further residential subdivisions which are developed adjacent to this access route shall mitigate adverse effects through mounding or other noise reduction measures.)
- e) So long as the route, shown in Appendix 7, continues to be used for landfill purposes, the following provisions shall apply:
- f) A belt of mature trees at least 5 metres in width will be retained at all times between that route and Rothesay Road. In the event of natural causes eliminating the existing screens of mature trees, then these areas shall be immediately windrowed to a height necessary to prevent vehicle sighting from the southern areas and replanted immediately.
- g) The area between the route and Rothesay Road will at all times be windrowed and/or mounded and/or planted with trees of a sufficient height to eliminate the possibility of vehicles using the route being seen from that land at Parklands presently contained within the Living 1 Zone.
- h) At all times that area (excluding areas occupied by windrows and forestry access roads) will be planted and/or replanted with conifers.
- i) Vehicles carrying refuse or compostable material from the northern, western and eastern transfer station to the landfill, or to other transfer stations, shall adhere to the routes shown in Appendix 7 to these rules.
- j) When the road link from Wainoni Road to Travis Road has been completed, the route for vehicles carrying refuse from the eastern transfer station to the landfill site shall be via this road, as shown in Appendix 7.

*The routes specified in Appendix 7 are the routes formerly used for material arriving from transfer stations, and are not applicable to the routes being used to bring earthquake waste to the landfill. In addition, during transport the material may not be covered at all times.*

- **Critical Standard 8-7.2.10 Hours of operation and access to landfill** Any delivery of refuse and/or earthquake waste for permanent disposal shall take place between 0530 and 1830 hours, unless exceptional circumstances apply. Public access to the landfill shall be confined to vehicles owned by or under contract to the Christchurch City Council, except: (a) vehicles of any other local authority approved by the Council; (b) vehicles carrying compacted refuse; (c) vehicles carrying hardfill or other materials unsuited to compaction; and (d) vehicles carrying cover material.

*Deposition within Site P may also occur outside these hours.*

The proposal complies with all other critical standards in the Plan and I concur with the applicant's assessment in this regard contained at Section 7.5 of the AEE. The activity is to be assessed a **controlled activity**. This report will address each of the effects over which Council's control is limited, as noted in Clause 8-7.1.1 (c) of the City Plan.

<p><b>Notification (s.95) of the RMA and consultation as required by Clause 8-7.1.1(c) of the City Plan</b></p>
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Clause 8-7.1.1(c) of the City Plan states that any activity, in relation to earthquake waste, which does not comply with any one or more of the critical standards under Clause 7.2, shall be a non-notified controlled activity. As this proposal is in relation to earthquake waste and breaches a number of critical standards in the

Plan, in accordance with this clause it is to be assessed a non-notified controlled activity. I further note that Clause 8-7.1.1(c) states that:

*An application for a resource consent for the permanent disposal of earthquake waste to the Special Purpose (Landfill) Zone must include written comments on the application, or evidence of 10 working days having been provided for those comments to be made, from the following parties:*

- (a) *Te Runanga o Ngai Tahu and any relevant Papatipu Runanga identified by Te Runanga o Ngai Tahu; and*
- (b) *The Canterbury District Health Board; and*
- (c) *The Burwood-Pegasus Community Board; and*
- (d) *The Parklands Residents Association Incorporated; and*
- (e) *The Queenspark Residents Association; and*
- (f) *Owners and occupiers of land adjacent to the Burwood Landfill.*

The applicant has undertaken consultation in accordance with the above requirements of the City Plan. An overview of the consultation undertaken, the written comments received, and the response to issues raised is contained at Section 4.0 of the AEE.

As reporting officer of the Council I note that I attended the first consultation meeting and heard the concerns of those involved. A copy of all comments received is attached at **Appendix 2**. I have also reviewed the written comments and the summary of the consultation with the relevant stakeholders identified above and other parties who have commented on the application, and am satisfied that the AEE and conditions of consent address the concerns raised by each of the stakeholder groups.

**When considering an application for a resource consent, the consent authority shall have regard to Section 104(1) of the Resource Management Act 1991. What are the actual and potential effects on the environment of allowing the activity?**

The applicant in their assessment of effects has considered the proposal and broadly covered the likely effects under the following headings:

- Effects on water quality;
- **Effects on air quality;**
- Effects on ecology;
- **Effects on landscape;**
- **Noise effects; and**
- **Effects from traffic generation**

The AEE as submitted addresses both Environment Canterbury and Christchurch City Council resource consents and therefore much of the AEE is not relevant necessarily to the effects over which Christchurch City Council control is reserved. Clause 8-7.1.1(c) of the City Plan states that the Council's control is limited to:

- *effects on the amenity of residences and business areas along the designated access routes illustrated in Appendix 7;*
- *effects in terms of traffic, dust and noise, also taking account of the hours of operation;*
- *effects on the coastal environment;*
- *proposed method of site rehabilitation.*

Those areas of assessment in the AEE relevant to CCC consents are highlighted in **bold** above. I consider the applicant's AEE has adequately addressed the actual or potential effects on the environment, and proposed mitigation and relevant conditions to address these effects. I do not intend to repeat the assessment of the applicant in addressing these matters as this has been comprehensively addressed in the AEE, but instead

summarise the key points raised in the AEE under each of the proposed headings and note the conditions Council wishes to see imposed to avoid, remedy and mitigate adverse effects of the proposed activities upon the environment.

I note that on behalf of the Christchurch City Council, Environmental Health Consultant Russell Malthus has undertaken a review of the BRRP and Burwood Landfill consents and has been involved heavily in pre-application discussions leading to lodgement of the consent applications. Mr Malthus comments are contained within a report attached to this document at **Appendix 3**. Mr Malthus' review of the consent applications has informed my assessment and also the drafting of the consent conditions. Mr Malthus' report should be read in conjunction with this document.

