



DOC20/244483

Department of Planning, Industry & Environment
GPO Box 39
SYDNEY SOUTH NSW 2001
By email: information@planning.nsw.gov.au

Attention: Ms Susan Fox

24 March 2020

Dear Ms Fox

West Nowra Landfill Expansion – SSD 7187 – Recommended conditions

Thank you for your email on 16 March 2020 which included a response from the Proponent to our previous comments about leachate management for the West Nowra Landfill Expansion, SSD 7187.

We have reviewed the applicant's response and all previous documentation and provide recommended conditions in Attachment A for consideration by the Department of Planning, Industry & Environment.

If you would like to discuss any of our comments or recommended conditions further, please contact Nick Feneley on (02) 4224 4144, or Megan Whelan on (02) 4224 4109.

Yours sincerely

A handwritten signature in blue ink, appearing to read 'M. Whelan'.

MEGAN WHELAN
Unit Head Waste Compliance
Environment Protection Authority

ATTACHMENT A – Recommended conditions of approval

Waste Management

The Proponent must only receive waste on site that is authorised for receipt by an Environment Protection Licence (EPL) issued by the Environment Protection Authority (EPA).

Litter Control

The Proponent must:

- a) implement measures to minimise litter, both on and off site, including the installation and maintenance of a mesh fence at least 1.8 metres high around the landfill;
- b) inspect the site and the surrounding area daily for litter; and
- c) litter should be cleared from the site and the surrounding area on at least a weekly basis.

Pollution of Waters

Except as may be expressly provided in the EPL for the site, the Proponent must comply with Section 120 of the Protection of the Environment Operations Act 1997.

Erosion and Sediment Control – Construction Phase

During the construction phase, the Proponent must implement erosion and sediment control measures, in accordance with the relevant requirements in the latest version of the Managing Urban Stormwater: Soils and Construction Guideline.

Soil and Water Management Plan

The Proponent must prepare and implement a Soil & Water Management Plan for the site to the satisfaction of the Secretary. This plan must:

- a) be prepared by a suitably qualified and experienced expert whose appointment has been endorsed by the Secretary, and must be prepared in consultation with the EPA;
- b) be approved by the Secretary prior to the commencement of expanded operations;
- c) include a water balance for the project;
- d) include a surface water monitoring program;
- e) include a groundwater monitoring program; and
- f) ensure that suitable measures are implemented to control soil erosion, prevent groundwater contamination, and comply with any surface water discharge limits; and
- g) this plan must be documented in the Landfill Environmental Management Plan.

Leachate Management Plan

In addition to the Soil and Water Management Plan, the Proponent must prepare and implement a specific Leachate Management Plan for the Landfill to the satisfaction of the Secretary. This plan must:

- a) be prepared by a suitably qualified and experienced expert whose appointment has been endorsed by the Secretary, and must be prepared in consultation with the EPA;
- b) be approved by the Secretary prior to the commencement of expanded operations;
- c) describe in detail the leachate barrier system installed on site;
- d) detail measures to collect and store all leachate generated by the landfill;
- e) detail the measures that will be employed to ensure the proper and efficient operation of the leachate irrigation area;
- f) detail measures to prevent leachate from escaping to surface water, groundwater or the surrounding subsoils;
- g) ensure all surface water from areas not subject to waste disposal or leachate disposal is directed away from the leachate management system;
- h) treat all water that has entered areas filled with waste, or been contaminated by leachate, as leachate; and
- h) this plan must be documented in the Landfill Environmental Management Plan.

Leachate Irrigation Area

The construction and operation of the leachate irrigation area must be carried out in a manner that does not compromise the proper and efficient collection of landfill gas from the Stage 2 landfill.

Irrigation of leachate must be managed in accordance with the Environmental Guidelines: Use of Effluent by Irrigation (NSW DEC, 2004b).

The irrigation application rate must not exceed the capacity of the irrigation area to absorb the nutrient, salt, organic and hydraulic loadings supplied by the leachate.

The Proponent must maintain a buffer zone of at least 5 metres between the crest of the embankment of the Stage 2 landfill and the irrigation zone.

Irrigation must not cause spray drift of leachate.

Signs must be prominently displayed to inform the public and employees that leachate irrigation is taking place.

Leachate Dam

Sufficient freeboard must be maintained in the leachate dam to accept the direct rainfall on the dam from a 1-in-25-year average recurrence interval 24-hour rainfall event for the location without overflowing.

Leachate Level Monitoring

The leachate level must be monitored quarterly in the main leachate sump or riser in each landfill cell to demonstrate that leachate is not accumulating to unacceptable levels above the liner.

Meteorological Monitoring

During the life of the project, the Proponent must ensure that there is a suitable meteorological station in the vicinity of the site that complies with the requirements in the latest version of Approved Methods for Sampling of Air Pollutants in New South Wales Guideline.

Independent Review of Leachate and Water Management System

Within twelve months of the commencement of expanded operations, and annually thereafter, unless otherwise agreed to by the Secretary, the Proponent must commission and pay the full cost of an independent assessment of the leachate and water management system. This audit must be conducted by a suitably qualified, experienced and independent expert whose appointment has been endorsed by the Secretary. During the audit, this expert must:

- a) consult with the EPA and the Secretary;
- b) assess actual performance against the assumptions and predictions made in the project water balance prepared by SLR and dated December 2018. This must include:
 - i. actual versus predicted leachate production rates
 - ii. actual versus predicted inputs and outputs into and out of the leachate dam;
 - iii. actual versus predicted rainfall and evaporation; and
 - iv. actual versus proposed leachate irrigation rates.
- c) assess actual versus predicted performance of the leachate irrigation area;
- d) determine whether the leachate and water management system is achieving its intended objectives;
- e) outline all reasonable and feasible measures that may be required to improve water and leachate management of the site; and
- f) provide a report detailing the findings of the audit to the Secretary and the EPA.