NSW GOVERNMENT

Cairncross Waste Management Facility Expansion

State Significant Development Assessment (SSD 5792)

October 2019

Cover photo

Aerial photograph of Cairncross Waste Management Facility and surrounds (Google maps)

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Glossary

Abbreviation	Definition
BAR	Biodiversity Assessment Report
BOS	Biodiversity Offset Strategy
CIV	Capital Investment Value
Consent	Development Consent
Council	Port Macquarie-Hastings Council
DA	Development Application
DCP	Development Control Plan
Department	Department of Planning, Industry and Environment
DoI	Department of Industry – Lands and Water
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	*Environmental Planning and Assessment Act 1979*
EP&A Regulation	*Environmental Planning and Assessment Regulation 2000*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
ESD	Ecologically Sustainable Development
FBA	Framework for Biodiversity Assessment
ha	Hectares
LEP	Local Environmental Plan
LGA	Local Government Area
Minister	Minister for Planning and Public Spaces
OEH	Office of Environment and Heritage
OU	Odour Units
RMS	Roads and Maritime Services
RTS	Response to Submissions
SEARs	Secretary's Environmental Assessment Requirements
Secretary	Secretary of the Department of Planning, Industry and Environment
SEPP	State Environmental Planning Policy
SRD SEPP	*State Environmental Planning Policy (State and Regional Development) 2011*
SSD	State Significant Development

Executive Summary

Introduction

Port Macquarie-Hastings Council (the Applicant) operates the Cairncross Waste Management Facility (CWMF) in Pembrooke, approximately 15 kilometres north-west of Port Macquarie on the NSW mid north coast. The CWMF has operated since 2001 and includes a landfill for municipal solid waste and co-located materials and organics recovery facilities. The CWMF is located on former plantation forest, away from residential areas and is surrounded by native vegetation including the Rawdon Creek Nature Reserve and the Cairncross State Forest. The current landfill is nearing capacity and the Applicant proposes to construct three new landfill cells to provide sufficient capacity for landfilling for a further 36 years.

The Development

The Applicant proposes to construct and landfill three new cells adjacent to the existing landfill, extending the life of the facility by 36 years (the development). The three new landfill cells would be constructed in progressive stages (Stage 1, 2 and 3) commencing in 2020 and closing in 2056. The development would receive 3.7 million cubic metres (m^3) of general solid waste including putrescible and non-putrescible waste and asbestos from collections in the Port Macquarie-Hastings local government area (LGA). The landfill cells would be progressively capped and rehabilitated until the landfill closure in 2056.

The existing CWMF is operated in accordance with a consent issued by Port Macquarie-Hastings Council and an Environment Protection Licence issued by the Environment Protection Authority. The CWMF includes the existing landfill, materials and organics recovery facilities, a waste transfer station, weighbridge, offices and an adjacent industrial precinct. The Applicant does not propose any changes to the existing facilities, and these do not form part of this development application. However, landfilling in the new cells is reliant on the continued use of the existing waste infrastructure.

Engagement

The Department of Planning, Industry and Environment (Department) publicly exhibited the Environmental Impact Statement (EIS) from 15 February 2018 to 16 March 2018. A total of six submissions were received including five from Government agencies and one from the public, none of which objected. Key issues raised by the public related to odour, noise and access. Government agencies requested clarifications on leachate, surface and groundwater management, biodiversity and bushfire risk management. The Applicant provided a Response to Submissions (RTS) in December 2018 and discussed aspects of the RTS with key agencies to clarify the issues raised. Subsequent information was provided by the Applicant in May 2019 which was provided to the relevant agencies. These agencies then provided recommended conditions for the development.

Assessment

The Department's assessment of the application has fully considered all relevant matters under section 4.15 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), the objects of the EP&A Act and the principles of ecologically sustainable development. The Department has considered the strategic and statutory context of the development, including the NSW Waste Avoidance and Resource Recovery Strategy 2014-21. The key issues identified during the assessment and through consultation include leachate, surface water, groundwater, biodiversity and bushfire management.

The Environment Protection Authority (EPA) raised several issues with the EIS, noting the final landform design did not meet the EPA's *Environmental Guidelines: Solid Waste Landfills 2016*. The EPA also requested revised surface and groundwater assessments. The Applicant re-designed some aspects of the leachate barrier and the final landform to be

consistent with the EPA's guidelines and provided amended surface and groundwater assessments. This process took over 12 months to complete.

The Department's assessment of these and other issues concluded the development would be appropriately designed and managed to ensure leachate is captured and treated, surface and groundwater is not contaminated by the development, biodiversity impacts are offset, and bushfire risks are managed. Odour and noise impacts would be minor and below relevant criteria. The development would not substantially increase traffic and would not require any road or intersection upgrades. The Department has recommended a range of conditions to ensure optimal management of the expanded landfill and to minimise residual impacts. The conditions include annual waste limits, landfill compaction and cover requirements, leachate system design, surface and groundwater management plans, biodiversity offsets and bushfire risk management.

Overall, the Department's assessment has concluded the development:

- would ensure continued landfill capacity for the Port Macquarie-Hastings LGA, avoiding disruptions to municipal waste collection
- would utilise an existing waste disposal facility and associated infrastructure, that is co-located with waste diversion facilities
- is consistent with the objectives of the *Waste Avoidance and Resource Recovery Strategy 2014-21* and the *Port Macquarie-Hastings Council Waste Strategy 2017-24*
- would not result in any significant adverse environmental or amenity impacts

Consequently, the Department considers the development is in the public interest and should be approved, subject to conditions.

Contents

1. Introduction

1.1 The Department's Assessment

This report details the Department of Planning, Industry and Environment's (the Department) assessment of the State significant development (SSD) application (SSD 5792) for construction of three additional landfill cells (Stage 1, 2 and 3) at the existing Cairncross Waste Management Facility (CWMF) (the development). The CWMF is located at Pembrooke, approximately 15 kilometres (km) north-west of Port Macquarie in the Port Macquarie-Hastings local government area (LGA), see **Figure 1**.

The Department's assessment considers all documentation submitted by Port Macquarie-Hastings Council (the Applicant) including the Environmental Impact Statement (EIS), Response to Submissions (RTS), supplementary information and submissions received from government authorities, stakeholders and members of the public. The Department's assessment also considers the legislation and planning instruments relevant to the development.

This report describes the development, surrounding environment, relevant strategic and statutory planning provisions and the issues raised in submissions. The report evaluates the key issues associated with the development and provides recommendations for managing any impacts. The Department's assessment has concluded the development is in the public interest and should be approved, subject to conditions.

Figure 1 | Location of Cairncross Waste Management Facility

1.2 Background and Site Description

The Applicant established the CWMF in 2000 and commenced operation in 2001. The CWMF is operated in accordance with Council issued development consents and an Environment Protection Licence (EPL 11189) issued by the Environment Protection Authority (EPA). The CWMF accepts waste from the Port Macquarie-Hastings LGA which includes the major townships of Port Macquarie, Wauchope and Camden Haven. The CWMF currently includes (see **Figure 2**):

- a landfill (Stage E)
- Materials Recycling Facility (MRF)
- Organics Resource Recovery Facility (ORRF)
- waste transfer station
- weighbridge
- offices
- an Industrial Precinct

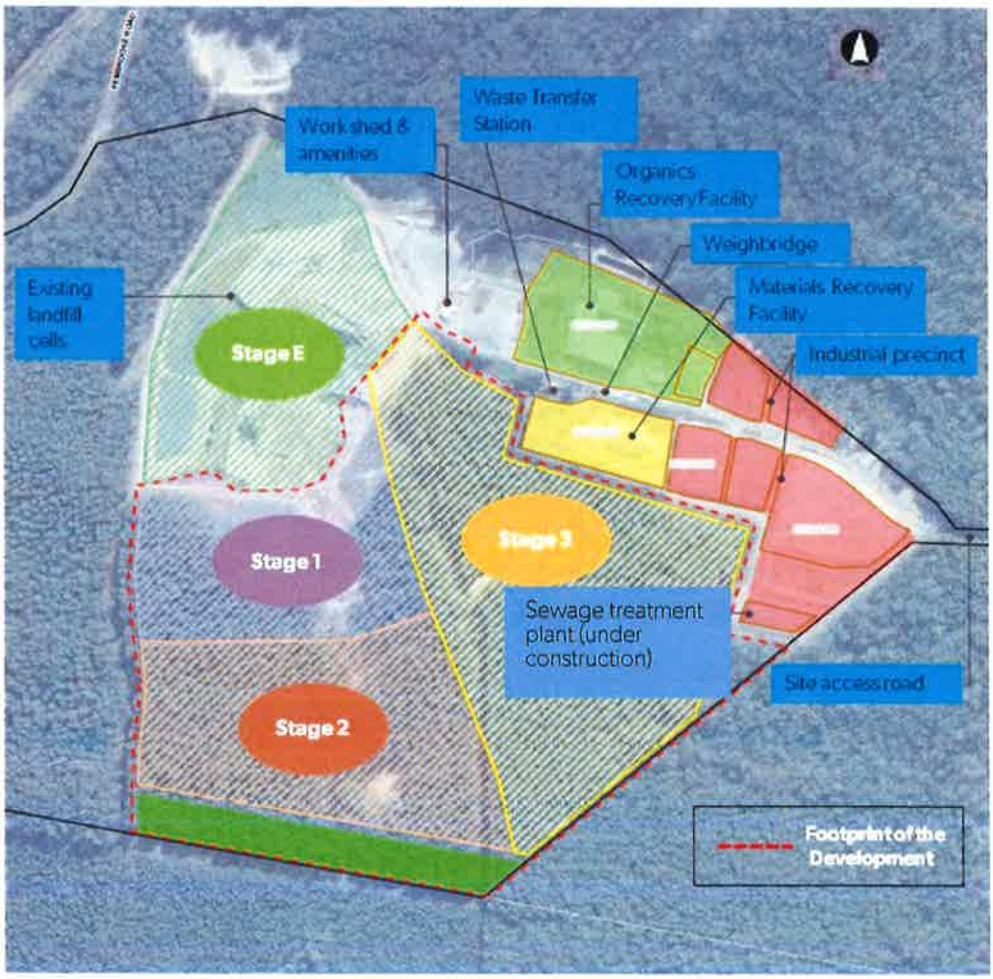

Figure 2 | Layout of the CWMF (existing and proposed development)

The existing landfill covers approximately 10 hectares (ha) and has approval to accept 1.4 million cubic metres (m^3) of waste. The landfill accepts general solid waste including putrescible and non-putrescible waste and asbestos. The current landfill cell is expected to reach capacity in late 2019.

The ORRF receives organic waste from Port Macquarie-Hastings Council (Council) domestic kerbside collections. This material is processed into compost which is sold to agricultural, horticultural and landscaping businesses. The ORRF has sealed tunnels for composting, hardstand areas for stockpile storage and a separate leachate collection pond.

The MRF receives recyclable materials from both Council and Kempsey Shire's domestic collections including paper, glass, plastics and aluminium. Sorted and processed materials are sold to various materials recovery operators. Reject material (approximately 9%) is transferred by truck to the adjacent landfill for disposal. The MRF and ORRF are operated by third parties and are serviced by a separate stormwater management system to the landfill.

The waste transfer station is for domestic use and has a small storage area for tyres, chemicals, batteries and oil which are removed by specialist contractors.

The 7.5 ha Industrial Precinct on the eastern edge of the CWMF includes a sewage treatment plant (STP) (currently under construction), a waste collection vehicle depot, a concrete crushing facility, gas bottle recycling, mattress recycling, e-waste storage, building material recovery and storage.

The Applicant proposes to expand the CWMF by constructing three additional landfill cells (Stage 1, 2 and 3) within the 40.2 ha footprint shown by the dashed red line in **Figure 2**. The development is located to the south and east of the existing Stage E landfill cell and consists of vegetated areas, fire trails, an existing sediment basin and a firefighting water storage basin. Approximately 36 ha of the development is plantation timber, with 32.6 ha of this area approved for clearing in 2004 by the former Department of Infrastructure, Planning and Natural Resources. The approval covered future expansion of the landfill, which was envisaged when the CWMF was first established in 2001. The remaining 3.4 ha comprises Blackbutt grassy forest and would be cleared for Stage 3 of the landfill expansion.

The Applicant does not propose any changes to the existing MRF, ORRF, receival area, waste transfer station, weighbridge and offices, and these do not form part of the SSD application. However, operation of the development (filling the cells with waste) is reliant on the continued use of the existing infrastructure, which is operated in accordance with Council's development consents and EPL 11189.

1.3 Surrounding Land Uses

The CWMF is located west of the Pacific Highway and is accessed from Telegraph Point Road via a sealed, two-lane site access road extending 1.4 km to the site entrance. CWMF adjoins the Rawdon Creek Nature Reserve on its south-eastern boundary. The Nature Reserve covers 565 ha of land managed by the National Parks and Wildlife Service (NPWS). The Cairncross State Forest lies to the north and south and immediately west is an area of compensatory habitat established for the existing waste facility. Rawdon Creek, Pembrooke Road and the north coast rail line are located between 150 to 300 metres (m) to the west of the CWMF. Further west are some rural properties used for agricultural production.

The CWMF location was selected as a waste management facility based on its position remote from residential areas, the lack of surface water flowing through it and its suitable geology. The nearest residences are rural properties located 1.3 km to the north-east and 850 m to the south-west, see **Figure 3**.

1.4 Other Development Consents and Approvals

The existing CWMF is operated in accordance with the following consents and approvals:

- DA 2000/0582 – covers operation of the gatehouse, weighbridge, vehicle storage and the local transfer station
- DA 1999/178 – permitting extractive industries for the existing landfill
- Part 5 approval for landfilling issued by the Applicant in July 1999 and updated in 2013.

