



# Mountain Districts Association

Representing the Communities, Cultures, Farms and Environment  
of the Mangrove Mountain Districts

## Submission on the Verde Terra Pty Ltd application to the EPA to vary EPL 11395

Mountain Districts Association (**MDA**) strongly opposes the reissuing of EPL 11395 to Verde Terra Pty Ltd for reasons of risk to the environment, threat to the health of the regional water health, absence of consent approval and validity of the application and of the existing licence.

### Summary

MDA alleges that there are multiple reasons why the application to vary EPL 11395 cannot be granted and therefore the appeal to come before the LEC should be refused.

MDA is firmly convinced that the pristine groundwater aquifer and Central Coast water supply are at serious risk if the waste facility is allowed to continue. EPA Environmental Guidelines for Solid Waste Landfills clearly identify this site as inappropriate for such an activity as is being undertaken at Mangrove Mountain Golf Course. Throughout its 20 year history there has never been any attempt to legalise the interference with the groundwater aquifer by applying for a water licence. If there had, then much of the indiscriminate excavation that is present today, could have been avoided. A permanent water course that ran through the site has been lost as a direct result of the illegal dumping of excessive amounts of waste at the site.

Critically, MDA alleges and believes it has shown in this Submission, that there is no development consent for the current illegal waste operation at Mangrove Mountain Landfill, nor for the proposed extension of this activity with the importation of an even greater amount of waste than presently exists.

LEC case number 40900 of 2012 was based on the understanding that the regulated site was environmentally safe and that the environment protection licence was valid. However, it is alleged based upon overwhelming evidence, that neither was the case. This requires the LEC Order of 29 August 2014 to be set aside.

There is photographic evidence that VT is currently spraying sediment laden water suspected of being contaminated with leachate around the slopes of the existing waste mound. This is causing additional leachate to be produced where there is no leachate collection system, while contributing to the water logging and the erosion of the steep side of this mass, contrary to previous EPA advice and that of the independent consultant in 2017.

There is no evidence that leachate is being tankered off site to an accredited facility and that a record of such a practice has been kept.

The site regulated by EPL 11395 is not fit for purpose and should be closed down to remove the risk to the Central Coast water supply. Further, MDA alleges that VT is not a 'fit and proper person' to hold an EPL in such an environmentally sensitive area.

For all of these reasons, MDA is convinced that the EPA was correct in refusing VT's application to vary EPL 11395.

## **Submission**

Mangrove Mountain Landfill has a complex history. The issues identified below are just some of the key matters that will require thorough exploration of evidence by the Land and Environment Court.

### **1. Security of local groundwater and the Central Coast water supply**

Central Coast Council (**Council**) is a water supply authority under the Water Management Act 2000 and as such, has responsibility for ensuring that the potable water supply for the residents of the Central Coast is maintained in a healthy state, and is not threatened by any external contaminating factor.

MDA maintains that the extension of Mangrove Mountain Landfill, including the continuation of the existing waste mound, represents an unacceptable risk to the groundwater that supplies the creek system that Council pumps from for its potable water supply to over 330, 000 residents. Almost one half of the flow into the stream systems that originate in elevated sandstone country is believed to be base flow from the sandstone aquifer system in the Kulnura-Mangrove Mountain area that flows underneath Mangrove Mountain Landfill.

#### *a. Potential risk of leachate contaminating groundwater*

MDA asserts that the landfill operator has made omissions and provided misleading statements in order to present the risk of leachate escaping from the existing waste mound into the groundwater in a more favourable light.

#### Important information omitted in supporting documents

MDA alleges that the applicant Verde Terra Pty Ltd (**VT**) deliberately/carelessly omitted a document titled *Technical, Environmental and Operational Review Mangrove Mountain Landfill (IER Report)* dated 5 May 2017 prepared by Alan Dyer of SLR Consulting Australia Pty Ltd, from its list of supporting documents to the application, despite having referred to it in its statement to the Court. In its Statement of Facts and Contentions (**SOFAC**), s27, 28, VT cites this document to suit its own purpose in Court, yet fails to make this known to the general public for the purpose of this public consultation process.

