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Boral Dunmore Operations

Dunmore Lakes Sand Project
Long Term Management Strategy

June 2021

Document control

Rev No.	Date	Prepared By	Approved By	Comments
1	03/06/2016	Danielle Haynes (Arcadis)	Brad Searle (Arcadis)	Draft Long Term Management Strategy
2	29/07/2016	Danielle Haynes (Arcadis)	Brad Searle (Arcadis)	Final Long Term Management Strategy
3	16/12/16	Danielle Haynes (Arcadis)	Brad Searle (Arcadis)	Final Long Term Management Strategy
4	16/12/2017	Danielle Haynes (Arcadis)(Arcadis)	Brad Searle (Arcadis)	Final Long Term Management Strategy
5	1/6/2021	Mark Nolan (Cambium Group)	Emilie Mascarenhas (Cambium Group)	Updated to Modification 2 Conditions of Approval

Table of Contents

Appendices

Tables

Figures

Abbreviations

AQMP	Air Quality Management Plan
CCC	Community Consultative Committee
CoA	Condition of Approval
DLSP	Dunmore Lakes Sand Project
EMS	Environmental Management System
EMonP	Environmental Management Protocol
FFMP	Flora and Fauna Management Plan
GWMP	Ground Water Management Plan
NMP	Noise Management Plan
SWMP	Surface Water Management Plan
VENM	Virgin excavated natural materials
WMP	Water Management Plan

1 INTRODUCTION

1.1 BACKGROUND

The Dunmore Lakes Sand Project (DLSP) is a sand dredging and processing operation producing a range of sand and landscaping products into the local and Sydney markets. The Project is located on the Princes Highway approximately seven kilometres north of Kiama on the NSW South Coast.

Development Consent (DA 195-8-2004) as modified for Stage 5 requires the preparation and maintenance of a range of management plans to guide the environmental management of the development throughout its operational life.

DLSP currently operates in accordance with an approved Long Term Management Strategy (LTMS) prepared by Arcadis 2017. This document updates the approved LTMS to incorporate Stage 5.

1.2 PROJECT DESCRIPTION

The DLSP, is operated by Boral Resources (NSW) Pty Ltd, is located at Tabbita Road, Dunmore within the Shellharbour Local Government Area.

The existing site (Stages 2-4) covers 88 hectares and is bound by the Princes Motorway (Kiama Bypass) to the east and private property, predominantly agricultural grazing land, to the south, north and west. Stage 5 is located approximately 1.1 km south- south east of the existing site, covers approximately 38 ha and is on an alluvial coastal flood plain, adjacent to the tidal reaches of the Minnamurra River. The northern portion of the extraction area has been partially cleared and has historically been used for grazing. Stage 5 is bound by Riverside Drive to the north and Princes Highway to the west.

Operation of the quarry involves the sequential dredging and excavation of approximately 8 million tonnes of sand and soil from Stage 2, 3 & 4 and 1.35 million tonnes of sand and soil from stage 5.

The method of extraction of these resources includes both sand and soil extraction by excavator and dredge sand extraction, followed by washing, processing and material blending.

During and post the completion of sand extraction, progressive backfilling of each stage with virgin excavated natural materials (VENM) will be undertaken, to progressively reconstruct and rehabilitate the site. The reconstructed landform will ultimately support lakes, wetlands, revegetated Endangered Ecological Communities and grazing land.

1.3 PURPOSE AND OBJECTIVES OF THE LTMS

This LTMS outlines the approach for long term management and rehabilitation of the DLSP site. The purpose of this LTMS is to meet the requirements of summary environmental management measures and DA conditions of consent applicable to long term management of the DLSP site. This LTMS provides guidance in the development of the long term management for Stages 2 to 5, prior to the closure of DLSP.

This LTMS has been prepared in accordance with Conditions 50 & 51 of DA 195-8-2004 as modified. The overall objectives of the LTMS, as derived from these conditions, are to describe:

- The objectives and criteria for quarry closure;
- The options for the final landform and future use of the site;

- The measures that would be implemented to minimise or manage the ongoing environmental effects during operation as well as post-extraction;
- A program to monitor the effectiveness of these measures and progress against the performance and completion criteria, over both operational and post-extraction phases; and
- Identify responsibilities for monitoring, reporting, reviewing and implementing the strategy.

1.4 CONSULTATION

In accordance with CoA 50 of Schedule 3, Shellharbour Council, Kiama Council and the CCC were consulted during the preparation of the existing LTMS to provide input on the matters to be addressed in the strategy for long term management of the site. Evidence of correspondence with the aforementioned agencies is provided in Appendix C. Stakeholders will continue to be consulted through regular meetings discussing the management and conformation of activities under the LTMS and will be provided a copy of this updated Strategy.

1.5 DOCUMENT STRUCTURE

The structure of this LTMS is outline in Table 1.

Table 1 Structure of the Long Term Management Strategy

Section	Content
1	Provides an overview of the project, previous environmental assessments of the Project, and the purpose and scope of this plan.
2	Details of the statutory requirements for the Plan as outlined in the CoA issued by the NSW Department of Planning and Infrastructure and other legislative requirements.
3	Describes the existing environment of the site and significant biodiversity values contained within the study area.
4	Describes the overall rehabilitation management strategy including the objectives and criteria for sand mine closure.
5	Describes the costs and funding requirements for rehabilitation activities
6	Outlines the monitoring, reporting and review requirements pertaining to rehabilitation management within thesite.
7	Outlines the overall action plan to ensure the sustainable long term management of the site.
8	Lists the references used in the preparation of this plan

2 RELEVANT LEGISLATION, GUIDELINES AND PLANS

Relevant legislation to this LTMS includes:

- *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)
- *NSW Biodiversity Conservation Act 2016* (BC Act)*NSW Environment Planning and Assessment Act 1979* (EP&A Act)
- *NSW Environment Planning and Assessment Regulation 2000*
- *NSW Fisheries Management Act 1994* (FM Act)
- *NSW Protection of the Environment and Operations Act 1997*
- *NSW Biosecurity Act 2015* (BS Act)
- *NSW Water Management Act 2000* (WM Act)
- *Illawarra Regional Environmental Plan No. 1*
- *Shellharbour Local Environmental Plan 2013*
- *Shellharbour Rural Local Environmental Plan 2004*
- *Shellharbour Rural Local Environment Plan 2004*
- State Environmental Planning Policy (Coastal Management) 2018) (Coastal SEPP)
- *State Environmental Planning Policy (Mining, Petroleum Production and Extractive*
- *Industries) 2007*

2.1 CONDITIONS OF APPROVAL

The DLSP operates under a Ministerial consent first granted on 29 June 2005 which has been modified three times. The latest modification occurred in 2020 (MOD 2 Consolidated Consent).

A number of the Conditions of Approval (CoA) from the MOD 2 Consolidated Consent are relevant to this Strategy and have been considered in its preparation (Table 2).

