The LZ Environmental Company Pty Limited
T/A Zambelli Environmental
Providing environmental stewardship for industry today
ABN 29 127 162 163
ACN 127 162 163

Phone & Fax: 07 3272 7420
Email: luke@zambellienvironmental.com.au

56 Leah Avenue, Salisbury, QLD 4107

BRIEFING NOTE

To: Shaun Smith	**Company: RPS**
From: Luke Zambelli	**Company: Zambelli Environmental**
Subject: Requirement to Perform an Air Dispersion Assessment at 24 Davis Road, Wetherill Park, NSW	**Date: 10 April 2017**

Dear Shaun

The following briefing note has been prepared further to your email with attached memorandum surrounding your recent meeting with Ms Kate Masters to include:

- **moisture contents for certain materials stored within the landscaping area, primarily soils, sawdust and sands.**

So as to minimise the re-entrainment of fine dust particles during unfavourable wind conditions.

It is to be noted that, John Vyse provided further information surrounding the amount of sawdust that is to be stored on site at any one time (i.e. 120 m^3), its moisture content and its end use (i.e. as a release agent for trucks delivering to site, and which will be subsequently transporting biosolids after exiting the Wetherill Park Facility);

The reported moisture percentage of the sawdust received will be ranging between 25-40%. As such, it is to be managed as per the management for soil stated below. As it is not imperative that the sawdust does not become wet during rainfall events and due to the volume that is to be

stored at any one time, the risk of offsite nuisance is low and hence the need to cover is not warranted.

Soil must be kept at a moisture percentage of 20-30 % w/w so as to minimise dust liberation during windy conditions. It is likely that the frequency of wetting sand may be greater than that of soil, however the moisture percentage will likely be 20 % w/w due to its inability of retain moisture. When loading or unloading activities occur, the use of a fogging unit would minimise greatly the dust liberated at the point of generation. The fogger (if mobile) could be used strategically as the need arises.

This briefing note has been prepared on behalf of Bettergrow Pty Ltd that provides reasons why it is not considered necessary to perform a quantitative air dispersion assessment for dust and particulate generation associated with the Greenspot Wetherill Park–Resource Recycling and Recovery Centre proposed at 24 Davis Road, Wetherill Park (Lot 18 on DP 249417) as requested within the Secretary's Environmental Assessment Requirements dated 16/12/15.

Background:

- The following waste and resources are intended to be received at the Greenspot facility.
    - 60,000 tonnes per year of hydro-excavation and directional drilling muds/liquids for storage, separation and consolidation within the Drill mud and Hydro-excavation Fluids Processing Area;
    - 40,000 tonnes per of various bulk landscaping products for short term storage whilst awaiting to be delivered into the Sydney market;
    - 70,000 tonnes of Garden Organics (GO) or combined GO and Food Organics (FO), (FOGO) to be processed and consolidated within the Organics Receival and Processing Building; and
    - 30,000 tonnes per year of other source separated commercial and industrial organics (C&IO) organics to be processed and consolidated within the Food Depackaging Building.

Due to the types of wastes and resources intended to be received at the proposed facility (listed above), it is unlikely that environmental nuisance will be created from dust and particulate release and as such it is not considered necessary to perform a quantitative assessment against the assessment criteria contained within the DECC NSW's publication titled Approved Methods for the Modelling and Assessment of Air Pollutants in NSW. Moreover, it is considered that the activity will not affect

the background concentrations of total suspended particulate by any measurable degree due to the practices and process that will be adopted at the facility.

The hydro-excavation and directional drilling muds/liquids treatment process (the CD Enviro process) is a wet process, where muds are dewatered so that they are spadeable. Enough moisture will remain in the produced product such that dust generation will not occur. Produced muds will not be accumulated over a period whereby they dry to the point of dust being created within the wind.

Sand and gravels that are produced from the CD Enviro process will be managed such that dust is not re-entrained by the wind. An appropriate volume of water is generated within the CD Enviro process that can be utilised for stockpile dust management as opposed to wasting to trade waste. Similar to the above, stockpiles of gravel and sand will not be allowed to dry.

As the processing of GO or combined GO and FO, (FOGO) will occur inside a purpose built enclosure, dust nuisance will not occur. It is envisaged that the GO and FO received will contain adequate moisture so that processing does not create dusty conditions. Moisture in the form of misting sprays at the point of processing will be utilised if considered necessary. This will be based on observations of the dryness of material received.

The processing of C&IO within the purpose built Food Depackaging Building will not create dust due to the types of items being received for consolidation (i.e. namely moist or wet products).

Due to the volume of traffic that is to utilise the facility on a daily basis, it is not considered necessary to perform a quantitative assessment on the amount of PM_{10} and $PM_{2.5}$ that is generated from the exhaust of vehicles or from their tyres or brakes wearing whilst entering and exiting the facility. Similarly, it is not considered necessary to perform a quantitative assessment on the amount of PM_{10} and $PM_{2.5}$ that is generated from the exhaust of plant and equipment, including tyre and brake wear (where applicable) which are used on site for the processing and or management of the said resources.

Haulage paths will be regularly kept clean by performing dry methods of cleaning such as sweeping. As such the resuspension of particulate during vehicle movement will be low. An onsite speed limit of < 10 km/hr will ensure that the re-entrainment of dust and particulate from the pavement will be low.

The bulk landscaping area may be a source of dust if not managed correctly. Wind could re-entrain dust from stockpiles of resources if allowed to dry. Material being unloaded or loaded could be also a cause of dust nuisance if the activity is not managed.

Plant movement within the bulk landscaping area could re-entrain dust, albeit that the on-site speed in this area will be likely to be < 10 km/hr whereby short lengths for loading and stockpile movement

will occur. This can simply be addressed by strategically placing sprinklers in the said area and have water applied regularly to supress dust. Due to the movement of vehicles and plant, it is recommended that 2-2.5 litres / m^2/hour be applied on dry days.

Stockpiles of landscape materials that have the potential to create dust should be regularly moistened. A value of 1-2 litres / square meter / hour is recommended to ensure re-entrainment by wind does not occur. This can be achieved by strategically placing sprinklers close as possible to stockpiles that have the potential to release dust.

Whilst dust and particulate generation is envisaged to be low from the proposed activities, the Environmental Management Plan (EMP), prepared by Zambelli Environmental for the Greenspot facility recognises the potential for dust release if the activities are mismanaged. Accordingly, the EMP provides practices and procedures for effective management of incoming resources and waste products such that dust generation is minimised or prevented.

An appropriate amount of information has been provided within the EMP so that site personnel become aware of the various aspects that can lead to dust nuisance. The EMP also provides detail on the types of practical solutions/actions that are to be adopted whilst performing activities so as to minimise or prevent such dust nuisance from occurring.

The EMP also highlights the types of plant and equipment that can be utilised to minimise dust releases. With all activities, control at the point of generation is recommended. A designated Workplace Procedure for dust and particulate management is provided within Appendix 1 of the EMP for guidance to onsite personnel.

I trust the above satisfies as to why it is not considered necessary to perform a quantitative assessment for dust and particulate generation. There will be an appropriate amount of water that will be generated from the CD Enviro process on a daily basis that will satisfy water requirements for dust management within the bulk landscaping area. On site rainwater tanks will be another source of dust suppression water should there be a shortfall in water generated via the CD Enviro process. Should you require anything further please advise.

Yours Sincerely

Luke Zambelli (B.Eng.) (Env); EIANZ
Director
Zambelli Environmental