JRPP No.	2010HCC047
DA No.	DA No. 10/1319
Proposal	Continued operation of existing Summerhill Waste Management Centre and proposed expansion for Stage II Area
Property	Lot 51 DP1112867 – 141 Minmi Road, Wallsend
Applicant	Newcastle City Council
Report By	RPS Newcastle
Checked by	Peter Chrystal – Manager Development & Building

Assessment Report and Recommendation

Executive Summary

Background

Newcastle City Council purchased the site in 1990. Consent was granted (DA 506/92) for the establishment of the waste management centre in April 1993. The original development consent was contentious resulting in a Commission of Inquiry being conducted in 1995. Following the Inquiry development consent was reissued (in July 1995) to operate the facility for a period of 20 years. The approval is therefore set to lapse in July 2015.

In October 2002, development approval was issued to create an additional landfill area in the north-west section of the site. Approval to modify the 1993 consent was granted by Council in February 2005. In September 2006, development approval was issued for a Renewable Energy Facility to generate electricity from landfill gas generated from the operation.

The site has the capacity to operate beyond it's current lapse date and receive additional waste above the current annual tonnage limit. This application seeks approval for both.

The Site

The development site is Lot 51 DP1112867 – 141 Minmi Road, Wallsend and is known as the Summerhill Waste Management Centre (SWMC). Newcastle City Council owns the land and is the applicant. To avoid any perceived conflict of interest, Council has engaged RPS Newcastle to assess the development application and prepare a report to the JRPP.

SWMC is located approximately 13 kilometres from the Newcastle CBD on the western urban fringe of the City. The site is predominantly surrounded by publicly and privately owned bushland with Blue Gum Hills Regional Park abutting its western boundary. Beyond bushland to the east and north are the suburbs of Wallsend, Maryland, Fletcher and the village of Minmi. The area is identified in the Newcastle – Lake Macquarie Western Corridor Strategy has having scope to accommodate population growth.

The site has an approximate area of 263.2 hectares and has been significantly disturbed by open cut and underground mining operations during its previous use as the Wallsend Borehole Colliery. Vehicle access to the site is via a service road off Minmi Road. The closest sensitive receivers are existing residential development located approximately 800 metres to the north-west in the suburb of Fletcher.

The Proposed Development

This development application seeks consent to continue the operation of the Summer Hill Waste Management Centre (SWMC) beyond the 2015 lapse date and establish an additional landfill area within the site for the purposes of disposing of approximately 8,450,000 tonnes of waste over a period of 28 years (referred to as Stage II). The proposed Stage II area abuts the existing landfill operation and is in close proximity to the site's western boundary (Bluegum Hills Regional Park) and southern boundary.

The annual waste volume received by SWMC is currently capped at 220,000 tonnes per year. This application will allow an increase of the average volume of waste per year to 301,785 tonnes – an increase of 81,785 tonnes per year, with scope for an additional 60,357 tonnes per year (20 per cent variation) for special circumstances (e.g. natural disaster event or large construction project) – an overall increase of 140,000 tonnes on the current volume of 220,000. Proposed hours of operation remain the same as the current Centre. The estimated cost of the project is $61million over the course of construction.

Development will involve the removal of small areas of native regrowth vegetation. However, it is not considered to consist of any threatened flora or fauna, or ecological endangered communities. Post operational rehabilitation of the subject area involving the planting of native vegetation is proposed.

Public Consultation

The development application was placed on public exhibition from Monday 27 November 2010 to Monday 17 January 2011 (the period was extended given Christmas/New Year). One thousand two hundred (1200) notification letters were issued to residents in Maryland, Fletcher, Minmi and Wallsend. Notification was published in the Newcastle Herald on Saturday the 27 November 2010 and again on Saturday the 11 December 2010. A notification of the development was posted at the front boundary of the site.

One (1) submission was received during the public exhibition, this being from landowners to the south of the site.

Permissibility

Under Schedule 3 of the *Environmental Planning & Assessment Regulation 2000 (NSW)*, the proposal is designated development. An EIS has been prepared to meet the environmental assessment requirements contained within the Department of Planning (DoP) Director-General's Requirements and the Department of the Environment and Climate Change Director-General's Requirements.

The proposal is also integrated development requiring approvals under the *Protection of the Environment Operations Act 1997 (NSW)* and the *Mines Subsidence Compensation Act 1961 (NSW).* Approvals have been gained from the relevant agencies and conditions incorporated in the consent.

The site is zoned 5(a) Special Uses pursuant to Newcastle Local Environmental Plan 2003. The proposal is categorised as a Waste Management and Resource Recovery Facility and is permissible within the 5(a) Special Uses zone subject to development consent.

The site is zoned SP1 Special Activities pursuant to Draft Newcastle Local Environmental Plan 2011. The proposal is categorised as a Waste or Resource Management Facility and is permissible within the SP1 Special Activities zone subject to development consent.

Referral to Joint Regional Planning Panel

The proposal is referred to the Joint Regional Planning Panel (JRPP) for determination pursuant to clause 13B(2)(c) of State Environmental Planning Policy (Major Development) 2005, given the capital investment of the project is greater than $5million and Council is the proponent.

Key Issues

The main issues identified in the assessment and/or raised in the submissions are as follows:

- Potential increase in the annual waste volumes received and managed at the centre.
- Potential increase in traffic movements.
- Noise and odour.
- Environmental management of the centre.

Recommendation

The application has been assessed against the requirements of the *Environmental Planning & Assessment Act 1979* (as amended) NSW and is considered to be satisfactory. Accordingly, it is recommended that the application be approved subject to conditions.

1. Background

Newcastle City Council purchased the land in 1990. Consent was granted (under Development Application No. 506/92) for the establishment of the waste management centre in April 1993. The original development consent was contentious resulting in a Commission of Inquiry being conducted in 1995. Following the Inquiry development consent was reissued (in July 1995) to operate the facility for a period of 20 years. The approval is therefore set to lapse in July 2015.

In October 2002, development approval was issued to create an additional landfill area in the north-west section of the site. Approval to modify the 1993 consent was granted by Council in February 2005. This modification allowed a change to the operational hours of the centre and also permitted appropriate forms of waste from outside the Newcastle Local Government Area to be disposed of at the centre, subject to several restrictions, including a weight limit being placed on Minmi Road west of the entrance to the SWMC. In September 2006, development approval was issued for a Renewable Energy Facility to generate electricity from landfill gas generated from the operation.

The Centre services the general solid waste of the Newcastle Local Government Area (LGA), and receives commercial and industrial waste from other Lower Hunter LGAs. It includes one lined landfill area for the disposal and containment of putrescibles waste and a lined landfill for non-putrescible (building and demolition) waste. It also incorporates a closed, non-lined non-putrescible landfill.

Given there is scope to continue the current operation beyond this date and potentially expand on it a development application has been lodged. The current operation is covered by an existing Environmental Protection Licence (EPL) from the Department of Environment, Climate Change and Water (Now the NSW Office of Environment and Heritage) which is described in further detail in Part I of **Appendix A – Conditions of Consent**.

2. Site and Locality Description

The development site is Lot 51 DP1112867 – 141 Minmi Road, Wallsend and is known as the Summerhill Waste Management Centre. It is located approximately 13 kilometres from the Newcastle CBD on the western urban fringe of the City. The site is predominantly surrounded by publicly and privately owned bushland with Blue Gum Hills Regional Park abutting its western boundary. Beyond the bushland to the east and north are the suburbs of Wallsend, Maryland, Fletcher and the village of Minmi. The area is identified in the Newcastle – Lake Macquarie Western Corridor Strategy as having scope to accommodate population growth. Figure 1 shows the site and surrounding land.

Land owned by Coal and Allied/Xstrata Coal adjoins the site to the south and west. Beyond this land is the Newcastle Link Road.

The site has an approximate area of 263.2 hectares and has been significantly disturbed by open cut and underground mining operations during its previous use as the Wallsend Borehole Colliery. It is located between 2 valleys comprising of Wentworth Creek and Flaggy Creek catchments. Both creeks flow northward from the site to Hexham Swamp, which ultimately discharges into the Hunter River.

The Centre currently consists of seven general solid waste (putrescibles) cells, a general solid waste (non-putrescible) cell and a number of leachate and surface water ponds have been constructed. The completed waste cells have been capped and their landforms shaped to resemble that of the natural topography.

Vehicle access to the site is via a service road off Minmi Road. The closest sensitive receivers are existing residential development located approximately 800 metres to the north-west in the suburb of Fletcher.