Table 2 Conditions of Consent

Condition of Approval	Condition Requirements	Where addressed in this document
Long Term Management Strategy		
50	Within 12 months of the date of this consent the Application must prepare a long Term Management Strategy for the site to the satisfaction of the Planning Secretary.. The strategy must:	This Strategy
	a) be prepared in consultation with Shellharbour Council, Kiama Council and the CCC;	Section 1.4
	b) define the objectives and criteria for quarry closure and post-extraction management	Section 4.1
	c) Investigate options for the future use of the site;	Section 4.2
	d) Describe measures that would be implemented to minimise or manage the ongoing environmental effects of the development; and	Section 6
	e) Describe how the performance of these measures would be monitored over time.	Sections 6 & 7
51	Within 3 years of providing the Long Term Management Strategy to the Planning Secretary, and every 4 years thereafter, the Applicant must review and update the strategy to the satisfaction of the PlanningSecretary	Section 7
Long Term Management Trust		
52	Within 4 years of the date of this consent the Applicant must establish a trust fund (or other mechanism as agreed by the Planning Secretary), that has available by the end of the year 20 a minimum of $300,000 for the long term management of the site, to the satisfaction of the Secretary. Every 4 years following the establishment of the trust, the Applicant must review, and if necessary revise, the trust sum to the satisfaction of the Planning Secretary. This review must consider: a) The effects of inflation; b) Any changes to the total area of disturbance; and c) The performance of the rehabilitation to date.	Section 5

2.2 ALIGNMENT WITH OTHER PLANS RELEVANT TO THE PROJECT

This document builds upon the information included in the existing Long Term Management Strategy prepared by Arcadis (2017).

This document has been prepared to be read in conjunction with the Rehabilitation Management Plan Additionally, other plans and strategies applicable to the DLSP including the Flora and Fauna Management Plan (FFMP) and Water Management Plan (WMP).

3 EXISTING ENVIRONMENT

3.1 SITE DESCRIPTION

The DLSP, owned and operated by Boral Resources (NSW) Pty Ltd, is located at Tabbita Road, Dunmore (the site) within the Shellharbour Local Government Area. The existing site covers 126 hectares. Dredging commenced for stages 2 to 4 in June 2007. Since then, due to the high demand for sand in the Sydney market, Sand in Stage 2 has been extracted with dredging recently moving into Stage 3. Given recent high demand, the sand resource in Stage 3 is expected to be exhausted during 2021. The last extraction stage (Stage 4) encompasses an area containing the road access and private rail line to the approved project, supporting infrastructure for stages 2 to 4 and Boral's adjacent Dunmore Hard Rock Quarry. Given this, Stage 4 cannot be extracted until these activities are relocated. Stages 5A and Stage 5B are the next sand extraction areas to be developed providing product sand for the next 4 to 5 years.

Four stages (Stages 2 -5) of sand extraction within the site are shown in Figure 1.

Stage 2

Stage 2, covering 37 hectares, adjoins the northern boundary of Tabbita Road and encompasses a large area of cleared and disturbed grassland and the footprint of existing sand extraction activities, which is now being rehabilitated.

Stage 2 also contains the sand processing infrastructure, which will continue to be utilised during sand extraction activities in later stages and possibly into the future. Several tributaries drain into the sand extraction boundary; the Western tributary flows east into the western sand extraction boundary, and the Northern Tributary flows south into the northern sand extraction boundary. Stage 2 is largely drained by the Western Tributary in the south- east corner, which eventually flows into to Rocklow Creek downstream of the site.

Stage 3

Stage 3, covering 21 hectares, adjoins the southern boundary of Tabbita Road. Rocklow Creek transects Stage 3, which flows into the Coastal SEPP wetland located to the east of Kiama Bypass, conveyed by a culvert beneath Kiama Bypass.

Stage 4

Stage 4, covering five hectares, encompasses the Tabbita Road corridor, which includes the current road and rail access to Dunmore Hard Rock Quarry, located to the west of the site. Stage 4 is unlikely to be subject to sand extraction in the near future.

Stage 5

Stage 5, covering 38 hectares, is located approximately 1.1 km south- south east of the existing site and is on an alluvial coastal flood plain, adjacent to the tidal reaches of the Minnamurra River. The northern portion of the extraction area has been partially cleared and has historically been used for grazing. Stage 5 is bound by Riverside Drive to the north and Princes Highway to the west.

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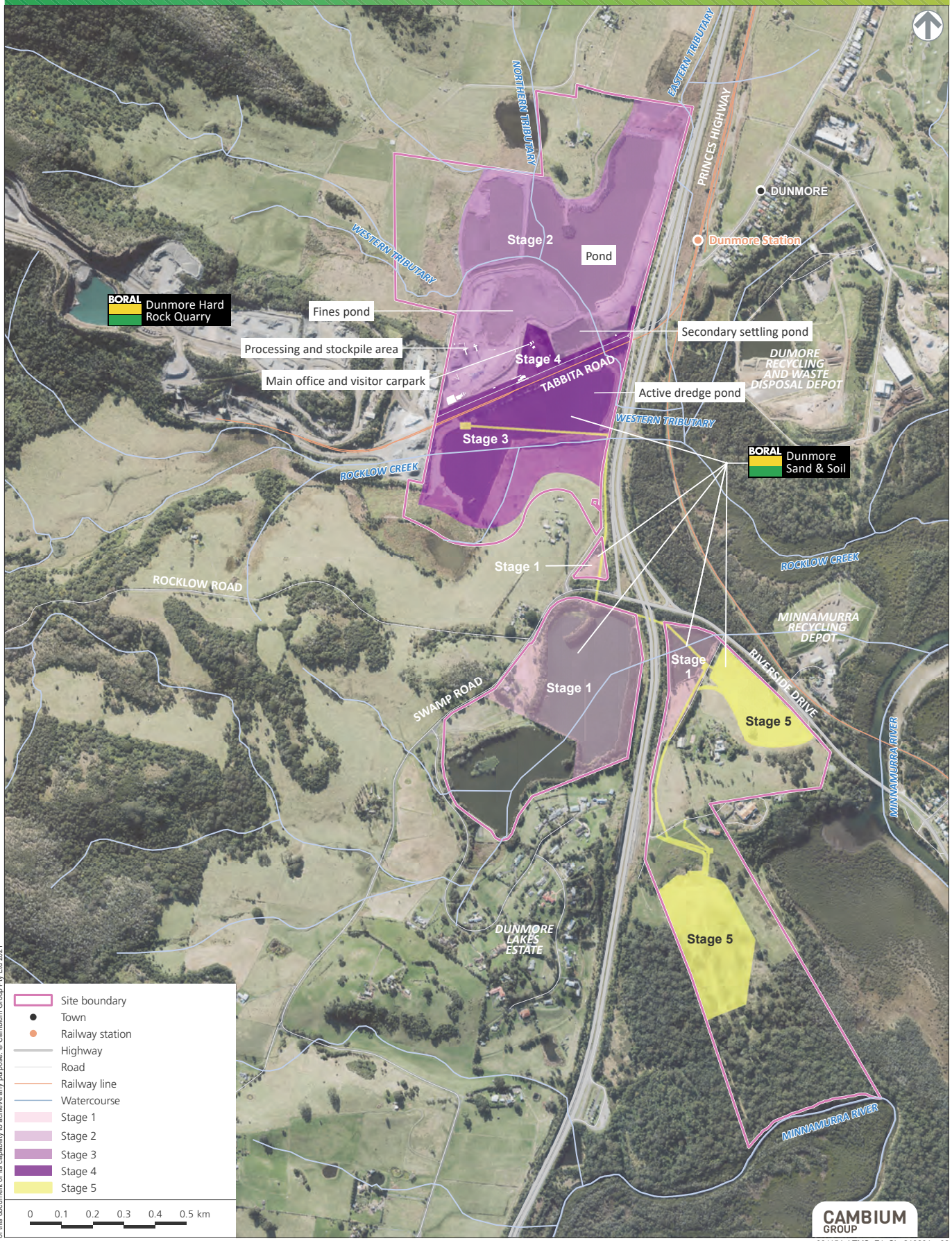
Figure 1
Site layout
Long Term Management Strategy / Dunmore Lakes Sand Project



Source: LPI (2017), Aerometrex (2021), Boral (2016), Cambium Group (2019).

