



Environmental Protection Authority

Mr N Stock
State General Manager WA
SITA Australia Pty Ltd
PO Box 249
WELSHPOOL WA 6986

Our Ref A584547
Enquiries Anthony Sheehan
Phone 6145 0844

Dear Mr Stock

**NOTICE UNDER SECTION 39A(3)
*Environmental Protection Act 1986***

PROPOSAL: Allawuna Class 3 Landfill Facility
LOCATION: Lots 9926, 4869, 5831 & 26934 Great Southern Highway
LOCALITY: Shire of York
PROPONENT: SITA Australia Pty Ltd
DECISION: Not Assessed – Public Advice Given

The Environmental Protection Authority (EPA) understands that you wish to undertake the above proposal which has been referred to the Authority for consideration of its potential environmental impact.

This proposal raises a number of environmental issues. However, the EPA has decided not to subject this proposal to the environmental impact assessment process and the subsequent setting of formal conditions by the Minister for Environment under Part IV of the *Environmental Protection Act 1986* (EP Act). Nevertheless, the staff of the Office of the EPA has provided the attached advice to you as the proponent, and other relevant authorities on the environmental aspects of the proposal.

The EPA's decision to not assess the proposal is open to appeal. There is a 14-day period, closing 22 July 2013. Information on the appeals process is available through the Office of the Appeals Convenor's website, www.appealsconvenor.wa.gov.au, or by telephoning 6467 5190.

Yours sincerely

Mark Jefferies
A/Director
Assessment and Compliance Division

8 July 2013

Encl

ALLAWUNA LANDFILL
STATEMENT OF REASONS
JUNE 2013

THE PROPOSAL

The EPA has received a third party referral for the development and operation of a Class II or III Putrescible Landfill on a property known as Allawuna, within the Shire of York. The proponent has advised the EPA that only Class II waste will be accepted. The proposal is located on Lots 9926, 26934, 4869 and 5831 Great Southern Highway, Saint Ronans. The proposal has a nominal life expectancy of 37 years and will accept between 150,000 and 250,000 tonnes of waste each year.

The total area of the Allawuna property is approximately 1,500 hectares (ha). Of this, 25 per cent is uncleared remnant bushland with the remainder being cleared land used for either sheep grazing or broad acre cereal cropping.

The proposed ground disturbance area is approximately 70 ha, including waste placement, roads and supporting infrastructure. The proposed ground disturbance area has been extensively cleared and contains scattered Marri and Wandoo trees as well as a small number of Flooded Gum and *Allocasuarina fraseriana* (Sheoak). The understory is composed of introduced grazing and cropping species.

The proponent has advised the EPA that the landfill will be constructed as a series of cells, with each cell sized to fill in two to three years. Each cell will be shaped to facilitate free draining of the floor for leachate collection from a sump area. The base of the cells will be double lined with a layer of low permeability clay or Geosynthetic Clay Liner under a 2 millimetre thick high density polyethylene (HDPE) liner.

A stormwater dam will be constructed of low permeability clay and located on the south eastern corner of the landfill. Two leachate evaporation dams will be located to the west of the landfill. These will also be lined with low permeability clay and HDPE. Other minor infrastructure such as sheds, offices, workshops, laydown areas and stormwater drainage will also be constructed as part of the proposal.

EPA Guidance Statement No. 3 Separation Distances between Industrial and Sensitive Land Uses recommends a buffer distance of 150 metres between a Class II or III landfill and a single residence. The distance between the proposal and the nearest single residence is 1,900 metres. The Guidance Statement also

recommends a buffer distance of 35 metres between a Class II or III landfill and the boundary of the property on which it is located. The proposal is located 600 metres from the Allawuna property boundary.

PUBLIC CONSULTATION

The EPA published the third party referral and proponent information for public comment on whether the EPA should formally assess the proposal. The public comment period was open from 15 April 2013 to 23 April 2013. One hundred and thirty one comments were received through the EPA Consultation Hub website and several further comments were sent directly to the Office of the EPA.