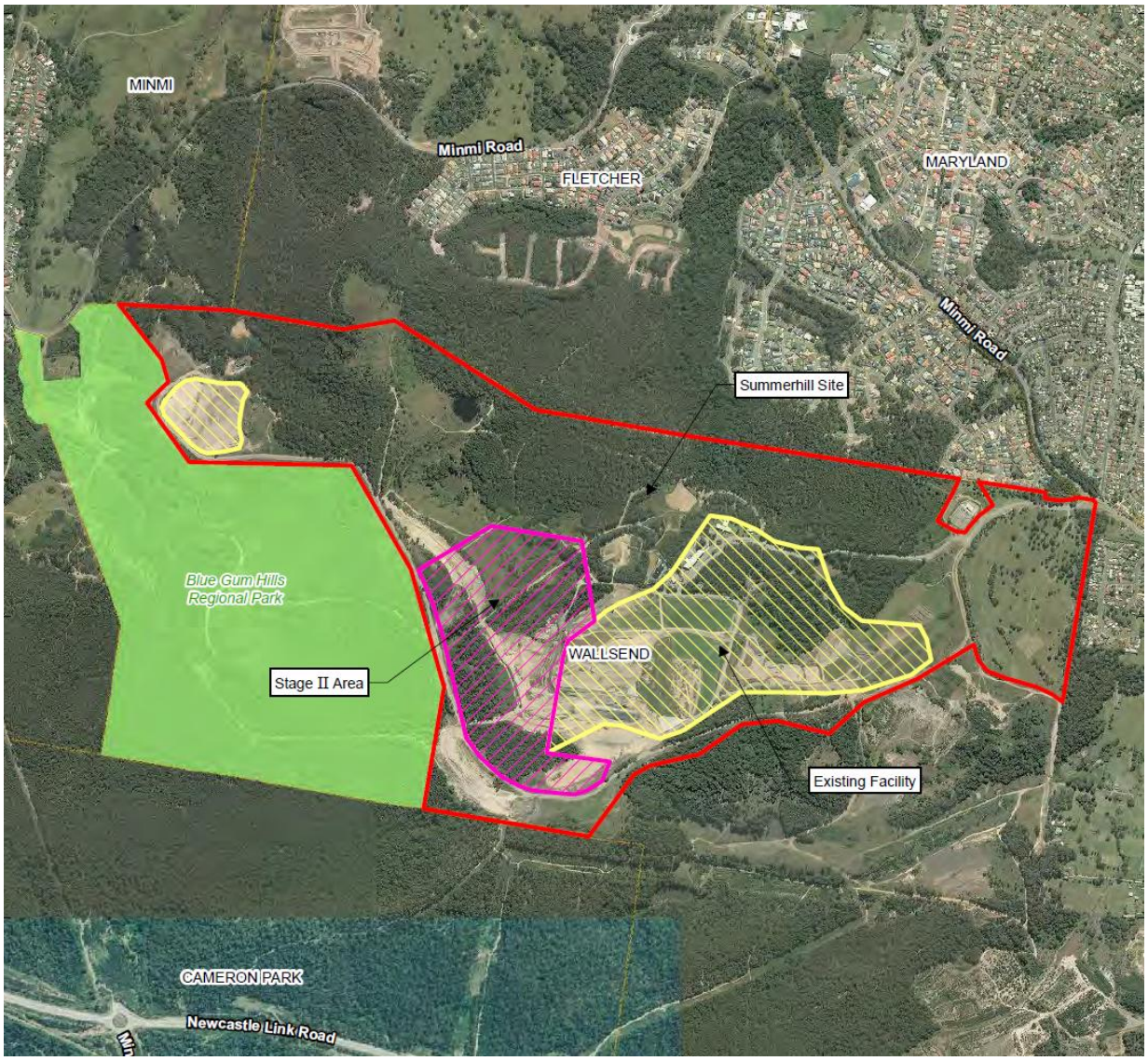

Figure 1 - The site and surrounding land

3. Project Description

Development Application No. 10/1319 seeks consent to continue the operation of the existing SWMC beyond the 2015 lapse date and establish an additional landfill area within the site for the purposes of disposing of 8,450,000 tonnes of waste over a period of 28 years. A copy of the plans associated with the proposal can be found at **Appendix B**).

The proposed Stage II area abuts the existing landfill operation and is in close proximity to the site's western boundary (Bluegum Hills Regional Park) and southern boundary (land the subject of a Part 3A Application).

Development will involve the removal of small areas of native regrowth vegetation, however, it is not considered to consist of any threatened flora or fauna, or ecological endangered communities. Post operational rehabilitation of the subject area involving the planting of native vegetation is also proposed.

The annual waste volume received by SWMC is currently capped at 220,000 tonnes per year through both a condition of development consent and the DECCW EPL.

This development application will allow an increase of the average volume of waste per year to 301,785 tonnes – an increase of 81,785 tonnes per year, with scope for an additional 60,357 tonnes per year (20 per cent variation) for special circumstances (e.g. natural disaster event or large construction project) – an overall increase of 140,000 tonnes on the current volume of 220,000.

Proposed hours of operation will remain the same as the current centre:

Monday to Friday: 7:00am to 6:00pm

Saturday and Sunday: 8:00am to 4:00pm

Public Holidays: 8:00am to 4:00pm

The estimated cost of the project is $61million over the course of construction.

4. Consultation

In accordance with the requirements of the *Environmental Planning & Assessment Act 1979 (as amended) NSW* and the Newcastle Development Control Plan, 2005, the development application was placed on public exhibition from Monday 27 November 2010 to Monday 17 January 2011 (the period was extended given Christmas/New Year).

One thousand two hundred (1200) notification letters were issued to residents in Maryland, Fletcher, Minmi and Wallsend. One (1) submission was received from landowners to the south of the site. This land is currently the subject of a Part 3A Application with the Department of Planning and Infrastructure for residential development.

In accordance with Part 6, Division 5 of the *Environmental Planning and Assessment Regulation 2000*, notification was published in the Newcastle Herald on Saturday the 27 November 2010 and again on Saturday the 11 December 2010. Additionally, a notification of the development was posted at the front boundary of the site.

One (1) submission was received from an adjoining land owner to the south of the site. This land is currently the subject of a Part 3A Application with the Department of Planning and Infrastructure. The submission raised concerns with the proximity of the proposed Stage II landfill area to the boundary, potential impacts generated by the landfill operation - namely odour and noise and the need to manage these impacts within the development site. The applicant was forwarded a copy of the submission and given the opportunity to respond to the issues raised. The issues raised are discussed in greater detail under Section 6 of this report (*79C(d) any submissions made in accordance with this Act or the Regulations*).

5. Referrals

Department of Environment, Climate Change & Water

In accordance with the integrated development provisions of the *Environmental Planning & Assessment Act 1979 NSW*, the development application was referred to the Department of Environment, Climate Change & Water (DECCW) for consideration.

In correspondence dated 2 February 2011, DECCW issued General Terms of Approval (GTAs) under the *Protection of the Environment Operations Act 1997 (NSW)*. A copy of DECCW correspondence can be found at **Appendix C**. DECCW GTAs have been incorporated into the consent conditions.

Mine Subsidence Board

In accordance with the integrated development provisions of the *Environmental Planning & Assessment Act 1979 (NSW),* the development application was referred to the Mines Subsidence Board (MSB) for consideration.

In correspondence dated 20 December 2010, the MSB issued GTAs under the *Mine Subsidence Compensation Act 1961 (NSW).* A copy of MSB correspondence can be found at **Appendix C**. MSB GTAs have been incorporated into the consent conditions.

Roads & Traffic Authority (RTA)

In accordance with Schedule 3 of State Environmental Planning Policy (Infrastructure) 2007, the development application was referred to the Roads & Traffic Authority (RTA) and the Hunter Regional Development Committee (HRDC). In correspondence dated 21 December 2010, the RTA advised that neither it or the HRDC raised objection to the proposed development based on the fact that it would not have a significant impact on the classified road network. A copy of the RTA correspondence can be found at **Appendix C**.

Newcastle City Council

The development application was referred to various internal departments of Council for assessment of such issues as traffic, flooding and stormwater management, acoustic impacts and other environmental issues. Comments in relation to each of these issues are discussed below.

Traffic

Council's Senior Transportation Engineer is satisfied that the surrounding road network is capable of accommodating the increased number of vehicles (heavy and light) likely to attend the site based on the increased tonnage limit (up to 362,142 tonnes per annum). Existing weight limits west of the entry to the centre will remain in place, limiting the impact of heavy vehicles on the residential areas of Fletcher, Maryland and Minmi. Several conditions were recommended in relation to traffic and these have been included in the schedule of draft conditions of consent (**Appendix A**).

Flooding and Stormwater Management

Council's Senior Hydrology Engineer is satisfied that the proposal will not be affected by flooding and that the EIS submitted with the application adequately addresses stormwater management within the site. The quantity and quality of stormwater leaving the site will be covered by the amended DECCW EPL required for the centre. No consent conditions were recommended in relation to flooding or stormwater management.

Acoustic and Environmental Issues

The application was referred to Council's Compliance Services Unit (CSU) for consideration of acoustic and environmental issues.

The CSU sought additional information regarding several components of the proposal, including the potential increase in traffic noise resulting from the removal of the tonnage limit, the extent of buffer zones in relation to neighbouring development and the management of spoil generated by the landfill.

In relation to traffic noise, the applicant has advised that an acoustic barrier is currently being erected along the northern access road to reduce impacts on existing residential development in the suburb of Fletcher.

In relation to spoil export management, the applicant has advised that a Spoil Disposal and Excavation Management Plan (SDEMP) will be developed prior to construction of the Stage II waste cells. A consent condition will require this plan to be submitted to and approved by Council prior to the issue of a Construction Certificate for Stage II works.

6. Section 79C Considerations

(a)(i) the provisions of any environmental planning instrument

State Environmental Planning Policy (Infrastructure) 2007

Division 23 deals with waste or resource management facilities and Section 123 contains matters for consideration which must be taken into consideration by consent authorities when determining a development application for the construction, operation, maintenance or expansion of a landfill for the disposal of waste, including putrescible waste.