The Applicant would continue to operate the CWMF in accordance with the above consents and approvals.

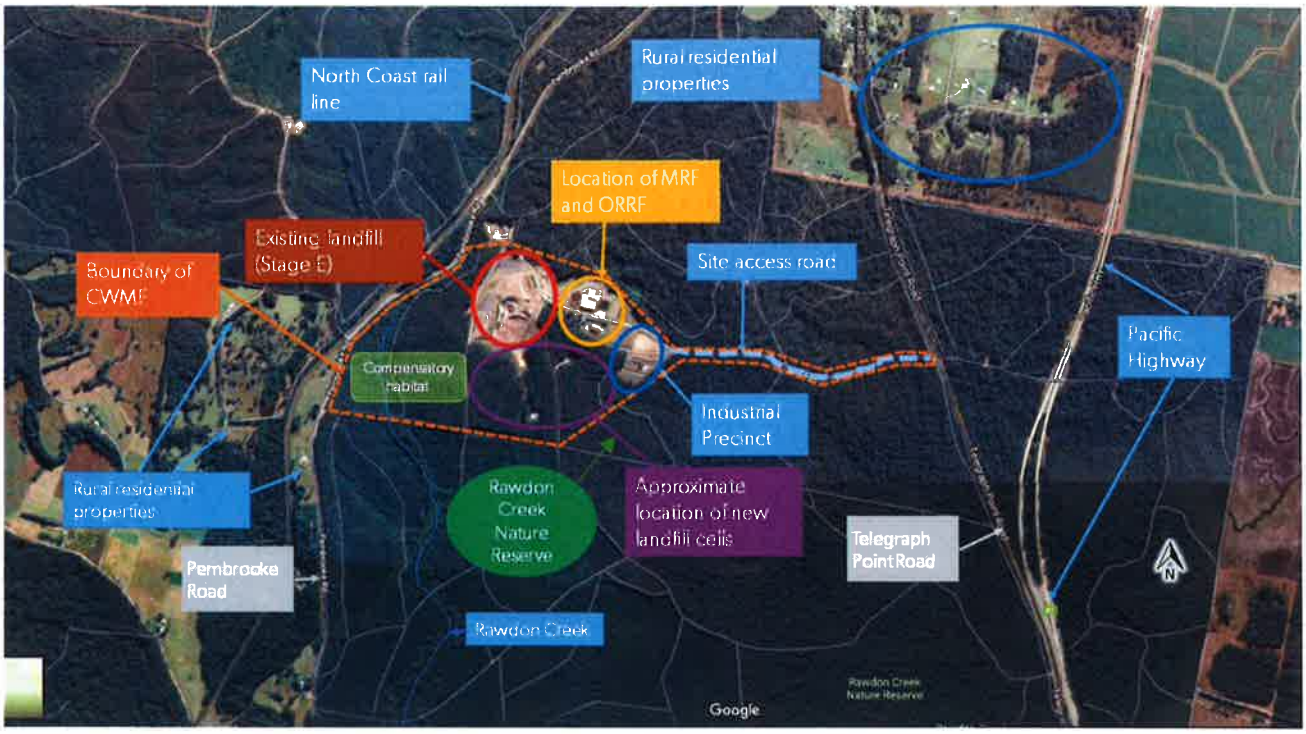

Figure 3 | Surrounding Land Uses

2. Development

2.1 Description of the Development

The key components of the development are summarised in **Table 1**, shown in **Figure 4** to **Figure 9** and described in the Environmental Impact Statement (EIS) and Response to Submissions (RTS) in **Appendix A**.

Table 1 | Main Components of the Development

Aspect	Description
Summary	Expand landfill capacity at the Cairncross Waste Management Facility
Landfill cells (see **Figure 2**)	• Progressively construct, landfill and rehabilitate three additional cells (Stages 1,2 and 3), immediately south and east of the existing landfill • Receive general solid waste including putrescible and non-putrescible materials and asbestos from domestic, commercial and industrial sources
Landfill capacity and life	• Increase capacity by 3.7 million m^3 of waste with a progressive increase in the annual waste acceptance rate • Extend the landfill life by a further 36 years, from 2020 to 2056
Ancillary infrastructure	• Construct internal all-weather access tracks • Install chain-wire fencing around the active landfill cell
Rehabilitation and final landform	• Progressive capping and revegetation of landfill cells as they are completed, including post closure monitoring • Final landform in accordance with the EPA's *Environmental Guidelines: Solid Waste Landfills 2016,* (EPA's landfill guideline), to facilitate runoff and minimise ponding, leachate generation and erosion
Leachate management	• Install a leachate barrier and collection pipes under the landfill liner • Install leachate storage tanks and a rising main to transfer leachate to the adjacent STP
Groundwater management	• Install a drainage collection layer including sumps, risers and pumps at the base of the landfill to prevent groundwater from entering the landfill cells
Surface water management	• Diversion drains around the active landfill and sediment basins for each stage, with manual discharges after rainfall events
Landfill gas management	• Installation of gas extraction bores across the landfill cells to capture methane, (details to be determined following the current gas extraction trial)

Aspect	Description
Clearing	• 3.4 ha of vegetation in the south-eastern corner of Stage 3, not previously approved for clearing for the existing landfill
Bushfire protection	• Maintain a 30 m wide Strategic Fire Advantage Zone (SFAZ) along the south-eastern boundary adjoining the Rawdon Creek Nature Reserve • Provide a minimum 10 m wide defendable space around the landfill including a 6m wide trafficable space to enable access for Rural Fire Service tankers • Maintain a 20 m wide defendable space around each leachate storage tank • Use one sediment basin as firefighting water supply
Habitat protection	• Delineation and on-going management of a 50 m wide koala connectivity corridor on the southern boundary of the landfill
Hours of work	• Monday to Friday (7am to 6pm), Saturdays, Sundays and Public Holidays (8am to 5pm)
Employment	• 5 full-time equivalent staff (consistent with the existing landfill)
Capital investment value	• $56,908,691

Figure 4 | Landfill Expansion Layout

2.2 Staging and Site Infrastructure

Land clearing, landfill excavation, liner construction and installation of leachate and groundwater collection systems would be divided into three stages (1 – 3) and multiple sub-stages and undertaken progressively to allow capping of each landfill sub-cell as it is filled with waste. **Figure 5** shows the extent of the stages and sub-stages. **Figures 6** to **8** show Stages 1, 2 and 3 including the surface water management infrastructure.

Due to the staged nature of landfilling, other site infrastructure such as fencing, water storage dams, internal haul roads, fire trails and signage would also be constructed in a progressive manner, as new sub-stages become active.

