

ASSESSMENT REPORT

Awaba Waste Management Facility Expansion Project Modified Staging, Stormwater and Leachate Management Section 75W Modification - MP 10_0139 MOD 1

1. BACKGROUND

The purpose of this report is to assess a modification application to the approved project known as the Awaba Waste Management Facility Expansion Project (10_0139 MOD 1) under Section 75W of the *Environmental Planning and Assessment Act 1979* (the Act). The modification application proposes amendments to the approved landfill staging and stormwater and leachate management systems.

Lake Macquarie City Council (LMCC) owns and operates the Awaba Waste Management Facility (AWMF) at Awaba, in the Lake Macquarie local government area (see Figure 1).

The AWMF has operated since 1986 and accepts General Solid Waste (non-putrescible and putrescible), asbestos waste and waste tyres. The landfill also includes a green waste processing area, recycling centre and associated infrastructure.

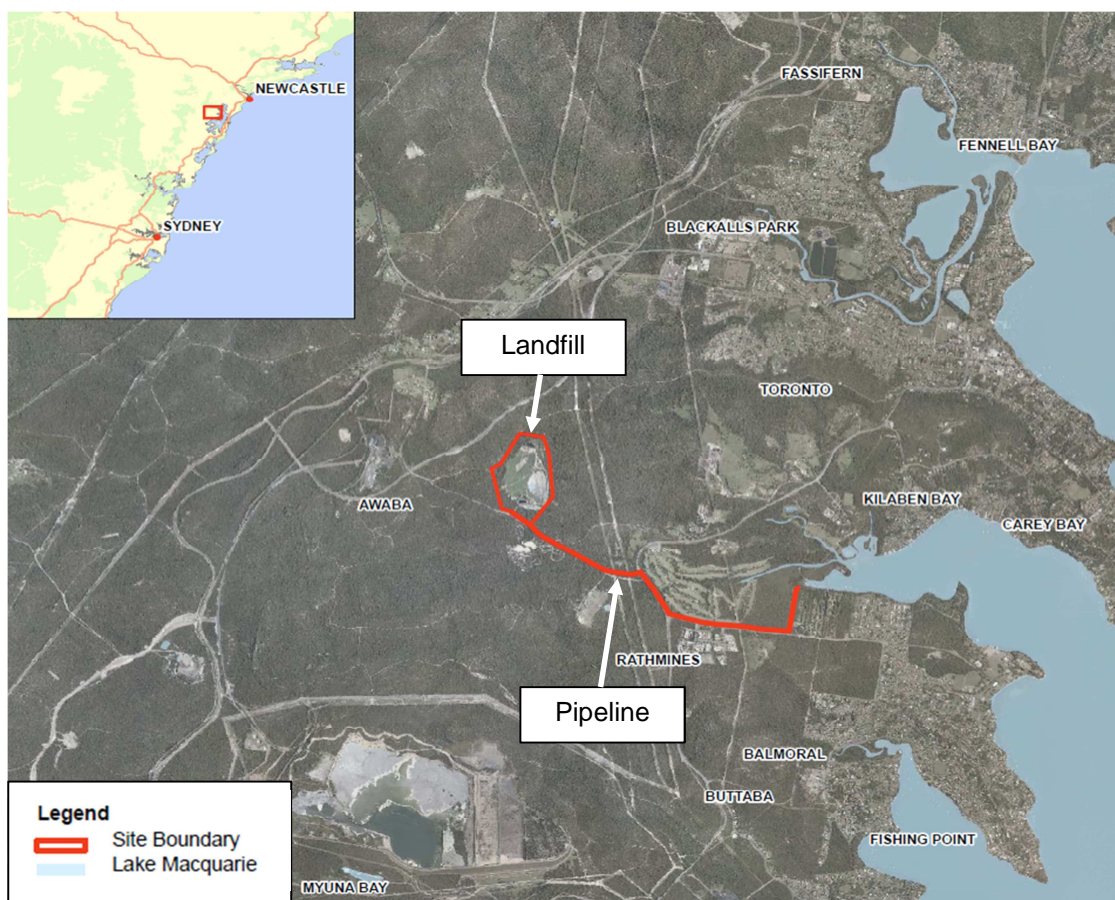


Figure 1 – Awaba Waste Management Facility, Lake Macquarie

The facility was expected to reach capacity by 2017, so LMCC lodged a major project application with the Department under the former Part 3A legislation to expand the AWMF. The application was approved by the Planning Assessment Commission (PAC) on 8 May 2013 under Part 3A of the Act and included:

- an increase of 2.5 million tonnes of landfill space through two new landfill cells (Areas A and B) and continued emplacement of waste over the existing landfill (Area C);
- staged construction of the three new landfill areas (A, B, C) over 11 stages;
- additional leachate management infrastructure, including decommissioning an existing leachate basin and construction of a new leachate basin;
- construction of a pipeline between the landfill and the nearby Rathmines No. 6 Waste Water Pumping Station for the transfer of surplus leachate for treatment;
- an additional recycling centre, transfer station, relocation of the green waste area and ancillary infrastructure; and
- additional landfill gas extraction wells, groundwater monitoring wells and amendments to stormwater management infrastructure.

The approved project extended the life of the AWMF for a further 15 years (to 2032), and maintained the same landfill rate of up to 150,000 tonnes of waste input per annum. The approved landfill design is shown in Figure 2.

Following approval of the expansion project, a third party appeal was lodged by Centennial Coal to the Land and Environment Court. The appeal related to the approved biodiversity offset strategy which encompassed land approved for underground mining. Following a conciliation conference, the approval was modified by a Land and Environment Court order on 23 October 2013, amending the biodiversity offset strategy to remove the area covered by the mining lease.

2. PROPOSED MODIFICATION

On 29 April 2014, LMCC lodged a modification application under Section 75W of the Act to modify the approved landfill design. LMCC has progressed with detailed design of the landfill extension and has identified some minor amendments to optimise the approved design, including:

- a correction to the approved landfill layout plan to show the temporary south-west sediment basin within the landfill footprint (as assessed in the original Environmental Assessment for the project application), see Figures 2 and 3;
- a change to nine landfill cells constructed in five stages, compared with the approved eleven landfill cells constructed in three stages, see Figures 4 and 5; and
- modifications to the stormwater and leachate management system (see Figures 6 and 7), including:
 - removal of a 6-8 megalitre (ML) leachate basin in the south-western part of the landfill; and
 - construction of a concrete containment and diversion structure at the northern site boundary to divert clean stormwater away from the landfill.

No change is proposed to the waste input rate, landfill capacity or life of the landfill.

The proposed modification is described in full in the modification application and accompanying Environmental Assessment (EA) in Appendix B of this report.