### **Effects on the amenity of residences and business areas along the designated access routes illustrated in Appendix 7**

Traffic effects associated with the access arrangements to the BRRP and Burwood Landfill sites are assessed separately in the reports for Sites B and D (BRRP) and Sites F and P as these two consent applications both propose direct traffic movements into the BRRP and Burwood Landfill sites via the existing Landfill Avenue. Site A which is located within the Special Purpose Burwood Landfill Zone is not accessed directly from the main entrance. Material to be brought to Site A is taken directly from Site B (BRRP) as this material is essentially the remaining material that cannot be recycled and reused and is therefore required to be permanently disposed of, at Site A. No other vehicle movements are associated with Site A.

Since lodgement of the applications, the applicant has been in discussions with Christchurch City Council planning staff and has now proposed to amend the access arrangements into the site to address concerns raised by residents about the traffic movements into and out of the site via Landfill Avenue and the associated dust, noise and vibration effects.

The applicant has discussed noise at section 6.1 of the AEE. Noise is one of the main concerns raised by residents in the surrounding area, particularly the noise from trucks entering and exiting the site via Landfill Avenue. The applicant submitted additional information (dated 7 September 2012) stating that they proposed to construct an acoustic fence along the southern side of Landfill Avenue from the intersection with Prestons Road and Burwood Road through to a point just short of the entry Kiosk to the Burwood Landfill. The applicant has also submitted additional information discussing alternative options to this access arrangement and why these are not appropriate for various reasons. This has resulted from the feedback received during consultation on the BRRP and concerns raised by residents and Christchurch City Council regarding the proximity of the access road to those neighbours immediately adjoining Landfill Avenue. Noise, vibration and dust being the most significant adverse effects these residents are experiencing.

The applicant has also proposed that trucks accessing the site must adhere to strict speed limits throughout the site, particularly the 20km/hr speed limit along Landfill Avenue adjacent to the residential properties in the adjoining Living 1 zone (which back on to Landfill Avenue). The applicant is proposing to monitor speed limits with the aid of speed cameras or other suitable alternative methods. Drivers in breach of the speed limit will be issued with speed infringement warning letters with a three strike policy in place. If in breach three times their access rights will be removed. This method of speed monitoring is however intermittent. The applicant is also proposing maintaining roads and reducing effects of potholes and bumps in the road.

In my opinion the addition of the acoustic fence along the southern boundary of Landfill Avenue, and other measures relating to the speed of trucks and maintenance of the road do not provide enough mitigation to the immediate neighbours from these adverse effects. After careful consideration of the adverse effects and discussion with Russell Malthus, it is suggested that the access road, Landfill Avenue, be realigned away from the neighbours to the south and an acoustic fence be constructed along the southern side of the road and for a portion of the northern side of the road, as per the indicative layout plan shown at **Appendix 4**.



The new alignment of the road will provide some separation distance to the nearest residents and with the new fence at an appropriate height to attenuate noise (approximately 4 metres high), will not only reduce the impact of truck noise upon neighbouring residents, but will also remove the 'perception' of adverse effects by screening the trucks whilst they travel along this stretch of road. Dust and vibration will also be reduced due to the separation distance involved and the physical barrier the fence provides. I also suggest that speed cameras be permanently displayed along the newly aligned Landfill Avenue to monitor speed of trucks entering and exiting the site, along with the suggested speed limits and other restrictions in place to deter speeding vehicles. This will pick up any trucks speeding along this stretch of road and with the three strike policy in place will be a strict deterrent to any trucks speeding along this section of road. This will aid in reducing any noise associated with trucks travelling along this portion of the access road. It will also aid in reducing vibration effects on nearby properties if the strict speed limits are adhered to. In order for this to work the monitoring and log requirements of such a strict condition would need to be in place and be able to be provided to Council Enforcement Officers upon request. These requirements would not seem unreasonable given the significance of the noise and vibration effects upon nearby residents. I note the applicant has accepted this new alignment for Landfill Avenue and associated acoustic treatment, subject to detailed design.

There may be some adverse visual effects associated with the acoustic fence to be constructed along the newly aligned road into the BRRP and Burwood Landfill, however in my opinion these are unavoidable. The nearest residences at the intersection of Burwood and Prestons Roads will be in quite close proximity to the fence, approximately 10m away from their rear boundaries. Although this is quite close, neighbours south of the access road will also be separated from the fence by the existing bund and landscaping as well as their own boundary fencing adjacent the existing Landfill Road. Those neighbours to the north west of the new access road alignment may have direct views of the acoustic fence however this will be for a limited length, approximately 50m, and will taper away as the fence extends further towards the kiosk. The separation distance from neighbours will also ensure there are no shading effects which would have been anticipated had the fence been constructed south of the existing Landfill Avenue alignment.

Residents opposed to the BRRP and the Burwood Landfill consent applications have suggested an alternative access to the site via Lower Styx Road and a fire access road into the BRRP site. I have calculated roughly that this would add approximately 7km each way to the journey for trucks entering/exiting the site from the Prestons / Burwood Road intersection. A plan submitted by concerned residents showing the proposed access arrangement from Lower Styx Road is shown at **Appendix 5**.

While I think this could potentially be an appropriate access into the site if formed to meet the requirements for trucks using these roads, and would significantly reduce the impact of trucks on nearby residents as trucks would stay on the arterial route of Marshlands Road through the rural area out to Lower Styx Road and into Bottle Lake Forest, thereby avoiding nearby residential properties. The applicant has advised this option is not feasible for numerous reasons. Firstly, the new road access would need to be upgraded at significant cost and would take quite some time to complete. Secondly, the new access would add time and cost to each truck taking material to BRRP thus making this a less attractive location for depositing material. Finally, the applicant notes that much of the demolition work is in the eastern suburbs. Trucks would likely travel along Mairehau, Burwood and Prestons Roads to get out to Marshland Road to the new site access from Lower Styx Road and therefore it would make more sense rather for vehicles to enter at Landfill Avenue (provided appropriate mitigation measures are in place).