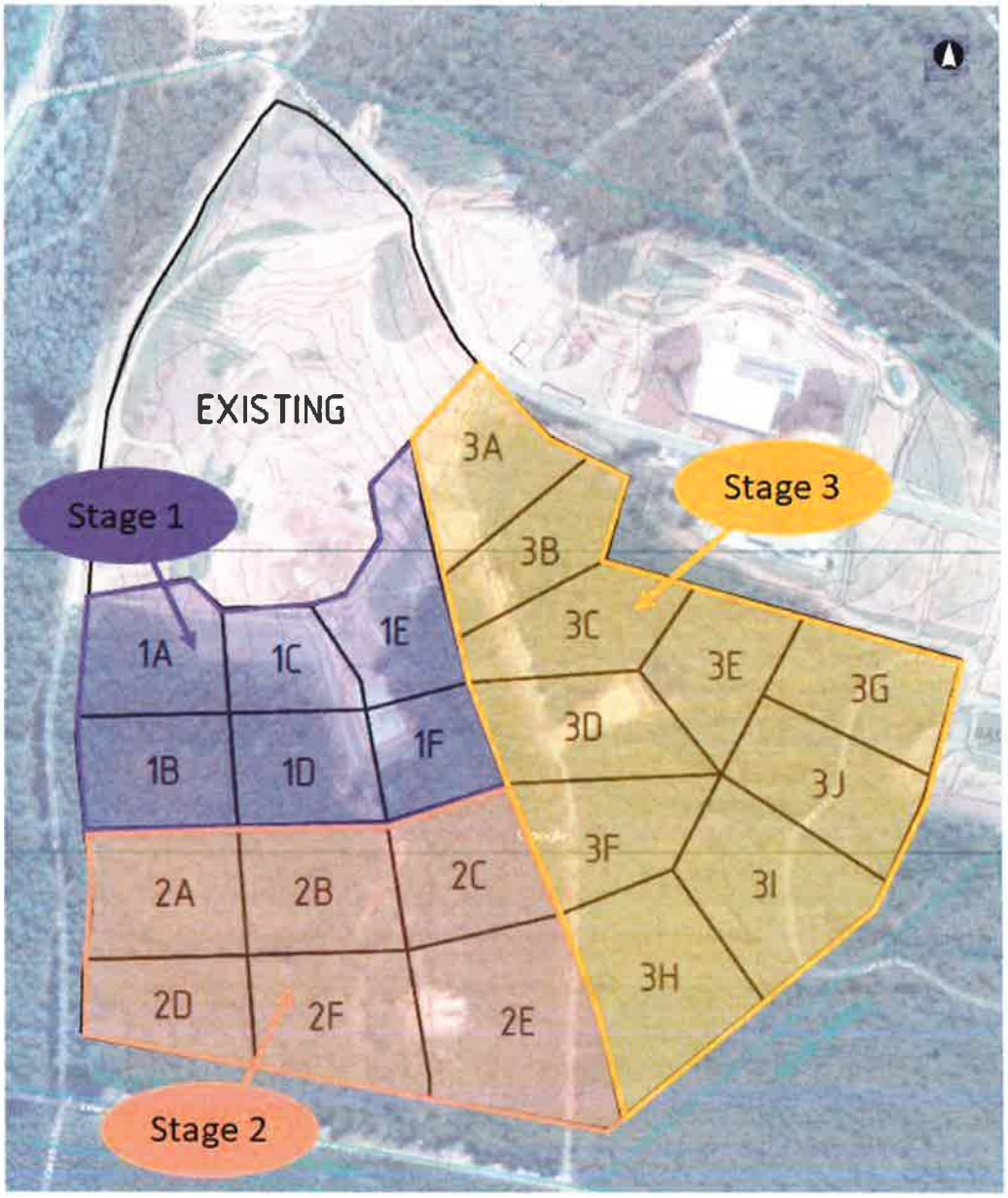

Figure 5 | Staging Plan showing sub-stages

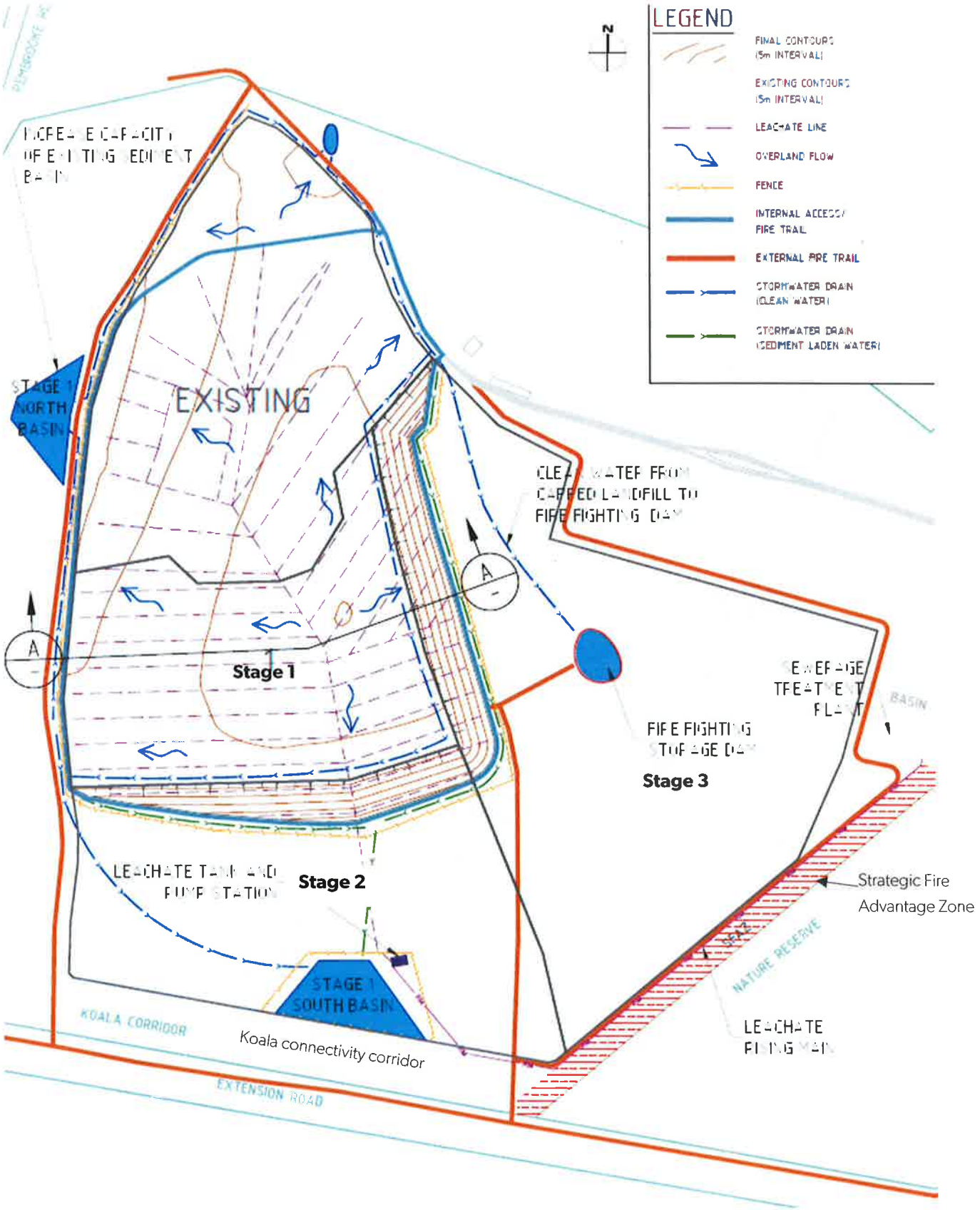

Figure 6 | Stage 1

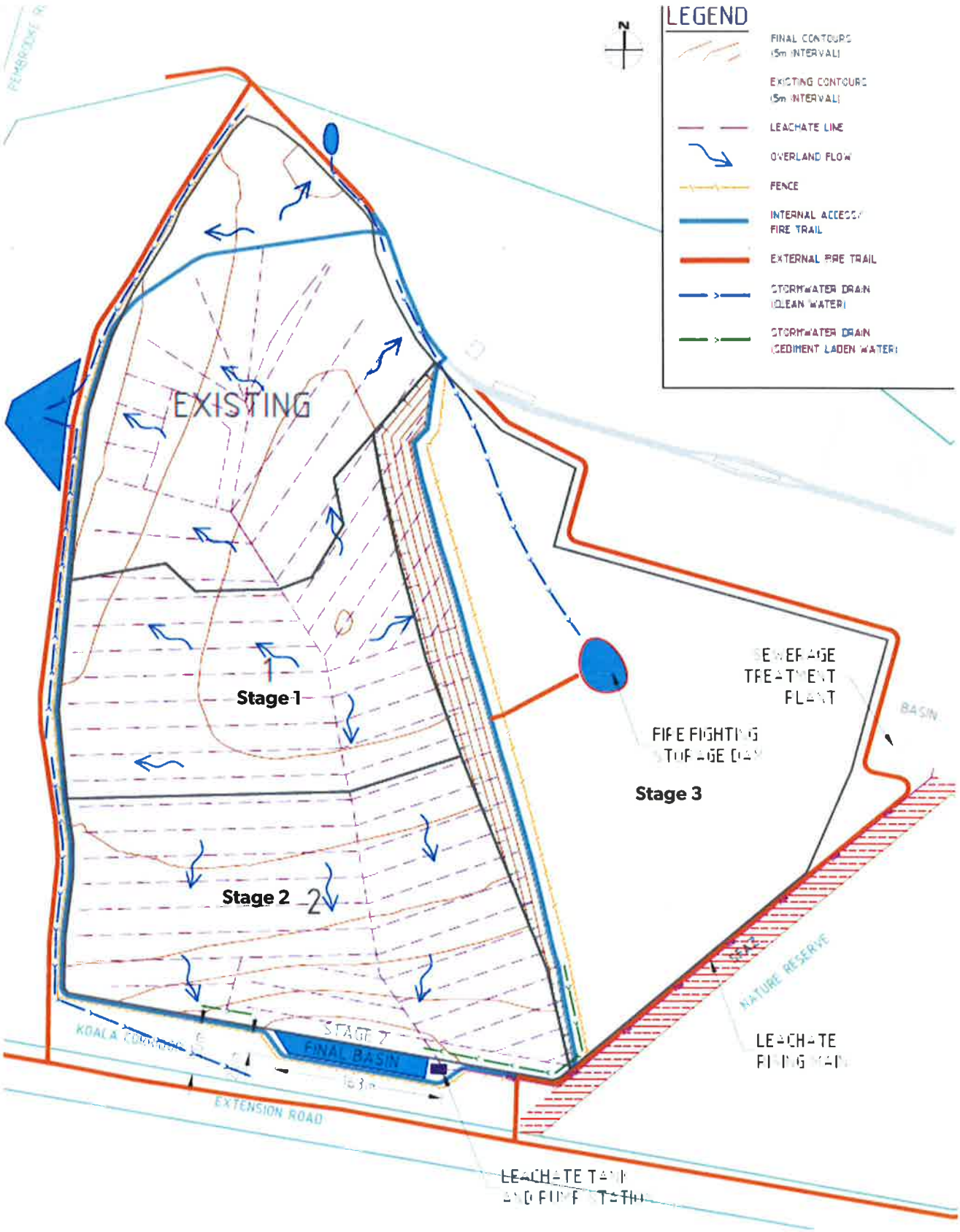

Figure 7 | Stage 2 (final layout)

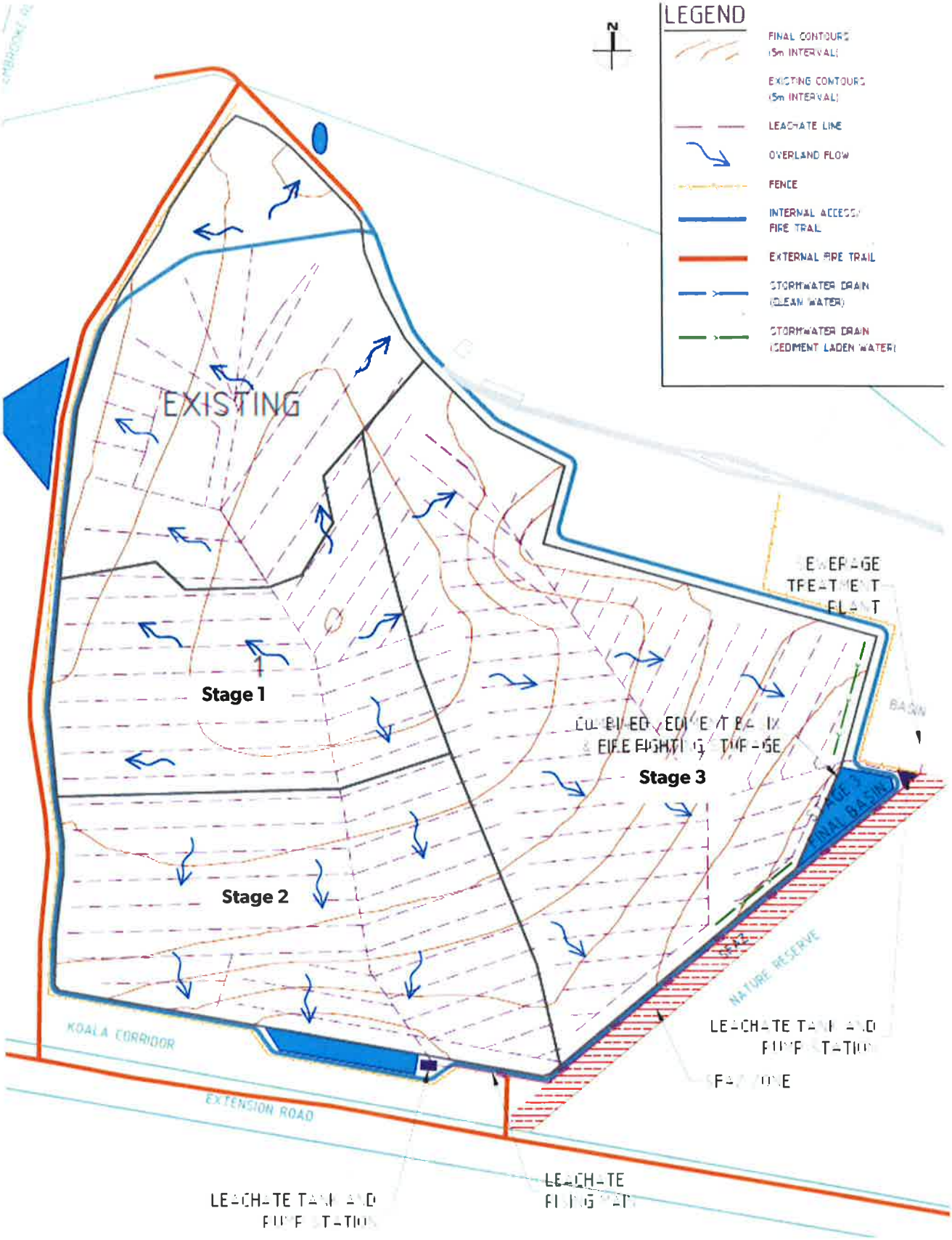

Figure 8 | Stage 3 (final layout)

2.3 Landfill Operation

The landfill would be operated in the same manner as the existing sub-cells of Stage E. The development of each of Stages 1 – 3 would be continuous, to provide continuity of waste disposal, operational efficiencies and minimise disturbed areas. Excavated material would be stockpiled and used for cell capping and to meet waste cover requirements.

Following vegetation clearing and excavation to a predetermined level, the base of a sub-cell would be overlaid with a lining system to prevent leachate from waste entering the groundwater, as well as preventing groundwater from rising into the waste (**Figure 9**).

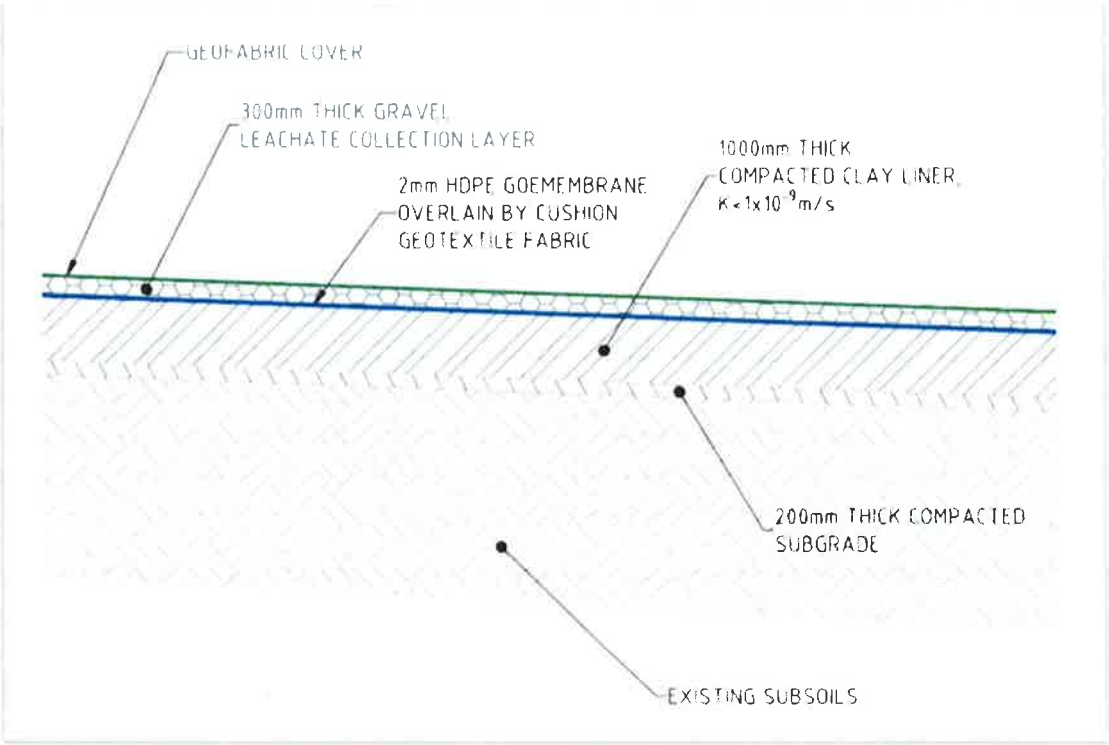

Figure 9 | Typical Cross Section of Landfill Cell Liner

Waste materials arriving at the CWMF would be received and inspected at the weighbridge before entering either the landfill, ORRF or MRF. Municipal waste collection trucks ('red bin' waste) would then proceed directly to the landfill via haul roads constructed over time to lead to the active tip face. Residual (non-recyclable) materials rejected by the MRF would also be brought to the landfill for disposal.

The landfill would accept the same types of waste as currently accepted, including general solid waste (putrescible), including food waste and general solid waste (non-putrescible), including asbestos. At the end of each day, the active tip face would be covered with 150 mm of daily cover material, in accordance with the EPA's landfill guideline.

2.4 Landfill Cell Design

The concept design for the development was undertaken by the Applicant's in-house engineers in accordance with the EPA's landfill guideline.

The delineation of Stages 1, 2 and 3 is largely based on the requirements of the water catchment drainage boundaries, placement of sediment basins and the leachate collection system design parameters. In addition to the landfill cells, the development includes a:

- leachate barrier, collection, storage and disposal system

- groundwater collection system
- surface water management system, including diversion drains and sediment basins
- landfill gas monitoring system

Further details of these systems and their control of environmental impacts are discussed in Section 6.

2.5 Capping and Closure

Each sub-cell would be filled progressively with compacted waste, daily cover and intermediate cover up to the final design contour level. The sub-cell would then be capped in accordance with the EPA's landfill guideline, using stockpiled material. Following capping, a revegetation layer of clay and topsoil would be installed to support planting of grass cover of a suitable native species.

2.6 Applicant's Need and Justification for the Development

The Applicant proposes to expand the landfill at the CWMF to service the waste disposal needs of the local community, as the existing landfill cell is expected to reach capacity in late 2019. Over the past few years, the Applicant has established recycling programs and infrastructure projects (such as the MRF and ORRF) to reduce waste going to landfill, however there remains the need for putrescible and non-putrescible landfill capacity into the foreseeable future. Additionally, for some wastes, such as asbestos there is no current reuse, recycling or treatment option available.

The Applicant has calculated the size of the proposed new landfill cells based on future disposal capacity requirements for the region. Various scenarios were considered, with different waste generation growth rates applied. A 'moderate' growth rate scenario was adopted for further modelling purposes as it was deemed to be conservative yet realistic. The 'moderate' scenario resulted in a predicted development lifespan of up to 36 years (to 2056), which would provide the Applicant with certainty regarding waste disposal in the medium to long term.

The Applicant notes the expansion of the existing landfill provides a significant opportunity to utilise an existing, well-managed waste disposal location that offers multiple adjacent waste diversion facilities, and therefore a co-ordinated and efficient waste management solution for the area.