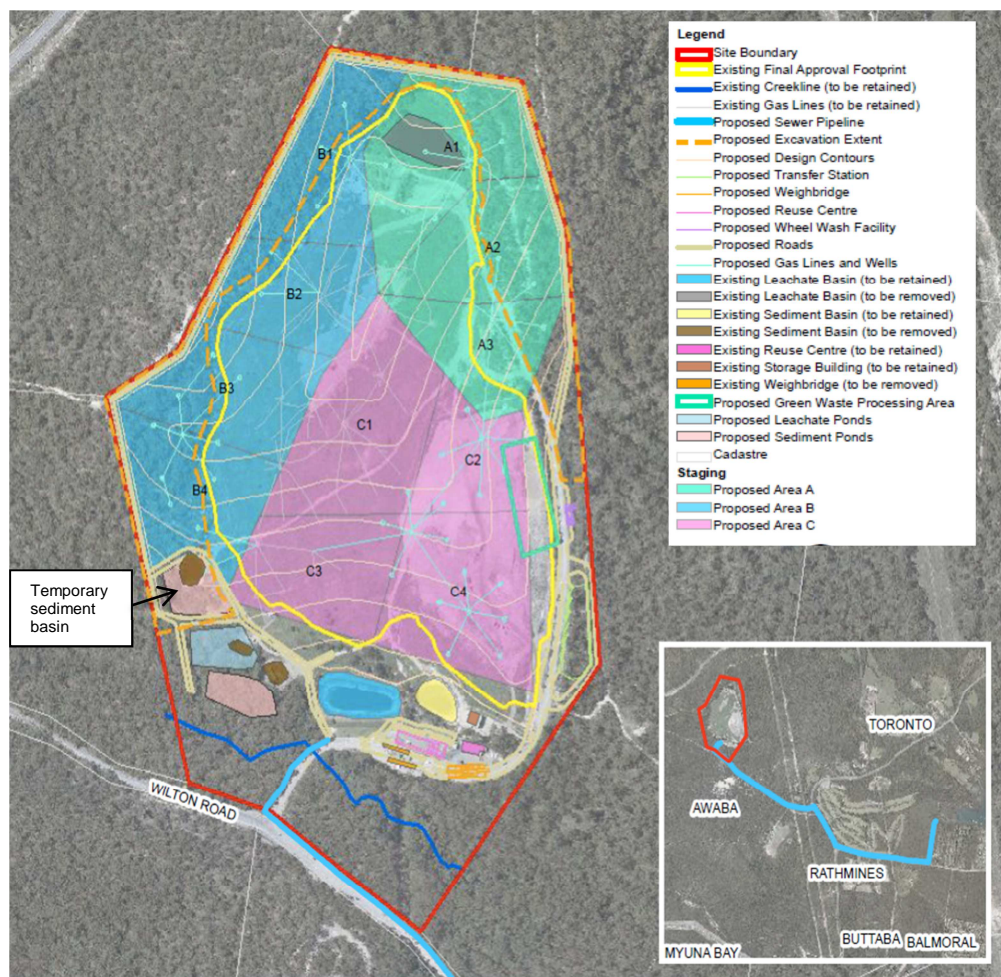


Figure 2 – Approved Landfill Layout

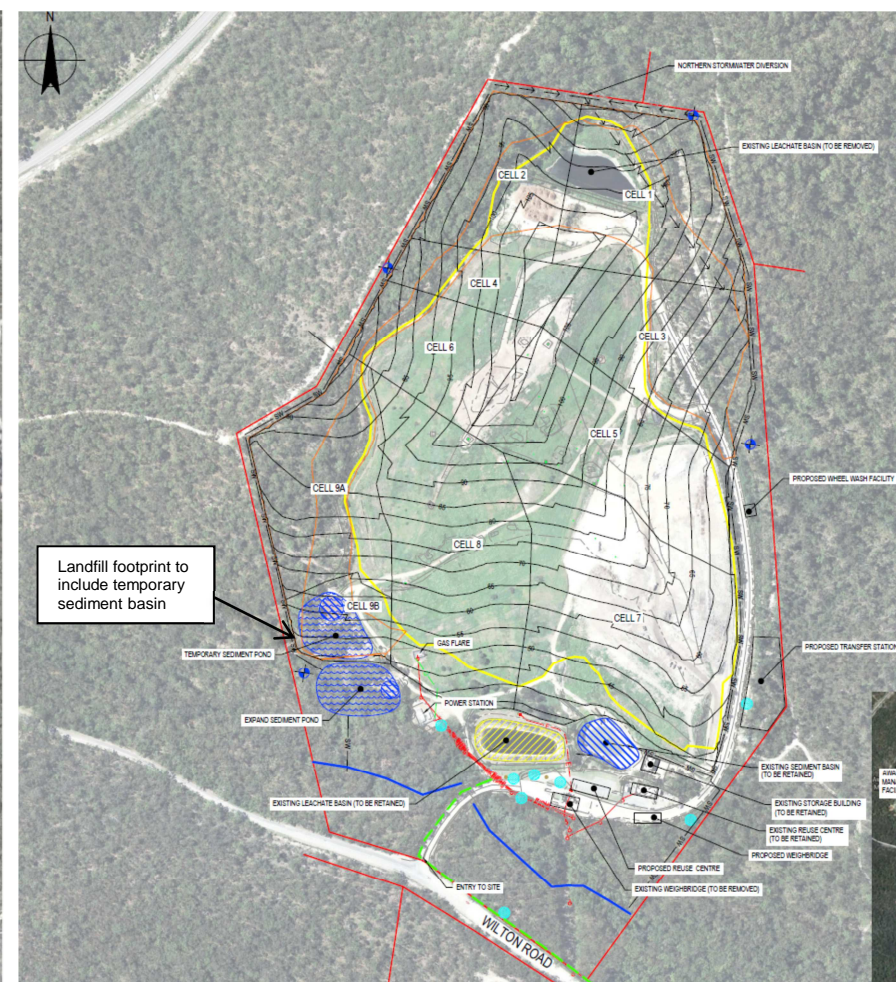


Figure 3 – Modified Landfill Layout (correction to plan only)