The EIS submitted with the application adequately addresses the matters for consideration under this SEPP. The applicant has had regard to the various state government guidelines and policies relating to waste recovery and reduction, the outcomes of the NSW Government's report, *Public Review Landfill Capacity and Demand 2009* into landfill capacity and demand for the Sydney Region (recognising that this report is focused in the Sydney Region but has implications for areas outside this region), and Council's own policies.

The applicant considered the following options before deciding to pursue development approval to continue and expand the current operation:

- continuing the life of the SWMC;
- establishing waste reduction techniques;
- the Hunter Region Waste Project;
- explore alternative sites to locate a waste management facility; and
- do nothing.

Based on a cost-benefit analysis of these options, it was decided that the continued operation of the SWMC presented practical, financial and environmental advantages.

Based on information contained in the EIS submitted with the application, it is considered that the centre will be managed employing best practise design and operation principles. DECCW has also assessed the development application and has issued GTAs, subject to appropriate conditions to ensure the matters of this SEPP are addressed.

The EIS addresses the issue of greenhouse gases and discusses current and future measures to reduce emissions.

The subject site formerly functioned as a coal mine (the Wallsend Borehole Colliery), with significant areas disturbed by open cut and underground mine workings.

State Environmental Planning Policy No. 33 – Hazardous & Offensive Development

This SEPP has been reviewed with regard to the proposed development to assist in determining if the development is likely to be a potentially hazardous industry.

The EIS submitted with the application discusses the types of hazardous and liquid wastes which are not permitted at the SWMC under the current DECCW EPL and how these waste are to be treated/disposed of.

Having regard to the current and future restrictions imposed under the DECCW EPL applying to the site, the proposal is considered acceptable with regard to this SEPP.

State Environmental Planning Policy No. 55 – Remediation of Land

This SEPP has been considered with regard to the proposed development. Geotechnical investigations (Golder Associates 1989) indicate that some soils contain coal waste material from the site's previous use and that excavation during the construction of Stage II could disturb these soils.

The report however indicates that these soils contain very low specific gravity and combustibility and should not pose a threat to the environment or human health. The EIS submitted with the application indicates that any coal waste exposed during excavation works will be placed in landfill, which is considered to be an appropriate solution. Compliance with the recommendations of the EIS will be conditioned.

Newcastle Local Environmental Plan 2003 (as amended)

It is considered the proposed development has taken into consideration the relevant aims and objectives, the relevant zone objectives and other relevant provisions of the Newcastle Local Environmental Plan 2003 (NLEP 2003).

The proposed development is considered to be consistent with the aims and general objectives of the NLEP 2003 in terms of the project contributing to improving the quality of life and well being of the people of the City of Newcastle.

There is a need to continue the operational life of the existing facility and to develop Stage II within the existing site to secure the long term waste management needs of the Newcastle LGA. Without local landfill capacity, waste from within Newcastle may need to be transported to landfills located outside of the Newcastle LGA. Transporting the waste from Newcastle will impose additional environmental and financial impacts associated with long distance haulage.

The land is zoned 5(a) Special Uses under NLEP 2003. The proposal is categorised as a Waste or Resource Management Facility and is permissible within the 5(a) Special Uses zone subject to development consent. Figure 2 shows the current zoning of the site and surrounding area.

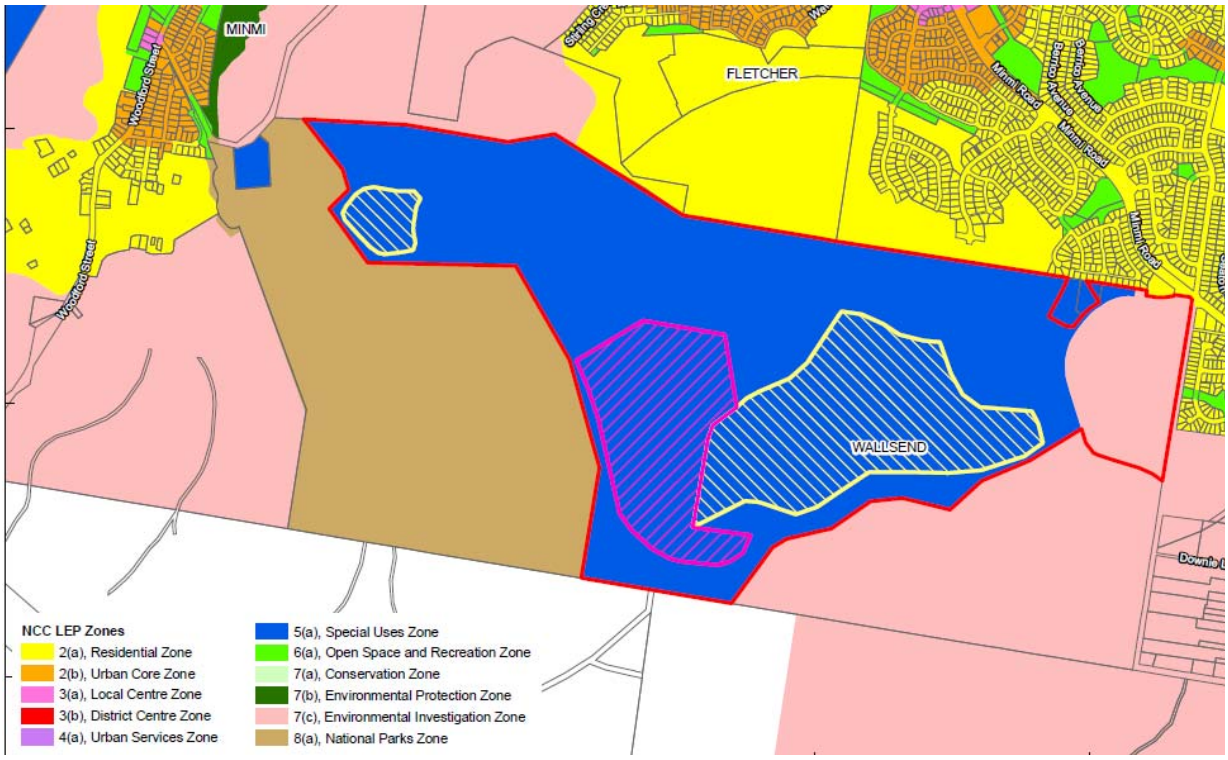

Figure 2 - Current zoning of the site and surrounding area

(a)(ii) the provisions of any draft environmental planning instrument

Draft Newcastle Local Environmental Plan 2011

The site is zoned SP2 Infrastructure Zone - Waste or Resource Management Facility under Draft Newcastle Local Environmental Plan 2011, which was adopted by Council in June 2011 and has been referred to the Department of Planning and Infrastructure for gazettal.

The proposal is defined as a Waste or Resource Management Facility and is permissible within the SP2 zone subject to development consent. The proposal is considered to meet the aims of the draft plan and objectives of the zone.

(a)(iii) any development control plans

No development control plans apply to this development application.

(a)(iiia) any planning agreement that has been entered into or any draft planning agreement that the developer has offered to enter into

No planning agreement or draft planning agreement has been entered into relating to this development application.

(a)(iv) any matters prescribed by the regulations

No specific matters are triggered by the Regulation for consideration in the assessment of this development application.

(b) the likely impacts of the development

The EIS submitted with the application has adequately considered the likely impacts of the expansion of the existing centre on the natural environment. The following specific issues are addressed:

Geology and Soils

The EIS addresses the likely impacts on geology and soils and makes various recommendations, including the preparation of an erosion and sediment control plan (ESCP), a landfill environmental management plan (LEMP), and a Spoil Disposal and Earthworks Management Plan (SDEMP).

It is considered that adoption and appropriate management of these recommendations will minimise potential adverse impacts caused by the development. Consent conditions will require an amended DECCW ELP to be obtained and to ensure compliance with the recommendations outlined in the EIS.

Hydrology and Surface Water

The EIS submitted with the application states that old coal workings and fractured interburden are the primary water bearing strata underlying the site and that these aquifers are recharged by rainfall and infiltration throughout the areas of outcrop in the vicinity of the centre. The EIS also states that groundwater recharge is relatively low due to low permeability clay soils and well drained slopes within the site.

The EIS discusses the proposed collection and treatment of surface runoff generated on site. Existing sediment ponds will be utilised to capture and treat surface runoff before leaving the site and entering the downstream receiving waterways of Wentworth Creek and Flaggy Creek.

The EIS makes various recommendations to mitigate potential impacts on ground and surface water, including the installation of landfill cell linings to limit leachate, implementation of monitoring, reuse of water for dust management, and development of a Spill Management Procedure (SMP).

It is considered that adoption and appropriate management of these recommendations will minimise potential adverse impacts caused by the development. Consent conditions will require an amended DECCW ELP to be obtained and to ensure compliance with the recommendations outlined in the EIS.

Air Quality

The breakdown of waste material and the generation of methane and other landfill gases have the potential to adversely impact on the amenity and health of the surrounding area. Dust from exposed areas of the site can also have an adverse impact on the locality.

The EIS submitted with the application makes various recommendations to mitigate potential impacts on air quality. It is considered that adoption and appropriate management of these recommendations will minimise potential adverse impacts caused by the development. Consent conditions will require an amended DECCW ELP to be obtained and to ensure compliance with the recommendations outlined in the EIS.

