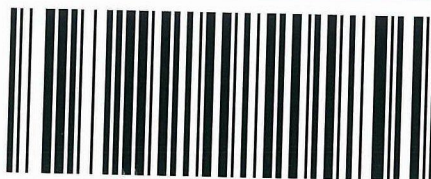


016



Attention: Andrew Hartcher



PCU038098

The Director  
Major Projects Assessment  
NSW Department of Planning & Infrastructure  
GPO Box 39  
SYDNEY NSW 2001

File:  
Date:

MP-2011/94  
17 September 2012

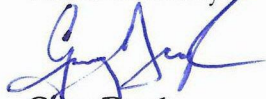
Dear Andrew

Development	<b>PART 3A PROJECT APPLICATION No. MP 11_0094;</b> <b>Whytes Gully Landfill Extension Project - expansion of operations at the existing Whytes Gully Resource Recovery Park through the construction of a new landfill cell adjacent to the existing waste footprint and then filling the new cell and overfilling the existing landfill operations. The project would include:</b>
	<ul style="list-style-type: none"><li>-creation of approximately 6 million m3 of additional landfill capacity;</li><li>-waste input rates of up to 180,000 tonnes per year; and</li><li>-progressive landfill rehabilitation and revegetation of the finished landform.</li></ul>
Location	Reddalls Road, KEMBLA GRANGE

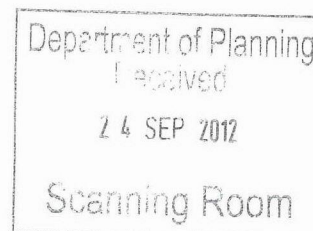
I refer to the above project, and thank you for providing Council with the opportunity to comment on the Environmental Assessment Report.

Please find attached Council's response submission. Should you have any enquiries or wish to discuss these matters further, please telephone Andrew Kite, Development Project Officer, on telephone 4227 7111.

Yours faithfully



**Greg Doyle**  
General Manager (Acting)  
Wollongong City Council



## 1. Land Use Strategy

### Comments for consideration by the Director-General within any project approval

- The proposed development is considered an intensification of the existing facility operating on the subject site.
- It is noted that in section 2.1.3 of the Environmental Assessment (EA) it refers to Wollongong Local Environment Plan (West Dapto) 2010. In this section it considers that the proposed use of Waste or Resource Management Facilities is permissible in the IN2 Light Industrial Zone which is correct. No other sections of the LEP are commented on, however it is considered that Part 6 Urban Release Areas is relevant. The subject site is mapped as an Urban Release Area and as such Clause 6.2 Development Control Plan applies which states:

#### 6.2 Development control plan

- (1) *The objective of this clause is to ensure that development on land in an urban release area occurs in a logical and cost-effective manner, in accordance with a staging plan and only after a development control plan that includes specific controls has been prepared for the land.*
- (2) *Development consent must not be granted for development on land in an urban release area unless a development control plan that provides for the matters specified in subclause (3) has been prepared for the land.*
- (3) *The development control plan must provide for all of the following:*
  - (a) *a staging plan for the timely and efficient release of urban land making provision for necessary infrastructure and sequencing,*
  - (b) *an overall transport movement hierarchy showing the major circulation routes and connections to achieve a simple and safe movement system for private vehicles, public transport, pedestrians and cyclists,*
  - (c) *an overall landscaping strategy for the protection and enhancement of riparian areas and remnant vegetation, including visually prominent locations, and detailed landscaping requirements for both the public and private domain,*
  - (d) *a network of passive and active recreational areas,*
  - (e) *stormwater and water quality management controls,*
  - (f) *amelioration of natural and environmental hazards, including bushfire, flooding and site contamination and, in relation to natural hazards, the safe occupation of, and the evacuation from, any land so affected,*
  - (g) *detailed urban design controls for significant development sites,*
  - (h) *measures to encourage higher density living around transport, open space and service nodes,*
  - (i) *measures to accommodate and control appropriate neighbourhood commercial and retail uses,*
  - (j) *suitably located public facilities and services, including provision for appropriate traffic management facilities and parking.*
- (4) *Subclause (2) does not apply to any of the following development:*
  - (a) *a subdivision for the purpose of a realignment of boundaries that does not create additional lots,*
  - (b) *a subdivision of land if any of the lots proposed to be created is to be reserved or dedicated for public open space, public roads or any other public or environmental protection purpose,*
  - (c) *a subdivision of land in a zone in which the erection of structures is prohibited,*
  - (d) *proposed development on land that is of a minor nature only, if the consent authority is of the opinion that the carrying out of the proposed development would be consistent with the objectives of the zone in which the land is situated.*