I agree with this assumption and consider that with appropriate mitigation measures in place as suggested earlier in this report, the new alignment of Landfill Avenue would be the most appropriate access point into and out of the site. Given this activity is temporary until 2017, it is my opinion the benefits of such a joint venture to recycle material from the demolitions occurring in Christchurch outweigh the short term effects on a limited number of neighbours from some traffic and noise disturbance beyond that which can be mitigated through the road realignment, acoustic fencing and other mitigation measures. The applicant is however investigating

alternative access arrangements further. I suggest that vehicles should be prohibited from stopping along this stretch of road to avoid noise associated with idling trucks. A condition to this effect should also be included upon consent.

A number of conditions are proposed to mitigate the effects of trucks utilising the Landfill Access into the site. These include, but are not limited to, the realignment of the road, provision of acoustic fencing either side of the access road, truck speed limits, no stopping/idling, speed surveillance cameras, and maintenance of the road surface.

### **Effects in terms of traffic, dust and noise, also taking account of the hours of operation / Proposed method of site rehabilitation**

As discussed above, with the realignment of the access road the adverse effects associated with trucks utilising the access into Burwood Landfill will be mitigated to an acceptable level for the temporary period for which the Burwood Landfill is reopened to take earthquake waste. Beyond the main entry Kiosk and into the Burwood Landfill, trucks accessing Sites F and P are not expected to create adverse effects on nearby residents. Again trucks will need to adhere to speed limits within the site, and roads will be maintained to reduce dust and noise effects. Given the separation distance from the internal road network to nearby residents and the retention of surrounding forest, any adverse effects on neighbours, aside from the main access road as discussed above, will be less than minor. The hours of operation for dumping material at Site F are consistent with the operation of the BRRP. With respect to sucker trucks, these truck movements are expected to decrease over time, particularly during nighttime hours. With the realignment of Landfill Avenue and the mitigation proposed, it is not expected the sucker trucks will have unacceptable adverse effects on the environment, provided conditions of consent related to truck speeds etc are adhered to. The applicant has also volunteered that the Putake Drive access is no longer part of the application and will not be used to access the sites.

With respect to the dumping of earthquake waste material at both Sites F and P, the sites are separated from the nearest residential neighbours by approximately 700m with a shelter belt of forest between, which is to be retained for the duration of the consent. Traffic movements will not be visible from residents as the site is cut into the existing landfill site on the northern side, essentially on the opposite side of the Burwood Landfill 'hill', and there is extensive forest planting (belt approximately 400m wide) between the site and nearest residents. Some traffic movements may be visible from the trails within the Bottle Lake Forest, however any views of trucks are likely to be intermittent and therefore not considered to have an adverse effect on users of the park.

In terms of dust, there may be some dust associated with the initial preparation of Site F for the permanent disposal of infrastructure material. Also there may be dust associated with transportation of material along the internal access roads. The applicant is proposing to restrict vehicle speeds, dampen haul roads, dampen the waste as it is placed in the cell, potentially erect a wind break if necessary, and to rehabilitate sections of the new cell as soon as practicable. I consider these methods of dust suppression to be appropriate given the separation distances involved to nearest receptors. I consider these methods should be imposed as conditions of consent for Site F.

There may also be some dust associated with the type of material being transported to Site F so where appropriate these loads will be covered to reduce any dust discharge. Material being dumped at Site P is already contained within the trucks.

There may also be some dust associated with the capping layer which consists of liquefaction material (600mm) followed by a layer of top soil (300mm). As the liquefaction material is such a fine silt it has the potential to be picked up by the wind and carried considerable distance with potential to cause nuisance to nearest receptors. The applicant is proposing to restrict vehicle speeds on the silt, avoid placing material during extremely windy conditions, to reduce the height of the stockpile to 3m, and to use water to control dust emissions. I consider these methods of mitigation appropriate and should be imposed as conditions of consent.

In terms of noise, much the same as the traffic movements, given the site is separated by more than 700m from the nearest residential properties, noise from trucks, and other equipment operating at the cell is unlikely to carry this distance and therefore will not have any adverse effects on the amenity of those properties.

Noise from activities within the new cell are anticipated to meet the NZS 6803: Acoustics – Construction Noise and the noise limits contained within Volume 3 Part 11 of the City Plan.

Overall I consider that the traffic, noise and dust associated with Sites F and P will be able to be mitigated such that the new cells will not have any more than minor adverse effects on the surrounding environment. I consider the method of rehabilitation of the new cell Site F will also be able to be managed in such a way that in the future the site will appear as part of the greater Burwood Landfill site with little adverse visual effects.

### **Effects on the coastal environment**

Environment Canterbury will assess adverse effects on the coastal environment and groundwater quality in their suite of consents. There may be some leachate from the permanent landfill site that affects groundwater quality and the quality of the coastal environment, however this will be addressed through appropriate conditions on the ECan consents.

In terms of visual amenity, the landfill site when rehabilitated and viewed from the coast (approx 400m away to the east) will appear as part of the existing landfill and is therefore not expected to have any adverse landscape amenity effects beyond what exist at present.

### **Conclusion**

I agree with the applicant's assessment of effects on the environment and consider that in an overall sense the extent and nature of the proposed activities within the receiving environment of an existing landfill, alongside the mitigation proposed, will ensure the adverse effects of the proposed activities are no more than minor.

I have reviewed the feedback from the extensive consultation of the applicant which has resulted in numerous changes to the proposal: realignment of the access road, removal of asbestos dumping at the site, and removal of the Putake Drive access for sucker trucks – and consider that the proposed changes to the application go a long way to addressing adverse effects on the surrounding residential neighbours to the Burwood Landfill, subject to adherence to the imposed conditions of consent. In my opinion the consultation undertaken by the applicant is adequate and the assessment of effects has addressed the issues raised in consultation.

I sympathise with neighbouring residential property owners that they have had to endure approximately two years of truck movements to and from the Burwood Landfill, and the associated effects of this, but moving forward I am confident that the realigned access road and acoustic treatment, as well as conditions of consent will ensure these effects are reduced as much as possible.