Noise and Vibration

Operational activities such as landfill cell construction and earthmoving equipment and traffic using Minmi Road will generate the main sources of noise within and surrounding the site. With existing residential development occurring to the north of the site and potential future

residential development to occur on land to the south, it is important that appropriate mitigation measures are in place to ameliorate potential noise and vibration impacts.

Measures proposed as part of this development include operational practices to reduce noise impacts, construction of an acoustic barrier adjacent to the centre's access road, ongoing monitoring and maintenance of a noise complaints register.

It is considered that adoption and appropriate management of these recommendations will minimise potential adverse impacts caused by the development. Consent conditions will require an amended DECCW ELP to be obtained and to ensure compliance with the recommendations outlined in the EIS.

Greenhouse Gas Emissions

The EIS submitted with the application outlines the activities that currently, and will continue to as part of Stage II, generate greenhouse gas emissions. The EIS discusses the adequacy of the existing gas powered renewable energy facility within the site and states that additional measures, including the installation of a gas extraction system for Stage II cells connected to a renewable energy facility for energy recovery, will need to be implemented.

It is considered that adoption and appropriate management of these recommendations will minimise potential adverse impacts caused by the development. Consent conditions will require an amended DECCW ELP to be obtained and to ensure compliance with the recommendations outlined in the EIS.

Socio-economic

The EIS submitted with the application states that construction activities associated with the proposed development are likely to give rise to several temporary impacts on the surrounding community, including an increase in vehicle traffic which may result in temporary travel and access disruptions for motorists utilising the surrounding roads and those utilising the centre.

The EIS states that the severity of these impacts would be reduced due to the distance of sensitive receivers from the proposed construction site and the restriction of construction activities to the hours when the site is open for the disposal of waste.

The EIS further states that the operation of the proposal would provide a long-term waste management facility to the community and a secure base from which to develop and improve waste minimisation strategies and technologies. A further socio-economic benefit would be provided by the rehabilitation of the proposal site for its use as a public recreational area post operation.

Given the distance of existing residential development to the north from the proposed Stage II landfill cell, and having regard to the recommended mitigation measures outlined in the EIS, the proposal is considered to be acceptable. A consent condition will ensure compliance with the recommendations outlined in the EIS.

Flora and Fauna

Due to the previous use of the site as an open cut mine, the site is highly disturbed. As previously stated, works associated with Stage II will, however, impact on small areas of native regrowth vegetation. The ecology assessment prepared in relation to the project states that the proposed development and associated clearing will not impact on any threatened flora or fauna, or ecological endangered communities.

The EIS discusses post-operational rehabilitation of disturbed areas, involving the planting of native vegetation. A consent condition will ensure compliance with the EIS submitted with the application.

Visual

The site is located within two valleys and is fully enclosed to the south and west by major ridgelines, on the east by a lower ridgeline and by a large area of bush to the north.

A visual impact assessment was conducted as part of preparation of the EIS submitted with the application. This assessment states that only minor views of the centre can be observed in certain directions within a one kilometre distance and that the greatest external impact would be experienced by a small area to the north-east of the site. The assessment concludes that this impact is not considered significant and is acceptable given this area is located over one kilometre away. The conclusions of the visual assessment are considered to be acceptable.

Impacts will also be experienced internally. Again these impacts are considered acceptable given the existing degraded condition of the site, the current operation and the proposed expansion.

Traffic and transport

A traffic assessment was undertaken by Mark Waugh Pty Ltd for the proposed development. The assessment considered the traffic and waste volume data for the 2008-2009 reporting period to gauge the impact from the increased traffic movements from the delivery of 252,933 tonnes per annum. This assessment used a rounded up figure of 260,000 tonnes per annum for modelling purposes.

As stated in the EIS submitted with the application, the noise criterion for this assessment is based on a 15-minute period. The EIS acknowledges the variability in traffic volumes from day-to-day as well as traffic speeds and tonnage (i.e. fully loaded, partially loaded and tare loads). As a conservative measure, the EIS has modelled traffic volumes that would be considered as 'worst-case' as opposed to average operating conditions.

Traffic volumes have been provided by Council and are outlined in the Table below. Volumes were provided for existing and future predicted traffic flows as daily (9 hour) counts. Daily counts were then extrapolated into reasonable worst-case 15-minute flows, based on counted traffic data gathered during the preparation of the EIS.

Tare of Vehicle	**Existing Volumes (one-way)**		**Future Volumes (one-way)**	
	Daily count	**Worst-case 15min count**	**Daily Count**	**Worst-case 15min count**
>10T	113	10	121	11
>5T	61	2	98	3

As previously stated, Council's Senior Transportation Engineer has reviewed the proposal, including amended information received regarding traffic impact, and is comfortable with the likely increase in traffic generation. A consent condition will ensure compliance with the recommendations of the EIS submitted with the application.

Health

The EIS submitted with the application states that the centre poses a number of potential risks to human health from pathogens, mutagens, teratogens, carcinogens and diseases spread by pests (birds, rodents).

The EIS makes various recommendations to mitigate potential impacts on health. It is considered that adoption and appropriate management of these recommendations will minimise potential adverse impacts caused by the development. Consent conditions will require an amended DECCW ELP to be obtained and to ensure compliance with the recommendations outlined in the EIS.

Hazard and Risk

A number of hazards and risks have been identified in the construction and ongoing operation of the centre. The EIS submitted with the application outlines the many practices currently employed to reduce safety issues arising from operation of the current centre. These will continue to be implemented and will reduce the risk of workplace injury and/or death. A consent condition will ensure compliance with the recommendations outlined in the EIS covering this aspect.

A number of the above issues have also been considered by the DECCW in its assessment of the proposal under the *Protection of the Environment Operations Act 1997 (NSW)*, with particular regard to the environmental management and impacts associated with the operation. GTAs have been issued and will be incorporated into the conditions of consent. It is considered that compliance with the conditions of an amended DECCW EPL will ensure that the potential impacts of the expanded centre will be mitigated so as not to adversely affect the environment and the amenity of the area.

(c) the suitability of the site for development

The suitability of the site has been assessed against the criteria detailed in the EIS Guidelines for Landfilling (Department of Urban Affairs and Planning, 1996). Based on these guidelines, the site was found to be an appropriate landfill site. Whilst the current consent was time limited to 20 years, the site has a useful life expectancy of an additional 28 years (approximately) and the continued use of an already degraded site to cater for the short to medium-term waste disposal needs of the Newcastle LGA is considered to be acceptable.

Stage II works will be generally contained to within previously disturbed areas of the site and the proposal will not interfere with environmentally sensitive areas. Sufficient buffers to the north, east and west of landfill cells will ensure the centre does not detrimentally impact on surrounding residential land uses. The likely timing of Stage II landfill cells within close proximity to the site's southern boundary will afford the opportunity to provide a sufficient buffer to potential residential development to the south of the site (see section 6 of this report for further discussion relating to potential residential development to the south of the site).

(d) any submissions made in accordance with this Act or the Regulations

In accordance with the requirements of the *Environmental Planning & Assessment Act 1979 (as amended) NSW* and the Newcastle Development Control Plan, 2005, the development application was placed on public exhibition from Monday 27 November 2010 to Monday 17 January 2011 (the period was extended given Christmas/New Year).

One submission was received from an adjoining land owner to the south of the site. This land is currently the subject of a Part 3A Application with the Department of Planning and Infrastructure. This submission raises the following issues:

- The company owns land located in the Newcastle – Lake Macquarie Western Corridor Strategy, specifically the Minmi/Link Rd landholding which is identified in the strategy as urban land.
- An Environmental Assessment Application was lodged with the Department of Planning in February 2011 for this site which identifies that development is likely to take place between 2025 and 2032.
- A State Significant Site rezoning application and a Concept Plan for 3300 residential dwelling units has also been lodged.
- Given the land is currently vacant, no objection is raised to the proposed development in the short term, however, NCC should be required to contain all buffers within their own site and ensure that SWMC operations do not impact on the timing of the development.
- Impacts of the SWMC could be mitigated by completing operations in the southern section of Stage 2 first before any residential development takes place.
- Noise and air quality assessments have been prepared which will be included in the Environmental Assessment Application.
- The Noise Assessment (Renzo Tonin) made the following recommendations:

  'As mentioned in the above section, noise from the operation of the proposed Stage II are as predicted to exceed the applicable INP noise intrusiveness criterion by 6 dB(A). Therefore, in order to reduce noise impacts at future residences within the north eastern section of the Link Road North Precinct, consideration should be given for the provision of a boundary fence by NCC along the northern boundary directly adjoining the SHWMC site, which would also act as a noise screen prior to residential completions within the noise impact zone.

  *As a minimum, the height of the boundary fence/noise screen should be high enough to break line of sight from the residential property to the SHWMC site. Typically, a **2.4m** high fence/screen would be sufficient to break line of sight.*

  The construction of the boundary fence/noise screen can be from any durable material with sufficient mass to prevent direct noise transmission e.g. masonry, steel, fibrous-cement, timber or polycarbonate, selected to withstand the weather elements.'

- The Air Quality Assessment (GHD) made the following comments:

  'An EIS for Summerhill Stage 2 was completed in September 2010. The EIS took into consideration the successful environmental management procedures in place at the existing facility. The EIS considered surrounding landuses, both current and proposed and examined the potential for environmental impacts to be imposed on surrounding land uses and it determined that the potential for significant impacts was low.