3. Strategic Context

3.1 North Coast Regional Plan (Regional Plan)

The North Coast Regional Plan 2036 provides a 20-year blueprint for the future of the North Coast. The Regional Plans vision for the North Coast is to create 'the best region in Australia to live, work and play thanks to its spectacular environment and vibrant communities'. To achieve this vision the Government has set the following four goals:

1. The most stunning environment in NSW
2. A thriving, interconnected economy
3. Vibrant and engaged communities
4. Great housing choice and lifestyle options

Goal 1, Direction 1: Deliver environmentally sustainable growth seeks to ensure that the future expansion of the Region is generally contained within identified growth areas and incompatible land uses, such as waste facilities, are separated from urban growth areas. The development involves the expansion of a pre-identified landfill site which is appropriately separated from sensitive receivers.

Additionally, in relation to Goal 1 the Regional Plan notes that the koala population on the North Coast is coming under increased stress, and protecting habitat is an important factor in reducing this stress and halting the decline of the population. The Application seeks to support the protection of koalas and their habitat through the provision of a 50 m wide koala connectivity corridor around the south-western edge of the landfill.

Overall, the development is consistent with the relevant goals and directions outlined in the Regional Plan.

3.2 Waste Avoidance and Resource Recovery Strategy 2014-21 (WARR Strategy)

Reducing waste and keeping materials circulating within the economy are priorities for the NSW Government, as set out in NSW 2021. To meet this important challenge, the government developed the state-wide WARR Strategy. The key result areas of the WARR Strategy are:

1. avoid and reduce waste generation
2. increase recycling
3. divert more waste from landfill
4. manage problem wastes better
5. reduce litter
6. reduce illegal dumping

The development would contribute to the key result areas, two through to six, through the provision of a best practice landfill within the CWMF with operational procedures that support the diversion of reusable materials from the landfill. This would support an increase in recycling and diversion of waste from landfill by allowing for improved separation of waste streams and diversion of recoverable materials to the adjacent ORRF and MRF.

As discussed in Section 6.5, the Applicant implements measures to prevent illegal dumping and reduce litter (both within the site and adjacent areas), and would continue these measures for the expanded landfill.

3.3 Port Macquarie-Hastings Council Waste Strategy: 2017-2024 (PMHC Waste Strategy)

The PMHC Waste Strategy outlines a strategic direction for all of Council's waste and resource management activities. It includes a range of projects, initiatives and actions and has been developed to align with the WARR Strategy and the region's MIDWASTE Regional WARR Strategy. The PMHC Waste Strategy aims to:

- encourage safe, cost effective, innovative and convenient waste services
- encourage adoption of the best available waste management technologies/delivery methods
- ensure consistency with PHMC's policies and Community Strategic Plan

The PMHC Waste Strategy acknowledges the success of a single landfill and central waste and resource management hub at the CWMF and calls for certainty with respect to the long-term planning and delivery of Council's future waste needs. The proposed development is one of the key actions for achieving the objectives of the PMHC Waste Strategy.

4. Statutory Context

4.1 State Significant Development

The development is State significant development (SSD) pursuant to Clause 2, Section 4.36 of the EP&A Act because it involves an extension to a putrescible landfill that meets the criteria in Clause 23 of Schedule 1 in State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP). Consequently, the Minister for Planning and Public Spaces is the consent authority for the development.

4.2 Permissibility

The development is located on land zoned SP2 – Infrastructure (Waste or Resource Management Facility), under the Port Macquarie-Hastings Local Environmental Plan 2011 (PMH LEP). The development is permissible with consent in the SP2 zone and is consistent with the objectives of the zone.

4.3 Consent Authority

On 11 October 2017, the Minister delegated the functions to determine SSD applications to the Executive Director Compliance, Industry and Key Sites where:

- the relevant local council has not made an objection and
- there are fewer than 25 public submissions in the nature of objections and
- a political disclosure statement has not been made.

There were no public submissions objecting to the development and Council has not objected. No reportable political donations were made by the Applicant in the last two years and no reportable political donations were made by any persons who lodged a submission.

Accordingly, the application can be determined by the Executive Director Compliance, Industry and Key Sites under delegation.

4.4 Other Approvals

Under Section 4.42 of the EP&A Act, other approvals may be required and must be approved in a manner that is consistent with any Part 4 consent for the SSD under the EP& A Act.

The CWMF currently operates under an Environment Protection Licence (EPL 11189). The EPA advised the development would require a variation to the EPL under the POEO Act and provided recommended conditions consistent with those that would be included in the EPL for the development.

4.5 Considerations under Section 4.15 of the EP&A Act

Section 4.15 of the EP&A Act sets out matters to be considered by a consent authority when determining a development application. The Department's consideration of these matters is presented throughout **Section 6** and summarised in **Appendix B**. In summary, the Department is satisfied the development is consistent with the requirements of section 4.15 of the EP&A Act.

4.6 Environmental Planning Instruments

Under section 4.15 of the EP&A Act, the consent authority, when determining a development application, must take into consideration the provisions of any environmental planning instrument (EPI) and draft EPI (that has been subject to public consultation and notified under the EP&A Act) that apply to the development.

The Department has considered the development against the relevant provisions of several EPIs including:

- State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)
- State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)
- State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)
- State Environmental Planning Policy No. 44 – Koala Habitat Protection (SEPP 44)
- State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)
- Port Macquarie-Hastings Local Environmental Plan 2011 (PMH LEP)

Development Control Plans (DCPs) do not apply to SSD under Clause 11 of the SRD SEPP. However, the Department has considered the relevant provisions of the Port Macquarie-Hastings Development Control Plan 2013 (PMH DCP) in its assessment of the development in **Section 6** of this report.

Detailed consideration of the provisions of all EPIs that apply to the development is provided in **Appendix B**. The Department is satisfied the development generally complies with the relevant provisions of these EPIs.

4.7 Public Exhibition and Notification

In accordance with Section 2.22 and Schedule 1 to the EP&A Act, the development application and any accompanying information of an SSD application are required to be publicly exhibited for at least 28 days. The application was on public exhibition from 15 February 2018 until 16 March 2018 (30 days). Details of the exhibition process and notifications are provided in **Section 5** of this report.

4.8 Objects of the EP&A Act

In determining the application, the consent authority should consider whether the development is consistent with the relevant objects of the EP&A Act. These objects are detailed in Section 1.3 of the Act. The Department's consideration of the relevant Objects of the EP&A Act is provided in **Table 2**.

Table 2 | Considerations of the Objects of the EP&A Act

Object	Consideration
(a) *to promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources*	The development would ensure the proper management and conservation of natural resources, including native vegetation on the site. The Applicant has committed to implementing a biodiversity offset strategy prior to clearing for Stage 3, to ensure biodiversity impacts are adequately offset. The Applicant has also committed to provide and maintain a 50m wide koala connectivity corridor as part of the development.
(b) *to facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment*	The development is consistent with the principles of ESD as it would utilise an existing landfill for continued waste disposal of the region's waste without adverse impacts on the environment.
(c) *to promote the orderly and economic use and development of land*	The development would ensure the orderly and economic use of the land, as the development would use existing

Object	Consideration
	waste infrastructure for on-going waste disposal for the Port Macquarie-Hastings LGA.
(e) *to protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats*	The development has been designed to avoid impacts on native animals and plants, with the remaining impacts to be offset through implementation of a biodiversity offset strategy. The Applicant has also designed the development to incorporate a koala connectivity corridor to provide connection between native vegetation to the east, south and west of the site.
(i) *to promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State*	The Department has assessed the development in consultation with, and giving due consideration to, the technical expertise and comments provided by other Government agencies, consistent with the object of sharing the responsibility for environmental planning.
(j) *to provide increased opportunity for community participation in environmental planning and assessment*	The application was exhibited in accordance with Schedule 1 of the EP&A Act to provide opportunity for public involvement and participation in the assessment. Section 5 provides further details of the public participation process.

4.9 Ecologically Sustainable Development

The EP&A Act adopts the definition of ESD found in the *Protection of the Environment Administration Act 1991*. Section 6(2) of that Act states that ESD requires the effective integration of economic and environmental considerations in decision-making processes and that ESD can be achieved through the implementation of:

(a) the precautionary principle
(b) inter-generational equity
(c) conservation of biological diversity and ecological integrity
(d) improved valuation, pricing and incentive mechanisms.

The potential environmental impacts of the development have been assessed and, where potential impacts have been identified, mitigation measures and environmental safeguards have been recommended.

As such, the Department considers that the development would not adversely impact on the environment and is consistent with the objectives of the EP&A Act and the principles of ESD.

4.10 Environment Protection and Biodiversity Conservation Act 1999

Under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), assessment and approval is required from the Commonwealth Government if a development is likely to impact on a matter of national environmental significance (MNES), as it is considered a 'controlled action'. The EIS included a preliminary assessment of the MNES checklist and concluded the development would not impact on any of these matters and is therefore not a 'controlled action'. As such, the Applicant determined a referral to the Commonwealth Government was not required.

5. Engagement

5.1 Consultation

The Applicant, as required by the Planning Secretary's Environmental Assessment Requirements (SEARs), undertook consultation with relevant local and State authorities as well as the community and affected landowners. The Department undertook further consultation with these stakeholders during the exhibition of the EIS and throughout the assessment of the application. These consultation activities are described in detail in the following sections.

Consultation by the Applicant

As expansion of the landfill at the CWMF was an important feature of the PMHC Waste Strategy, the Applicant integrated community consultation during preparation of the EIS into the consultation for the update of the PMHC Waste Strategy in early 2017. This included:

- publishing a 'have your say' webpage on the Applicant's website from 16 March to 14 April 2017
- contacting the Telegraph Point Community Association to highlight the proposed landfill expansion

Other activities undertaken by the Applicant during preparation of the EIS included:

- contacting the Cairncross Tip Action Group (in 2015)
- discussions with adjoining landowners (NPWS and private owners)

No comments or feedback was received from any of these outlets on the landfill expansion.

Consultation by the Department

After accepting the EIS for the application, the Department:

- made it publicly available from **15 February 2018** until **16 March 2018** (30 days):
  - on the Department's website
  - at NSW Service Centres
  - at the Department's Sydney office
  - at Port Macquarie-Hastings Council offices
- notified landowners in the vicinity of the site about the exhibition period, by letter
- notified relevant State government agencies and Council, by letter
- advertised the exhibition in the Port Macquarie Express and the Kempsey Mid Coast Observer.

All notification and public participation statutory obligations have been satisfied.

The Applicant provided a Response to Submissions (RTS) in December 2018, which was provided to Government agencies for review and published on the Department's website (see **Appendix A**). In February 2019, the Department met with the Applicant to discuss some technical aspects of the RTS and the Applicant provided a supplementary response in May 2019. This supplementary response was also published on the Department's website.

5.2 Summary of Submissions

During the exhibition period, a total of six submissions were received, including five from government agencies and one from the general public. Of the six submissions received, none objected to the development. A link to each submission is included in **Appendix D**.

Key Issues – Government Agencies

During its review of the EIS, the **Environment Protection Authority** (EPA) identified the following issues and requested additional assessment information:

- the surface water assessment was not adequate
- requested additional investigation into existing leachate contamination of surface water
- requested further design details for the leachate barrier and continency for leachate storage (if the sewage treatment plant is not online)
- sediment basin design not in accordance with relevant guidelines
- groundwater monitoring not consistent with the existing EPL
- inappropriate trigger values used for groundwater
- design and location details for the groundwater trench required before construction
- final landform slopes and capping not in accordance with the EPA's landfill guideline
- need for a landfill gas monitoring program.

Following its review of the Applicant's Response to Submissions (RTS), the EPA provided recommended conditions for the development.

The **Office of Environment and Heritage** (OEH) requested further consideration of biodiversity impacts on the adjoining Rawdon Creek Nature Reserve and raised some questions about the proposed koala habitat corridor. OEH requested a biodiversity offset strategy and recommended the buffer to the adjacent Rawdon Creek Nature Reserve exclude sediment basins and the strategic fire advantage zone (SFAZ). Following a review of the RTS, OEH noted its support for the proposed biodiversity offset strategy, the proposed rezoning of the koala corridor and the design changes to the Stage 3 sediment basin. OEH noted some residual concerns with the buffer to the Rawdon Creek Nature Reserve, including the encroachment of the SFAZ, the sediment basin and leachate tanks. These concerns were discussed in supplementary information submitted by the Applicant in May 2019. In its final correspondence, OEH maintained it would prefer a wider buffer to the nature reserve, but did not object to the development and recommended conditions for a vegetation management plan.

Rural Fire Service (RFS) noted the site is mapped bush fire prone land and found that the information submitted in the EIS did not align with the recommendations in the Bushfire Assessment Report. RFS also requested a draft Fire Management Plan prior to determination of the application. Following a review of the RTS, RFS recommended conditions for the development including requirements for minimum defendable spaces around the operational areas of the landfill and trafficable spaces to enable access for RFS tankers. RFS also recommended conditions for maintaining the SFAZ and detailed specific requirements for the Fire Management Plan.

Department of Industry, incorporating Water, Fisheries and Crown Lands (DoI) identified some gaps in the assessment of groundwater, stormwater and consideration of the Harvestable Rights Dam Policy. DoI identified the need for alternative water supply, particularly during drought years, and also requested further assessment of groundwater impacts and impacts from any increases in downstream flows from the sediment dams and the groundwater collection system. Following a review of the RTS, DoI recommended conditions for a detailed Water Management Plan.

Community Key Issues

The Department received one submission from the general public during the exhibition period. The public submission raised no objection to the development but identified some matters for consideration including, noise from truck reversing beepers, pro-active odour management and road access. The Department has considered these issues throughout its assessment of the application, see **Section 6**.

