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## INFORMATION FOR LOCAL RESIDENTS

### PROPOSED EXPANSION OF DiCOM<sup>®</sup> BIOCONVERSION ALTERNATIVE WASTE TREATMENT (AWT) FACILITY

**Jim McGeogh Resource Recovery Facility  
Brockway Road, Shenton Park**

**WESTERN METROPOLITAN REGIONAL COUNCIL**



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The Western Metropolitan Regional Council (WMRC) is a local government authority in Western Australia and owns and operates the Jim McGeogh Resource Recovery Facility on Brockway Road, Shenton Park. The waste transfer station at this site has been servicing the residents of the City of Subiaco; the Towns of Claremont, Cottesloe and Mosman Park; and the Shire of Peppermint Grove since 1992.

About 33,000 tonnes of household waste and 7,000 tonnes of green waste is received at the waste transfer station annually. The household waste is compacted into cylinders and trucked some 40km to the putrescible landfill at Red Hill, without any preceding processing or recycling.

The waste transfer station is now adjoined by an alternative waste treatment (AWT) facility operated by Anaeco Ltd under an agreement with the WMRC. Anaeco's process is known as the DiCOM<sup>®</sup> Bioconversion System. During the past year, this AWT facility has been transforming some of the household waste delivered to the transfer station into compost and clean-burning biogas in a series of full scale trials.

To further reduce the quantity of our household waste disposed to landfill and to process all of the waste received at the transfer station, the WMRC and Anaeco propose that the AWT facility's capacity be increased to process up to 55,000 tonnes of household waste annually. This amount represents the original design capacity of the transfer station.



*Existing DiCOM<sup>®</sup> Bioconversion Facility  
Brockway Rd Shenton Park*

### **What is the DiCOM<sup>®</sup> Bioconversion Process?**

The DiCOM<sup>®</sup> Bioconversion process is a patented, hybrid biological process which converts the organic content of household waste into compost and biogas. The waste is first mechanically sorted so that plastic, metals and glass are recovered for recycling. The remaining organic material is loaded into a vessel where it is warmed and subjected to aerobic and anaerobic digestion. The controlled batch-process closely mimics natural decomposition, but does so in conditions ideal for the micro-organisms which digest the waste. In this way the process is complete in about 21 days. As the digestion process all takes place within a sealed vessel, odour management is relatively straight forward.



*Artist's impression of proposed expanded facility*

### **Why Brockway Road?**

The Brockway Rd waste transfer station was selected as the site for Anaeco's AWT for a number of reasons including the following:

- the site is long established as a waste receiptal point; and the DiCOM<sup>®</sup> process fits within the existing site boundary;
- enhanced resource recovery is possible without affecting the functionality of the transfer station;
- minimal impact on flora and fauna (land is already largely cleared); and
- minimal impact on residential land with the nearest houses being over 700m distant.

### **What's involved in the expansion of AnaeCo's operation?**

The proposed expansion of AnaeCo operation includes:

- two additional bioconversion vessels;
- two additional process water storage tanks;
- an extension to the existing Materials Recovery Facility (MRF) building to house additional sorting and processing equipment as well as offices and amenities;
- power generation equipment (a fully enclosed, sound attenuated gas engine); and
- an upgraded waste receipt and loading area (in-floor conveyor system).

### **What will be the expanded AWT Facility's output?**

The four main outputs of the proposed facility will be compost; recyclables including plastics, aluminium, steel and glass; renewable energy (from combustion of biogas); and non-recyclable residue such as sand and grit which will be disposed of to landfill.

### **What about odour?**

As the operation of the existing facility has demonstrated over the past year, we do not expect odour to cause any problems for local residents. The DiCOM<sup>®</sup> Bioconversion process utilises sealed vessels to digest the household waste, enabling emissions to be strictly controlled; and the plant will also include an industry proven odour management system.

Expected ground level concentrations of odour have been assessed by computer modelling as required by The Department of Environment and Conservation.

The data for the modelling have been collected by air assessment specialists during the commissioning and operation of the existing facility. The results, extrapolated to represent the expanded facility, demonstrate that during normal operation there will be little difference to the current low levels of odour from the site.