#### Poor standard of evidence

In this IER Report, the author cites data provided by Consulting Earth Scientists (**CES**), the in-house engineering consultant to Mangrove Mountain Landfill that "*indicates that the permeability of the underlying Hawkesbury Sandstone is lower than might be expected for a medium to coarse grained sandstone.*" These data were obtained by conducting falling head permeability tests in shallow and deep nested groundwater wells at the site during August 2016. This statement was submitted to support the contention that there was a low risk of leachate escaping into the groundwater aquifer. It should be noted that a number of these wells have consistently failed to provide monitoring data over a number of years ostensibly due to insufficient water. This can be due to microbiological

clogging and not to the lack of seasonal rainfall that might contribute to recharge of groundwater aquifers. A falling head test is simply filling a well to a point and recording the time taken for it to fall to a pre-determined lower level.

Microbiological clogging may have been responsible for the slow rate at which the water level fell and not to the so-called permeability of the sandstone.

#### Unconvincing engineering advice

But there is another more compelling reason why the falling head test is not an appropriate measure of the permeability/porosity of the underlying sandstone below the landfill site. MDA has obtained a comprehensive independent report prepared by Shirley Consulting Engineers Pty Ltd (**SCE**) on the geological nature of the Hawkesbury Sandstone and its porosity/permeability. SCE have extensive experience with the Mangrove Mountain Districts area, its local geology and groundwater issues. SCE has undertaken mapping of the geology and related groundwater/slope stability issues for both the former Gosford and Wyong Councils. SCE therefore represents a much more reliable authority than CES where the permeability and porosity of the Hawkesbury Sandstone in the area of Mangrove Mountain Landfill, is concerned.

SCE stated that "*the Hawkesbury Sandstone bedrock in the vicinity of the Mangrove Mountain Landfill site is not a uniform or homogeneous rock material, but rather a rock mass that has a significant 'predominant' series of joint sets through which seepage percolates both vertically and horizontally. Testing of the rock mass by wells, boreholes or 'nested' groundwater wells is not representative of the permeability or porosity of the 'macro scale' rock mass. The water forming the aquifers within and at the base of the Hawkesbury Sandstone is the result of seepage through the various open joints and fractures within the rock, and not through the rock material itself, which is relatively impermeable.*"

MDA believes that the risk of leachate escaping from the existing waste mound into the underlying groundwater aquifer is far greater than CES and VT would have the Court believe.

#### Repeated mistaken conclusions

In a related matter, VT misdirected the Court by repeating a statement in an EPA media release dated 7 July 2017, without checking its veracity, in which the author, former EPA executive director waste & resource recovery Stephen Beaman, misquoted the IER Report. In s28 paragraph 4 of the SOFAC it quotes the EPA as saying "*This independent assessment found no evidence the landfill is affecting ground or surface water quality...*"

The IER Report did not say this. What the independent consultant said was "*A review of the available surface water and groundwater monitoring data does not appear to show any evidence of impact from the landfill.*" It should be noted that the independent consultant was not provided with any surface water monitoring data by CES to make any comment in this regard. On p1 in the list of supporting documents considered in the preparation of the IER Report, there is no mention of surface water monitoring data having been provided. Further the groundwater monitoring data provided to the consultant for the review by CES included only a selection of the total data available from the site and in a graphical form. This was unacceptable.

#### *b. Environmental Sensitivity*

The IER Report concludes that "*The existing fill mound sits within a sensitive area (in or within 40 metres of a permanent or intermittent water body or in an area overlying an aquifer that contains*

*drinking water quality groundwater that is vulnerable to pollution) as defined by Environmental Guidelines: Solid Waste Landfills - Second Edition, NSW EPA, 2016."*

MDA is of the view that Mangrove Mountain Landfill, which sits in the catchment of the Central Coast water supply and immediately adjacent to Jilliby Conservation Reserve, represents a significant threat to the health of the Central Coast water supply. Recently, the EPA verbally confirmed to MDA that if an application was made for a solid waste landfill at this site today, it would be refused on these grounds.