3.2 LAND USE

The site is characterised by existing sand extraction activities (i.e. in Stage 3) and agricultural land that has been predominantly cleared of native vegetation for the grazing of cattle. Land use in the surrounding locality includes:

- Agricultural land, primarily cattle grazing.
- Commercial and industrial development, including Dunmore Hard Rock Quarry immediately to the west and Dunmore Resource and Recycling Facility in the east.
- Residential development, including Dunmore Lakes Estate to the south west and Minnamurra to the east of Stage 5.
- Infrastructure development, including the Princes Highway and the South Coast Rail Line divides the site.
- Minnamurra River and associated wetland (protected under State Environmental Planning Policy (Coastal Management) 2018) (Coastal SEPP) is located adjacent to Stage 5.

4 REHABILITATION MANAGEMENT STRATEGY

4.1 CONCEPTUAL SAND MINE REHABILITATION PLAN

4.1.1 Final Landform Concept

The objective of the concept final landform is to economically develop a sustainable, self-sustaining, post-extraction land use that successfully manages potential negative environmental impacts (Department of Resources, Energy and Tourism (RET), 2006).

The RMP includes a final landform plan (Appendix A). The final landform has been designed to blend in with the surrounding landscape and land use. The features of the final landform plan are detailed in Section 4 of the RMP. Key features of the RMP include:

- Tree screen areas around the boundary of the Stages 2 to 4;
- The establishment of lakes with habitat islands in both Stage 2 and 3 and a lake in Stage 5B;
- Realignment of the Western Tributary and Rocklow Creek;
- The establishment of Freshwater Wetlands in lake foreshore areas in Stages 2 and 3;
- The reestablishment of pasture for grazing in Stage 5A and areas of grassland for recreational use in the eastern elevated lands
- Continued processing areas in the western and central elevated lands and
- Swamp Oak Floodplain Forest as the dominant vegetation proposed.

As excavation areas are finalised and not required for future sand extraction use, rehabilitation activities will commence immediately. The majority of Stage 2 has undergone progressive filling as excavation neared completion. Once backfilling and reprofiling was complete, the area has been progressively revegetated in accordance with the RMP and FFMP. Similar rehabilitation procedures have commenced for Stage 3 and are envisaged for Stages 4 and 5.

4.1.2 Topsoil and Overburden Management

A dedicated stockpile area has been assigned for topsoil and overburden and managed during sand mine operations for later use in rehabilitation activities, as discussed in Section 4.6 in the RMP. The segregated overburden and topsoil will be stored in stabilised stockpiles. The overburden and topsoil will be salvaged for blending and/or rehabilitation works.

The topsoil contains native seed species that are adapted to local environmental conditions, essential minerals and beneficial micro-organism populations, and should be conserved for post-extraction reuse (RET 2011). .

Topsoil handling should be undertaken properly to maintain the soil structure and minimise compaction. The mining handbook (RET 2011) stresses the importance of proper identification, and using proper machinery/tools in the handling of topsoils and other growth media throughout the lifecycle of the quarry.

There is significant requirement for topsoil to landscape the final landform. As such, there is potential for a deficit of topsoil in the final stages of rehabilitation. Once all the stockpiled topsoil has been used, investigation will need to commence into either using the overburden as the planting medium or sourcing topsoil from off-site.

4.1.3 Revegetation

Areas targeted for native vegetation communities will utilise locally occurring species to maximise plant survival and provide habitat resources to local wildlife. Species lists for the specific vegetation

communities proposed in the final landform are provided in Section 5.2 of the RMP. The main vegetation communities proposed in the final landform are Swamp Oak Floodplain Forest and Freshwater Wetlands. Areas of exotic grass have also been planned for recreational use in Stage 2 along with pasture in Stage 5A. Further details on the revegetation of the site are discussed in Section 5 of the RMP.

The overall objective of native rehabilitation is to establish key native species and identified ecological communities within sustainable and functioning ecosystems. To achieve this, performance objectives take into consideration the rehabilitation objectives set out RMP and the final landform (Appendix A). The overall objectives of rehabilitation are to:

- Develop a series of habitats that complement the surrounding native plant communities;
- Establish a geotechnically stable, flood free, low maintenance and safe landform; and
- Develop a functional, self-sustaining ecosystem that provides ecological services to maintain and enhance fauna populations.

To achieve these objectives, the following performance objectives have been developed to guide the rehabilitation process (Table 3).

Table 3 Performance objectives and indicators

Objective	Performance Indicator
Stabilise all excavated areas to minimise erosion	No areas of instability or slumping
	No areas of active erosion
Revegetate area with native species	Seed or tubestock to be sourced from local stock.
Rehabilitated land will: • Represent a minimal source of offsite environmental impacts; and • Require ongoing management inputs no greater than similar surrounding land	All completion criteria regarding landform stability and vegetation cover are met
Rehabilitated land is compatible with surrounding natural landscape	Land rehabilitated in accordance with the Final Landform
Successful realignment of Western Tributary and Rocklow Creek	Realignment of Western Tributary and Rocklow Creek in accordance with the Final Landform and RAMP
Rehabilitation of riparian corridors of realigned creeks	All disturbed areas are stable with established vegetation
	Areas are free of significant weed or pest problems
	Removal of any temporary sediment and erosion control measures when revegetation has established on formerly disturbed areas
	Monitoring indicates that natural regeneration is occurring
Revegetation of disturbed areas – Vegetation Establishment	Vegetation establishment monitoring of revegetated areas in accordance with timing and methodology prescribed in the Rehabilitation Management Plan
	Progressive revegetation of Swamp Oak Floodplain Forest, Freshwater wetlands and habitat island in accordance with the Final Landform
	A success rate (survival) of 80% for all plants in Swamp Oak Floodplain Forest, Freshwater wetlands and habitat island

	Within 24 months of the rehabilitation of each stage, achieve a percent cover of 5% (or less) of woody weeds across this same stage
Revegetation of disturbed areas – Ecosystem Development	Ecosystem development monitoring of revegetated areas in accordance with timing and methodology prescribed in the Rehabilitation Management Plan The Composition score (derived from the BAM calculator) is at least 50% of the scores from PCT benchmark. The Structure score (derived from the BAM calculator) is at least 50% of the scores from PCT benchmark. The Function score (derived from the BAM calculator) is at least 50% of the scores from PCT benchmark. The Vegetation Integrity score (derived from the BAM calculator) is at least 50% of the scores from PCT benchmark. In the Swamp Oak Floodplain Forest, the density of native trees is at least 50% of that of the analogue site (no./ 1000m2 plot). Exotic plant cover is <20%. The total cover of high threat exotic species (HTEs) is <10%.
Pasture establishment	The % cover of desired pasture species is >70% The total cover of high threat exotic species (HTEs) is <10%.