5.3 Response to Submissions (RTS)

To address the issues raised in submissions, the Applicant re-designed some aspects of the leachate barrier and the final landform to be consistent with the EPA's landfill guideline. The Applicant also revised the surface and groundwater assessments to address the comments raised. In December 2018, the Applicant provided a RTS to address the issues raised. The RTS was accompanied by an amended proposal description, amended Concept Design Report, Addendum Surface Water and Groundwater Quality Assessment, Addendum Hydrogeological Assessment, a Biodiversity Offset Strategy and information regarding harvestable rights dam capacity (**Appendix A**). The RTS was provided to key agencies to consider whether it adequately addressed the issues raised. Following a review of the RTS, some agencies requested further clarifications, which the Applicant provided in a supplementary submission in May 2019 (also contained in **Appendix A**). The process of responding to the issues took over 12 months to complete. The Department received final recommended conditions from the EPA, OEH, DoI and RFS in July 2019.

6. Assessment

The Department has considered the EIS, issues raised in submissions and the RTS in its assessment of the development. The Department considers the key assessment issues are:

- leachate management
- surface water and groundwater
- biodiversity
- bushfire management

Several other issues have also been assessed including waste management operations, odour, noise, landfill gas, traffic, rehabilitation, final landform and heritage, see **Section 6.5**.

6.1 Leachate

Leachate is liquid waste generated by waste decomposition and from water passing through waste and extracting contaminants from it. The volume of leachate is influenced by the amount of rainfall that infiltrates the landfill cell.

Potential Impacts

The development has the potential to produce leachate that, if not properly managed, can enter groundwater or surface water on or near the CWMF. A key aspect of landfill management is the minimisation, management and treatment of leachate.

The EIS included an assessment to evaluate the capacity of the proposed leachate management system to effectively collect, treat and dispose of leachate from the expanded landfill. The existing Stage E and the proposed Stage 1 and Stage 2 are located within a catchment that drains south to the State Forest. Stage 3 is located within a catchment that drains south-east towards Rawdon Creek Nature Reserve. This natural catchment layout was taken into consideration when designing the leachate management system. The quality of leachate generated is expected to be similar to that generated by the existing Stage E landfill.

The volume of leachate produced was predicted under five scenarios using the Hydrological Evaluation of Landfill Performance (HELP) model, 45 years of meteorological data and site-specific historical leachate pump-out data. The modelling results showed the maximum monthly leachate generation would occur during landfilling in Stage 3. This worst-case scenario predicted up to 2,280 m^3 of leachate would be generated per month during a high rainfall year.

Leachate Management Strategy

The Applicant's overall leachate management strategy includes:

- a leachate management system including a leachate barrier within the cell liner, collection pipes, storage tanks and disposal via a rising main to the adjacent sewage treatment plant (STP)
- prevention of surface water infiltration through daily and intermediate landfill cover and the final capping design
- profiling of the landform to facilitate runoff and minimise ponding and leachate generation
- groundwater monitoring to detect any failures of the leachate management system.

Leachate Management System

The proposed leachate management system includes a leachate barrier system (landfill cell liner) that incorporates a network of slotted 100 mm leachate collection pipes within a 300 mm thick gravel layer (see Section 2.3 and **Figure 9**). The maximum spacing of leachate collection pipes would be 25 m, laid at longitudinal grades of >1% and >3% transverse grade. The pipes would drain via gravity to leachate storage tanks and a pump system. The number and location of the leachate storage tanks would vary as the landfill stages progress. The leachate storage tanks would be positioned above-ground and, to allow for the worst-case scenario, have sufficient storage capacity to accommodate two days of leachate at the maximum predicted generation rate. Ultimately leachate would be transferred via a rising main along the south-eastern boundary of the landfill for treatment and disposal at the STP adjacent to the CWMF. In the event the STP is unable to accept leachate, the Applicant's contingency plan involves transport of leachate in tankers offsite to STPs in Port Macquarie or Wauchope.

In its submission on the EIS, the EPA requested more information on the storage capacity of the leachate tanks and contingency measures for leachate storage and disposal. The Applicant provided this information in the RTS. The EPA was satisfied with the response and had no further comments on the design of the leachate management system, noting it was prepared in accordance with the EPA's landfill guideline. The EPA recommended conditions including requirements for the design and performance of the leachate management system, bunding of the storage tanks and monitoring groundwater to detect any leachate contamination.

The leachate storage tanks would be located within the proposed koala connectivity corridor on the southern boundary and the Strategic Fire Advantage Zone on the south-eastern boundary. The RFS noted the need to maintain defendable space around the storage tanks. The Applicant confirmed it would maintain a 20 m defendable space around the tanks.

Department's Consideration

The Department reviewed the proposed leachate management system and advice provided by the EPA and RFS. The Department notes the Applicant re-designed some aspects of the leachate barrier system to ensure it meets the requirements of the EPA. The proposed leachate system has adequate storage capacity for the worst-case scenario (high rainfall) and incorporates sufficient contingency to manage any unexpected interruptions to disposal at the adjacent STP. The Applicant would also comply with RFS' requirements for defendable space around the leachate storage tanks.

The Department's assessment concludes the design of the final landform would reduce the generation of leachate and the proposed system would adequately capture, store and dispose of leachate to meet relevant discharge criteria (at the STP). The Department has recommended the Applicant prepare a leachate management plan, detailing the specific measures to prevent leachate from contaminating surrounding surface water, groundwater and soils. The Department requires this plan to be approved by the Planning Secretary before landfilling in Stage 1 can commence.

The leachate management system would remain in place to capture and treat leachate following final capping and closure of the landfill after 2056. The Department has recommended a condition requiring the Applicant to detail the procedures for on-going leachate management after closure, within a Landfill Closure Plan.

With these measures in place, the Department concludes leachate from the expanded landfill would be adequately monitored and managed to minimise potential offsite impacts on surface water, groundwater and soils.

6.2 Surface Water and Groundwater

The landfill expansion has the potential to impact on surface water in Rawdon Creek, which is located around 2 kilometres to the south of the site, within the Hastings-Camden Haven catchment. The development also has the potential to impact on groundwater by intercepting flows or contaminating groundwater with leachate. The EIS

included a surface water and groundwater assessment to determine potential impacts and propose specific management controls. The Applicant issued a revised assessment in the RTS to address substantial comments by the EPA about the adequacy of the assessment and the impact of the existing landfill on surface and groundwater.

Surface water

The area for Stage 1 and 2 of the landfill drains south via an ephemeral gully directly into Rawdon Creek. The area for Stage 3 of the landfill drains south-east via an ephemeral gully eventually draining into Tommy Owens Creek, and Rawdon Creek around 2 kms to the south-east. The Applicant's RTS noted the Hastings-Camden Haven catchment is considered a moderately disturbed catchment with elevated nutrient levels. The Applicant's RTS presented some surface water monitoring data from points in and around the landfill, noting elevated concentrations of manganese, nitrate and phenols.

Surface water on the site is currently directed away from waste storage areas and the active landfill and is collected in a series of sediment basins. Water from the basins is used on site for dust suppression and is discharged following rainfall events (after sediments have settled in the basin) to maintain capacity for the next rainfall event. The Applicant would replicate this system for the expanded landfill, with sediment basins progressively moved south and south-east as the landfill stages progress. **Figure 10** shows the location of the final basins, which would remain in place following capping and closure of the landfill. The Applicant conducts quarterly monitoring of the sediment basins and monitoring of discharges, in line with the existing EPL. The sampling program would be expanded to include the sediment basins for Stages 1, 2 and 3.

The RTS also included further analysis of a previous leachate outflow event to address concerns raised in the EPA's submission. The analysis indicated there had been some historical (2009 and 2010) contamination of sediment basins with leachate. The Applicant implemented improvements in the leachate management system for the existing landfill to avoid further contamination of surface water. Subsequent monitoring in 2011 indicated the concentrations had returned to background levels. The EPA did not raise any further issues on this matter.

The EPA reviewed the revised surface water assessment and concept design submitted in the RTS and provided recommended conditions for the development. The EPA recommended quarterly surface water monitoring and requested the Applicant prepare a comprehensive water management plan detailing best practice management for ensuring surface water is not contaminated by leachate.

Department's Consideration

The Department reviewed the revised surface water assessment and the comments provided by the EPA. The Department considers the proposed surface water management system has been adequately designed to divert clean water away from operational areas and to sufficiently capture and retain flows in sediment basins on the site. The Department supports the reuse of captured stormwater on the site for dust suppression and notes the EPL would require regular monitoring of water quality. The Department has recommended conditions to ensure surface water quality is monitored and managed and recommends the Applicant obtain approval from the Planning Secretary for the water management plan, prior to landfilling. With these conditions in place, the Department concludes the surface water impacts of the development would be adequately minimised, monitored and managed.

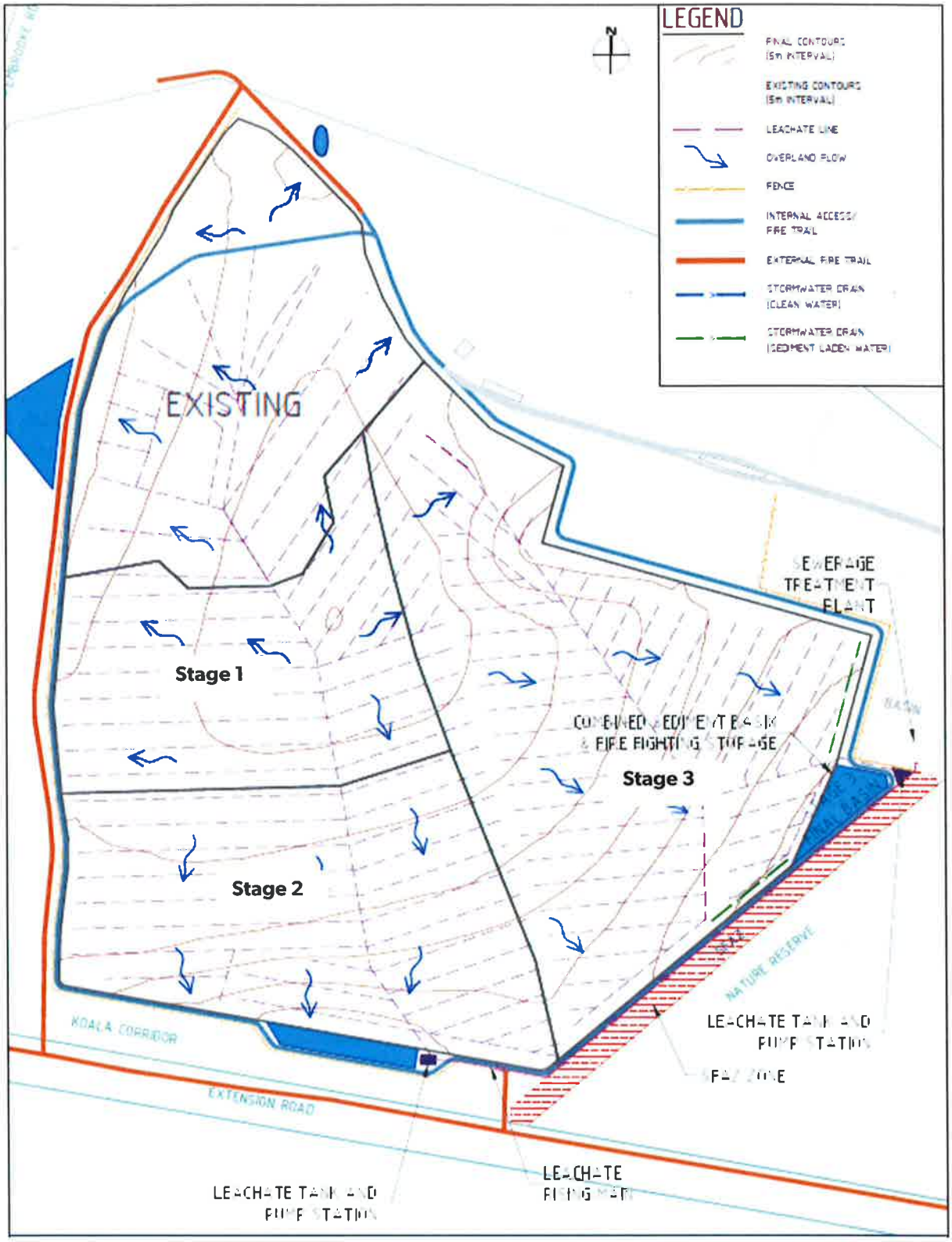

Figure 10 | Final Sediment Basins

Groundwater

The RTS noted groundwater at the site is located between 2.8 to 10 m below ground level (mbgl) and flows from the north and west towards Rawdon Creek and the Hastings River in the south. The Applicant maintains 9 monitoring bores across the existing landfill and the proposed expansion area. Monitoring from these bores has shown elevated concentrations of dissolved metals, absorbable organic halogens, fluoride and ammonia in the

groundwater. The RTS stated this is consistent with anaerobic decomposition of organic matter within the shale bedrock system which generates ammonia, and is not attributable to the landfill. The RTS noted leachate has a different chemical composition to the groundwater indicating there is no mixing of leachate with groundwater at the site.

The Applicant proposes a finished floor level for the landfill at 2 m above the long-term average groundwater level. However, there is potential for groundwater ingress into the landfill during maximum groundwater levels. Raised groundwater levels can also cause hydrostatic uplift with the potential to damage the landfill lining system and allow groundwater intrusion into the landfill cell. To avoid these impacts, and to address the concerns raised by the EPA in its EIS submission, the Applicant proposes to construct a groundwater collection system underneath the base of the landfill to capture and divert groundwater away from the waste mass. The Applicant estimated groundwater inflow rates during excavation of the cells and during landfilling to guide design of the system. Groundwater would be collected in sumps and tested against relevant trigger levels to determine if it can be discharged to the sediment basins or direct to surface water. Groundwater that does not meet the trigger levels would be used on site for dust suppression, disposed off-site to a licensed liquid waste facility or pumped to the adjacent STP for treatment.