#### Existing mound leaks leachate

The existing waste mound of half a million tonnes, has no effective liner to prevent leachate from escaping into the underlying sandstone and the groundwater aquifer. This fact is widely accepted by the EPA and Central Coast Council. The Kulnura-Mangrove Mountain groundwater source supplies almost one half of the base stream flow of Ourimbah Creek. Central Coast Council pumps out of Ourimbah Creek into Mardi Dam, one of three water storage dams that provides the Central Coast population with potable water. Water is pumped from Mardi Dam into Mangrove Creek Dam, which is another of the potable water storage dams on the Central Coast. Leachate contaminants can make their way into Ourimbah Creek and from there into the Central Coast drinking water supply. No claim is made by MDA about the likely chemical composition of the leachate produced at Mangrove Mountain Landfill other than to say that illegal waste is known to have been deposited there. Examples include, heightened sub-surface methane levels of 222,000ppm recorded in sub-surface gas monitoring in 2016, which is a strong indicator of the decomposition of putrescible waste. Under EPL 11395, putrescible waste is prohibited from being deposited at Mangrove Mountain Landfill. Chemically treated timber, prohibited under the amended development consent 23042/1998, is recorded as having been deposited at Mangrove Mountain Landfill.

#### Photographic evidence of leachate escape

There is photographic evidence of leachate escaping from the existing waste mound, both previously in 2012 and as recently as this month. The capacity of the leachate holding pond is insufficient for the volume of leachate that could be expected to be generated by this waste mound, demonstrating that much of it is escaping into the underlying sandstone. The proposed extension for a further 1.3 million tonnes of waste has an almost 7 million litre capacity leachate pond designed to capture the leachate. The existing waste mound is approximately 500, 000 tonnes of waste, yet the leachate holding pond has a mere 100, 000 litre capacity.

#### Photographic evidence of illegal pumping activity

There is photographic evidence of pumping between the pollution control ponds, including between the leachate pond and stormwater retention ponds and from these directly into the Jilliby Conservation Reserve. There is no record available to the community to convince it that leachate is being tankered off-site to an accredited facility.

The environmental record with regards to the collection and disposal of leachate at this site is unacceptable.

#### *c. Lack of water licensing and approval*

There is photographic evidence of the groundwater aquifer having been breached at several levels in different places. There has never been either a water licence issued or sought under the Water Act 1912 and more recently under the Water Management Act 2000. This matter is currently being investigated by the Natural Resources Access Regulator.

Initially there was a Part 3A Permit issued under the former Rivers and Foreshores Improvement Act 1948, followed by a controlled activity approval (CAA) between 2008 and 2010 under the Water Management Act 2000. Since then an application was made by the present operator for a further CAA, but this was returned as containing inadequate detail with a request for further information. This was not responded to by VT in the present ownership, and since 2010 the landfill site has operated without a CAA. This matter is also currently being investigated by the Natural Resources Access Regulator.

#### Destruction of permanent watercourses

There is a complete disregard for the integrity of the groundwater aquifer and permanent water courses at this site. The latter used to flow through the area where the existing waste mound stands, and yet VT believes that it should be granted a variation to its EPL to permit it to continue in the same vein.

#### New unauthorised breach of groundwater aquifer

As recently as September 2017, VT undertook an unauthorised excavation in a new part of the golf course, outside of the current area regulated by EPL 11395, but within an area identified as part of the extended licence area, should this application be successful. This unauthorised excavation breached the groundwater aquifer, again without any regulatory approval. The IER Report noted that a 3D modelled surface of the groundwater had not been undertaken for the proposal. Without a three-dimensional modelled surface of the groundwater, a detailed risk assessment cannot be undertaken which in turn restricts the determination of the position of environmental monitoring infrastructure. It recommended that a three-dimensional groundwater model be undertaken as a priority and submitted to the NSW EPA for review and analysis (IER Report Recommendations 9 and 51).