4.2 FUTURE USE OPTIONS OF THE SITE

In the final stages of sand extraction operation, the CCC will be consulted to establish the final criteria for the long term management and post operational landuse. It is recommended that consultation with the CCC should commence at minimum five years prior to closure. Two years prior to operations ceasing, detailed preparation of a post-operational management plan and a long term environmental monitoring plan should commence in consultation with the CCC, the relevant Council, Boral and the local community, and aligned with the strategy proposed in this LTMS. Prior to each CCC meeting, the project will re-evaluate the expected closure timing. Any updates will be provided to the CCC through the relevant standing agenda item.

A range of options could be available to the project area following sand quarrying cessation. The following options have been investigated and considered:

4.2.1 Stage 2 and 3 Lakes

It is conceivable that Stage 2 Lake and potentially Stage 3 Lake could be used for recreational purposes. It is noted that consultation with the CCC highlighted that recreational purposes could mean the use of noisy speed boats and jet skis. As such, the lakes maybe used for passive recreational purposes such as sailing, canoeing or similar activities. The lakes could also be used to increase the aesthetic value of the area with development of fringing foreshore vegetation and wetlands providing habitat for native flora and fauna, and supplement the habitat of the nearby wetlands .In Stage 2 a “bird island” connected to the edge of the lake by a thin land strip has been constructed. “Bird Islands are also planned for Stage 3.

4.2.2 Stage 2 and 3 Backfilled Areas

It is envisioned that the elevated lands north of Tabbita Road would be used for recreational activities and potential ongoing uses to support the adjacent quarry. The Eastern Elevated Land could be used for land-based recreational activities such as parks or sporting fields managed by either local council or individual sporting clubs. The Central and Western Elevated Land could be used to complement the adjacent quarry operation with options for future stockpiling areas or product washing areas.

The backfilled areas within Stage 3 will be revegetated with Swamp Oak communities and could be used for amenity and recreational purposes.

4.2.3 North-western Ridge

The elevated land adjoining the north-western side of the Stage 2 Lake will not be impacted by extraction activities. It is envisioned that the end use of this area could complement the nearby lake and ultimately be developed as some form of recreational tourist facility area focusing on the recreational use of the lake or potential rural/residential blocks.

As mentioned above, following further consultation more detail will be prepared at least two years prior to operations ceasing.

4.2.4 Stage 5A Grazing Land

In consultation with the landowner Stage 5A will be rehabilitated to pasture land suitable for grazing.

4.2.5 Stage 5B Freshwater Lake

The lake at Stage 5B could also be used to increase the aesthetic value of the area with development of fringing foreshore vegetation particularly on the western and southern boundaries where vegetation would complement the existing trees.

5 COSTS AND FUNDING FOR REHABILITATION ACTIVITIES

5.1 COSTS

The final landform is dependent on the amount of backfill available and may need to be altered if the amount of backfill available is less than expected. Until the amount of backfill can be accurately known, costs involved in the long term management of Stages 2 to 5 cannot be determined.

5.2 FUNDING

Funding will be required to support the costs associated with the long term management of the site. According to the Schedule 3 CoA 52, a Bank Guarantee for Long Term Management has been established.

A review of the Bank Guarantee must be undertaken every four years following the its establishment in order to accurately revise, where necessary the sum. This revision must take into consideration the effects of inflation, timeframe for expenditure, changes to the total area of disturbance, and the achievement of ongoing rehabilitation objectives.

Determining allocation and distribution of funds will require consultation with the CCC, the relevant Council, and Boral.

6 ENVIRONMENTAL MAINTENANCE AND MONITORING

6.1 OPERATIONAL ENVIRONMENTAL MONITORING

Environmental monitoring during the operations of Stages 2 through 5 is essential in the successful long term use of the site after sand mining as ceased. Operational environmental monitoring will allow trends to be identified and any management improvements made, where necessary. This will ensure that post-extraction uses of the site are not compromised by sand mining operations.

6.2 ENVIRONMENTAL MONITORING PROGRAM

An Environmental Monitoring Program has been developed as a component of the Environmental Management Strategy (EMS) for Stages 2 through 5 in accordance with the CoA. The purpose of the monitoring program is to improve the efficiency of the EMS and to identify issues relating to the management of environmental pollutants or contaminants generated by the development.

An Environmental Monitoring Protocol (EMonP) has been developed as a component of the Environmental Monitoring Program and includes all the separate conditional requirements for implementation of all monitoring programs undertaken for DLSP. The EMonP outlines objectives of the impact assessment criteria as well as the protocol for responding to an exceedance of the impact assessment criteria. The impact assessment criteria, including the compliance criteria, and monitoring and reporting required for the individual programs during operation are outlined below.

6.2.1 Surface Water Monitoring Plan

A Surface Water Management Plan (SWMP) has been prepared in compliance with Schedule 3 CoA 30. The SWMP forms part of the Water Management Plan. The main objective of this Plan is to determine if the surface water flows comply with the water quality criteria and parameters identified in CoA 24. Monitoring is to be undertaken from both operational and natural water bodies. Water quality monitoring well be as outlined in the SWMP, located within the WMP.

6.2.2 Groundwater Monitoring Plan

A Ground Water Management Plan (GWMP) has been prepared in compliance with Schedule 3 CoA 30 to provide ongoing records of the groundwater quality on the site, and to provide a feedback mechanism to assess the effectiveness of the WMP. The SWMP forms part of the Water Management Plan. The program includes:

- the ongoing compilation of detailed baseline data on groundwater levels, flows and quality;
- groundwater impact assessment criteria;
- a program to monitor regional groundwater levels and quality; and
- a program to monitor groundwater level effects on adjacent wetlands vegetation, and on groundwater supply to adjoining properties.

Water quality will be monitored as outlined in the WMP .Water quality parameters will be measured in selected boreholes in areas expected to be most affected by site operations. Long term monitoring data will provide an indication of the impact of sand extraction on groundwater levels, particularly to Coastal SEPP Wetlands.

6.2.3 Noise Management Plan

A Noise Monitoring Plan (NMP) is in place to meet requirements with Schedule 3 CoA 17 to manage the potential impact of the DLSP on the local noise climate. Noise compliance criteria for the

various activities in Stages 2 through 5 have been established using relevant EPA guidelines. An independent acoustic consultant is commissioned to undertake annual attended and annual unattended noise monitoring surveys to ensure the DLSP is compliant with the approval noise criteria. Noise monitoring sites have been established at various sensitive receivers surrounding the site.

6.2.4 Air Quality Management Plan

An Air Quality Monitoring Plan (AQMP) is in place to meet requirements of Schedule 3 CoA 20B to manage the potential impact the DLSP has on air quality beyond the boundaries of Stages 2 through 5. Air quality compliance criteria have been established in accordance with the relevant EPA guidelines. Air quality monitoring and reporting includes deposited dust and offensive odour. Offensive odours are assessed in the event of a complaint lodged with the DLSP. Deposited dust is monitored at various locations within the site over consecutive intervals of approximately one month. The recording of an exceedance of air quality criteria will trigger the implementation of contingency measures.