- It is not considered that any provisions of section 4 are applicable to exempt the proposal from Clause 6.2.
- Notwithstanding, the provisions of SEPP (Infrastructure) 2007 under which the proposed development is permissible on the subject site does not envisage a Development Control Plan and prevails over Wollongong LEP (West Dapto) 2010. Chapter D16 of Wollongong DCP 2009 does apply to the site.
- The site does not have a neighbourhood plan; however it is considered that compliance with Clause 6.2 is unnecessary as Clause 6.2 is aimed at urban development, not extension of an existing tip. However, it is considered that the applicant should provide comment on Part 6 of Wollongong LEP (West Dapto) 2010 within Section 2.1.3 of the EA.



## **2. Traffic**

### **Comments for consideration by the Director-General within any project approval**

- A Traffic Management Plan is to be implemented during the construction phases of the development to manage road safety (internal and external) and network efficiency.

## **3. Flooding and Drainage**

### **Comments for consideration by the Director-General prior to any project approval**

- The methodology used to determine the Permissible Site Discharge (PSD) and Site Storage Requirement (SSR) values is not appropriate for this development. PSD and SSR values for catchments larger than 2ha need to be determined using a pre and post development runoff routing analysis, inclusive of any existing on-site detention storage (OSD) on the site.
- The PSD/SSR calculations use a pre development impervious area percentage of 20% (based on a land use of Public Recreation Area). As the nature of the pre development catchment is known, the actual pre development impervious area should be used in this instance. This should be reflected in the pre-development runoff routing modelling used to determine the site PSD/SSR values (as above).
- Runoff routing modelling should be undertaken for each stage of the development (including final landform) demonstrating that the total site discharge to Dapto Creek including OSD bypass flows will not exceed the PSD values. The modelling for each stage must take into account any additional impervious areas and changes to the hydrology of the catchment, including increases in surface stormwater generation resulting from the infiltration barrier in the capping profile.
- The information submitted with the development indicates that the catchment area of the site is approximately 50ha. However, based on Council's ALS contour data it appears that the total site catchment area (incl. surface water ponds) is in excess of 60ha. A catchment plan should be provided showing the total catchment area and sub-catchment breakdown for pre development conditions and each respective stage of the development (including final landform).
- The surface drainage for the landfill area (i.e. bench and drop structures) should have sufficient capacity to convey a 100 year ARI storm event in a controlled manner without scouring or eroding the landfill surface. It is unclear whether these drains achieve this.
- The documentation provided with the application indicates that a 2 hour duration storm has been used to size the drainage system. However, this may not be the critical storm duration for all parts of the surface drainage network. Where the contributing catchment area is small, shorter storm durations may produce higher localised peak flows. The critical storm duration at each location in the drainage network should be used to size the drainage system.
- The proposed grassed surface drains are contrary to Section 10.3.6 of Chapter E14 of the Wollongong DCP2009. Side slopes of grassed channels should be relatively flat for safe access/maintenance purposes. The desirable batter slope must not be greater than 1 vertical to 6 horizontal. However in difficult circumstances a 1 vertical to 4 horizontal may be considered.

## **4. Environment**

### **Comments for consideration by the Director-General prior to any project approval**

#### **Water Quality monitoring report**

- **Poor data quality:** In relation to the impact of tip leachate on surface and groundwater contamination, the entire document is based on the results of three sampling events conducted during August 2011, November 2011 and January 2012. However, a reliable and solid data base reflecting nearly 20 years of data collection is available with Wollongong Council Waste Management Services. The Council database reflects fluctuation in leachate composition, surface water, and groundwater chemistry in extreme weather conditions over an extended period of time interval.

Since the early 1990's, the Whytes Gully waste disposal depot was operating under an EPA licence. Under the licence requirements, leachate, surface water, groundwater samples were collected regularly and analysed by NATA accredited analytical laboratories. In the opinion of Council's Environment Section, the information from this data base should have been assessed and used for the design of future cells at Whytes Gully.

- **Inaccuracy of the reported data:** In various chapters and sections of the report (volume 1, page 158, table 12.3, volume 2, appendix G, page 48, table 22, volume 2, appendix G3) the ammonia concentration of the leachate is reported as **0.69 mg/L.**, while long term data indicates that the ammonia concentrations in the Whytes Gully leachate is well over **100 to 150 mg/L.** Fluctuations in ammonia concentrations up to **280 mg/L** was also recorded, depending on weather conditions.