Burwood Landfill is the logical place for this stream of earthquake waste to be disposed of at rather than taking up the capacity of the Kate Valley Landfill which was never intended to take this material and would be significantly reduced if this material were taken there.

As a controlled activity, consent must be granted to this application and in my opinion it is appropriate this is granted subject to the conditions set out later in this report and appropriate consents being obtained from Environment Canterbury.

**How do any relevant objectives, policies, rules or other provisions of the District Plan relate to the proposal? [Section 104(1)(b)(vi)]**

The Christchurch City Plan contains a number of objectives and policies relevant to this proposal. These include those objectives and policies relevant to the natural environment and rural areas of the City, transport and recreation and open space.

The Plan seeks the maintenance and enhancement of the quality of natural resources and their ability to meet the needs of present and future generations. A number of objectives and policies are contained with the Plan which relate to land and soil, water, air, coastal environment, natural features and habitats, and environmental awareness, all of which are relevant to this proposal. These are contained at Volume 2 Section 2 of the Plan.

I consider that proposed Sites F and P will have no more than minor adverse effects on the landscape, natural character and visual amenity of the site and surrounding area. The natural character and amenity of the coastline will be preserved. The works will be undertaken in a manner that sees the landscape rehabilitated over time and the effects on the landscape amenity of the area minimised. In my opinion, and subject to conditions relating to rehabilitation, the adverse effects on the landscape will be adequately mitigated and ecological values of the area will be maintained.

I also consider the amenity of the area will be protected from the additional activities associated with the Sites F and P. There may be some effects on residents around the access into the Burwood Landfill due to increased trucks movements associated with both sites, however with the newly realigned access road at the entrance and the inclusion of acoustic fencing along the length of the new road, these effects should be mitigated to an appropriate level subject to conditions imposed on consent.

I consider noise levels proposed at Sites F and P are acceptable, reasonable and appropriate in the context of the environment and will not result in undue adverse effects, including cumulative effects, upon surrounding residential neighbours, particularly given the separation distance between the activities and the residential receiving environment, and the protection the existing Bottle Lake Forest and Burwood Landfill hill provides. There will be on-going community consultation regarding noise and dust effects as a requirement of the Management Plan included within the conditions of consent. Users of the Bottle Lake Forest recreation area will not be adversely impacted upon due to the activities occurring at Sites F and P.

After considering the relevant objectives and policies of the City Plan, it is my opinion that the proposal is not contrary to the objectives and policies as they relate to this proposal for controlled, non-notified activity which must be granted consent subject to conditions.

**Are there any relevant provisions of a National Environmental Standard, National Policy Statement, Regional Plan, Regional Policy Statement or Coastal Policy Statement?**

**The Regional Policy Statement (RPS) (1998)**

The (operative) RPS deals directly with two issues relevant to this proposal; namely soils and land use, and settlements and the built environment.

Chapter 7 of the RPS concerning soils and land use has an objective to safeguard the life supporting capacity of soil (Objective 1a) and to avoid the irreversible use of land containing versatile soils (Objective 2, Policy 6). Policy 6 is replicated in the City Plan as Policy 2.2.1. As concluded in the assessment of effects and assessment of relevant objectives and policies above, the proposal is not considered to result in adverse effects on the life supporting capacity of soil, nor to preclude future productive use of soils and the rural land resource. The proposal is consistent with the relevant objectives and policies of Chapter 7 of the RPS.

Chapter 12 of the RPS addresses settlements and the built environment with specific focus on urban development and settlement patterns. I do not consider that the proposal constitutes 'urban development';

accordingly I do not consider Objectives 1 and 2 of Chapter 12 and their respective policies to be of relevance to this proposal.

Objective 3 is to maintain the rural character of land in the proximity of Christchurch where that land has significant landscape or ecological values, including amenity values, and maintain Christchurch's rural-urban contrast. The explanation to Objective 3 sets out: *'Amenity values include those values associated with "openness". The amenity value arises from the contrast between the area of open character and the built environment, and from the proximity of open countryside to the urban population.'*

For the reasons discussed in the assessment above, the proposal is considered to be consistent with Objective 3 of Chapter 12.

There are also policies in the RPS which seek to preserve the natural character at the coast and maintain or enhance the quality of the coastal waters.

I consider that the proposed Sites F and P will upon rehabilitation form part of the wider Burwood Landfill site. The natural character and amenity of the coastline will be preserved. Overall I consider the proposal is consistent with the objective and policies of the RPS as they relate to the protection of the natural features and landscapes of the coastal environment.

With respect to other relevant statutory documents such as the *New Zealand Coastal Policy Statement*, the *Regional Coastal Environment Plan (RCEP)* and the *Natural Resources Regional Plan* these are considered in the reports presented by Environment Canterbury.

Overall I consider the proposal is consistent with the Regional Policy Statement.

### **Proposed Change 1 to the Regional Policy Statement (PC1)**

PC1 provides direction around the management of residential and business growth in rural areas and on the periphery of existing urban areas in Greater Christchurch, and is to form Chapter 12A of the RPS. PC1 implements the Greater Christchurch Urban Development Strategy. The Regional Council has released its decisions on PC1, and appeals on the decisions are to be heard by the Environment Court.

I do not consider that the proposal constitutes residential or business growth within the context of such activities in PC1. Accordingly, I do not consider PC1 to be of relevance to consideration of this proposal.

### **The Proposed Regional Policy Statement (PRPS) (2011)**

The Resource Management Act requires that Regional Policy Statements are reviewed every 10 years. A full review of the operative RPS (above) has been undertaken and decisions on the Proposed Canterbury Regional Policy Statement (PRPS) were released on 19<sup>th</sup> of July 2012.