6.2.5 Data Reporting

A summary of all monitoring data collected with the four programs will be presented in the Annual Review. Schedule 5 CoA 9 requires the results be analysed against the applicable criteria and trends identified. A comprehensive review of all monitoring results including any non-compliances, corrective actions and reassessment will be included in the Annual Review which will be submitted to the CCC, the Planning Secretary and any other applicable agencies. Exceedances will trigger the implementation of contingency measures described in the associated management plan.

6.3 POST-OPERATIONAL ENVIRONMENTAL MONITORING

The monitoring program is a key element of adaptive management and provides the necessary information to make modifications to on-going maintenance. The post-operational monitoring program would document and measure the success of rehabilitation works over time, informing adjustments to be made as necessary. The proposed post-operational environmental monitoring program is identified in Table 4 and would be consistent with the completion criteria provided in the RMP (Boral 2021). A detailed long term environmental monitoring program will need to be prepared, at minimum, two years prior to the closure of Stages 2 to 5 of the sand mine. The monitoring program would need to address the following:

- Compliance/assessment criteria;
- Monitoring objectives;
- Monitoring locations;
- Monitoring frequency;
- Reporting requirements; and
- Monitoring actions.

Table 4 Proposed post-closure monitoring plan

Environmental aspect	Elements to be Monitored
Safety	No. of site hazards
Landform stability	Minimal rilling, erosion, sediment deposition in drains and water retention basins Stability of voids Diversion of water flows
Water quality	No dirty water leaving the site
Land function	Land capability aligned to proposed future use Maintenance of environmental assets currently on or within proximity to the site
Landscaping	Visual continuity of landscape Consistent vegetation cover
Revegetation of disturbed areas	A success rate (survival) of 80% for all plants in Swamp Oak Floodplain Forest, Freshwater wetlands and habitat island
	Monitoring of revegetated areas in accordance with timing and methodology prescribed in the Rehabilitation Management Plan
	Within 24 months of the rehabilitation of each stage, achieve a percent cover of 5% (or less) of woody noxious weeds across this same stage
Revegetation of disturbed areas – Vegetation Establishment	Establishment of Swamp Oak Floodplain Forest, Freshwater wetlands and habitat island in accordance with the Final Landform A success rate (survival) of 80% for all plants in Swamp Oak Floodplain Forest, Freshwater wetlands and habitat island Monitoring of revegetated areas in accordance with timing and methodology prescribed in the Rehabilitation Management Plan Within 24 months of the rehabilitation of each stage, achieve a percent cover of 5% (or less) of woody noxious weeds across this same stage
Revegetation of disturbed areas – Ecosystem Development	Resilient and self-sustaining vegetation community, aligning with the target PCT and providing fauna habitat
Pasture establishment	An established pasture community with a low abundance of weeds

The long term monitoring data will be necessary to inform the long term management requirements including water quality, site water balance, potential adverse impacts on protected wetlands, and weed and pest control. The long term management of Stages 2-5 will be in accordance with the final landform described in the RMP. A post-operational management plan will need to be prepared to address the long term management of the site and specify management objectives including when environmental monitoring can cease.

7 ACTION PLAN

7.1 ONGOING ACTIONS

7.1.1 Review and Update Monitoring Programs and Management Plans

The conditions of consent prescribes a number of monitoring systems, programs and management plans, the LTMS included, to support the sustainable long-term management of Stages 2 to 5 of the site. The ongoing mandatory reviews and submissions to the Planning Secretary will ensure these documents are continually improved and reflect the current status of the sand mine. These documents have been prepared in accordance with the conditions of consent and include:

- Environmental Management Plan including the following components:
  - Environmental Management Strategy;
  - Environmental Monitoring Program – including the EMonP and Air, Noise, Surface Water and Groundwater Monitoring Programs;
  - Water Management Plan – including the Water Balance and Sediment Erosion Control Plan
- FFMP including the following components:
  - Vegetation Clearing Protocol;
  - Compensatory Habitat Management Plan;
  - Pest and Weed Management Strategy;
- Rehabilitation Management Plan including: the following components:
  - Landscaping Plan;
  - Riparian Area Management Plan; and
- Waste Management Plan.

The environmental management and monitoring of Stages 2 to 5 of the site are guided by these documents during operational phase. The successful implementation and ongoing refinement of these documents should ensure the sand mining operations support the final landform criteria and post-operational land use.

7.1.2 Review and Update LTMS

This Strategy will be reviewed as per Schedule 5 Condition 3 on the following basis:

- The submission of an incident report
- The submission of an Annual Review
- The submission of an audit report
- The approval of any modifications (unless the conditions require otherwise)

7.2 FUTURE ACTIONS

7.2.1 Consultation with CCC

Consultation with the CCC should begin at minimum five years prior to closure of the sand mine. Long term management and post-operational land use should be standing agenda items of the bi-annual meetings with CCC to ensure and facilitate discussion of the final landform and post-operational environmental management and monitoring requirements.

7.2.2 Post-Operational Monitoring Program and Long Term Plan

Detailed preparation of a post-operational monitoring program and a long term management plan should be prepared in consultation with CCC, Shellharbour Council, Kiama Council, Boral and the local community two years prior to the conclusion of operations. These plans should be prepared in alignment with the strategy proposed in the LTMS.

8 REFERENCES

Arcadis (2017) Dunmore Sand and Soil Project – Long Term Management Strategy.

Department of Resources, Energy and Tourism (2006) *Mine Closure Completion*, Commonwealth of Australia 2006

Department of Resources, Energy and Tourism (2011) *A Guide to Leading Practice Sustainable Development in Mining*. Creative Commons, Sydney.