In the Fauna and Flora report prepared by Biosis (volume 2, page 140, and table 12, appendix S) inaccurate data reporting was also observed. A conductivity of **0.1 µS/cm** in the Whytes Gully stormwater pond is reported. The conductivity of the stormwater pond is usually over **400 to 470 µS/cm.** Whilst it is noted that this inaccuracy would have no great bearing on interpretation of the habitat value, it should be further reviewed to ensure that the reported values are correct and not contradictory to other values reported in the other chapters of the document.

- **Borehole core samples were not properly studied and interpreted:** In the current study, 13 newly drilled bores were cored and the photographs of the core samples show signs of discoloration along the fractures and joints. This discoloration often results from vertical movement of leachate or contaminated water toward the deeper horizons. In the early 1990s, when the eastern gully waste cell was under construction, the core samples extracted from the bed of the gully were examined by a UOW Honours student and the samples from the discoloured joints were analysed using XRF. Analytical results confirmed the impact of the leachate in the joints. In the current report, discoloration along the joints and fractures is observable in BH01 (1-4 m depth), BH03 (12 m depth), BH 05 (13 m depth), GWM 101 (in 4-7 m interval) GWM 103 (5-7 m interval)...etc.
- **Impact of tip leachate on water quality of Dapto Creek:** Water quality monitoring conducted by Wollongong City Council in Dapto Creek just downstream of the Whytes Gully stormwater detention pond has revealed high concentrations of nitrogen species, especially ammonia. Water quality data from borehole GMW09D indicated high levels of ammonia and nitrogen species. Information from this borehole indicated that the contaminated groundwater from Whytes Gully is discharging into the Dapto Creek. Lake Illawarra's receiving water body is a nitrogen limited system, discharge of nitrogen rich groundwater is potentially detrimental to the water quality of the lake. Interception of polluted groundwater through a permeable reactive barrier at the down gradient of ground water flow can reduce the negative impacts on the water quality Lake Illawarra.

#### **Terrestrial and Aquatic Flora and Fauna Assessment report**

- The mitigation measures and conclusions contained within the report are considered reasonable.

The report would have benefited from:

- Page 18 - Reference to the Illawarra Biodiversity Strategy (2011) rather than the draft Illawarra Biodiversity Strategy.
- Page 32- Reference to the current requirements for Lantana under the NSW *Noxious Weeds Act 1993* for the Wollongong LGA, i.e. The growth of the plant must be managed in a manner that reduces its numbers, spread and incidence and continuously inhibits its reproduction and the plant must not be sold propagated or knowingly distributed.
- Reference to the current requirements for African Lovegrass under the NSW *Noxious Weeds Act 1993* for the Wollongong LGA, i.e. the growth of the plant must be managed in a manner that reduces its numbers spread and incidence and continuously inhibits its reproduction.



- Page 54 - Reference to the *Water Management Act 2000* rather than the *Rivers and Foreshores Improvement Act 1948*.
- Page 140 - Replacement of the unrealistic result of 0.1 µs/cm conductivity for Whytes Gully surface water ponds with an actual realistic result.

### **Noise Impact Assessment**

- The noise impact assessment report has considered all of the Director General's requirements and the relevant guidelines. Ambient background noise levels were established using attended and unattended monitoring.
- After considering the noise sources (construction, traffic and operational), assessment of noise effects were predicted by using the Cadna A noise predicting model.
- The noise prediction modelling results indicate that in a worst case scenario there will be exceedences of criteria at the receiver location N2 by up to 2 dB(A) during phases 2A and 2B and by up to 10 dB(A) at receiver N1 during phase 4.
- Sections 6.5 and 7.0 of the report details the mitigation options that needs to be included in the EPL for compliance purposes.

### **5. Landscape**

**Comments for consideration by the Director-General within any project approval.**

- The Landscape Strategy has been reviewed and is considered acceptable.

### **6. Property**

**Comments for consideration by the Director-General within any project approval**

- Council's Property Section has been negotiating with adjoining landowners for a new licence which would allow the utilisation of private land as a buffer zone for the Whytes Gully Tip. Should the proposed extension project require further private land occupation Council's Property Section request consultation in the first instance.

### **7. Geotechnical Assessment**

**Comments for consideration by the Director-General within any project approval**

- The geology as summarised in section 6.7 of the Golder Associates Report is considered to be consistent with the known geology of the site and the design is considered to be satisfactory.

### **8. Heritage**

**Comments for consideration by the Director-General within any project approval**

- The Aboriginal Cultural Heritage and Historical Heritage Assessments have been reviewed and are considered to satisfy the requirements for assessment of heritage impact, both in the areas of Aboriginal and European heritage.

### **9. Community Services/Social Planning**

**Comments for consideration by the Director-General within any project approval**

- The application submission has been reviewed by Council and no objection has been raised on the basis of Social Planning or Community Services matters.