Chapter 5 (Land-use and infrastructure) focuses on development which results in changes to urban, rural-residential and rural areas, together with the infrastructural services which support this development. Whilst Chapter 5 does include consideration of the 'entire region' it is noted that Chapter 6<sup>1</sup> addresses the issues to be resolved, and the manner in which objectives are to be implemented for the Greater Christchurch area. Objective 5.2.1 relates to location, design and function of development in the entire region, including Greater Christchurch, as follows:

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<sup>1</sup>Proposed Change 1 to the Canterbury Regional Policy Statement – Development of Greater Christchurch, will be incorporated as Chapter 6 to the Canterbury Regional Policy Statement when it is made operative.

*Development, is located and designed so that it functions in a way that:*

- (1) achieves consolidated, well designed and sustainable growth in and around existing urban areas as the primary focus for accommodating the region's growth; and*
- (2) enables people and communities, including future generations, to provide for their social, economic and cultural well-being and health and safety; and which:*
  - (a) maintains, and where appropriate, enhances the overall quality of the natural environment of the Canterbury region, including its coastal environment, outstanding natural features and landscapes, and natural values;*
  - (b) provides sufficient housing choice to meet the region's housing needs;*
  - (c) encourages sustainable economic development by enabling business activities in appropriate locations;*
  - (d) minimises energy use and/or improves energy efficiency;*
  - (e) enables rural activities that support the rural environment including primary production;*
  - (f) is compatible with and will result in the continued safe, efficient and effective use of regionally significant infrastructure; and*
  - (g) avoids adverse effects on significant natural and physical resources including regionally significant infrastructure, and where avoidance is impracticable, remedies or mitigates those effects on those resources and infrastructure;*
  - (h) facilitates the establishment of papakainga and marae;*
  - (i) avoids conflicts between incompatible activities.*

To the extent that the proposal may be considered to be development which results in changes to the rural area, I consider that the proposal is generally consistent with Objective 5.2.1.

Chapter 11 of PRPS concerns natural hazards, and seeks to avoid or mitigate the impacts of natural hazards and the effects of methods used to manage natural hazards on the environment, infrastructure, property, the social, economic and cultural well-being and the health and safety of people and communities; and to recognise and provide for the effects of climate change. Any impacts on particular requirements for geotechnical assessment and design of buildings and associated infrastructure in relation to the earthquake hazard will be addressed at the time of Building Consent.

Chapter 15 of the PRPS concerns soils, and effectively carries over the relevant objectives and policies from Chapter 7 of the operative RPS (see assessment/discussion above).

Overall the proposal is considered to be generally consistent with the Proposed Regional Policy Statement.

### **Weighting of the relevant Regional Policy Statements**

The RPS is the current relevant operative regional planning document. However, decisions on the PRPS were released on the 19<sup>th</sup> July 2012, and the subsequent appeal period closed on 10<sup>th</sup> August 2012. As it is likely that there will be a number of appeals, given the stage that the PRPS is at in the policy statement development/RMA process with decisions having been released; I consider that less weight should be afforded to the PRPS.

However, as discussed above, with regard to the issues relevant to this proposal, I consider that the provisions of RPS and PRPS are very similar.

### **National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011 (NES)**

Mr Malthus has addressed the NES at section 6.6 of his report and concluded that while no Preliminary Site Investigation (PSI) has been provided for any of the sites to state that there is no likelihood of human health risk from the land, the isolation of the sites from the Living 1 zone would ensure that any risk to human health will be an occupational health matter to be addressed by the BRRP management under the Health and Safety in Employment Act, and is therefore not a matter of concern to public health. In any case he considers the potential is likely to be low as Sites A and B are in areas that have not previously been used for sanitary land filling, and Sites F and P involve areas that have been previously capped with clean cover material. I am comfortable from Mr Malthus' assessment that any issues to deal with contaminated soil can be addressed through conditions in the Management Plan for the sites.

<b>Are there any other matters which are relevant and reasonably necessary to determine the application? [Section 104(1)(c)]</b>
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Recovery Strategy for Greater Christchurch (<http://cera.govt.nz/recovery-strategy/overview/read-the-recovery-strategy>)

The Recovery Strategy for Greater Christchurch (the Recovery Strategy) prepared by CERA under the Canterbury Earthquake Recovery Act became operative on 1 June 2012. It is a statutory document that must be "read together with, and forms part of" other relevant legislation within the greater Christchurch area. The City and District Plans (and a number of other statutory documents) must not be interpreted or applied in a way that is inconsistent with the Recovery Strategy. Only Section 3-8 of the Strategy have statutory effect.

"Recovery" is defined under the CER Act as including both restoration and enhancement (Section 3).

Section 4 identifies the vision for the recovery of Greater Christchurch and supporting goals relating to the six components of recovery. The following goals are of particular relevance to this application:

**Leadership and Integration** – Coordination between public and private sector, and communities to contribute to recovery and future growth by:

- Facilitating a timely and efficient recovery

**Economic** – Revitalise greater Christchurch by:

- Planning for a well-functioning Christchurch central city and thriving suburban centres
- Facilitating the recovery and development of the Central Business District
- Restoring the confidence of the business sector to enable economic recovery and growth
- Ensuring a range of employment options

**Natural Environment** – Restore the nature environment to support biodiversity and economic prosperity, and to reconnect people to the rivers, wetlands and Port Hills by:

- Ensuring recovery activities value, protect and sustainably manage our water sources
- Ensuring ecosystems are healthy and functioning
- Enhancing air quality through managing recovery activities that impact on air quality
- Sorting, storing and processing waste in an environmentally safe and effective manner.

Granting consent to this application is not considered to be inconsistent with the above goals.

Section 5 of the Recovery Strategy identifies a number of priorities for recovery to address and promote social, economic, cultural and environmental wellbeing. These include:

- Permanent repair or rebuild of infrastructure in areas identified for redevelopment and development in the short to medium term.
- Supply of land for recovery needs through efficient consenting processes and timely provision, restoration or optimisation of infrastructure.

Granting consent to this application is not considered to be inconsistent with any of the priorities for recovery.

**The above considerations are subject to Part II of the Act. Is the application consistent with Part II? [Section 104(1)]**

Achievement of Part II, the purpose and principles of the Resource Management Act, must be considered when reviewing an application for resource consent.