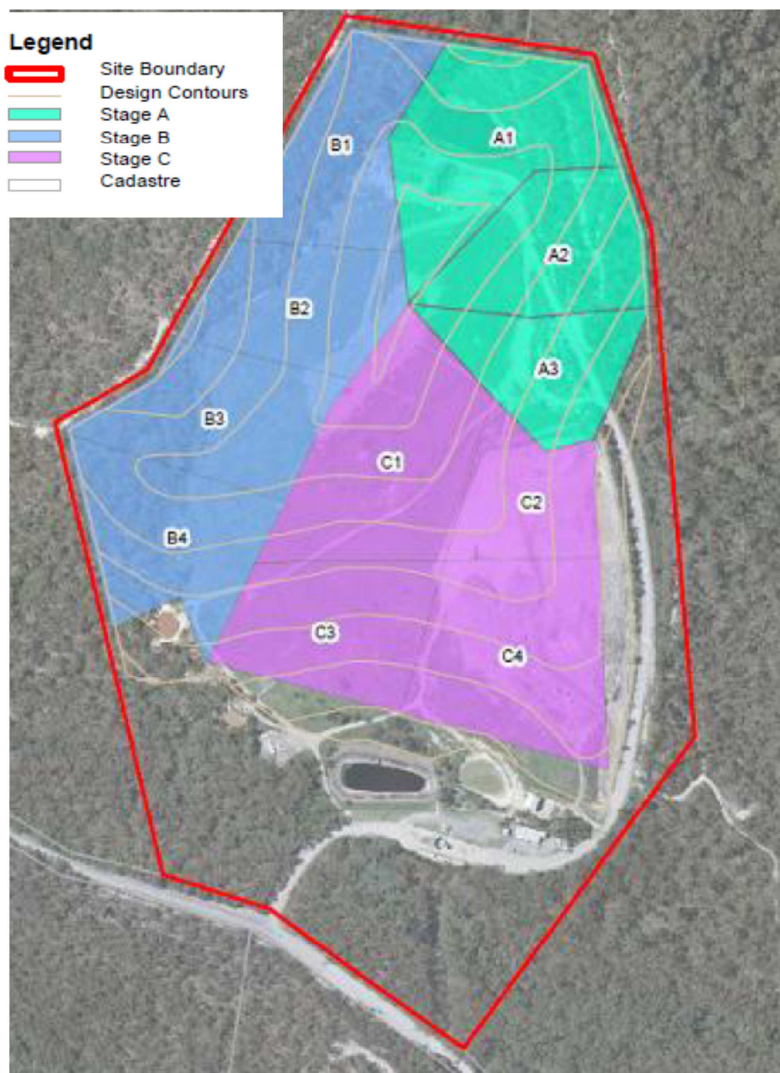


Figure 4 – Approved Staging Plan

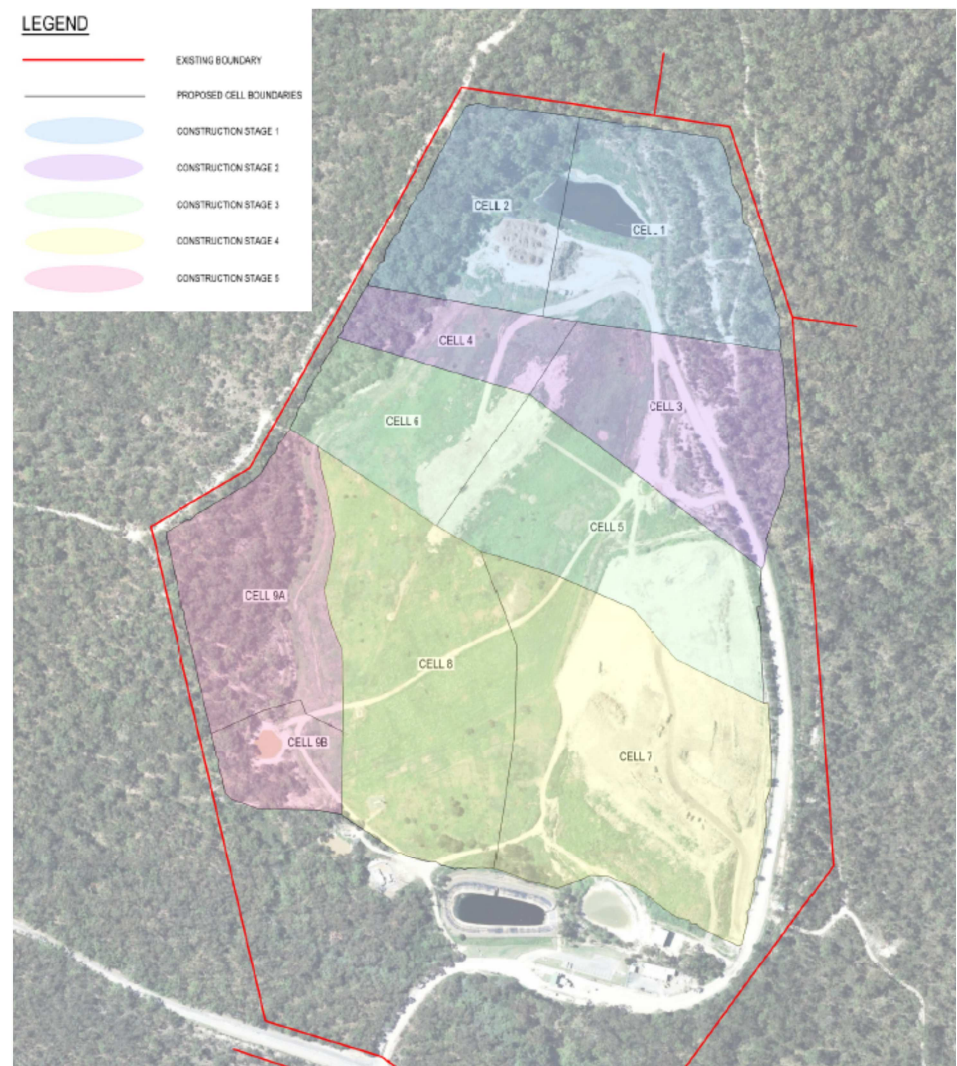


Figure 5 – Modified Staging Plan

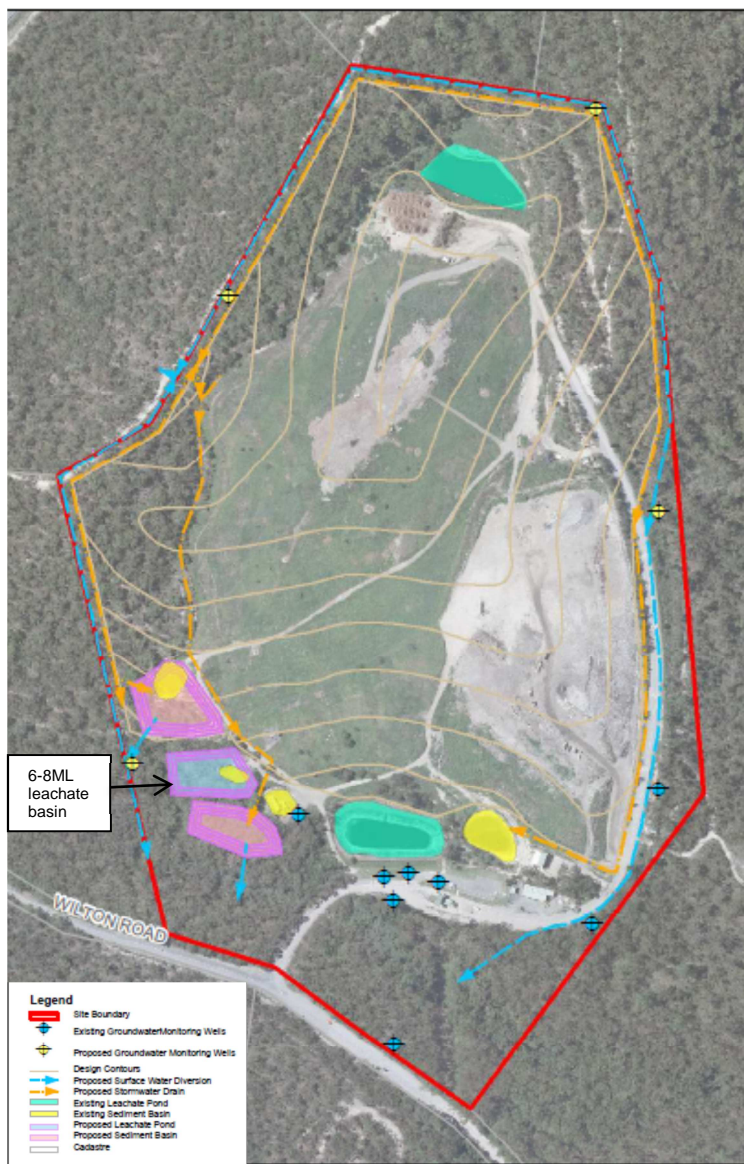


Figure 6 – Approved Stormwater and Leachate Management Infrastructure

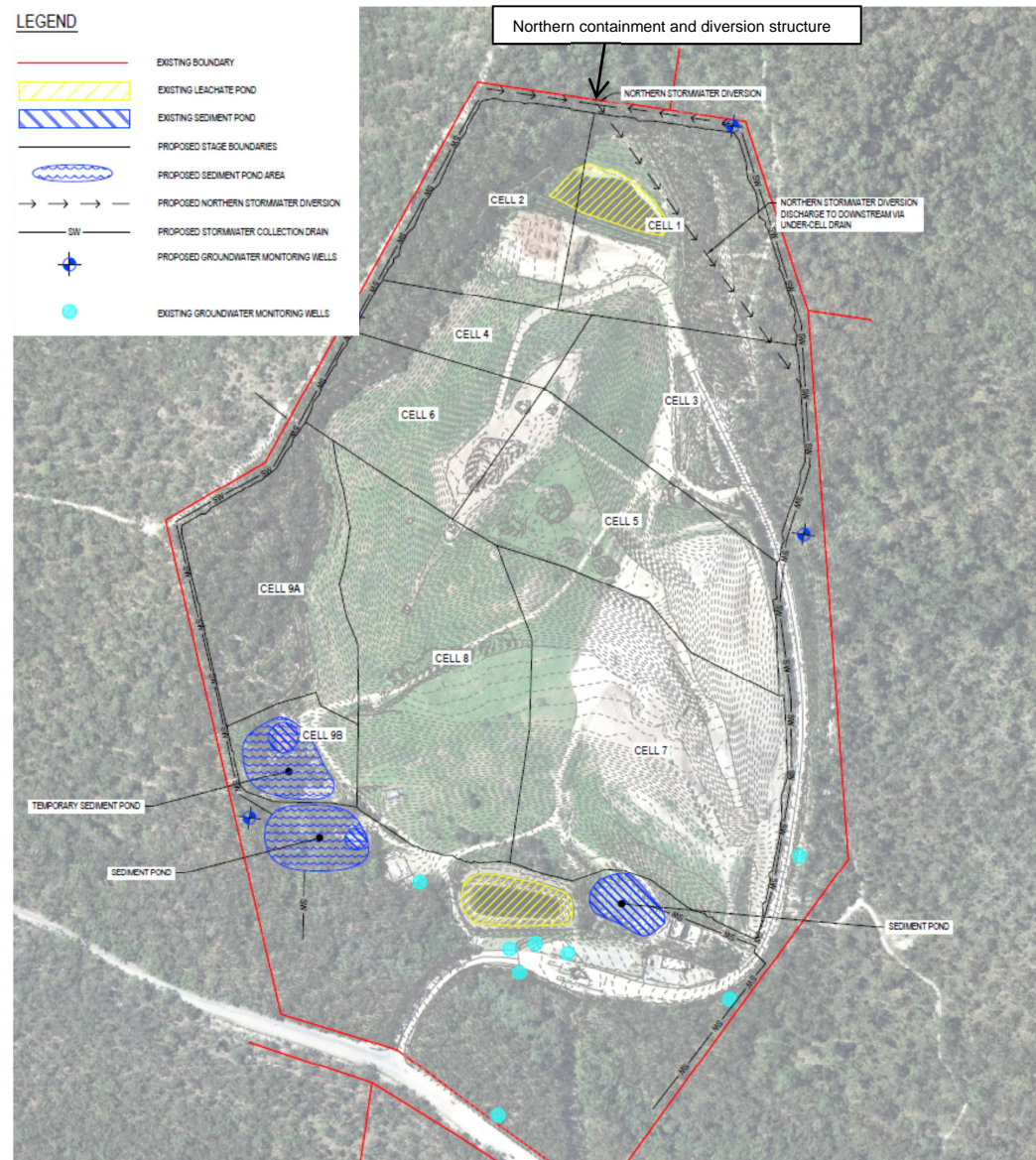


Figure 7 – Modified Stormwater and Leachate Management Infrastructure

3. STATUTORY CONTEXT

Approval Authority

The Minister was the approval authority for the original project application, and is consequently the approval authority for this application.

However, the Director, Industry, Key Sites and Social Projects may determine this application on behalf of the Minister in accordance with the Minister's delegation dated 14 September 2011, subject to the following:

- where the relevant local Council has not made an objection;
- where a political donations disclosure statement has not been made; and