Appendix A Final landform

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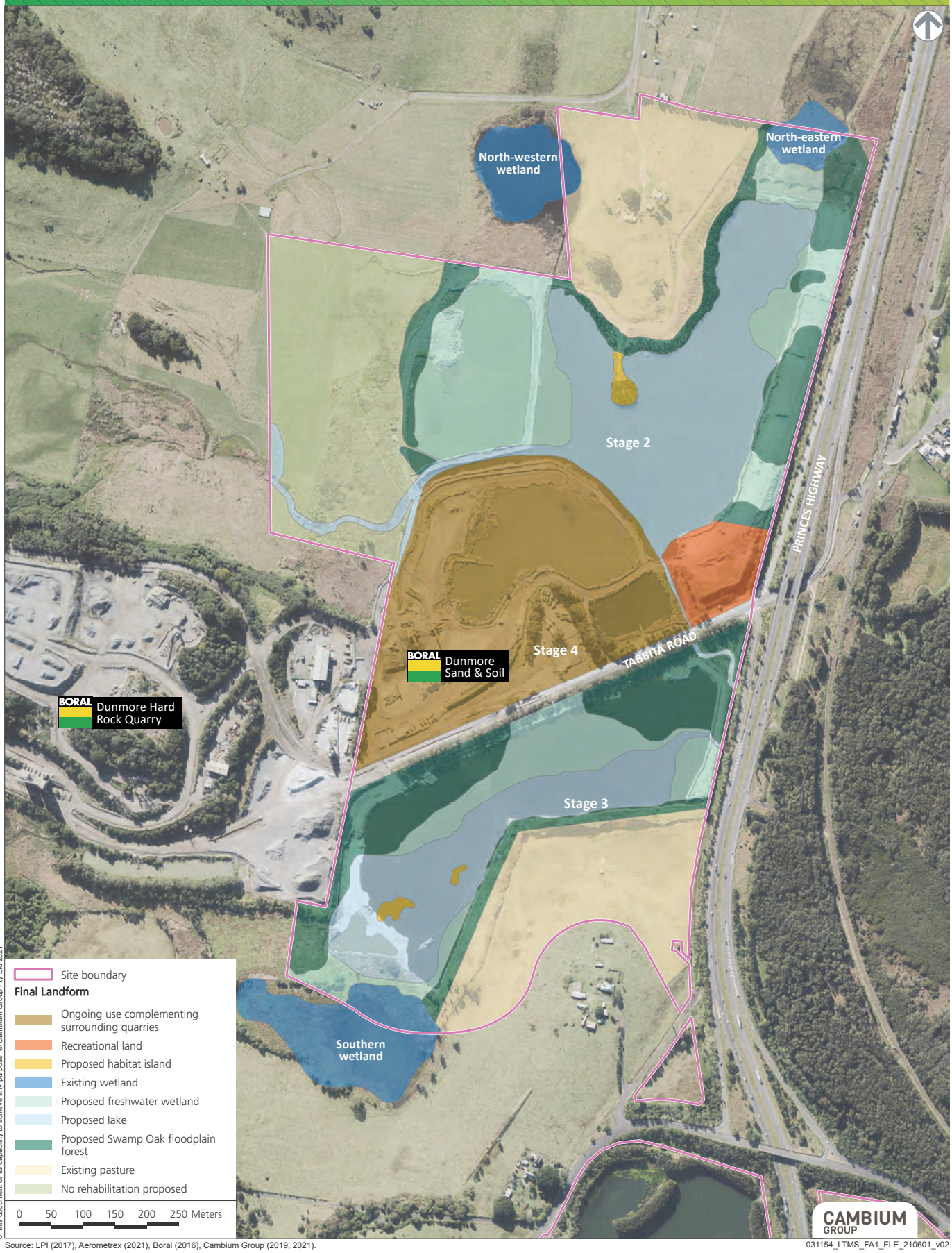
Figure A.1
Final landform - stages 2, 3 and 4
Long Term Management Strategy / Dunmore Lakes Sand Project



Source: LPI (2017), Aerometrex (2021), Boral (2016), Cambium Group (2019, 2021).

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Figure A.2
Final landform - stage 5

Long Term Management Strategy / Dunmore Lakes Sand Project

CAMBIUM GROUP

Source: LPI (2017), Aerometrex (2021), Boral (2016), Cambium Group (2019, 2021).

Appendix B BORAL LETTER TO DOP REGARDING BANK GUARANTEE

Build something great™

28 July 2016

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The Secretary
NSW Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Attention to: Jessie Evans
Emailed to: Jessie.Evans@planning.nsw.gov.au

Dear Mrs McNally,

Dunmore Lakes Sand Project, Stages 2 to 4 (DA 195-8-2004)
Long Term Management Trust

The development consent for Stages 2 to 4 of the Dunmore Lakes Sand Project ('the Project') was issued by the then Minister for Planning on 29 June 2005. At that time, the Applicant was the independent company, Dunmore Sand & Soil Pty Ltd, and the land covered by the Project had three owners. These were:

- Dunmore Sand & Soil Pty Ltd (Stage 2);
- Boral Resources (NSW) Pty Ltd (Part Stage 3 and Stage 4); and
- Rita Creagan (South eastern quarter of Stage 3)

Not long after the consent was issued in 2005, Boral purchased Dunmore Sand & Soil Pty Ltd, and continued to run the Project as a second brand. However, the three land owners had now become two, Boral and Rita Creagan.

Given the shared land ownership when the consent was issued, the following condition was inserted into Schedule 3 of the consent to fund the long term management of the site post development:

'Long Term Management Trust

52. Within 4 years of the date of this consent the Applicant shall establish a trust fund (or other mechanism as agreed by the Director-General), that has available by the end of year 20 a minimum of $300,000 for the long term management of the site, to the satisfaction of the Director-General. Every 4 years following establishment of the trust, the Applicant shall review, and if necessary revise, the trust sum to the satisfaction of the Director-General. This review must consider:

a) the effects of inflation;
b) any changes to the total area of disturbance; and
c) the performance of the rehabilitation to date.'

On 14 July 2009, Boral submitted a Bank Guarantee to the full value of $300,000 in favour of the Department of Planning ('the Department') as an alternate mechanism to a trust fund and sought the agreement of the Director-General. On 11 November 2010, the Department wrote back to Boral returning the Bank Guarantee stating it does not support it in favour of a trust fund '*due to the risk associated with not being able to access the guarantee if the land is sold or if the company becomes insolvent'*.

Boral has recently updated the bank guarantee to cover the rehabilitation bond for the Project (see **Attachment 1**), which has been accepted by the Department as an appropriate mechanism for security of the funds for possible default in rehabilitation by the company. Hypothetically, Boral could sell the land in question or become insolvent, however, the conditions attached to the bank guarantee for its removal do not cover sale or insolvency.

Given that the Department supports the use of bank guarantees for rehabilitation liabilities of developments, and that the two key risks identified (land sale and insolvency) do not preclude the beneficiary (the Department) from withdrawing the guaranteed funds, Boral requests that the Department reconsiders its position.

Boral proposes to re-issue a bank guarantee to the Department as beneficiary for $300,000 as an alternate mechanism in place of a trust fund to satisfy Condition 52.

Boral respectfully requests that the Department reconsider and confirm that this alternate mechanism is to the satisfaction of the Secretary. Once confirmed, another bank guarantee will be requested from the National Australia Bank and issued expediently.

If further information is required in relation to the above, please call me on 9033 5056.

Yours sincerely

Rod Wallace
Planning & Development Manager (NSW/ACT)

Attachment 1:
Bank Guarantee for Stage 2 to 4 Rehabilitation Bond

National Australia Bank Limited ("Bank")
ABN 12 004 044 937

Bank Guarantee

Guarantee No : BORAL RESO01788

To:
Department of Planning & Environment

A.C.N./A.R.B.N./ABN 38 755 709 681

(The Beneficiary)

For:
Boral Resources NSW Pty Ltd

A.C.N./A.R.B.N./ABN 51 000 756 507

(The Customer)

Agreement:
Rehabilitation bond for Dunmore Lakes Sand Extraction Project Stages 2 to 4 in accordance with Condition 3 (48 & 49) of DA 195-8-2004, based on site disturbance:

a) For the period between 2007 and 2016: $468,000 (based on a rate of $1.30 per square metre of disturbance); and
b) For the period between 2016 and 2020: $511,920 (based on a rate of $3.24 per square metre of disturbance).