  The issue of potential odour impacts from the Summerhill Facility in relation to planned development to the south-west of the Summerhill site could only be determined when staging of both developments is known. Generally, buffer distances of 400m would be required between an active working landfill cell and residential development. Active cells are worked for a finite period and are

mobile across the broader site. The buffer zone of 400m is required to be contained on the SHWMC land prior to commencement of any residential development.

The issue is thus the timing of the landfill in relation to the timing of development. Given the timeframes involved in the development of both projects and the fact that the staging plans for the both projects is unclear, it cannot be determined this will be a future issue at this stage. However, if it was determined that there was a potential future issue with buffer distances in the north-eastern section of the Minmi Estate development, Council and the developer would need to consider the staging of Stage 2 operations with the view of completing operations in the southern sections as a priority.'

Comment

The applicant was asked to provide a response to the issues raised within the abovementioned submission. The applicant responded by providing a copy of Newcastle City Council's submission to Major Project 10_0090 - *Minmi, Link Road North & South Residential Development (Northern Estates)*. This submission requested the design of the 'Concept Plan' to be reviewed to have regard to a minimum 400 metre separation distance between the Summerhill Waste Management Facility and proposed residential development, thereby reducing the potential impacts of odour and noise on future residential land.

The proponent for the abovementioned Major Project has provided the following response to Council's submission:

An EIS for Summerhill Stage 2 was completed in September 2010. The EIS took into consideration the successful environmental management procedures in place at the existing facility. The EIS considered surrounding landuses, both current and proposed and examined the potential for environmental impacts to be imposed on surrounding land uses and it determined that the potential for significant impacts was low.

The issue of potential noise impacts from the Summerhill Facility in relation to planned development to the south-west of the Summerhill site could only be determined when staging of both developments is known. Generally, buffer distances of 400m would be required between an active working landfill cell and residential development. Active cells are worked for a finite period and are mobile across the broader site.

The issue is thus the timing of the landfill in relation to the timing of development. Given the timeframes involved in the development of both projects and the fact that the staging plans for the both projects is unclear, it cannot be determined that this will be a future issue at this stage. C&A have lodged a submission with NCC proposing that the Waste Centre staging commence in the southern areas of the Centre and then work north. This would minimise any future buffer issues between the Waste Centre activities and the proposed residential development. Current staging proposals suggest that the residential development will not commence in the Waste Centre proximity until 2025 at which time it is expected that the Waste Centre will have completed operations in the vicinity of the proposed development

As is outlined in the above comments, the primary issue regarding potential odour and acoustic impacts on future residential land south of the site is that of timing. If the Stage II landfill cells can be operated, capped and rehabilitated from south to north, then it is highly likely that a minimum 400 metre acoustic and odour buffer will be established to future residential development on adjoining land by the time that that residential land is developed.

The applicant has advised that Stage II landfill cells will commence within close proximity of the southern boundary and progress north. A consent condition will be imposed to ensure this occurs, thereby maximising the potential for a 400 metre buffer to be created to future residential land to the south. Should Stage II landfill cells still be operating within close proximity of the southern boundary at time of potential residential redevelopment of adjoining land, other legal mechanisms, such as the *Protection of the Environment Operations Act 1997 (NSW),* can ensure no unreasonable land use conflicts occur.

(e) the public interest

Approval of the proposed development is considered to be in the public interest to maintain the orderly and efficient management of waste in the Newcastle LGA and to an extent in the Lower Hunter. Appropriate environmental management of the facility will ensure impacts are minimised on local residents. Approval of the proposed development ensures a short to medium-term strategy for waste management can be implemented by Newcastle City Council.

7. Conclusion

Subject to the proponent's compliance with the recommended conditions, the proposal is acceptable against the relevant considerations under section 79C(1) of the *Environmental Planning and Assessment Act, 1979 (as amended) NSW*.

8. Recommendation

That the Joint Regional Planning Panel grant consent to DA No. 10/1319, subject to the conditions contained in **Appendix A**.

APPENDIX A – Conditions of Consent

Reason for Imposition of Conditions

The reasons for the imposition of conditions on this consent are:

a) to confirm and clarify the terms of the consent;
b) to ensure compliance with legislative requirements; and
c) to ensure that the site is managed appropriately so as to minimise harm to the environment and protect the amenity of adjoining properties.

A General Conditions

A1 Approved Documentation

The proposed development shall be carried out in accordance with the information set out in the following documentation:

- the Environmental Impact Statement (EIS) prepared by GHD Pty Ltd (Newcastle) dated August 2010 (Revision 0); and

- The Report of Environmental Noise Assessment – Proposed Expansion - Access Road prepared by GHD Pty Ltd (Newcastle) dated June 2010 (Revision 1), received 10th June 2011.

If there is any inconsistency between the above, the conditions of this consent shall prevail to the extent of the inconsistency.

Note: Any proposal to modify the terms or conditions of this consent whilst still maintaining substantially the same development to that approved, will require the submission of a formal application for Council's consideration in accordance with the provisions of Section 96 of the *Environmental Planning and Assessment Act, 1979.*

A2 Any necessary alterations to public utility installations being at the Developer/Demolisher's expense and to the requirements of both City of Newcastle and the appropriate authorities.

A3 Any alteration to natural surface levels on the site being undertaken in such a manner as to ensure that no surface water is drained onto or impounded on adjoining properties.

A4 Any proposed floodlighting of the premises being so positioned, directed and shielded as to not interfere with traffic safety or detract from the amenity of the adjacent premises.

A5 Where the proposed development involves the destruction or disturbance of any existing survey monuments, those monuments affected being relocated at no cost to Council by a *Surveying and Spatial Information Act, 2002 (NSW)* registered under the Surveyor's Act.

A6 Any material being transported to or from the site by vehicle being appropriately secured or restrained in order to meet the performance standards recommended in the *Load Restraint Guide – Guidelines for the safe carriage of loads on road vehicles* published by the Australian Government Publishing Service on 12 December, 1994.

A7 The vehicular entrance and exit driveways, internal access roads and the direction of traffic movement within the site being clearly indicated by means of appropriate directional signage.

A8 All proposed driveways, internal access roads, parking bays, loading/unloading bays and vehicular turning areas being constructed with a basecourse of adequate depth to suit design traffic and properly maintained.

A9 All works or other written undertakings or obligations indicated in the submitted plans and supporting documentation or otherwise required under the terms of this consent being carried out or implemented prior to use of the portion of the site the subject of this application.

B Conditions which must be satisfied prior to the demolition of any building or Construction

B1 Nil

C Conditions which must be satisfied prior to the issue of any construction certificate

C1 Nil

D Conditions which must be satisfied prior to the commencement of any development work

D1 Nil

E Conditions which must be satisfied during any development work

E1 Nil

F Conditions which must be satisfied prior to any occupation or use of the building

F1 Nil

G Conditions which must be satisfied prior to the issue of any Subdivision Certificate

G1 Nil

H Conditions which must be satisfied during the ongoing use of the development

H1 Obligation to Minimise Harm to the Environment

The applicant/operator shall implement all practicable measures to prevent and/or minimise any harm to the environment that may result from the construction, operation, and/or rehabilitation of the development.

H2 Annual Limit

The applicant/operator shall ensure that no more than:

a) 301,785 tonnes of waste is disposed per year (the year commences from the date this consent becomes operational), and
b) an additional 60,357 tonnes per year (20 per cent variation) for special circumstances (e.g. natural disaster event or large construction project)
c) an overall increase of 140,000 tonnes per year.

H3 Hours of Operation

The hours of operation of the premises are:

DAY	START	FINISH
Monday to Friday	7:00am	6:00pm
Saturday and Sunday	8:00am	4:00pm
Public Holidays	8:00am	4:00pm

Construction works are restricted to the hours of 7am – 6pm Monday to Friday and 8am – 1pm Saturday. No construction work shall be undertaken on Sundays or public holidays.

H4 Waste Acceptance and Screening

The applicant/operator shall:

a) Implement suitable procedures to:
   i. ensure that the site does not accept wastes that are prohibited; and,
   ii. screen incoming waste loads.

b) install and maintain suitable signs at the entry to the site, indicating the types of waste that are permitted to be accepted and those wastes that are prohibited; and,

c) ensure that:
   i. all waste sludges and wastes that are controlled under a tracking system have all the appropriate documentation prior to acceptance at the site; and,
   ii. staff receive adequate training in order to be able to recognise and handle hazardous or other unapproved wastes.

H5 Landfill Operations

The applicant/operator shall:

a) progressively operate, cap and rehabilitate landfill cells from the southern boundary of the Stage II Area in a northward direction;

b) minimise the exposed or cleared areas at the landfill;

c) progressively revegetate any areas exposed for greater than 30 days;

d) fill the landfill cells in a systematic manner;

e) maximise landfill compaction rates;

f) cover the active landfill area with at least 150mm of material (or a suitable alternative) at the end of daily waste disposal and compaction activities; and,

g) progressively cap landfill cells with a seal bearing surface and revegetation layer once they reach their final design height.

H6 Monitoring

The applicant/operator shall keep accurate records of the:

a) quantity, type and source of waste received, processed and disposed of on site;

b) quantity and type of waste products produced on site; and

c) volume of landfill space consumed and associated compaction rates.

H7 Litter Control

The applicant/operator shall:

a) implement suitable measures to prevent the unnecessary proliferation of litter both on and off site; and

b) inspect and clear the site (and if necessary, surrounding area) of litter on a daily basis.