A broad range of issues were raised through the public comment process. These have been considered by the EPA.

SHIRE OF YORK TOWN PLANNING SCHEME NO. 2

The Shire of York has advised the EPA that under the provisions of Town Planning Scheme No. 2, a Class III Landfill would be defined as 'Industry – Noxious' and is a 'SA' land use in the General Agriculture zone within which the proposal is located. The Shire of York has further advised the EPA that 'SA' means that the use is not permitted unless the local government has exercised its discretion and has granted planning consent after giving special notice. In this case, the Wheatbelt Joint Development Assessment Panel will be the determining authority. The EPA is advised that a development application has not yet been submitted for this proposal.

ENVIRONMENTAL FACTORS

Flora and Vegetation

The proposed ground disturbance area has been extensively cleared and contains scattered Marri and Wandoo trees as well as a small number of Flooded Gum and *Allocasuarina fraseriana* (Sheoak). The understory is composed of introduced grazing and cropping species. A database review reported 18 threatened and priority species which are known to occur within the vicinity of the study area, however, no threatened or priority species were identified during a site survey.

The Botanic Gardens and Parks Authority (BGPA) commented on the proposal through the EPA Consultation Hub. It noted that wandoo abuts the proposed landfill site and the area within a 2 km radius of the proposed site is among the richest in orchid diversity in WA. The BGPA commented that water draw-down may deplete the water table and have a lasting impact on wandoo health and

orchid diversity. The proponent has confirmed that the proposal does not include dewatering.

Terrestrial Fauna

The site contains two habitat types: 'cropland with scattered Marri and Wandoo' and 'minor creek line lined with Wandoo and Flooded Gum'. A survey of the proposed ground disturbance area determined that both these habitat types are severely degraded, contain low fauna habitat value and are well represented in the local vicinity.

Thirty five species were recorded during the survey, comprising two mammal species, five reptile species and 22 bird species. A total of 227 species have been recorded previously within the vicinity of the site. The survey report notes that the survey was not exhaustive as trapping was not undertaken nor were surveys conducted at night. The survey report states that the expected fauna assemblage consists of species that are generally common and widespread throughout the region and are not dependent on the habitat found within the study area.

Terrestrial Fauna – Black Cockatoo

The Forest Red-tailed Black Cockatoo, Carnaby's Cockatoo and Baudin's Cockatoo are protected under the *Wildlife Conservation Act 1950* and are known to exist in the region. Therefore, Black Cockatoo foraging, roosting and breeding assessments were undertaken by the proponent.

Vegetation on the proposed ground disturbance area includes isolated trees or small stands of mature Marri and Wandoo which are both known foraging resources for Black Cockatoos. The area has approximately 4 hectares of foraging habitat. Foraging evidence of the Carnaby's Black Cockatoo and/or Baudin's Black Cockatoo were recorded during the assessment.

Tall trees with dense canopies are present within the proposed ground disturbance area and provide potential roosting habitat for Black Cockatoos. However, no evidence of roosting (droppings or feathers) was recorded during the assessment.

The site has 144 trees potentially suitable for breeding. Of these, 13 contain suitable breeding hollows. All trees with suitable hollows were examined during the survey, but there was no evidence that the hollows were used as nests.

Hydrological Processes

The Department of Water has advised the EPA that the proposal will be constructed on low permeability clayey material. The base of the landfill will be designed to maintain a minimum distance of 3 metres to groundwater, which will

be confirmed by bore drilling as part of future detailed design. The clays effectively separate the surface and groundwater systems. Together with the upper catchment location and design of the proposal, the Department of Water has advised the EPA that the proposal should have a low impact on groundwater and surface water resources over the proposal's 37 year operational life and beyond.