The EPA reviewed the RTS and provided recommended conditions for managing impacts on groundwater. The EPA requested it approve the detailed specifications and construction plans for the proposed groundwater collection system, prior to its construction. EPA also requested a comprehensive water management plan for the development, incorporating groundwater. The EPA indicated the EPL would include a condition requiring a pollution study prior to construction of the groundwater collection system if groundwater is to be intercepted and discharged as surface water.

Department's Consideration

The Department reviewed the revised groundwater and hydrogeological assessments included in the RTS and the advice provided by the EPA. The Applicant responded to the EPA's first submission on the EIS by proposing a more sophisticated groundwater collection system underneath the landfill, as described in the RTS. The RTS presented two design options for this collection system, with a final option to be selected during detailed design. The EPA requested it review the detailed design before the collection system is constructed and the Department has included this as a recommended condition. The Department considers the Applicant has adequately addressed the issues raised by the EPA. The recommended conditions also enable any future design aspects to be resolved before construction. The Department has recommended the Applicant prepare a Groundwater Management Plan before landfilling commences, detailing the specific water quality trigger levels that would allow discharge of groundwater or direct its off-site disposal. The EPA requested the management plan include contingencies to manage any detected groundwater contamination. The Department concludes the potential groundwater impacts of the development have been adequately considered and addressed through design measures.

6.3 Biodiversity

The development has the potential to impact on native flora and fauna through removal of native vegetation to construct the additional landfill cells.

Background

The CWMF is located adjacent to large patches of native vegetation including the Rawdon Creek Nature Reserve to the east and forestry areas to the north and south. The area immediately to the west contains native vegetation protected as a biodiversity offset area for the existing CWMF. The vegetation to the south and east is a continuous stand of native vegetation covering around 1,800 ha.

Most of the CWMF is located on a former timber plantation that was established in the 1970s. The area covered by Stage 1, Stage 2 and part of Stage 3 was approved for clearing as part of the original landfill by an authorisation under the *Plantations and Reafforestation Act 1999*. **Figure 11** shows the 32.6 ha area already approved for clearing. The impacts of removing this vegetation have already been assessed and were not considered further in the EIS for this application. **Figure 11** also shows the 3.4 ha residual area in Stage 3 not covered by the clearing authorisation, and therefore assessed as part of this SSD application. The purple area on **Figure 11** shows the biodiversity offset area for the existing landfill.

Potential Impacts on Flora and Fauna

The Applicant prepared a Biodiversity Assessment Report (BAR) in accordance with OEH's Framework for Biodiversity Assessment (FBA) to assess the impacts of clearing the residual area. The BAR included desktop analysis and field surveys to identify threatened flora and fauna species potentially impacted by the development.

The BAR identified the residual area comprises one Plant Community Type (PCT) in moderate to good condition, Blackbutt – Pink Bloodwood shrubby open forest of the coastal lowlands of the NSW North Coast Bioregion. This PCT is not listed as a threatened ecological community on NSW or Commonwealth legislation. The BAR also indicated there are no NSW listed threatened flora species recorded on the site and none are considered likely to occur.

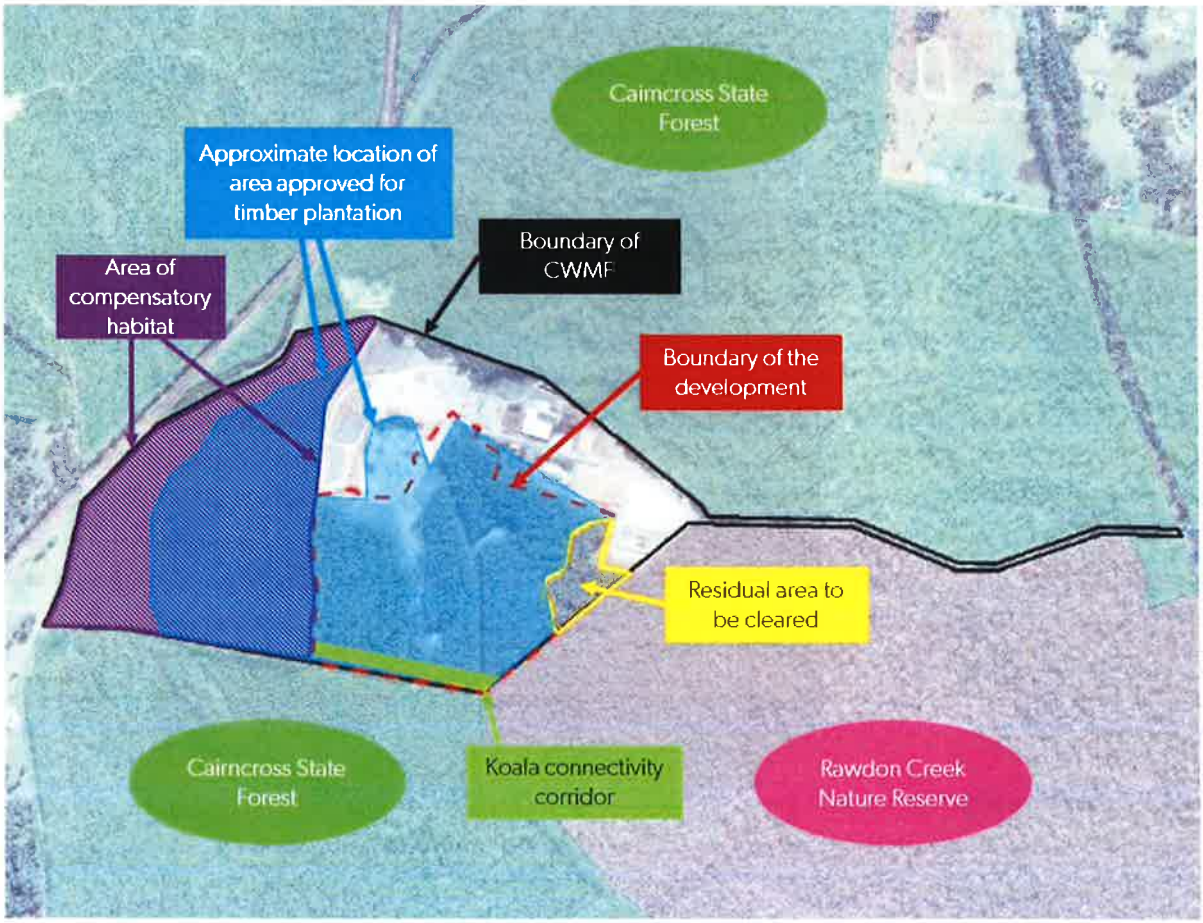

Figure 11 | Location of vegetation areas and koala corridor

One Commonwealth listed threatened flora species, White-flowered Wax Plant, was considered of moderate likelihood to occur on site. An assessment of significance found the development would not have a significant impact on the species as it was not recorded on the site and the development would remove a small area of

potential habitat compared with other large areas of suitable habitat near the site. The Applicant concluded a referral to the Commonwealth under the EPBC Act was not required.

Three NSW listed threatened fauna species were recorded on the site, including Koala, Southern Myotis and a tentative sighting of the Green-thighed Frog. Koalas are also listed as vulnerable on the EPBC Act. The Stage 3 residual area includes some Koala feed trees and habitat for Southern Myotis and Green-thighed Frog.

The BAR included an assessment of significance for the Koala, noting Koala recordings on the site are consistent with transient use by an individual, as opposed to a resident population of several koalas. The vegetation on site containing koala feed trees is remnant regrowth and considered too small to support a resident koala population. The assessment concluded the impacts on the broader koala population from removing 3.4 ha of native vegetation would be negligible, therefore a referral to the Commonwealth was not made.

Other species listed on NSW and Commonwealth legislation were considered to have moderate or high likelihood of occurring on site. These included rufous fantail, spot-tailed quoll, grey-headed flying fox and giant barred frog. The assessments of significance concluded the development would not have significant impacts on these species.

Aside from impacts on individual species, the BAR noted the development would potentially impact biodiversity through the loss of hollow bearing trees and fauna habitat, fragmentation of vegetation and loss of connectivity, impacts on groundwater dependent ecosystems, edge effects from the landfill and weed invasion. The BAR identified measures to manage these impacts and the Applicant committed to implement these measures through a vegetation management plan. The measures include a hollow replacement program, a two-stage clearing process to enable relocation of fauna prior to clearing, weed management and erosion and sediment controls.

Proposed Vegetation Buffers

The Applicant proposes to retain a 50 m wide corridor on the southern boundary adjacent to Stage 2, to allow for movement of Koalas between the Rawdon Creek Nature Reserve to the east, Cairncross State Forest to the south and the biodiversity offset area for the existing landfill to the west. The Applicant would install a fence adjacent to the landfill and would carry out some hollow replacement, revegetation, weeding and control of pest animals to enhance the habitat within the corridor. The Applicant committed to rezoning the corridor for environmental conservation when the Port Macquarie-Hasting Local Environmental Plan 2011 is next revised.

The Applicant also proposes to retain a 30 m wide corridor along the south-eastern boundary with the Rawdon Creek Nature Reserve. The buffer would be managed as a Strategic Fire Advantage Zone (further detail provided in Section 6.4), with understorey clearing but retention of tree canopies. Some infrastructure would be located within both the koala corridor and the SFAZ, including leachate tanks, sediment basins, fire trails and fencing.

Offsets

The RTS included a Biodiversity Offset Strategy (BOS) to address comments made by OEH on the Applicant's BAR. The BOS provided a commitment by the Applicant to offset the impacts of clearing through a formal biobanking agreement (or equivalent), prior to clearing the residual area for Stage 3 of the landfill. The BOS identified the ecosystem and species credits needed to offset the clearing of 3.4 ha of native vegetation, in accordance with the FBA and OEH's *Biobanking Assessment Methodology 2014* (BAM). The required credits include:

- 221 ecosystem credits to offset the removal of 3.4 hectares of Blackbutt-Pink Bloodwood Shrubby Open Forest of the Coastal Lowlands of the NSW North Coast Bioregion
- 84 species credits to offset the removal of koala habitat
- 248 species credits to offset the removal of Green-Thighed Frog habitat
- 3 species credits to offset the removal of Southern Myotis habitat.

Issues Raised in Submissions

During its review of the EIS, OEH raised some concerns about:

- commitments to secure the biodiversity offsets
- biodiversity and visual impacts on the adjoining Rawdon Creek Nature Reserve
- encroachment of infrastructure into the proposed vegetation buffer to the Nature Reserve and the proposed koala corridor

Following a review of the RTS, OEH noted its support for the proposed biodiversity offset strategy, the proposed rezoning of the koala corridor for environmental conservation and the design changes to the Stage 3 sediment basin to reduce its encroachment. OEH noted some residual concerns about the lack of a vegetated buffer to the Rawdon Creek Nature Reserve to minimise visual impacts for recreational users. The Applicant provided justification for why these elements could not be further reduced, noting the potential for visual impacts on recreational users of the Nature Reserve are very minimal, given the nearest fire trail that could be used by walkers is 20 m from the edge of the proposed SFAZ . The Applicant stated it would manage the SFAZ with understorey clearing and retention of canopy trees, creating adequate visual screening of the landfill. The Applicant would also manage litter, weed and pest animals to minimise edge effects on the Nature Reserve.

The Applicant indicated it could not reduce the sediment basin encroachment into the koala corridor any further, given the need to optimise landfill capacity and ensure adequate capture of surface runoff from the landfill. The Applicant stated there would be adequate room for movement of koalas adjacent to the sediment basin (20 m), which also provides a buffer to the active landfill. The proposed koala corridor adjoins the Extension Road (a forest road) and State Forest to the south, providing sufficient space for koalas to move between the larger vegetated areas to the east and west.

Department's Consideration

The Department reviewed all relevant assessment information and submissions relating to biodiversity and concluded the impacts of the development would be adequately minimised, managed and offset. The development would result in clearing 3.4 ha of native vegetation but would not have a significant impact on threatened flora or fauna species. The Applicant provided adequate consideration of the potential impacts on NSW and Commonwealth listed species and devised appropriate mitigation measures for managing the residual impacts. The provision of a vegetation buffer to the adjoining Rawdon Creek Nature Reserve and a koala corridor would visually screen the landfill for recreational users of the Nature Reserve and provide connectivity for koalas moving between native vegetation to the east, south and west. The Applicant revised the sediment basins to reduce the level of encroachment into these buffers and provided sufficient justification for the need to retain this infrastructure within the proposed corridors.

The Applicant has committed to securing the required ecosystem and species credits to offset the loss of 3.4 ha of vegetation and would retire the credits prior to the clearing occurring. The Applicant would implement measures to minimise the impacts of clearing and these would be detailed in a vegetation management plan, prepared in accordance with OEH's *Guidelines for developments adjoining land managed by the Office of Environment and Heritage 2013*. The Department's recommended conditions covering the biodiversity offsets, koala corridor and vegetation management plan. OEH reviewed the draft conditions and recommended minor amendments which were incorporated into the final recommended conditions. The Department's assessment concludes the biodiversity impacts of the development would be appropriately minimised, managed and offset.

6.4 Bushfire Management

The development is located on and surrounded by land mapped as Category 1 Bushfire Prone Vegetation. There is potential for the development to be impacted by bushfires and for a fire to be caused by the landfill operation which may spread to adjoining forest vegetation.

The Applicant provided a Bushfire Protection Assessment (BPA) in the EIS, calculating the bushfire threat level to the development from surrounding vegetation as 'high'. The BPA noted the need for the above-ground leachate collection tanks to be constructed in accordance with the Building Code of Australia (BCA) and the requirements of Planning for Bushfire Protection (RFS, 2006) (PBP).