H8 Pest, Vermin and Noxious Weed Management

The applicant/operator shall:

a) implement suitable measures to manage pests, vermin and declared noxious weeds on site; and

b) inspect the site on a regular basis to ensure that these measures are working effectively, and that pests, vermin or noxious weeds are not present on site in sufficient numbers to pose an environmental hazard, or cause the loss of amenity in surrounding area.

Note: For the purpose of this condition, noxious weeds are those species subject to an order declared under the Noxious Weed Act 1993.

H9 Bunding

The applicant/operator shall store all chemicals, fuels and oils used on site in appropriately bunded areas, with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund. These bunds shall be designed and installed in accordance with the requirements of all relevant Australian Standards, and/or NSW Department of Environment and Conservation (DEC) Environmental Protection Manual *Technical Bulletin Bunding and Spill Management.*

H10 Security

The applicant/operator shall:

a) prevent unauthorised entry to the site; and

b) maintain a suitably designed perimeter fence and lockable security gates on site.

H11 Fire Management

The applicant/operator shall:

a) implement suitable measures to minimise the risk of fire on site;

b) extinguish any fires on site promptly; and

c) maintain adequate fire-fighting capacity on site in accordance with any requirements of the Fire Reserve NSW and/or the NSW Rural Fire Service.

H12 Lighting

The applicant/operator shall ensure that all external lighting associated with the development:

a) does not create a nuisance to surrounding properties or roadways; and

b) complies with *AS4282(INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting.*

H13 Car Parking

A minimum of 15 car parking spaces shall be provided for staff of the waste management centre, of which one (1) shall be designated for a vehicle used by a disabled motorist. All car parking spaces shall be clearly line marked and maintained to the satisfaction of Council at all times.

H14 Internal Roads

Where required, all internal roads shall be constructed in accordance with *Australian Standard AS2890.2-2002.* All roads shall be maintained to the satisfaction of Council.

H15 Unloading Bays

Vehicles being unloaded shall do so wholly within unloading bays designated on the submitted plans or as otherwise provided.

H16 Sediment and Erosion Control

Runoff and erosion controls shall be installed prior to clearing and incorporate:

a). diversion of uncontaminated up-site runoff around cleared and/or disturbed areas and areas to be cleared and/or disturbed.

b). sediment control fences at the down-slope perimeter of the cleared and/or disturbed area to prevent sediment and other debris escaping from the land to pollute any stream or body of water.

c). maintenance of all erosion control measures at maximum operations/capacity until the land is effectively rehabilitated and stabilised beyond the completion of construction.

I Other Agency Conditions

I1 Department of Environment, Climate Change and Water

Compliance with the following General Terms of Approval of the Department of Environment, Climate Change and Water, as outlined in their correspondence dated 3 February 2011:

Environment Protection Licence

1. Prior to commencing any activity associated with the proposal, including construction activities, the Licensee ("Newcastle City Council") must apply for an variation to the existing environment protection licence No. 5897 from the Environment Protection Authority ("EPA").

2. Waste must not be received and/or disposed in the landfill cells until the Environment Protection Authority has varied environment protection licence No. 5897 which approves the receipt and disposal of waste in the new landfill cells at the Premises.

Waste

1. The only wastes that may be received at the Premises for disposal is General Solid Waste (putrescibles) Asbestos Waste and General Solid Waste (non-putrescible) under DECCW's NSW Waste Classification Guidelines as in force from time to time.

Rehabilitation and Closure

1. Upon cessation of waste operations, the Licensee shall decommission the project and rehabilitate the site to the satisfaction of the EPA.

2. The Licensee shall prepare and implement a Rehabilitation and Closure Plan to the satisfaction of the EPA. This plan must:

    a) Be prepared in consultation with EPA, and by a suitably qualified and experienced expert;
    b) Define the objectives and criteria for rehabilitation and closure;
    c) Investigate options for the future use of the site;
    d) Describe the measures that would be implemented to achieve the specified objectives and criteria for the rehabilitation and closure; and
    e) Calculate the cost of implementing these measures; and describe how the performance of these measures would be monitored over time.

Noise Monitoring

1. The licensee will undertake noise monitoring program to determine any impacts the construction and operation of the landfill will impact on neighbouring properties.

Odour Survey

1. The licensee must undertake a odour survey to identify odour impacts on neighbouring properties.

Administrative conditions

A1. Information Supplied to the EPA

A1.1 Except as expressly provided by these general terms of approval, works and activities must be carried out in accordance with the proposal contained in:

    a) the *"The City of Newcastle Summerhill Waste Management Centre Stage II Development – Environmental Impact Statement"* (August 2010);
    b) the attachments and appendences provided with the EIS;

A2. Administrative Licensing Conditions

A2.1 The applicant must apply for and receive an environment protection licence from the EPA prior to commencing any activity associated with the proposal, including construction activities.

A2.2 Waste must not be received and/or disposed of at the Premises until the EPA has provided the Applicant with an environment protection licence which explicitly approves the receipt and disposal of waste at the Premises.

A2.3 The licence application referred to in condition A2.1 must also be accompanied by a report which provides:

a) drawing “for construction,” specification, design details and installation and commissioning schedule for the proposed:

i) liner system for the landfill cells; and

ii) leachate collection, conveyance, storage and disposal system; and

iii) progressive cappng and rehabilitation of the Premises; and

b) a proposed Construction Quality Assurance Plan (CQAP) which ensures that the measures referred to in a) of this condition will be installed in a manner to achieve their design specifications, including an undertaking to provide:

i) “as constructed” drawings prepared from field surveys of the installed liner system and the leachate collection, conveyance and storage system; and

ii) A report prepared by a suitability qualified person that validates that the measures referred to in a)i) and ii) of this condition were installed in accordance with their design specifications; and

c) a groundwater monitoring program report which:

i) details a proposed groundwater monitoring network and a proposed groundwater monitoring program for the Premises;

ii) demonstrates that the proposed measures referred to in ci) would be suitable to enable detection of leachate pollution of groundwater, if any; and

iii) provides a proposed installation and implementation schedule for the measures referred to in ci); and

d) a gas monitoring program report which:

i) details of a proposed gas monitoring network and a proposed gas monitoringprogram for the Premises;

ii) demonstrates that the proposed measures referred to in di) would be suitable to enable detection of gas migration, if any; and

iii) provides a proposed installation and implementation schedule for the measures referred to in di); and

e) a soil, water and stormwater management plan in accordance with Managing Urban Stormwater: Soils and Construction (Landcom 2004) with all sediment control dams sized to contain up the 90th percentile 5 day duration rainfall event with all pumped discharges containing less than 50mg/L of TSS and all discharges containing less than 0.9mg/L of total ammonia.

A2.4 The landfill cell liner system referred to in a) i) of condition A2.3 must comprise either:

a) A fibre reinforced geosynthetic clay liner (GCL) with a permeability of less that **5 X10 -11** m/s located covering the entire floor and walls of each waste disposal cell; and

b) A flexible high density polyethylene (HDPE) geomembrane liner (FML) with a minimum co-efficient of permeability of less than **10 -14m/s** and minimum

thickness of 1.5mm covering the entire floor and walls of each waste disposal cell; or

c) An alternative liner system approved in writing by the EPA.

A2.5 The design of the leachate collection, conveyance, storage and disposal system referred to in a) ii) of condition A2.3 must:

a) be overlaid with a geotextile separation layer;

b) be on the basis that disposal options for leachate are limited to storage in a lined leachate storage dam/s and/or disposed via a Trade Waste Agreement and/or disposal at a facility licensed to accept such waste;

c) include a leachate drainage layer comprising either:
   i) a minimum 300mm thick layer of 20mm minimum sized rounded gravel;
      - with a permeability of not less than **1x10-3** metres per second;
      - which is chemically resistant to the leachate; and
      - is capable of withstanding the weight of the overlying waste; or
   ii) an alternative system approved in writing by the EPA; and

d) incorporate leachate dam/s that:
   i) are lined with either:
      - a composite liner system comprising either recompacted clay or similar material at least 90 centimetres thick with an in situ co-efficient of permeability of less than **10-9metres** per second overlaid by a flexible FML at least 1.5mm thick and of minimum co-efficient of permeability of **10-14metres** per second; or
      - a flexible membrane liner (FML) with a minimum co-efficient or permeability of less than **10-14Metres** per second; or
      - an alternative system approved in writing by the EPA; and
   ii) allow for the level of leachate in the storage dam/s to be maintained such that there is no overflow i.e. the design should include high level alarm/s and/or interlock system/s configured such that the alarm/s are activated and any pump or gravity flow of leachate to any dam/s is automatically shut down prior to dam overflow.

Note a: *The EPA will review the reports required by condition A2.3 with a view to attaching conditions to the applicant's environmental protection licence requiring installation of the respective measures and implementation of the respective programs.*

Note b: *For validation of thickness of the compacted component of any liner and the leachate drainage layer the EPA will accept the as constructed surveys referred to in b) i) of condition A3.4.*

Note c: *For validation of the permeability:*
- *of the compacted component of any liner the EPA will accept compaction and moisture content testing every 1000m2 in accordance with AS1289.6.7.3 (for undisturbed samples); and*

- *of the leachate drainage media the EPA will accept particle size distribution testing in accordance with AS1289.6.7.1 at least one per source and every 2500 tonnes of material used.*

Note d: *The EPA will also review the information required by b) ii) of condition A2.3 with a view to attaching conditions to the environment protection licence to enable the Licensee to commence landfill disposal of wastes at the Premises.*

Discharges to air and water and applications to land

P1. Location of monitoring/discharge points and areas

P1.1 The following points referred to in the table below are identified in these general terms of approval for the purpose of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

Air

EPA Identification No.	Type of monitoring point	Type of discharge point	Description of location
Numbers to be determined.	Air emissions monitoring.		Surface gas monitoring.
Numbers to be determined.	Air emissions monitoring.		Building gas accumulation monitoring in buildings on landfill premises.