Inland Waters Environmental Quality

Leachate will be collected in drains under the landfill and diverted to leachate dams. Several public comments raised concerns about the potential of leachate dams to overflow and pollute the nearby 13 Mile Brook. The Department of Water has advised the EPA that leachate generation has been estimated under a 1 in 20 year 24 hour duration storm event and a 1 in 100 year extreme storm event to enable leachate dams to be designed to prevent overtopping. The Department of Water considers the modelling of dam capacity to be conservative as it does not include leachate storage capacity in unsaturated waste mass or enhanced evaporation from the leachate dams or evaporation on active landfill cells.

Further, the Department of Water has advised the EPA that the clayey substrate will provide an adequate buffer between the leachate dams and 13 Mile Brook. The Department of Water has also advised the EPA that calculations indicate that very low volumes of leachate will take over 100 years to reach the confined aquifer underlying the clayey substrate.

Heritage

The proponent undertook a review of the Aboriginal Heritage Inquiry System and found no Aboriginal sites or heritage places located on the proposal site. The proposal does not directly impact any European heritage.

Amenity – Odour

Operating landfills have the potential to generate odour through aerobic decomposition of freshly deposited wastes, landfill gas generated by anaerobic decomposition of wastes and leachate treatment dams. As noted above, the nearest sensitive receptor is at a distance of 1,900 metres from the landfill. The EPA is advised that a well managed landfill is unlikely to cause odour impacts at this distance.

OTHER ISSUES

Traffic

The proposal will generate new road train vehicle movements between the Kurnall Road, Welshpool waste transfer station and the Allawuna site. Road trains will depart the Welshpool industrial area via Orrong Road (eastbound) and Roe Highway (northbound) before turning east into Great Eastern Highway. At the lakes intersection road trains will turn east onto Great Southern Highway and continue to the Allawuna site. When the proposal is operating at full capacity, it is expected that road trains will depart the waste transfer station at regular twenty minute intervals.

Main Roads WA has advised the EPA that the traffic studies commissioned by the proponent satisfy its requirements and that the overall increase in traffic for the Great Eastern Highway will be between 0.1% and 0.6%. The overall increase in heavy traffic will be between 2% and 3%. Main Roads WA has also advised the EPA that the proposal will have a negligible traffic impact on Great Eastern Highway and does not warrant any safety or capacity improvements.

Agriculture

Many of the public comments also raised concerns that the proposal may impact neighbouring farming activities. The Department of Agriculture and Food (DAF) advised the EPA that should the proposal be approved, the DAF supported the continuation of mixed commercial farming around the facility conditional on monitoring to manage biosecurity risks. The DAF noted that a cereal cropping program and a breeding sheep flock will provide opportunities for ongoing biological sampling to identify any effect of the facility on the surrounding environment.

Earthquake

An issue raised during public comment concerned the potential for contaminant leakage as a result of earthquake. This is a matter that can be dealt with through detailed design and the works approval and licensing process.

LEVEL OF ASSESSMENT

Part IV Division 1 of the *Environmental Protection Act 1986* (the EP Act) provides for the referral and assessment of significant proposals. The EP Act defines a significant proposal as a proposal likely, if implemented, to have a significant effect on the environment.

Section 39A of the EP Act requires the EPA to determine whether or not a referred proposal requires environmental impact assessment under Part IV of the EP Act.

The EPA has published *Environmental Impact Assessment (Part IV Divisions 1 and 2) Administrative Procedures 2012*. The Administrative Procedures establish the principles and practices of environmental impact assessment, including how the EPA determines whether a proposal is a significant proposal.

The Administrative Procedures explain that the EPA uses its professional judgement, which is gained through knowledge and experience in the application of environmental impact assessment, to determine whether a proposal should be assessed under Part IV of the EP Act. The Administrative Procedures also provide information about the matters that the EPA considers when making its decision whether or not to assess a proposal. This includes that the EPA may have regard to the extent to which other statutory decision-making processes meet the EPA's objectives and principles for environmental impact assessment. It is not intended that environmental impact assessment under Part IV of the EP Act would duplicate other statutory approvals processes.