- there are less than 10 public submissions in the nature of objections.

The Department is satisfied that the application meets the terms of the delegation and that the Director may determine the application under delegated authority.

Section 75W

In accordance with Clause 12 of Schedule 6A of the Act, Section 75W of the Act as in force immediately before its repeal on 1 October 2011 and as modified by Schedule 6A, continues to apply to transitional Part 3A projects.

Under Section 75W of the Act, the Minister is obliged to be satisfied that what is proposed is indeed a modification of the original proposal, rather than being a new project in its own right.

The Department notes that the proposed modification is a minor change to the approved landfill design and staging and would not change the purpose of the approved project. The modification would have negligible environmental impacts beyond the original approval and can be appropriately managed through the existing conditions of approval.

Therefore, it is considered that the proposed modification is within the scope of Section 75W of the Act. Consequently, the Department considers that the application should be assessed and determined under Section 75W of the Act rather than requiring a new development or project application to be lodged.

4. CONSULTATION

Under Section 75W of the Act, the Department is not required to notify or exhibit the application. Upon receipt, the application was placed on the Department's website and following a review of the application, the Department did not believe formal public notification of the application was necessary. Notwithstanding, the Department sought comments from the Environment Protection Authority (EPA).

The **EPA** raised no objection to the modification and advised that LMCC would be required to amend the Environment Protection Licence (EPL) to reflect the modification. No submissions were received from the general public.

5. CONSIDERATION

During its assessment of the merits of the proposed modification, the Department has reviewed the:

- environmental assessment and the then Director-General's assessment report of the original project application;
- existing conditions of approval (as modified);
- the EA supporting the proposed modification (Appendix B);
- submission from the EPA (Appendix C);
- relevant environmental planning instruments, policies and guidelines; and

- requirements of the the Act, including the objects of the Act.

The Department considers that there would be negligible change to the approved impacts of the project. The Department's assessment, shown in Table 1 considers the issues of staging, stormwater and leachate management.