P1.2 The following points referred to in the table below are identified in these general terms of approval for the purposes of monitoring and/or the setting of limits for the emission of pollutants to water from the point.

Water and land

EPA Identification No.	Type of monitoring point	Type of discharge point	Description of location
Numbers to be determined.	Leachate quality monitoring.		To be determined.
Numbers to be determined.	Surface water discharge quality monitoring.	Surface water discharge quality.	To be determined following submission of information in licence variation.

Numbers to be determined.	Groundwater quality monitoring.	To be determined following submission of information in licence application.
Numbers to be determined.	Off-site dust.	Submission to be determined with licence variation.

Limit conditions

L1. Pollution of waters

L.1.1 Except as may be expressly provided by a licence under the *Protection of the Environment Operations Act 1997* in relation of the development, section 120 of the *Protection of the Environment Operations Act 1997* must be complied with in connection with the carrying out of the development.

L1.2 The applicant must ensure that the level of leachate above the basal liner is maintained less than 300mm, or another depth approved by the EPA unless the leachate dam has adequate freeboard capacity.

L2 Load Limits

L2.1 Not applicable.

L3. Concentration limits

L3.1 For each monitoring/discharge point or utilisation area specified in the table/s below (by a point number), the concentration of a pollutant discharged at that point, or applied to that area, must not exceed the concentration limits specified for that pollutant in the table.

L3.2 Where a pH quality limit is specified in the table, the specified percentage of sample must be within the specified ranges.

L3.3 To avoid any doubt, this condition does not authorise the pollution of waters by any pollutant other than those specified in the table/s.

Pollutant	Units of Measure	50 Percent Concentration Limit	90 Percent Concentration Limit	3DGM Percent Concentration Limit	100 Percent Concentration Limit
Total suspended solids	mg/L				50
pH	pH				6.5-8.5
Ammonia	mg/L				1

L3.4 The Licensee is not taken to have exceeded a concentration limit specified in this licence for the discharge of Total Suspended Solids from points (to be determined) if:

a) the dam/s overflow is caused by a rainfall event exceeding the 5 day 90%ile rainfall; and

b) the Licensee has taken all practical measures to avoid or minimise water pollution.

L4. Volume and mass limits

L4.1 Not applicable.

L5. Waste

L5.1 The Applicant must not cause, permit or allow any waste generated outside the Premises to be received at the Premises for storage, treatment, processing, reprocessing or disposal or any waste generated at the Premises to be disposed of at the premises, except as expressly permitted by a licence under the *Protection of the Environment Operations Act 1997.*

L5.2 The Applicant must ensure that only the following types of waste are disposed of at the Premises:

Waste	**Description**	**Activity**	**Other Limits**
General Solid Waste (putrescibles)	As designed in Schedule 1 of the POEO Act, as in force from time to time	Waste Disposal (application to land)	NA
General Solid Waste (non-putrescibles)	As designed in Schedule 1 of the POEO Act, as in force from time to time	Waste Disposal (application to land)	NA
Asbestos Waste	As designed in Schedule 1 of the POEO Act, as in force from time to time	Waste Disposal (application to land)	NA

L6. Noise limits

L6.1 *Noise limits to be negotiated with EPA based on DECCW's "NSW Industrial Noise Policy" (1999).*

L7. Potentially offensive odour

L7.1 No condition in this licence identifies a potentially offensive odour for the purposes of section 129 of the *Protection of the Environment Operations Act 1997*.

Note: Section 29 of the Protection of the Environment Operations Act 1997 provides that the licensee must not cause or permit the emission of any offensive odour from the premises but provides a defence if the emission is identified in the relevant environment protection licence as a potentially offensive odour and the

odour was emitted in accordance with the conditions of a licence directed at minimising odour.

Operating conditions

O1 Activities must be carried out in a competent manner

O1.1 Licensed activities must be carried out in a competent manner.
This includes:

(a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and

(b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.

O2 Maintenance of plant and equipment

O2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:

a) must be maintained in a proper and efficient condition; and

b) must be operated in a proper and efficient manner.

O3. Dust

O3.1 All operations and activities occurring at the premises must be carried out in a manner that will minimise emissions of dust from the premises.

O3.2 Trucks entering and leaving the Premises that are carrying loads must be covered at all times, except during loading and unloading.

O4. Leachate management

O4.1 Water which contacts waste, other than virgin excavated natural material, must be managed as leachate.

O4.2 Leachate must only be disposed of by:

a) evaporation;

b) irrigation within the leachate dam;

c) disposal via Trade Waste Agreement;

d) disposal at a facility licensed to accept such waste.

O5. Management of surface waters

O5.1 Surface drainage must be diverted away from any area where waste is being or has been landfilled.

O5.2 The drainage from all areas at the Premises which will liberate suspended solids when stormwater runs over these areas must be diverted into sedimentation basins.

O5.3 All practicable measures must be undertaken to manage all sediment dams such they have sufficient capacity to store run-off from the 90th percentile 5 day rainfall event.

O6 Fire risk reduction works

O6.1 The Applicant must have in pace and implement procedures to minimise the risk of fire at the Premises.

O7 Burning of green waste

O7.1 There must be no incineration of burning of any waste at the Premises.

O8 Screening of waste

O8.1 The Applicant must have in place and implement procedures to identify and prevent the disposal of any waste not permitted by this general terms of approval to be disposed of at the Premises.

O9 Completion of landfill cells

O9.1 The Applicant must ensure that the landfill cells are capped progressively.

O10 Unauthorised entry

O10.1 The Applicant must take all practicable steps to control entry to the premises.

O10.2 The Applicant must install and maintain lockable security gates at all access and departure locations.

O10.3 The Applicant must ensure that all gates are locked wherever the Premises is unattended.

011 Degradation of local amenity

O11.1 The applicant must have in place and implement a litter management program.

O12 Tracking of mud and waste

O12.1 The Applicant must minimise the tracking of waste and mud by vehicles.

O13 Covering of waste

O13.1 Cover material must be "virgin excavated natural material" as defined in Schedule 1 of the *Protection of the Environment Operations Act 1997* and must be applied in accordance with the following requirements:

<u>Daily cover</u>

(a) Cover material must be applied to a minimum depth of 15 centimetres over all exposed landfilled waste prior to ceasing operations at the end of each day.

Intermediate cover

(b) Cover material must be applied to a depth of 30 centimetres over surfaces of the landfilled waste at the Premises which are to be exposed for more than 90 days.

Cover material stockpile

(c) At least two weeks cover material must be available at the premises under all whether conditions. This material may be won on site, or alternatively a cover stockpile must be maintained adjacent to the tip face.

O14 Control of pests and vermin

O14.1 The Applicant must control pests and at the Premises.

O15 Fire extinguishment

O15.1 The Applicant must extinguish any fires at the Premises as soon as possible.

O16 Fire fighting capability

O16.1 The Applicant must have in place and implement fire prevention measures at the Premises.

O17 Staff training

O17.1 The Applicant must ensure that adequately trained staff are available at the premises in order to administer the requirements of these general terms of approval.

O18 Closure Plan

O18.1 The Licensee must submit to the EPA within twelve months prior to the last load of waste being landfilled a closure plan in accordance with Section 76 of the *Protection of the Environment Operations Act 1997.*

Monitoring and recording conditions

M1 Monitoring records

M1.1 The results of any monitoring required to be conducted by the EPA's general terms of approval, or a licence under the *Protection of the Environment Operations Act 1997*, in relation to the development or in order to comply with the load calculation protocol must be recorded and retained as set out in conditions M1.2 and M1.3.

M1.2 All records required to be kept by the general terms of approval must be:

- in a legible form, or in a form that can readily be reduced to a legible form;
- kept for at least 4 years after the monitoring or event to which they relate took place; and

- produced in a legible form to any authorised officer of the EPA who asks to see them.

M1.3 The following records must be kept in respect of any samples required to be collected: the date(s) on which the sample was taken;
- the time(s) at which the sample was collected;
- the point at which the sample was taken; and
- the name of the person who collected the sample.

M2 Requirements to monitor concentration of pollutants discharged

M2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the applicant must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified in Column 1. The applicant must use the sampling method, units of measure, and sample at the frequency, specified in the table below:

Pollutant	Units of Measure	Frequency	Sampling Method
Methane	% by volume	Quarterly	in situ
Carbon Dioxide	%	Quarterly	in situ
Hydrogen Sulphide	%	Quarterly	in situ
Oxygen	%	Quarterly	in situ

M3 Testing methods – concentration limits

M3.1 Monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area required to be conducted by the EPA's general terms of approval, or a licence under the *Protection of the Environment Operations Act 1997* must be done in accordance with the Approved Methods Publication unless another method has been approved in writing by the EPA for the purposes of that testing prior to the testing taking place.