Part V of the EP Act provides for the licensing and registration of prescribed premises. Schedule 1 of the *Environmental Protection Regulations 1987* establishes the list of prescribed premises for which a licence to operate is required under Part V of the EP Act. A Class II or III putrescible landfill site is Category 64 of Schedule 1 and defined as:

premises on which waste (as determined by reference to the waste type set out in the document entitled *Landfill Waste Classification and Waste Definitions 1996* published by the Chief Executive Officer and as amended from time to time) is accepted for burial¹.

The *Landfill Waste Classification and Waste Definitions 1996* are available on the Department of Environment Regulation's (DER) website for reference.

The licencing process can result in a decision to grant or refuse a licence. If the decision is to grant the licence it will result in legally binding conditions for the monitoring and management of the proposal to meet desired environmental outcomes.

Licencing also provides the opportunity for public comment on the proposal and consideration of comments received. Environmental impact assessment under

¹ Production or design capacity of greater than 20 tonnes or more per year

Part IV of the EP Act is therefore not required for this proposal to achieve appropriate community consultation or assessment of the environmental issues.

The former Department of Environment and Conservation (now Department of Environment Regulation) advised the EPA that subject to the requirements of obtaining a works approval and licence, the Department is able to manage issues associated with emissions and discharges from the proposal under Part V of the EP Act.

The EPA is of the view that the Department of Environment Regulation will conduct a comprehensive assessment of the proposal including that a licence will not be granted unless it can be demonstrated that the impacts to the environment are acceptable.

A clearing permit, under Part V of the *Environmental Protection Act 1986*, to clear the native vegetation will also be required to implement the proposal. The Department of Environment Regulation will undertake an assessment of the impacts against the clearing principles in the Act before making a decision on whether or not to grant approval to clear the native vegetation.

In summary, although the proposal raises a number of environmental issues, the EPA considers that the potential environmental impacts are not so significant as to warrant formal environmental impact assessment and the subsequent setting of formal conditions by the Minister for Environment under the *Environmental Protection Act 1986* (EP Act). This is because the potential environmental impacts of the proposal can be regulated and managed effectively under Part V of the EP Act.

PUBLIC ADVICE

In providing advice to the EPA to inform its decision on whether or not to assess the proposal, the Department of Agriculture and Food, Department of Water and the former Department of Environment and Conservation's Air Quality Branch all recommended further investigations that should be undertaken as part of detailed design and arrangements for monitoring should the proposal be approved. The EPA recommends that the proponent consult these Departments during detailed design and preparation of its works approval and licence applications to ensure that their requirements are met.

Through the public comment process, the South West Aboriginal Land and Sea Council (SWALSC) advised the EPA that the area surrounding the proposal site is a place of ceremonial and mythological significance to the local Noongar People. SWALSC also reported that the Helena River is a registered Aboriginal heritage

site and there are unregistered sites in the surrounding area. While the EPA is advised that there are not any Aboriginal sites or heritage places located on the proposed ground disturbance area, the EPA recommends that the proponent consult the Department of Aboriginal Affairs to ensure that aboriginal heritage is adequately protected and that it meets its obligations under the *Aboriginal Heritage Act 1972*.

Waste management policy was a strong theme in public comments, either that metropolitan waste should not be transported to rural centres or that landfill is out dated and other waste solutions should be adopted. While the EPA must deal with the referral before it, the EPA considers that strategic waste policy that provides guidance to industry on future demand for and location of landfills would be preferable to the continued ad hoc development of landfill proposals.

To this end, the EPA is advised that the Waste Authority is investigating strategic waste management issues and has established a subcommittee to develop a waste and recycling infrastructure plan for the Perth/Peel region. The EPA is advised that this process will identify future landfill requirements for a metropolitan population of 3.5 million people. The EPA commends this initiative.