### **2. Development consent remains unresolved**

In the opinion of MDA, the issue of the development consent is unresolved and it is the firm view that VT must be required to submit a new DA and Environmental Impact Statement (EIS), not only for assessment by Central Coast Council, but also to be subject to public exhibition and comment. Without an approved development consent for the proposed activity, the EPA is unable to proceed with a variation of the licence.

This current exercise in public consultation is no substitute for an opportunity for the public to comment on a new DA and EIS. The development consent issued by the former Gosford City Council on 6 October 1998 was for a minor golf course remodelling project with a small amount of cut and fill, and not for a regional waste facility, which it has become. Neither the former Gosford City Council, nor the present Central Coast Council, have been required to assess a DA for a regional waste facility at this site. Similarly the current use as a regional waste facility has never been assessed for environmental impact. The Consent Order for case number 40900 of 2012 does not address this matter either and cannot be considered as applicable to the current proposal.

#### VT strategy to downplay the Consent as an issue

In its application to the EPA to have EPL 11395 varied, it would appear to MDA that VT is attempting to simplify the matter of the Consent by submitting the versions LEMP 2013 and LMP 2013 amended in October 2017 as being relevant to the application. It appears to MDA that the VT consent strategy is that it is no issue and that the court should simply focus on legal argument about the licence. MDA rejects that assertion. While the former action brought in the Court in 2012 was for an alleged breach of the development consent, this was set aside. No judgment was made about this and

therefore no judgment has been made about the validity of development consent 23042/1998 as it relates to the vastly different project that is now Mangrove Mountain Landfill.

There is also the issue of the environmental safety of the existing waste mound Area B. MDA has compelling evidence that the entire basal area is at risk.

MDA believes that the Court must first have the Consent matter resolved, as there is now no Court approved plan, strategy or proposal to address the receipt and handling of such vast amounts of waste both present and proposed, nor the collection, transfer and storage of leachate that is currently being generated from the 500,000 tonnes of waste of unknown origin incorporated into the 800,000 cubic metres (m<sup>3</sup>) of fill within Area B. This includes the area known as Cell 1A, which involves 85% of the basal area and Cell 1B, which involves 15% of the basal area. Cell 1A has no effective leachate barrier or collection system resulting annually in 2.8 million to 3.5 million litres of leachate escaping or will be escaping directly into the groundwater aquifer and creek catchment system. This volume of leachate escaping into the environment is a conservative estimate as VT has pumped millions of litres of leachate and stormwater into a series of holding ponds located on top of the waste mound. There is photographic evidence that leachate and stormwater have been deliberately pumped from the ponds into the creek catchment system.

### **3. Validity of Court Order for case number 40900 of 2012 dated 29 August 2014.**

MDA has *prima facie* evidence that the current LEC Order cannot be implemented because there is a direct and serious threat to the integrity of the Central Coast's drinking water supply and the local groundwater aquifer, contrary to what was advised to the Court. Further, GCC became aware of this during the Court case, yet chose not to advise the Court. The applicant has relied upon the LEMP 2013 and LMP 2013 documents, which the Court identified as Consent documents in its Order, as the basis for its present application. MDA contends that these cannot be relied upon for this purpose, because they are based on a false premise. The modified consent (23042/1998) approved by GCC in 6 October 1998, is the only document that can be relied upon to define approved activities at Mangrove Mountain Golf Course remodelling project.

Conclusion: The Court Ordered consent documents LEMP 2013 and LMP 2013 do not apply.

### **4. Validity of EPL 11395**

In 2006, the Protection of the Environment Operations Act (**POEO Act**) was amended so that it applied to variations to environment protection licences. MDA alleges that since 2006, EPL 11395 has not complied with s45i and s50 of the POEO Act, thus making all subsequent variations invalid. Therefore this application is being sought to vary an invalid licence.

Conclusion: This application to vary EPL 11395 should be declared null and void, because it seeks to vary an invalid licence.