The purpose of the Act is to promote the sustainable management of natural and physical resources. Section 5 imposes a duty on consent authorities to promote sustainable management while avoiding, remedying or mitigating adverse effects of activities on the environment.

Section 6(e) requires the Council as a matter of national importance to recognise and provide for the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga; and Section 6(f) requires the Council to recognise and provide for the protection of historic heritage from inappropriate subdivision, use and development.

Section 7 lists various matters to which regard shall be had in achieving the purpose of the Act. The matters of particular relevance to this application are:

- a) The efficient use and development of natural and physical resources;
- b) The maintenance and enhancement of amenity values;
- c) Maintenance and enhancement of the quality of the environment.

Section 8 requires that the Council take into account the principles of the Treaty of Waitangi.

This proposal in my opinion represents efficient use of significant volumes of earthquake waste from the Christchurch CBD and surrounding residential areas and will avoid needing to put it all directly into landfill. This is a sustainable use of resources and will assist with the recovery of Christchurch City without compromising the amenity values or quality of the coastal environment, nor the surrounding settlements.

I note that significant consultation has been undertaken with residents and local community groups and stakeholders, and their comments and concerns have been taken on board by the applicant and addressed in the recommended conditions of consent.

Overall I am satisfied that the proposal achieves in an overall sense the purpose and principles outlined in Part II of the Resource Management Act 1991.

### **Recommendation**

- A. That the application be processed on a **non-notified** basis in accordance with Sections 95A - 95F of the Resource Management Act 1991 (as required by Clause 8-7.1.1(c) of the City Plan).
- B. That for the above reasons the application **be granted** pursuant to Sections 104, 104A, and 108 of the Resource Management Act 1991, subject to the following conditions:



### **Conditions specific to Site F and P**

- (1) The development shall proceed in accordance with the information and plans submitted with the application, except where amended by the following conditions.. The approved Consent documentation has been entered into Council records as RMA92020450 (807 pages) and includes the stamped approved plans RMA92020450 pages 1 and 2.
- (2) Sites F and P shall be located as shown on approved plan RMA92020450/page 2.
- (3) Earthquake waste disposed of at Site F shall be limited to mixed hardfill and soils sourced from the removal or repair of potable water, wastewater and stormwater pipeline networks and trenches within Christchurch City.
- (4) Notwithstanding that the Canterbury Earthquake (Resource Management Act – Burwood Resource Recovery Park) Order 2011 provides that earthquake waste may contain asbestos that is not reasonably practicable to separate from the waste stream, any wastes which contain visibly identifiable asbestos materials shall not be routinely accepted at Site F. Should such materials be detected in the incoming waste stream, they shall be separated and managed in accordance with the requirements of the Health and Safety in Employment (Asbestos) Regulations 1998, and removed for disposal at the Kate Valley Landfill as soon as is practicable.
- (5) Earthquake waste disposed of at Site P shall be limited to wastewater, water, silt and any contaminants removed from the wastewater and stormwater pipeline structures and trenches within Christchurch City.
- (6) A record of the estimated quantity of earthquake waste disposed of at Sites F and P shall be maintained and provided to the Canterbury Regional Council and the Christchurch City Council upon request.
- (7) The hours of operation of Site F (and any vehicle movements associated with operation) shall be limited to Monday through Friday 7 am to 5 pm, and Saturday 8 am to 12 pm. Site F shall not operate on Sundays or public holidays.
- (8) In addition to the general surveillance and supervision of the incoming waste stream for the presence of unacceptable wastes, random visual inspections for the presence of unacceptable wastes, of a minimum of two incoming loads to Site F per day, shall be undertaken.
- (9) Should unacceptable wastes be encountered at any time in incoming loads or in any stage of disposal at Sites F and P, the type and quantity of the wastes shall be recorded in a log book together with any information that could identify the source or transporter of the waste, and details of the fate of the material. This log book shall be provided to the Canterbury Regional Council and the Christchurch City Council upon request.
- (10) The Canterbury Regional Council and Christchurch City Council shall be immediately notified if any vehicles are turned away from Site F or P due to unacceptable wastes; this notification shall include the vehicle registration number and source of the waste (if known).
- (11) The Burwood Landfill Closure Plan (2004) shall be updated and submitted to the Canterbury Regional Council and the Christchurch City Council within two years of the granting of resource consent. This plan shall identify:
  - a. The final capping details, likely contouring and re-vegetation of the site;
  - b. Any on-going aftercare and maintenance activities, including maintenance of capping, site fencing and groundwater monitoring systems; and
  - c. Suitable and unsuitable future use, including any relevant health and safety matters.
- (12) This resource consent shall expire 5 years from the date of granting of the consent for Site F and P.

## **General conditions [applying to Sites A, B, D, F and P]**

*Note: While it is understood that all sites will ultimately be managed as one entity, there are a number of issues with attempting to prescribe general conditions for all sites. These stem from there being two consent applicants and three land use consents (BRRP for Sites B and D, CCC for Site A, and CCC for Sites F and P) and the issues this generates in terms of future review of conditions (Section 128 of the RMA) and any potential changes sought to conditions (Section 127 of the RMA), i.e. we don't want changes to one consent to necessarily affect all consents.*

*For this reason we have drafted the below conditions so that they do not refer to specific sites. Ultimately they will need to be duplicated across all three land use consents, and if necessary, updated to refer to the specific site/consent in question.*

### **Signage**

- (1) A notice shall be clearly positioned at the entrance to the site(s) and the kiosk to identify the wastes which are acceptable and unacceptable at the site(s).
- (2) "No truck stopping" signs shall be displayed at all times outside dwellings adjacent to the entrance to the new alignment of Landfill Avenue. These signs shall be located along both sides of Prestons Road as far west as the property at 24 John Morel Place; along both sides of Burwood Road as far south as the property at 51 Limes Avenue; and north along Waitikiri Drive as far as the property at 15 Waitikiri Drive.
- (3) Signs clearly displaying the speed limits identified in the diagram below shall be displayed at the site entrance and the kiosk. In addition, speed limit signs shall be erected along the new alignment of Landfill Avenue noting the posted 20km/hr speed limit for this section of road.