The BPA identified the need to implement protection measures to reduce the bushfire risk for the development. These included the provision of 20 m defendable spaces to the leachate tanks, a 30 m wide Strategic Fire Advantage Zone (SFAZ) adjacent to the Rawdon Creek Nature Reserve and temporary fire breaks around the edge of the landfill cells as they are constructed. In addition, the BPA recommended:

- management of the fuel load of residual vegetation and the risk of fire ignition within the landfill
- upgrade and maintenance of fire trails for firefighting access for trucks at the incremental and final perimeters of the landfill cells
- provision of firefighting water supplies and portable firefighting equipment

A firefighting water storage dam with a capacity of 3,000 m^3 is currently located on the future Stage 3 landfill cell. This would remain in position until the commencement of the Stage 3 works, when it would be relocated to the south-east boundary adjacent to the SFAZ.

In its submission on the EIS, RFS noted the information submitted in the EIS did not align with the recommendations in the BPA and requested more information. The Applicant provided an updated concept design report in the RTS that more clearly explained and incorporated the proposed bushfire mitigation measures. The amended design resulted in a minor change to the layout of Stage 3 to incorporate the SFAZ. Cross sections of the proposed bushfire protection zones are shown in **Figure 12**.

In the RTS, the Applicant also advised the current CWMF Bushfire and Fuel Management Plan (BFFMP) contains actions for the management of bushfire risk, including fuel management, access fire protection zones, water supply and emergency contacts. The Applicant proposes to update the BFFMP to include all proposed bushfire management measures for the development, as provided in the RTS.

RFS reviewed the updated information in the RTS and provided requirements for the trafficable defendable space around the development and the preparation of a Fire Management Plan. Following further clarification from the Department, the RFS confirmed it was satisfied with the proposed layout of the defendable spaces.

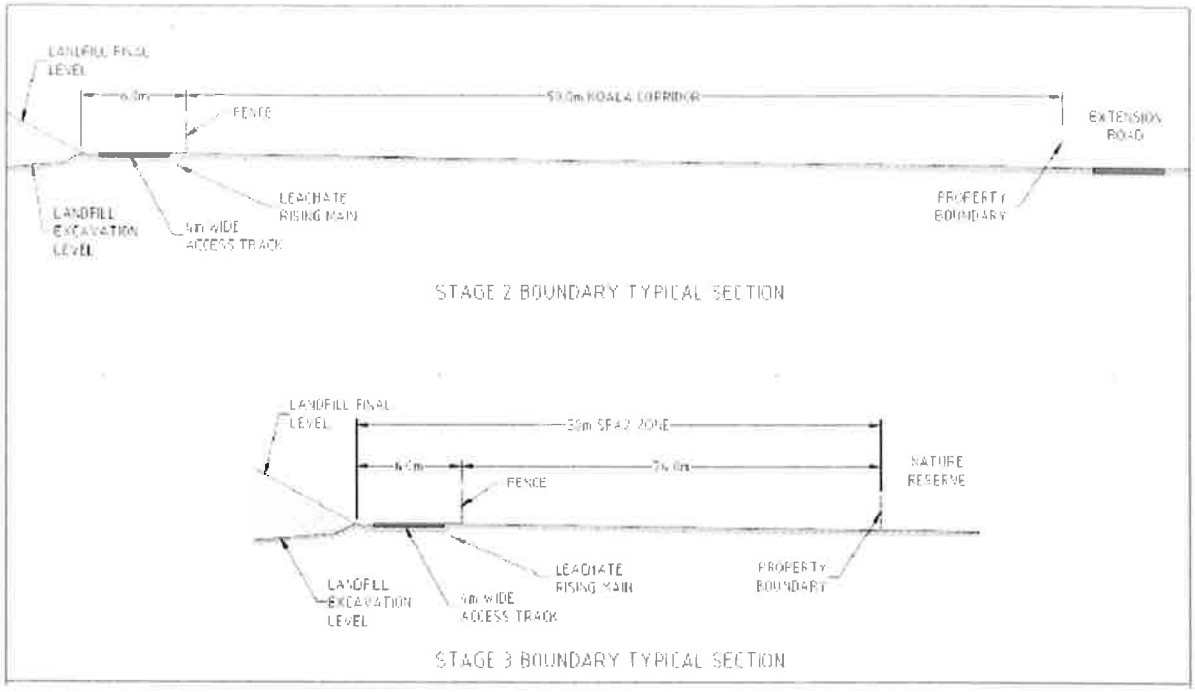

Figure 12 |Typical cross section of Stage 2 and Stage 3 boundaries

The Department has reviewed the information provided by the Applicant and the advice of RFS and concludes the bushfire risks have been appropriately addressed. The Department recommends the commitments made by the Applicant and agreed with RFS are included as conditions. These include provision of a SFAZ around the southern side of Stage 2 and the eastern side of Stage 3, provision of minimum defendable and trafficable spaces within the SFAZ to ensure access for RFS tankers and an update of the existing Bushfire and Fuel Management Plan. With these conditions in place, the Department concludes the bushfire risks would be appropriately managed.

6.5 Other Issues

The Department's assessment of other issues is provided in **Table 3**.

Table 3 | Assessment of other issues raised

Findings	Recommended Conditions
Waste Management - Operations	
• The Applicant manages the existing CWMF in accordance with a Landfill Environmental Management Plan (LEMP) and proposes to update the LEMP to include the development. The LEMP details procedures for waste receipt, classification and tracking, waste compaction and covering, litter and pest control. • The Applicant also implements measures to prevent illegal dumping in the locality. • The Department notes the importance of implementing operational procedures to minimise the impacts of landfilling and has recommended several conditions covering waste receipt,	Require the Applicant to: • classify waste in accordance with EPA guidelines and develop a waste monitoring program • ensure a specific waste compaction rate and cover all waste in accordance with EPA guidelines

Findings	Recommended Conditions
classification and tracking, landfill compaction rates, types of cover material, litter, pest control and illegal dumping. • The Department has recommended conditions for updating the LEMP, prior to any landfilling in Stages 1, 2 or 3 to incorporate these operational procedures.	• implement measures to control litter, illegal dumping, pests and noxious weeds.
Odour and Air Quality	
• The EIS included an Air Quality Assessment (AQA) to determine potential odour and dust impacts from worst-case operations. • The AQA predicted odour from the development would be less than 1 odour unit (OU) at the nearest receivers, which is well below the EPA's criteria of 7 OU for rural receivers. • Total suspended particulates (TSP), particulate matter less than 10 and 2.5 microns (PM_{10}) and ($PM_{2.5}$) and deposited dust were also predicted to comply with the EPA criteria, both incrementally (due to the project) and cumulatively (including background levels). • One public submission noted odour is sometimes detectable from the existing landfill and requested the Applicant implement proactive measures to manage odour. • The EPA did not raise any concerns about air quality and recommended conditions for minimising dust and ensuring the development does not cause offensive odour. • The Department concludes the expanded landfill is unlikely to generate significant odour and dust impacts at sensitive receivers but requires the Applicant to implement measures to ensure the development does not cause offensive odour and dust is minimised.	Require the Applicant to: • ensure the development does not cause offensive odour • implement dust minimisation measures including limiting exposed surfaces, regular watering, covering loads and progressively rehabilitating exposed areas.
Landfill Gas	
• The EIS included a Greenhouse Gas Assessment (GHGA) in accordance with relevant guidelines, considering emissions from machinery, vegetation clearing, transportation and waste decomposition. • The GHGA predicted waste decomposition (Scope 1) emissions would be highest when Stage 3 is at capacity (in 2056). Total emissions in 2056 were estimated at 124,000 tonnes of carbon dioxide equivalent, representing 0.03% of Australia's total annual GHG emissions. • The Applicant currently undertakes sub-surface, surface and accumulation monitoring of GHG emissions from the existing landfill and noted some discrepancies between actual and predicted emissions. To address the discrepancies, the Applicant commenced a landfill gas pumping trial to determine actual methane generation	Require the Applicant to: • Implement a landfill gas management plan as part of the LEMP.

Findings	Recommended Conditions
rates from the landfill to guide future management measures. Following completion of the pumping trial, the Applicant proposes to develop a landfill gas management plan, which may include gas capture or flaring to reduce emissions. • The Applicant recently suspended the landfill gas pumping trial, stating the monitoring bores are currently too close to the active tip face to produce reliable results. • The EPA's submission noted the trial had been suspended and recommended the Applicant prepare a landfill gas management plan in accordance with the EPA's landfill guideline. • The Department considers the emissions from the expanded landfill would be minor in the context of Australian emissions and notes the emissions would occur irrespective, as the waste would need to be landfilled elsewhere if not at the CWMF. However, the Department considers it imperative the Applicant implements measures to reduce its emissions and supports the EPA's recommendation for a landfill gas management plan.	
Noise	
• The EIS included a Noise and Vibration Assessment (NVA) considering worst-case operational noise from construction of the cells and landfilling. • The CWMF has a considerable buffer to sensitive receivers with the nearest rural residences located 850 m to the south-east and 1.4 km to the north-west. • The most significant noise sources at the site include mobile plant (excavators and compactors) and waste trucks. • The NVA predicted operational noise levels at nearby receivers (based on the worst case 2056 assessment year) would be 27dB(A), which complies with the project noise criteria of 39dB(A). • The NVA concluded cumulative noise, vibration and road traffic noise increases would be negligible. • One public submission noted the existing CWMF causes minor noise disturbance from truck reversing beacons. The Applicant has committed to replacing reversing alarms with broadband devices on site owned plant, where possible. • The EPA reviewed the NVA and recommended a noise limit of 35 dB(A) for the development, consistent with the EPL for the existing CWMF. • The Department concludes noise from the development would have minimal impacts on sensitive receivers and recommends noise limits of 35dB(A), consistent with the EPL.	Require the Applicant to: • ensure noise generated by operation of the development does not exceed 35dB(A) at the nearest receivers • comply with specified hours of operation.

Findings	Recommended Conditions
Traffic	
• The EIS included a Traffic Impact Assessment (TIA) including an analysis of the existing situation (2017) and the predicted impacts in the opening year (2020) and the closing year (2056). • The TIA states the total average weekday and weekend trips currently accessing the site is 81 and 35 vehicles, respectively. The total number of trips to access the site in the year of opening (2020) on an average weekday and weekend would be 91 and 39 vehicles, respectively, and in the year of closing (2056), 296 and 135 trips, respectively. • The TIA concluded the development would not impact on the operation of the CWMF access road/old Pacific Highway intersection and would have minimal impact on the operation of the new Pacific Highway Interchanges of Blackmans Point Road (3.6% increase in 2020 and 9% increase in 2056) and Haydons Wharf Road (6.1% increase in 2020 and 13.1% increase in 2056). The TIA concluded no upgrades would be required to cater for the development. • RMS reviewed the application and raised no objection or concerns. • The Department is satisfied the development would not have an unacceptable impact on the surrounding road network and recommends standard conditions for managing operational traffic.	Require the Applicant to: • ensure the development does not result in any vehicles queuing on the public road network • ensure heavy vehicles and bins are not parked on local roads in the vicinity of the site • ensure all vehicles are wholly contained on site before stopping • ensure all loading and unloading of materials is carried out on site • ensure all trucks have their loads covered and do not track dirt onto the public road network.
Final Landform, Rehabilitation and Closure	
• The Applicant proposed a final landform in the EIS that did not meet the EPA's landfill guideline. • The RTS provided an amended final landform that met the EPA's landfill guideline, including slopes to facilitate runoff, minimise ponding of water and reduce generation of leachate. • The Applicant notes there is no future intended use for the landfill site and it would be retained as a vacant vegetated site following closure of the landfill in 2056. • The EPA recommended the Applicant provide a landfill closure plan for EPA's approval, twelve months prior to closure. The plan must detail ongoing management of the capped waste mass, surface water, groundwater, leachate, odour, dust and landfill gas. • The Department concludes the proposed final landform is consistent with relevant guidelines and has recommended conditions for progressive rehabilitation and a detailed landfill closure plan to be approved by the EPA and the Planning Secretary prior to closure.	Require the Applicant to: • progressively rehabilitate the completed landfill cells • achieve a final landform consistent with EPA's landfill guideline, or its latest version • prepare a Landfill Closure Plan for approval by the EPA and the Planning Secretary, prior to closure.
Heritage	

Findings	Recommended Conditions
• The EIS included an Aboriginal Heritage Assessment (AHA) and a Non-Aboriginal Heritage Assessment (NAHA). • The AHA identified two Aboriginal artefacts (modified flakes) on the site, that have been disturbed by previous forestry plantation activities. The two artefacts would be destroyed by Stage 3 landfill construction. The AHA concluded they are of limited significance and the remainder of the site has negligible potential for survival of in-situ artefacts. • The NAHA concluded the site has negligible chance of containing any non-Aboriginal heritage sites or relics. • OEH reviewed the AHA and NAHA and raised no concerns. • The Department concludes the development is unlikely to have any significant impact on heritage items and has recommended standard conditions for the management of unexpected finds.	Require the Applicant to: • implement an unexpected finds protocol for items or objects of Aboriginal heritage significance.

7. Evaluation

The Department has assessed the development against the matters listed in section 4.15 of the EP&A Act and the objects listed in section 1.3 of the EP&A Act, including the principles of ESD. The Department has considered the development on its merits, taking into consideration relevant strategic plans, the EPIs that apply to the development and the submissions received from Government agencies and the public.

The existing landfill at the CWMF is expected to reach capacity in late 2019. The development would extend the life of the existing landfill to provide adequate capacity to meet the waste disposal needs of the Port Macquarie-Hastings LGA for a further 36 years. The development would utilise existing infrastructure including the access road, weighbridge and offices, which are operated in accordance with an existing EPL. The CWMF has operated since 2001 with minimal amenity impacts given its location away from residential areas. Expansion of the landfill was foreshadowed when the original waste management facility was approved by Council in 1999, and much of the development footprint has already been approved for vegetation clearing.

