

State of the Art Waste Management Facility Proposed at Fernview

Veolia Environmental Services have applied to the Shire of Gingin for a Waste Management Facility within the northern portion of Fernview Farm at Lot 7778 Wannamal Road South, Cullalla.

The proposed facility, which has been approved by the Environmental Protection Authority, will incorporate “state of the art” liner and leakage detection and collection systems that far exceed the requirements of the Department of Environment for the type of facility.

Veolia Project Director, Mr Chris Griffin said that the proposed facility would also incorporate the Company's new bio-recovery technology which would enable the safe recovery of decomposed wastes for re-processing.

“This technology, which we have trialled successfully at two locations in the Eastern States, will enable the recovery of organic rich waste, such as food wastes, for blending into a soil improver for local farms. More importantly, carbon rich wastes including plastics will also be recovered for re-processing elsewhere into diesel fuel”, he said.

Veolia, a major Australian and International Waste Management Company, currently provides Municipal waste collection and disposal services to 85 Local Authorities across Australia including the Mid-West Shires of Geraldton / Greenough, Chapman Valley, Irwin and Northampton.

The Fernview Farm site has been selected over other sites in the Shire for its isolation and the considerable distance to groundwater. The site adjoins an area identified in a 2003 study by the Shire as being suitable for the establishment of a waste management facility based on a range of environmental and social criteria.

The site of the proposed facility occupies an area in the northern portion of the Farm and is estimated to take approximately 100,000 tonnes per annum of waste. The facility will be available to the Gingin and surrounding Shires but most of the waste is expected to come from the Perth Metropolitan Area.

As a conventional landfill, the site is expected to have a life in the order of 25 years. Waste recovery will extend the life of the facility to in excess of 50 years as it is estimated that up to 70% of the waste accepted can be recovered for re-processing as soil improver or diesel.

Mr Griffin said that VES was actively working to support the State Government Strategy for zero waste to landfill by 2020 but noted that current alternative waste technologies such as composting still require access to landfill to dispose of treatment residues which can still represent up to 30% of the original volume.

“Our bio-recovery process at the Fernview Farm facility will offer a truly sustainable and long term approach to regional waste management through re-use of a significant volume of the in-coming waste stream”, he said.

The waste management facility will be built in a valley where the minimum distance to groundwater is 15m below the surface increasing to in excess of 35m as fill proceeds up the valley slope. The facility will be licensed by the EPA and only Class II wastes will be accepted, being principally household and construction wastes. No hazardous or noxious wastes or toxic chemicals will be accepted at the site and all trucks will be inspected on entry. General public access will not be permitted to the site to ensure strict control over the type of waste accepted.

Access to the site will be via Brand Highway, Wannamal Road West and Wannamal Road South. The un-sealed portion of Wannamal Road West will be bituminised as will all of Wannamal Road South. No rare or endangered species of plants or animals will be affected by construction of the facility.

The landfill area will be built on a double liner system above a compacted base that exceeds the EPA requirements for the type of waste to be disposed of.

Mr Griffin said that Veolia were very conscious of the need to protect the groundwater system, which is 15m below the site, from any risk of contamination.

“The testing and modelling we have done will provide Council and the Community with a very high degree of confidence that the facility will not adversely affect groundwater quality on surrounding properties or at the environmentally sensitive headwaters of the Gingin Brook which is located 3.5km to the South-West”, he said.

“Even though the EPA has approved the liner system and modelling shows little risk to the groundwater, we have decided to now install a third liner as part of a leakage detection and collection system that will eliminate any risk of contamination of the groundwater” he said.

The Company will also reimburse the Shire’s costs in engaging an independent Consultant who will oversee the construction of the facility to ensure that it meets all environmental and quality control standards.

Landfill gas generated from the site will be used to generate power which will be fed into Western Power lines that adjoin the site, powering up to 2,500 homes. Mr Griffin said that the proposed facility would not encounter the same problems as has occurred recently in Victoria where the escape of methane gas from an un-lined landfill has endangered nearby housing which appears to have been allowed within the required buffer area.

“Unlike the landfill in the Casey Shire, Fernview will be fully lined which will contain and enable the capture of all gas for power generation. Additionally, the nearest residence to Fernview is some 2km away, well outside the required 500m buffer”, he said.

Fencing will be installed around the site to control any windblown litter and noise or other emissions such as dust and odour are unlikely to pose a problem in the area as stringent control measures will be adopted in

the day to day operation of the site and the closest houses to the facility are some 2km away; which is four times the buffer distance required by the EPA.

As the site is mainly surrounded by bush, fire prevention and management will be a high priority and fire fighting vehicles and adequate water supply will be kept on-site and will also be available for fire management duties in the broader area if required.

Following closure, the site will be rehabilitated and returned to native bushland and a significant performance bond will be lodged with the Shire of Gingin to ensure the continuing operation of the waste management facility in accordance with conditions imposed both by the EPA and the Shire and that the site is properly rehabilitated and managed post-closure.

The construction cost of Sage 1 of the facility is estimated at \$5.4million, of which approximately \$3.5million in labour, plant and materials Veolia hopes to source from within the Gingin region. Upgrading of external roads is estimated at a further \$2.7million.

During the construction phase, it is expected that the facility will employ 14 persons over an estimated six month period. Once operational, the facility will employ seven persons full time, all of which hopefully will be Gingin residents.

Mr Griffin said that there was also the opportunity for locally based owner / operators to enter into long term contracts with Veolia for waste haulage from Perth, the cost of which is estimated at a further \$2million per annum.

“We expect that the flow-on effects of the facility will create up to a further 15 full time positions within other businesses in the Gingin region and result in an additional \$3million in expenditure by other local businesses and services providing a significant impetus to the local and regional economy”, he said.

Materials and consumables required during the operation of the facility and to be sourced locally include fuels and oils, plant and machinery, machinery and vehicle servicing and repair, trades services, catering needs and office consumables.

Mr Griffin also acknowledged that if approved, the increase in the local workforce will put pressure on Council for increased facilities and services which may stretch Council's budget. In addition to meeting most of the cost of upgrading Wannamal Road West and Wannamal Road South, Veolia will also establish a Community Development Fund with Council. The Fund is expected to generate up to \$2.7million over time to assist with upgrading of Council facilities to meet the needs of employees and their families attracted to the district by the facility.

The proposed facility will require re-zoning of portion of Fernview Farm during which process there will be a six week public comment period. A Community Information Day will be held early into the public comment period at which representatives from Veolia will be available to answer resident questions.

Veolia have also established a website to which interested residents can go for more detailed information on the project including all environmental studies and reports as well as a contact line for further information. The website address is www.veoliaes.com.au and follow the links to Fernview Farm – Regional Waste Management Facility, Gingin WA