Table 1: Assessment of Modification

Issue	Assessment	Recommendation
Staging	<ul style="list-style-type: none"> • The change from three construction stages to five is proposed to optimise the landfill design and operating efficiency by: <ul style="list-style-type: none"> - preventing the construction of large lined areas ahead of landfilling which may be excessively exposed to ultraviolet radiation and weathering; - minimising stormwater capture and leachate generation through a smaller working cell area; - improved cell shape optimising control of the working tip face thereby minimising the quantity of exposed waste; and - better facilitate progressive capping and rehabilitation. • The Department has considered the proposed modification to staging and concludes that there would be a minimal change in impacts from the approved project. • As noted by LMCC, the reduction in cell size would assist in minimising odour and would reduce vermin attraction. The facilitation of progressive capping would also reduce leachate generation, improve surface water quality, and minimise odour. • The modified staging would not alter the approved contours or visual impacts of the final landform. • The EPA did not raise any concerns with the modified staging. • The Department concludes that the modified staging is likely to result in minor improvements to approved impacts. • The existing conditions require the cell design to be undertaken to the satisfaction of the EPA. • The Department considers that no further conditions are required. 	<p>Recommend administrative changes to the conditions, including:</p> <ul style="list-style-type: none"> • replacing the Staging Plan in Appendix 4 with a new staging plan; and • amending the Statement of Commitments in Appendix 1 to correct references to the number of stages.
Stormwater Management	<p><u>Northern Containment and Diversion Structure</u></p> <ul style="list-style-type: none"> • The proposed concrete containment and diversion structure in the northern part of the site would divert clean stormwater away from the landfill, to prevent mixing with leachate. • The requirement for the structure was determined following detailed modeling of the final landform. • The structure would be less than 2 metres high and would include an under cell drain to divert clean stormwater to the eastern perimeter of the landfill for discharge, mimicking the existing surface flow pattern (see Figure 7). • The structure would be located in the 10 metre northern boundary setback, which was assessed as part of the original project and approved for clearing. • The Department is satisfied that construction of the containment and diversion structure would have minimal additional impacts and would improve the management of surface water. <p><u>South West Temporary Sediment Basin</u></p> <ul style="list-style-type: none"> • The proposed correction to the plans to show the temporary sediment basin incorporated into the final landfill footprint is an administrative change only. This aspect was assessment as part of the original project approval. • The conditions of approval require the stormwater management system to be designed and installed to the satisfaction of the Department; hence no further conditions are required. 	<p>Recommend administrative changes to the conditions, including:</p> <ul style="list-style-type: none"> • replacing the plan in Appendix 6 with a new plan of stormwater and groundwater management infrastructure; • replacing the plan in Appendix 3 with a corrected layout plan incorporating the sediment basin in the final landfill footprint; and • amending the Statement of Commitments in Appendix 1.
Leachate Management	<p><u>Removal of Leachate Basin</u></p> <ul style="list-style-type: none"> • Following detailed modeling, LMCC determined that the proposed 6-8 megalitre (ML) leachate pond in the south-western part of the landfill would not be required. • Modeling confirmed that the existing leachate pond and the pipeline to the Rathmines No. 6 waste water pumping station provides adequate storage and treatment capacity for the expanded landfill. • LMCC noted that there would be minimal change in impacts from 	<p>Recommend administrative changes to the conditions, including:</p> <ul style="list-style-type: none"> • replacing the plan in Appendix 6 with a new plan of stormwater and groundwater management infrastructure.

Issue	Assessment	Recommendation
	<p>removing the proposed leachate pond with a potential reduction in odour generation.</p> <ul style="list-style-type: none"> • The Department agrees that removal of the leachate pond would have minimal impacts. • The EPA requested confirmation that GHD (landfill design consultants) were satisfied that the leachate basin could be removed. GHD confirmed that they were satisfied. • The conditions of approval require design and installation of the leachate management system to the satisfaction of the EPA and the Department. No amendment or further conditions are required. 	

6. CONCLUSION

The Department has assessed the proposed modification in accordance with the requirements of Clause 8B of the *Environmental Planning and Assessment Regulations 2000*. This assessment has found that the proposed modification would:

- result in negligible environmental impacts beyond the approved facility;
- optimise the landfill design; and
- improve stormwater and leachate management at the facility.

The Department concludes that the modified staging and stormwater and leachate management can be undertaken in accordance with the existing conditions of approval, with only administrative changes required to reflect the modification.

Consequently, the Department is satisfied that the modification should be approved.

7. RECOMMENDATION


It is RECOMMENDED that the Director:

- approve the proposed modification under Section 75W of the Act; and
- sign the attached notice of modification (in Appendix A).

Deana Burn
Planner

Industry, Key Sites and Social Projects

 5/8/14
Chris Ritchie
Manager, Industry

 5/8/14
Daniel Keary
Director
Industry, Key Sites & Social Projects

APPENDIX A – NOTICE OF MODIFICATION

See separate file at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6511

APPENDIX B – MODIFICATION ENVIRONMENTAL ASSESSMENT

See separate file at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6511

APPENDIX C – EPA SUBMISSION

See separate file at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6511