Amount: 979,920.00 **Currency of** AUD

Amount in words: NINE HUNDRED SEVENTY-NINE THOUSAND NINE HUNDRED TWENTY DOLLARS

1. In consideration of the Beneficiary agreeing at the request of the Customer and the Bank to accept this guarantee in connection with the Agreement, the Bank undertakes to pay the Beneficiary an amount or amounts not exceeding the Amount in total.
2. Payment of the Amount or any part or parts of the Amount will be made by the Bank to the Beneficiary:
   a) upon the Bank receiving at any NAB branch located within Australia while this guarantee remains in force an unconditional written demand from the Beneficiary accompanied by this guarantee; and
   b) without reference to the Customer; and
   c) despite any notice given to the Bank by the Customer not to pay to the Beneficiary any moneys payable under this guarantee; and
   d) irrespective of the performance or non-performance by the Customer or the Beneficiary of the Agreement in any respect; and
   e) with no obligation on the Bank to enquire as to the performance or non-performance of the Agreement in any respect by the customer or the Beneficiary; and
   f) with no obligation on the Bank to enquire as to the correctness or validity of any demand pursuant to sub-clause 2(a) of this clause.
   g) at the Bank's election in cash, bank cheque or funds transfer into the Beneficiary's nominated account.
3. Where a demand and payment is made pursuant to clause 2, for a sum that is less than the Amount, the Bank will issue to the Beneficiary a replacement guarantee for the balance of the Amount then remaining, after such part payment or payments.
4. The Bank's liability under this guarantee is not affected or discharged in any way by any variation of the Agreement or by any extension of time or other forbearance on the part of the Beneficiary or the Customer to the other.
5. The Bank may terminate this guarantee at any time upon payment to the Beneficiary of the Amount or the balance of the Amount remaining after any part payment of the Amount, or such lesser amount as the Beneficiary requires.
6. If two or more persons are named as the Beneficiary, this guarantee takes effect for the benefit of them jointly and a demand under this guarantee by any one or more of them is deemed to be a demand by both or all of them jointly. Payment by the Bank under this guarantee to any one or more of them discharges this guarantee to the extent of the amount so paid.
7. The benefit of this guarantee is not assignable by the Beneficiary.
8. This guarantee continues in force until the earliest of the following events occurs:
   a) this guarantee is returned to the Bank during normal banking hours at the NAB branch located at **Level 24, 255 George Street, Sydney NSW 2000, Australia** and if this branch is no longer permanently open, to any NAB branch located within Australia (other than for a payment in accordance with clause 2(a));

b) notification in writing has been received by the Bank at the NAB branch as detailed in clause 8 (a) from the Beneficiary that this guarantee is no longer required;

c) payment is made under clause 2 or 5 to the Beneficiary by the Bank of the whole of the Amount or the balance of the Amount remaining after any part payment or payments of the Amount, or such lesser amount as the Beneficiary requires.

9. a) In the events of clause 8 (a) & (b), the Beneficiary must return this guarantee to the Bank at the NAB branch as detailed in clause 8 (a);

b) In the events of clause 8 (c), the Beneficiary must return this guarantee to the Bank at any NAB branch located within Australia.

10. This guarantee is governed by and is to be construed in accordance with the laws of the place where it is executed by the Bank.

Dated 27 (day) 06 (month) 2016 (year –ccyy)

Executed on behalf of the **National Australia Bank Limited** by its Attorney

Name of Attorney Philip Lee

who holds the position of Level 3 Attorney under Power of Attorney dated 1 March 2007

in the presence of:

Signature of Attorney

Signature of witness

Name of witness Shan Jiang.

Appendix C EVIDENCE OF CONSULTATION

DUNMORE LAKES SAND PROJECT

COMMUNITY CONSULTATIVE COMMITTEE

MINUTES OF MEETING – 27 September 2006

PRESENT: Denis and Elizabeth Renton (Community Representatives), Margrit Stocker (Community Representative), Bill Cornue, Cindy Neaves (Community Representative), Barry Bird ((SCC) – Chairperson), Darryl Goldrick (DNR), Rob Corkery (RW Corkery & Co), Michael Holz (DSS) Rodney Holz (DSS), Rod Wallace (Boral), Wayne Evans (Boral).

APOLOGIES: Kathryn Burton (Community Representative), Peter Lee (Community Representative), Ruth Devenney (Minnamurra River Management Group), Graham Mitchell (SCC), Allan Lugg (DPI)

Meeting commenced at 4:50 PM after a site tour of Swamp Road Quarry and Stages 2-4.

Matters Arising from Minutes of Meeting – 23 February 2006:

Barry Bird asked for specific comments arising from the minutes of last meeting. The following action items were discussed.

Previous Action 5: *DSS to speak to Cindy Neaves (On behalf of the Dunmore lakes Estate) and facilitate with HLA to expedite the completion of the Long Term Management Strategy (LTMS).*

- Margrit Stocker asked if any members of the local Rural Group who live along Swamp Road have been consulted regarding the LTMS for Stage 1. Rod said that they had not at this stage, but noted the people involved in the group and will speak to HLA about involving the group members in the process once a few options for the LTMS have been developed for discussion.

Previous Action 3: *DSS to progress the matter with DoP/DNR to facilitate a preferred protocol to ensure sand quality control.*

- Darryl Goldrick explained that he has talked to people within the Department of Planning (DoP) about the status of the ASSMAC guidelines and their relevance considering they were developed in 1998 and the recent disbanding of the ASSMAC committee. Queensland has progressed the research and science behind the testing of acid sulfate soils since 1998 and has produced more up to date and valid guidelines. Notwithstanding this, the current NSW ASSMAC guidelines stand, and a new committee will be formed to produce revised guidelines that will more than likely follow the progress of the efforts in Queensland. Darryl suggested that the revised sand quality testing protocol developed by Environmental and Earth Sciences and the science behind it will need to be backed by the new committee. Rob Corkery asked Darryl when the new committee might be assembled. Darryl explained that it is uncertain at this time, however, he would make inquiries with people from DoP about

how DSS could receive endorsement for the new sand quality testing protocol. He suggested that the new protocol would need to be endorsed for its ongoing use.

Action 1: DNR to investigate how DSS might receive endorsement from DoP for the new TOS protocol.

Previous Action 2: *Graham Mitchell to provide the committee with a response at the next meeting*

- Margrit noted that this action item has been on the agenda for 3 meetings with no response. She understands that Graham has been unwell of late, however, in his absence Shellharbour Council needs to provide a response to this matter and should use someone else to respond if Graham is unavailable to attend.

Swamp Road Quarry

Rob Corkery asked for comments on the 2005-2006 Environmental Compliance Report (ECR) which all of the committee members received. He noted that many of the concerns from the last committee meeting regarding the last ECR have been resolved, particularly in regard to the rate of VENM backfilling which has expedited rehabilitation progress.

Darryl suggested that DSS talk to Landcom about fill material being imported to a site near Flinders Road. They seem to be receiving a lot of material and don't appear to have an appropriate use for it.

Action 2: DSS to make inquiries about potential fill material from Flinders Road site

Darryl made the comment that on page 7, section 1.3 of the ECR that the average depth of the fines in the fines pond should be 4.4m rather than 44m. He further added that on Table 2.1, page 14, that the average TOS level for the first two samples on the table should read 0.043 rather than 0.43.

Rod added that in Appendix A3-2, the last quarter of surface water monitoring results for DW-1 are missing. The monitoring was undertaken, however, it didn't make its way to the document.

Darryl asked whether results of groundwater monitoring had been sent to the licensing section of the Department of Natural Resources (DNR), as this was a licence condition for the monitoring bores. Rod answered that this has not occurred to date, mainly due to DSS not having copies of the licenses until recently as they were held by Environmental and Earth Sciences on behalf of DSS. Rob Corkery asked whether DNR had a particular format for submitting the data or whether the ECR presentation of data would be adequate rather than reinventing the wheel. It was also noted that DNR receives the ECR and already has access to the data. Darryl will confirm which format will be appropriate.