### **Will the local community be informed about emission levels once the facility is operational?**

AnaeCo will be required to report odour emission data to the DEC under its operating licence requirements. These results will be available to the public upon request.

### **What about noise levels?**

The operations of the AWT facility are fully enclosed and don't generate significant noise beyond the immediate vicinity of the waste transfer station as the operation of the AWT facility over the past year has demonstrated.

Computer modelling of noise emissions demonstrates that at full capacity, the AWT facility will meet the noise criteria defined in the *Environmental Protection (Noise) Regulations 1997* at all times. Anaeco, in seeking to minimise noise, ensures that equipment is further sound proofed.

### **How will water supply and usage be managed?**

The AWT Facility will only use about 2,200kl of bore water a year. Most of this bore water is required for the digestion process within the sealed process vessels. Residual process water will be fully reused within the plant.

### **What about wastewater?**

No wastewater will be produced by the AWT facility. We expect all liquids used in the process will be fully recycled.

### **Will the AWT facility have a visual effect on the area?**

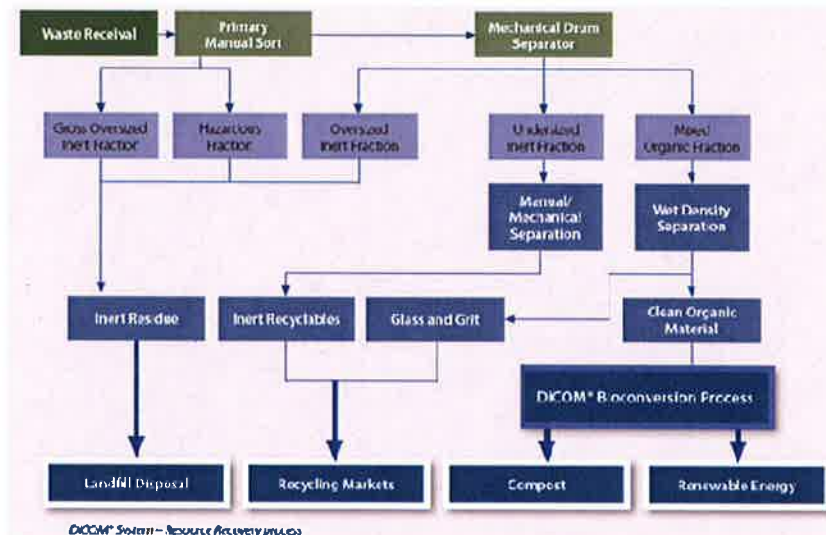
The expanded AWT facility will have little visual effect on the area. The additional bioconversion and process water storage vessels will be installed at the rear of the extended MRF building. The existing waste transfer station building and MRF will remain as the main visible infrastructure. More trees and vegetation will be planted to further screen the site.



### What benefits will the expanded AWT facility bring?

Western Australia, the Perth western metropolitan region and the local community will benefit from the project in the following ways:

- Anaeco will directly employ up to 30 people, plus associated indirect employment during the construction phase;
- the AWT facility will assist Western Australia achieve its waste reduction and resource recovery goals;
- the AWT facility provides a community-friendly and environmentally responsible alternative to unsustainable landfill disposal of household rubbish;
- generation of renewable energy to help reduce the State's dependence on fossil fuels;
- reduction of greenhouse gas emissions resulting from landfill disposal of organic waste;
- substantial increase in recycling rates;
- production of a valuable resource – compost;
- reduced transportation costs and associated greenhouse gas emissions of trucking municipal waste from Shenton Park to the Red Hill landfill (an 80km round trip); and
- this world-leading technology developed in Western Australia will be showcased at the site and exported to help reduce the environmental impact of waste around the globe.



### More information?

For further information on Anaeco's proposal please call Stefan Frodsham, Principal Environmental Consultant at Coffey Environments, on 08 9355 7100, e-mail [Stefan\\_frodsham@coffey.com](mailto:Stefan_frodsham@coffey.com); or visit Anaeco's web site at [www.anaeco.com](http://www.anaeco.com)

If you'd like to discuss any aspect of the project, you're welcome to attend our **information evening** on **Wednesday 17th February 2010** at any time between **6pm and 8pm** at The Mount Claremont Community Centre Hakea Room, 107 Montgomery Ave, Mt Claremont.