### **Site Access**

- (4) The existing alignment of Landfill Avenue from the formal entrance at its intersection with Burwood/Prestons Road shall only be used for the period of the next 6 months and 1 week following the date of granting of this consent.
- (5) Within 2 months following the date of granting of this consent a detailed design and layout plan is to be submitted to the Resource Consents Manager, Christchurch City Council showing the new alignment of Landfill Avenue generally in accordance with the indicative road layout plan entered into Council records as approved plan RMA92020447/page 1 and RMA92020450/page 1. Christchurch City Council must then accept the plan within 1 week of lodgement.
- (6) Within 4 months following the acceptance of the road layout and design, the new alignment of Landfill Avenue must be constructed and fully operational in accordance with the conditions of this consent.

Access to the site(s) shall then only be from the new alignment of Landfill Avenue. The existing Landfill Avenue access shall be closed to all vehicles.

### ***Traffic management***

- (7) The speed of all vehicles accessing the site(s) shall at all times comply with the speed limits identified in the speed limit diagram at Condition 3 above.
- (8) A speed camera shall be permanently positioned along the new alignment of Landfill Avenue to record speeds of vehicles along this stretch of road to ensure they do not exceed 20km/hr.
- (9) Compliance with the speed limits in Condition 3 shall be monitored using speed cameras or other equivalent methods. At least one speed camera shall operate on site roads (the camera may be mobile or hand held) within one month of the granting of this consent, and shall be operational for the duration of the consent. The camera shall operate at random times. The camera shall be capable of recording vehicle speed, registration plate details, and the time of offending.
- (10) Any breaches of these speed restrictions in Condition 3 shall be notified to the offender and their employer or manager. If a vehicle exceeds the speed restrictions on three occasions that vehicle and the driver shall be prohibited from accessing the site(s).
- (11) With respect to earthquake waste transported to the site(s), the consent holders shall provide information to truck drivers to encourage them, where possible, to use routes that have been identified by CCC and CERA as the most appropriate.

### ***Noise Management***

- (12) In conjunction with the road realignment design required under Condition 5, within 2 months following the date of granting of this consent a detailed design and layout plan is to be submitted to the Resource Consents Manager, Christchurch City Council showing the acoustic barriers generally in accordance with the indicative road layout plan entered into Council records as approved plan RMA92020447/page 1 and RMA92020450/page 1. Christchurch City Council must then accept the plan within 1 week of lodgement.
- (13) The final location and design of the acoustic barriers in the detailed design and layout plan shall be prepared by a suitably qualified engineer to achieve, to the extent practicable, a design sound level of 45 dB LAeq(1h) between 7 pm and 6 am on any day. The design sound level shall be determined using a representative number of truck movements for the 6am to 7am period based on actual counts at the landfill weighbridge over the busiest 3 months in 2012.
- (14) The acoustic barriers shall be constructed and maintained to a minimum height of 4 metres above the finished surface of the road, and with a surface mass of not less than 10 kg/m<sup>2</sup>, and with no gaps in their structure or at ground level.
- (15) The acoustic barriers shall be constructed within the timeframe for the construction of the new road as required by condition 6 above.
- (16) Roads within the site(s), including Landfill Avenue, shall be well maintained to reduce vehicle noise. This may include but not be limited to:
  - a. Repairing potholes; and
  - b. Removing roughness and bumps from surfaces.
- (17) The consent holder shall implement procedures to ensure vehicles within the boundaries of the site(s), and along Landfill Avenue, shall:
  - a. Avoid the use of engine brakes;
  - b. Secure and adjust loose truck and trailer gates;
  - c. Maintain muffler systems;
  - d. Exercise throttle control to minimise noise; and
  - e. Comply with the speed limits identified in Condition 9.

- (18) Noise from construction work shall be managed in accordance with NZS 6803:1999 Acoustics Construction noise.

### ***Dust and Odour Management***

- (19) The discharge of dust or odour beyond the boundary of the site(s) shall not be noxious, dangerous, offensive or objectionable to such an extent that it has an adverse effect on the environment. This includes dust and odour generated by vehicles using Landfill Avenue.
- (20) Roads within the site(s), including Landfill Avenue, shall be maintained to minimise dust generation. This may include but not be limited to:
- a. Repairing potholes;
  - b. Removing bumps from paved surfaces;
  - c. Using a vacuum truck to clean the paved road between the entrance and the kiosk at least once weekly;
  - d. Using a sweeper on other roads within the site at least once fortnightly;
  - e. Wetting gravel/metal roads in conditions conducive to generating dust.
- (21) Vehicles within the site(s), and using Landfill Avenue, shall be maintained and operated to minimise dust generation. Methods to achieve this shall include the installation and use of a wheel washing facility, and may also include a facility for damping, covering and securing of loads.
- (22) Vehicles carrying dusty material are required to cover their loads to minimise dust nuisance.
- (23) Active working areas within the site(s), such as stockpiles, processing areas or other operational areas, shall be managed so as to minimise the generation of dust.
- (24) The consent holder shall adopt all practicable measures to minimise the emissions of odour.

### ***Hazardous Substances***

- (25) Stocks of Hazardous Substances shall be held within secure containment which prevents the accidental escape of the substances into the environment.
- (26) Any refuelling of equipment shall be undertaken in a manner which avoids spills or overflows.

### ***Litter, and spillage of transported materials***

- (27) Roads and areas in the vicinity of residential properties near the site entrance shall be inspected and cleared of litter at least once weekly.
- (28) Spillage of materials on roads within the site and in the vicinity of the site entrance shall be removed and the road surfaces shall be cleaned, as soon as is practicable after the event.