M4 Recording of pollution complaints

M4.1 The Applicant must keep a legible record of all complaints made to the Applicant or any employee or agent of the applicant in relation to pollution arising from the activity to which this general terms of approval applies.

M4.2 The record must include details of the following:
a) the date and time of the compliant;
b) the method by which the compliant was made;
c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect;
d) the nature of the compliant;
e) the action taken by the Applicant in relation to the compliant, including any follow-up contact with the complainant; and
f) if no action was taken by the applicant, the reasons why no action was taken.

M4.3 The record of a compliant must be kept for at least 4 years after the compliant was made.

M5 Telephone complaints line

M5.1 The Applicant must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the Licence.

M5.2 The Applicant must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a compliant.

M6 Requirement to monitor rainfall

M6.1 Rainfall at the premises must be measured at Point W1 and recorded in millimetres per 24 hour period, at the same time each day.

Reporting conditions

R1 Annual Return documents

R1.1 The Applicant must complete and supply to the EPA an Annual Return in the approved form comprising:

a) Statement of Compliance; and

b) A monitoring and Complaints Summary.

A copy of the form in which the Annual Return must be supplied to the EPA accompanies the licence. Before the end of each reporting period, the EPA will provide to the applicant a copy of the form that must be completed and returned to the EPA.

Period covered by Annual Return

R1.2 An Annual Return must be prepared in respect of each reporting, except as provided below:

R1.3 Where the Licence is transferred from the applicant to a new licensee,

a) the transferring licensee must prepare an annual return for the period commencing on the first day of the reporting period and ending on the date the application for the transfer of the Licence to the new licensee is granted; and
b) the new licensee must prepare an annual return for the period commencing on the date the application for the transfer of the licence is granted and ending on the last day of the reporting period.

Note: An application to transfer a licence must be made in the approved form for this purpose.

R1.4 Where the licence is surrendered by the applicant or revoked by the EPA or Minister, the applicant must prepare an annual return in respect of the period commencing on the first day of the reporting period and ending on:

a) in relation to the surrender of a licence – the date when notice in writing of approval of the surrender is given; or
b) in relation to the revocation of the licence – the date from which notice revoking the licence operates.

Deadline for Annual Return

R1.5 The Annual Return for the reporting period must be supplied to the EPA by registered post not later than 60 days after the end of each reporting period or in the case of a transferring licence not later than 60 days after the date the transfer was granted (the 'use date').

Licensee must retain copy of Annual Return

R1.6 The Applicant must retain a copy of the annual return supplied to the EPA for a period of at least 4 years after the annual return was due to be supplied to the EPA.

Certifying of Statement of Compliance and Signing of Monitoring and Complaints Summary

R1.7 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by:

a) the licence holder; or

b) by a person approved in writing by the EPA to sign on behalf of the licence holder.

R1.8 A person who has been given approval to certify a Statement of Compliance under a licence issued under the *Pollution Control Act 1970* is taken to be approved for the purpose of this condition until the date of first review this licence.

R2. Notification of environmental harm

Note: The Applicant or its employees must notify the EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

R2.1 Notifications must be made by telephoning the EPA's Pollution Line service on 131 555.

R2.2 The Applicant must provide written details of the notification to the EPA within 7 days of the date on which the incident occurred.

R3 Written report

R3.1 Where an unauthorised officer of the EPA suspects on reasonable grounds that:

a) where the Licence applies to Premises, an event has occurred at the Premises; or

b) where the Licence applies to vehicles or mobile plant, an event has occurred in connection with the carrying out of the activities authorised by this general terms of approval, and the event has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off Premises to which the Licence applies), the authorised officer may request a written report of the event.

R3.2 The applicant must make all reasonable inquiries in relation to the event and supply the report to the EPA within such time as may be specified in the request.

R3.3 The request may require a report which includes any or all of the following information:

a) cause, time and duration of the event;

b) type, volume and concentration of every pollutant discharged as a result of the event;

c) the name, address and business hours telephone number of employees or agents of the applicant, or a specified classification of them, who witnessed the event;

d) the name, address and business hours telephone number of every other person (of whom the applicant is aware) who witnessed the event, unless the applicant has been unable to obtain that information after making reasonable effort;

e) action taken by the applicant in relation to the event, including any follow up contact with any complainants;

f) details of any measure taken or proposed to be taken to prevent or mitigate against a recurrence of such an event; and

g) any other relevant matters.

R3.4 The EPA may make a written request for further details in relation to any of the above matters if it is not satisfied with the report provided by the applicant. The Applicant must provide such further details to the EPA within the time specified in the request.

R4 Reporting of Fires

R4.1 In the event of a fire at the facility the applicant must record:

a) the time and date when the fire was deliberately started or reported;

b) whether the fire was authorised by the applicant, and, if not, the circumstances which ignited the fire;

c) the time and date that the fire ceased and whether it burnt out or was extinguished;

d) the location of fire (e.g. clean timber stockpile, putrescibles waste cell, etc);

e) the prevailing weather conditions;

f) any observations made in regard to smoke direction and dispersion;

g) the action taken to extinguish the fire.

R4.2 The Applicant or its employees or agents must notify the EPA in accordance with conditions R2.1 and R2.2 of all fires at the premises as soon as practical after becoming aware of the incident.

R5 Quarterly reporting

R5.1 The Applicant must provide the EPA with information on the quantity of waste received at the Premises and the quantity of waste transported from the facility each quarter. The information in respect of a particular quarter is to be provided on the approved Form WISQTR.1 and must be received by the EPA within 60 days of the end of that quarter.

For the purposes of this condition each of the following periods is a quarter:
(Quarter 1) 1 January – 31 March
(Quarter 2) 1 April – 30 June
(Quarter 3) 1 July – 30 September
(Quarter 4) 1 October – 31 December

R5.2 Whenever leachate is discharged to surface waters from the Premises the Licensee must notify the event to the EPA in accordance with condition R2.1.

R5.3 The Licensee must provide written details of any leachate discharge(s) which exit the Premises to the EPA within 7 days of the date on which the incident occurred.

R5.4 The written details referred to in the above condition must be provided as a report. The report must include the following information:

a) the volume of the leachate discharged and over what time period the discharge occurred;

b) the date and time of the commencement of the overflow;

c) the weather conditions at the time of the discharge, specifying the amount of rainfall on a daily basis that had fallen:

- on the day(s) of the discharge; and
- for the one week period prior to the discharge;

d) the most recent monitoring results of the chemical composition of the leachate;

e) an explanation as to why the discharged occurred;

f) the location(s) of the discharge; and

g) a plan of action to prevent a similar discharge in the future.

General Conditions

G1 Copy of licence kept at the premises

G1.1 A copy of the licence must be kept at the premises to which the licence applies.

G1.2 The licence must be produced to any authorised officer of the EPA who asks to see it.

G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.

G2 Contact number of incidents and responsible employees

G2.1 A 24-hour telephone contact line(s) for the purpose of enabling the EPA to directly contact one or more representatives of the applicant who can:

a) Respond at all times to incidents relating to the premises, and;
b) Contact the applicant's senior employees or agents authorised at all times to:
   i. speak on behalf of the applicant, and
   ii. provide any information or document required under the licence.

Special Conditions

E1.1 If the results of the groundwater or sediment basin monitoring required by condition M2.1 indicate ammonia concentrations greater than 1 mg/L the licensee must contact the EPA within 24 hours and advise it of the results of that monitoring.

Note: If ammonia concentrations are above 1m/L the EPA will liaise with the licensee to determine an appropriate response.

Pollution Studies and Reduction Programs

U1 Noise Management

U1.1 The licensee must undertake a noise monitoring program to determine the impact of noise generated from the construction and operation of landfill cells on neighbouring properties.

U1.2 A noise wall is to be constructed adjacent to the Premises access road inside the Premises entrance.

U2 Odour Survey

U2.1 The licensee must undertake a odour survey and modelling to determine the odour impacts if any on neighbouring properties.

I2 Mine Subsidence Board

Compliance with the following General Terms of Approval of the Mine Subsidence Board, as outlined in their correspondence dated 15 December 2010:

1. Locate the extent of mine workings, existing mine shafts and tunnel entries on the site. Fill and cap off shafts and tunnel entries in accordance with the requirement of Dept. of Industry and Investment, Minerals. Notify relevant authorities if water is present within the abandoned collieries. Filling and compaction of mine workings may result in mine water egress at seam outcrops. The egress of water may affect surrounding properties.

2. Removal of any risk of mine subsidence by a suitable means, such as grouting. Alternatively, satisfy the Board by confirming through geotechnical investigations that the workings are long term stable and there is no risk of mine subsidence affecting the site.

3. The geotechnical investigation is to include details on the depth of coal seam, height of workings, floor conditions, and thickness of competent rock, as well as detailing the pillar dimensions used in any analysis. A sensitivity analysis of the parameters used in any calculations is to be included in the report. The report must be to the satisfaction of the Mine Subsidence Board.

4. The final drawings to be submitted prior to commencement of construction, contain a certification by a qualified structural engineer, to the effect that any improvement constructed to meet the specifications of such final drawings will be safe, serviceable and repairable taking into account the geotechnical condition of the site.

J Advisory Notes

J1 Nil

APPENDIX B – Plans

APPENDIX C – State Agency Correspondence

APPENDIX D – Development Consent 506/92