The Department's consideration of the application identified leachate, surface water, groundwater, biodiversity and bushfire management as the key assessment issues. Other aspects including operational management, odour, landfill gas, noise and traffic were also assessed.

The Applicant proposes to install a leachate barrier and collection system to ensure leachate is collected, treated and discharged in accordance with relevant criteria. Leachate would be pumped to the adjacent sewage treatment plant, and this system would remain in place following final capping and closure of the landfill after 2056. The Applicant has designed the system in accordance with the EPA's *Environmental Guidelines: Solid Waste Landfills 2016* and would implement a leachate management plan to ensure leachate does not contaminate surrounding surface water, groundwater and soils. The Department concludes leachate from the expanded landfill would be adequately monitored and managed to minimise potential offsite impacts

The potential for impacts on surface and groundwater was considered extensively by the Applicant and relevant agencies, including the EPA and DoI. The Applicant proposes to divert stormwater around the operational areas of the landfill, capture the stormwater in sediment basins and reuse the water on site for dust suppression. The Department supports the reuse of stormwater for dust suppression and notes the EPL would require regular monitoring of water quality, including prior to any discharge from the sediment basins. The Applicant proposes a groundwater collection system at the base of the landfill liner to prevent groundwater intrusion into the landfill cells and prevent hydrostatic uplift which may damage the landfill liner. Trigger levels would be established to determine the most appropriate option for collected groundwater including either reuse for dust suppression, discharge as surface flows or off-site treatment and disposal. The EPA requested detailed design information for the groundwater collection system prior to its construction and noted the EPL would include a pollution study if groundwater is to be discharged as surface flows. The Department considers the proposed design would adequately manage surface and groundwater and the recommended conditions provide scope to identify and manage any unexpected contamination of surface and groundwater.

The development would result in clearing 3.4 ha of native vegetation but would not have a significant impact on threatened flora or fauna species. The Applicant would offset the clearing in accordance with relevant biodiversity legislation. The provision of a vegetation buffer to the adjoining Rawdon Creek Nature Reserve and a koala corridor would visually screen the landfill for recreational users of the Nature Reserve and provide connectivity for koalas moving between native vegetation to the east, south and west of the site.

The bushfire risks for the development have been appropriately addressed and the design incorporates defendable and trafficable spaces consistent with the requirements of RFS.

The Department considers the impacts associated with the development can be managed, mitigated and offset to ensure an acceptable level of environmental performance, subject to the recommended conditions of consent including:

- annual limits on waste quantities received at the landfill
- waste monitoring, landfill compaction and cover requirements and a landfill environmental management plan including litter and pest control measures
- leachate system design requirements and on-going management plan
- surface and groundwater management plans
- landfill gas management plan
- limits on hours of operation and noise limits
- biodiversity offset requirements, vegetation buffers and a vegetation management plan
- provision of defendable spaces and a bushfire and fuel management plan
- progressive rehabilitation and a landfill closure plan

The Department considers the proposal is acceptable and in the public interest as the development:

- would ensure continued landfill capacity for the Port Macquarie-Hastings LGA, avoiding disruptions to municipal waste collection
- would utilise an existing waste disposal facility and associated infrastructure, that is co-located with waste diversion facilities
- is consistent with the objectives of the *Waste Avoidance and Resource Recovery Strategy 2014-21* and *Port Macquarie-Hastings Council Waste Strategy 2017-24*
- would not result in any significant adverse environmental or amenity impacts

The Department concludes the impacts of the development can be appropriately managed through implementation of the recommended conditions of consent. Consequently, the Department considers the development is in the public interest and should be approved, subject to conditions.

8. Recommendation

It is recommended that the Executive Director, Compliance, Industry and Key Sites, as delegate of the Minister for Planning:

- **considers** the findings and recommendations of this report
- **accepts and adopts** all of the findings and recommendations in this report as the reasons for making the decision to grant consent to the application
- **agrees** with the key reasons for approval listed in the notice of decision
- **grants consent** for the application in respect of Cairncross Waste Management Facility Expansion (SSD 5792), subject to the conditions in the attached development consent
- **signs** the attached development consent and recommended conditions of consent (see **Appendix D**).

Recommended by:

Deana Burn

Deana Burn
Specialist Planner
Industry Assessments

Recommended by:

C. Ritchie 29/10/19

Chris Ritchie
Director
Industry Assessments

9. Determination

The recommendation is: **Adopted / Not Adopted by:**

Sargeant

Anthea Sargeant 5/11/19
Executive Director
Compliance, Industry and Key Sites

Appendices

Appendix A – List of Documents

Appendix B – Statutory Considerations

Appendix C – Community Views for Draft Notice of Decision

Appendix D – Recommended Instrument of Consent

Appendix A - List of Documents

The Department has considered the following documents, saved at the link below:

- Environmental Impact Statement
- Submissions
- Applicant's Response to Submissions, including supplementary response (May 2019)
- Relevant environmental planning instruments, policies and guidelines (see Appendix B)
- Relevant requirements of the EP&A Act (see Appendix B)

https://www.planningportal.nsw.gov.au/major-projects/project/11336

Appendix B - Statutory Considerations

Considerations under Section 4.15 of the EP&A Act

Section 4.15 of the EP&A Act requires the consent authority, when determining a development application, to take into consideration the matters contained in **Table 4**.

Table 4 | Considerations under Section 4.15

Matter	Consideration	Reference
(a) the provisions of: (i) any environmental planning instrument, and (ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Director-General has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and (iii) any development control plan, and	Detailed consideration of how the development is consistent with relevant environmental planning instruments (EPIs) is provided below. In summary, the development is consistent with the objectives of the relevant EPIs.	See below table
(iiia) any planning agreement that has been entered into under section 93F, or any draft planning agreement that a developer has offered to enter into under section 93F, and	There are no planning agreements for the development.	
(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph), and (v) repealed	The Department has assessed the development in accordance with all relevant matters prescribed by the regulations.	
(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality	The Department has considered the likely impacts of the development in detail and concludes that all environmental impacts can be appropriately managed and mitigated through the recommended conditions.	Section 6
(c) the suitability of the site for the development	The Department notes that the CWMF location was selected as a waste management facility based on its position remote from residential areas, the lack of surface water flowing through it and its suitable geology. The site is removed from sensitive receivers with the nearest rural residences located 850 m to the south-west and 1.4 km to the north-east and respectively. Supporting infrastructure including a weighbridge, waste transfer station, ORRF and MRF are already established on site. The site is therefore considered suitable for the proposed development.	Section 2
(d) any submissions made in accordance with this Act or the regulations	The Department considered all matters raised in submissions throughout its assessment of the development.	Section 5

(e) the public interest.	The proposed development is in the public interest as it would provide for continued landfilling operations at an existing waste management facility site. The facility would provide landfill capacity to service all areas of the Port Macquarie Hastings LGA up to approximately 2056. The facility would provide for on-going disposal and processing of general solid waste and asbestos from domestic, commercial and industrial sources. Landfilling operations would be undertaken without unacceptable risks to human health and the landfill would be progressively rehabilitated following closure of each cell with the land to be revegetated and landscaped.	Section 6 and 7

Consideration of Environmental Planning Instruments (EPIs)

State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP)

The SRD SEPP identifies certain classes of development as SSD. The proposal is classified as SSD under Part 4 Section 4.6 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it involves development for the purpose of an extension to a regional putrescible landfill that has capacity to receive more than 650,000 tonnes of putrescible waste over the life of the site, as per the criteria in Clause 23 of Schedule 1 of the SRD SEPP. Consequently, the Minister for Planning is the consent authority for the proposed development.

State Environmental Planning Policy (Infrastructure) 2007 (ISEPP)

The ISEPP aims to facilitate the effective delivery of infrastructure across the State by identifying matters for assessment and providing for consultation with relevant public authorities.

Clause 123 of the ISEPP outlines matters a consent authority must take into consideration when determining a development for construction, operation or maintenance of a landfill for the disposal of waste. The Applicant addressed each of these matters in the EIS and the Department has considered these matters in its assessment of the development. The Department notes the development provides a suitable level of waste recovery through operational procedures that support the diversion of unacceptable or reusable materials from the landfill, the design of the landfill would adopt best practices, the site is already utilised for landfill operations, there would be no land use conflicts and there is adequate transport links to the landfill. The Department concludes the development is consistent with the aims of the ISEPP.

State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33)

SEPP 33 aims to identify proposed developments with the potential for significant off-site impacts, in terms of risk and/or offence (e.g. odour, noise). A development is defined as potentially hazardous and/or potentially offensive if, without mitigating measures in place, the development would have a significant risk and/or offence impact on off-site receptors.

As the development has the potential to pose environmental, human health, and amenity hazards (if it were to operate without any measures to reduce or minimise its impact in the locality) a screening assessment was undertaken by the Applicant in line with the DPIE (2011) guideline *Applying SEPP 33*. The assessment found the development would not trigger the need for a Preliminary Hazard Analysis as it would operate below the screening levels set out in the guideline.

State Environmental Planning Policy No. 44 – Koala Habitat Protection (SEPP 44)

SEPP 44 aims to encourage local councils to conserve and manage areas of natural vegetation that provide habitat for koalas in order to protect existing populations and reverse the current trend of koala population decline. SEPP 44 applies to land in relation to which a development application has been made and that has an area of more than one hectare.

If the land is identified as 'potential koala habitat' under the SEPP 44, further work must be carried out to determine whether the land constitutes 'potential' or 'core' koala habitat. Should core habitat be identified, a plan of management must be prepared prior to consent being granted and the consent must be consistent with the plan of management.

In 2018, Port Macquarie-Hastings Council (Council) released their Draft Koala Recovery Strategy which includes a range of recovery focused management actions to ensure the long-term sustainable management of koalas across the region. The development site and surrounding areas were not identified within the Strategy as areas of koala activity or as having koala habitat. However, evidence of koala presence in the area was identified during the preparation of the Biodiversity Assessment Report (BAR). The BAR concluded any risk from vegetation removal on the remaining, broader koala population would be negligible.

The site was not identified as core koala habitat and therefore a plan of management was not prepared however Council proposes to establish a koala connectivity corridor to partially offset the impacts to koalas. The proposed corridor would be approximately 50 metres wide and would run along the south-western border of the site. Establishment of the koala corridor would involve fencing off the Stage 2 landfill area adjacent to the corridor to prevent migration of koalas onto the site. In order to maintain connectivity, the koala corridor would not be fenced on other sides. This area is under Council's ownership and would be managed in perpetuity by Council.

State Environmental Planning Policy No. 55 – Remediation of Land (SEPP 55)

Clause 7 of SEPP 55 states that a consent authority must not consent to the carrying out of any development on land unless:

(a) it has considered whether the land is contaminated, and

(b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and

(c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.

The EIS notes that the history of the development site as a State Forest plantation and containing native vegetation suggests that there is a very low probability that soil contamination problems will be encountered. Additionally, it was noted that excavation within the broader Cairncross Waste Management Facility, including in the Stage E landfill area, has not uncovered any contaminated materials.

Environmental management of the Stage E landfill has included avoidance of contamination, in particular through leachate collection and management, and groundwater monitoring for Stage E has shown that there is presently no mixing of leachate with groundwater at the site. The Applicant therefore concluded that with the implementation of best practice procedures the potential for contamination is low.

The Department is satisfied that the site is suitable for the purpose of landfilling and has included conditions of consent to manage contamination risk. Leachate management is discussed in Section 6 of this report.

Port Macquarie-Hastings Local Environmental Plan 2013 (PMH LEP)

The PMH LEP aims to manage and coordinate the orderly, equitable and economic use and development of land in the Port Macquarie-Hastings area whilst also protecting and conserving the ecological biodiversity and natural environment of the area.

The development site is located on land zoned SP2 Waste or Resource Management Facility. The objects of the zone are to provide for infrastructure and related uses, and to prevent development that is not compatible or may detract from the provision of infrastructure. Development for the purpose of a waste or resource management facility is permitted with consent.

The Department consulted with Council (who is also the Applicant) throughout the assessment process and considered all relevant provisions of the PMH LEP. Council was advised of the exhibition of the EIS and invited to provide comments however did not provide a submission. The development is considered to be consistent with the aims of the PMH LEP.

Appendix C – Community Views for Draft Notice of Decision

Table 5 | Consider of Community Views

Issue	Consideration
Minor noise disturbance from reversing beacons at existing CWMF	Assessment and Recommendations The noise and vibration assessment predicted noise impacts from the expanded landfill would be below relevant noise criteria at the nearest sensitive receivers. The Applicant has committed to investigate replacing tonal reversing alarms with broadband devices on all site-owned plant. The EPA has recommended stringent noise limits of 35dB(A) for the development. With these measures in place, the Department considers the noise impacts of the development would be minimal.
Detectable odour, requested pro-active management of green waste/compost stockpiles	Assessment and Recommendations The air quality assessment predicted the development would be well below the odour criteria of 7 OU at the nearest receivers. The organics recovery facility is part of the existing landfill and is managed in accordance with the EPL. The EPL requires the Applicant to ensure the facility does not cause offensive odour. The Department has replicated this requirement as a condition for the expanded landfill. The Department considers the odour impacts of the development would be minimal.
Request for an extension of the access road to reduce the trip length for rural residences traveling around the site to get to Port Macquarie	Assessment and Recommendations The traffic impact assessment noted the development would not significantly increase traffic from the site and would not require any upgrade to access roads or intersections to maintain safe and efficient operation of the surround road network.

Appendix D – Submissions

See link:

https://www.planningportal.nsw.gov.au/major-projects/project/11336

Appendix E - Recommended Instrument of Consent