### ***Management Plan***

- (29) A management plan shall be submitted to the Christchurch City Council and the Canterbury Regional Council no later than two months after consent has been granted. For the avoidance of doubt, it is acceptable for a single management plan to be prepared covering all consented earthquake waste related activities at the Burwood Landfill and Burwood Resource Recovery Park.
- (30) The management plan shall be generally based on the format and structure of the Landfill Management Plan provided in Appendix E of the Assessment of Effects on the Environment for Site A.
- (31) At minimum, the Management Plan shall:
- a. Define the key staff positions and responsibilities for the management of the site(s);
  - b. Identify waste acceptance criteria and keeping of records for each site(s);
  - c. Identify the methods by which compliance with other conditions of this resource consent will be achieved
  - d. Identify the management methods and monitoring procedures for the effective avoidance and mitigation of environmental effects relating to:

- i. Stormwater discharges;
  - ii. Air contaminant discharges;
  - iii. Noise emissions;
  - iv. Dust emissions;
  - v. Light emissions;
  - vi. Litter;
  - vii. Spillage of materials being transported;
  - viii. Vermin;
  - ix. Fire and landfill gas hazards;
  - x. Hazardous substances storage and management;
  - xi. Detection, handling, storage and disposal of unacceptable wastes
  - xii. Security and fencing
  - xiii. Any other method to ensure compliance with other conditions on this resource consent, and other related consents.
- e. Identify emergency procedures;
  - f. Identify reinstatement and rehabilitation procedures;
  - g. Where not listed above, address any other relevant matter in Appendix 3 of the Landfill Guidelines (2000) published by Centre for Advanced Engineering, University of Canterbury.
  - h. Develop and implement noise and dust monitoring programs in relation to the requirements of this consent.
- (32) The Management Plan shall be reviewed at least on an annual basis, and updated as necessary. Any revised Management Plan shall be submitted to the Canterbury Regional Council and Christchurch City Council.

***Community Liaison and Complaint Registers***

- (33) Prior to the commencement of operations under this consent, advertise, by way of a local mail out, and hold a public meeting to offer local residents the opportunity to establish a Community Liaison Group. For the avoidance of doubt, it is acceptable for a single Community Liaison Group to be formed to address all earthquake waste related activities at the Burwood Landfill and Burwood Resource Recovery Park.
- (34) Any such Community Liaison Group shall consist of representatives of Residents Associations in the Burwood area; two representatives of the property owners adjacent to Landfill Avenue; and one representative of each of the Consent Holders.
- (35) A representative from each of the consent authorities shall be invited to attend meetings in an observer capacity.
- (36) The members of the liaison group shall be offered the opportunity of a quarterly site inspection, a quarterly meeting opportunity, and provision of any information to which the Councils are entitled by virtue of these conditions regarding the development and operation of the site, at the Consent Holders expense.
- (37) The prime purpose of the quarterly meetings with the Community Liaison Group will be to:
- a. Explain the progress of the site(s) operations;
  - b. Listen to, and discuss as far as practicable any community and cultural concerns with the site(s) operations;
  - c. Develop additional mitigation measures where appropriate;
  - d. Present and discuss the complaints register and results of any monitoring and/or reporting as required by the conditions of regional and district council consents.
- (38) A complaints register shall be maintained and kept at the site office. The complaint register shall include:
- a. The location of the complaint detected by the complainant;

- b. A description of the event leading to the complaint, including date, time, weather conditions;
  - c. The most likely cause of the event;
  - d. Any corrective action undertaken to avoid, remedy or mitigate the event and any similar future events.
- (39) The Canterbury Regional Council and the Christchurch City Council shall be advised as soon as practicable via email or phone following any complaint. The complaints register shall be made available to the consent authorities upon request.

### **Review**

- (40) The Christchurch City Council may annually, on any of the last five working days of any month of each year, serve notice of its intention to review the conditions of this consent for the purposes of;
- a) ensuring that appropriate environmental monitoring and reporting is being undertaken;
  - b) dealing with any adverse effect on the environment which may arise from the exercise of this consent and which is appropriate to deal with at a later stage; or
  - c) requiring the adoption of the best practicable option to remove or reduce any adverse effect on the environment; or
  - d) dealing with any matters identified or resulting for any reporting of investigations carried out at this site.

### **Advice Notes**

- Separate resource consents are also required from Environment Canterbury and are to be read in conjunction with the resource consent approvals from Christchurch City Council and adhered to on an on-going basis.
- The Council will require payment of its administrative charges in relation to monitoring, as authorised by the provisions of section 36 of the Resource Management Act 1991. At present the monitoring charges include:
  - A monitoring fee of \$141 to cover the cost of setting up a monitoring programme and carrying out two site inspections to ensure compliance with the conditions of this consent; and
  - Time charged at an hourly rate of \$113 (incl. GST) where additional monitoring is required.
- Under the *Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011* (the NES), further consent will be required if the volume of soil disturbed exceeds 25 m<sup>3</sup> per 5000 m<sup>2</sup> of the land area, or if soil taken away from the site exceeds 5 m<sup>3</sup> per 500 m<sup>2</sup> per year.
- Should any archaeological material or sites be discovered during the course of work on the site, work in that area of the site shall stop immediately and the appropriate agencies including the New Zealand Historic Places Trust and the Manawhenua shall be contacted immediately.
- Please note that a development contribution *may* be required under the Development Contributions Policy 2009-19 (DCP). The Council requires Development Contributions to be paid prior to the issue of the Code Compliance Certificate for a building consent, the commencement of a resource consent, the issue of a section 224 certificate for a subdivision consent, or authorisation of a service connection.

The contributions are defined in the Council's **Development Contributions Policy 2009-19**, which has been established under the Local Government Act 2002, and is included in the Council's Long Term Plan (LTP). If you have any queries in relation to this matter, please contact our Development Contributions Assessors on ph. 941-8999.

**Reported and Recommended by:** Jesse Burgess, Senior Planner

**Date:** 18 September 2012

**Decision**

That the above recommendation is adopted for the reasons set out in the attached Addendum

**Commissioner:**

Name: Ken Lawn

Signature: 

Date: 19 September 2012