Action 3: DNR to advise DSS of the appropriate format for submission of groundwater monitoring data.

In regard to re-vegetation of backfilled areas, Darryl suggested that proper science will need to be adopted to create appropriate substrate on the banks to facilitate rehabilitation. Rod said that the approved Rehabilitation Management Plan will be followed for this work. He also added that the rehabilitation of the Stage 1 (Swamp Road Quarry) site will be a good test case for what has to occur on Stages 2 to 4.

Margrit asked whether there would be any merit in using plant a tree day as a way of getting community involvement/support for the area by inviting community members to plant trees as part of the ongoing rehabilitation. She also suggested that the Anglican College might want to be involved. Darryl then suggested approaching a university student to investigate rehabilitation options for a thesis or final year project. Rod added that both of these matters would good suggestions and worth exploring.

Action 4: DSS to investigate the involvement of community members for planting trees on site as part of plant a tree day.

Action 5: DSS to investigate using Stage 1 rehabilitation methods as a project for a university student.

Barry asked whether the Department of Primary Industries (DPI) (NSW Fisheries) could provide an answer to why they have been unwilling to grant a permit to enable carp eradication. Rod said that he had hoped a representative from DPI could have attended the meeting so that an answer could be provided. *It should be noted that since the meeting DPI has issued the contractor with a permit to eradicate the carp in lakes 1 and 2.*

Rob Corkery concluded the discussion on the ECR by explaining that from an auditor's perspective, the non-compliances have largely been administrative and due to consent conditions that are no longer appropriate and have not resulted in environmental harm.

Barry Bird then asked if it would be appropriate for Shellharbour City Councillors to receive the ECR. Rob added that given the initial concerns that were held by government agencies and the community regarding Stage 1, providing councillors with the ECR might be a good way to dispel these concerns.

Action 6: DSS to consider making a presentation to Council following the completion of the LTMS.

Long Term Management Strategy – Stage 1

Margrit asked about the establishment of the trust for the long term management of the site and whether it had occurred. Rod responded by saying that Boral/DSS is not comfortable with establishing a trust to fund the long term management of the site and would prefer to lodge a bank guarantee. Further, the bank guarantee and long term management strategy (LTMS) should be consistent, with the amount to be guaranteed reflecting the likely costs of the strategy. DoP have indicated they are satisfied with this approach and would like DSS to lodge an application to modify the development consent with a revised submission date for the LTMS and propose a different method to fund the LTMS instead of the trust.

Action 7: DSS to lodge an application to modify the consent conditions relating to the timing and funding for the LTMS.

Darryl added that zoning implications need to be considered when determining the long term land use of the site. Rod explained that this is part of the scope for consultants HLA in preparing the LTMS.

Stages 2, 3 and 4

Rod handed out the Flora, Fauna and Rehabilitation Management Plan and the Waste Management Plan for the committee's review and feedback. He asked if committee members could provide feedback by the end of October 2006.

Elizabeth Renton stated that the trees Dayne Steggles promised would be planted along their southern boundary before the processing area was erected has not happened. Denis Renton added that it is disappointing that previous promises of a bund through the pond on the shared boundary were not followed through with. Rod responded by clarifying that DSS was not aware of the tree planting along the Rentons whole southern boundary and apologised for the confusion. DSS will undertake to plant the trees before Christmas.

Action 8: DSS to provide a tree screen along the Renton's southern boundary before Christmas in accordance with their request.

Further, DSS was aware that Dayne Steggles promised the construction of a bund through the pond on the shared boundary, however, the promise was made before the development consent was issued, and at that time, there were no foreseeable reasons why the bund could not be constructed. The development consent was then issued with conditions specifically relating to the pond which holds the endangered ecological community (EEC) Freshwater Wetlands on Coastal Floodplains. The extraction boundary to the north east of Stage 2 has now been altered following investigations from Cumberland Ecology which has meant that works to construct a bund through the pond would adversely effect the EEC and place DSS in non-compliance with the development consent. Rod added that DSS would do its best to accommodate the Rentons requests, however, the bund cannot be constructed due to the conditions of consent.

Denis also mentioned that the ECR was received too close to the meeting and that he did not have the time to adequately read and prepare for the meeting. Rod explained that although it was not ideal timing, DSS did not want to change the dates of the meeting to accommodate the issuing of the ECR as in previous years and fail to meet twice a year in accordance with the consent.

Margrit suggested that the committee be given at least 2 weeks to read documents before the CCC. DSS will endeavor to meet this.

Action 9: DSS to ensure CCC members receive documents at least 2 weeks before the meeting is held.

Denis also suggested that whenever Boral/DSS discuss matters with community members, minutes are taken so that there is written evidence of promises/commitments. Rod agreed, and added that it is also important that the minutes of the CCC meetings are accurate and have adequate feedback from the CCC members. Very few CCC members have given feedback on draft documents to date and are encouraged to so that the minutes reflect what was said at CCC meetings.

Elizabeth asked whether the LTMS review period of every 4 years is appropriate. Rod said that the 4 yearly review period is stipulated in the consent and that he sees no reason why at this early stage that it should be more frequent. He added that that the review within the last 5 years of the project closure will be the most critical. Within the last 5 years the regulatory and planning requirements will more closely resemble those at the time of closure with more definite and appropriate decisions being made for the long term management of the site.

Elizabeth also raised concern regarding bullet point 1 of Section 4.1 of the LTMS, which states that the one of the long term rehabilitation objectives is the creation of two scenic lakes with 'high recreational and aesthetic values'. Her concern was that 'high recreational' value could mean the use of noisy speed boats and jet skis. Rod said that high recreational value referred to activities like fishing and canoeing, however, it is not specific and could be open to interpretation. It was agreed that the inclusion of the word 'passive' might be appropriate to dispel confusion.

Action 10: The word 'passive' to be included in Section 4.1 for future reviews of the Stages 2-4 LTMS.

Other Business

Rod explained that this meeting of the CCC has less involvement from the various government agencies' than previous meetings. He added that the CCC exists for the interests of the community members who are directly effected by the operations of DSS and that the consent stipulates involvement from the various agencies is to be on an 'as needs' basis. Certain representatives were specifically invited to the meeting today due to the requests of committee members or because their input was requested from an action item from the last meeting. He suggested that the committee should stipulate the terms of when agency representatives should be called for input or advice so that the intent and purpose of the CCC is achieved.

Rob suggested that a meeting notification and draft agenda could be sent out a month before the meeting to all CCC members and government advisors. If government advisors are requested from committee members, they should inform Rod Wallace so that they can be given a specific invitation, otherwise the government advisors should make the determination of whether their input is required and respond accordingly. This process was endorsed by the CCC.

Next Meeting scheduled for Wednesday, 14 March 2007

Meeting closed at 7:15pm

TABLE A
SUMMARY OF ACTIONS ARISING FROM 27 SEPTEMBER 2006 MEETING

Action No.	Subject	Responsibility for Action	Due Date
1.	DNR to investigate how DSS might receive endorsement from DoP for the new TOS protocol.	Darryl Goldrick	14 February 2007
2.	DSS to make inquiries about potential fill material from Flinders Road site	DSS	14 November 2006
3.	DNR to advise DSS of the appropriate format for submission of groundwater monitoring data.	Darryl Goldrick	14 December 2006
4.	DSS to investigate the involvement of community members for planting trees on site as part of plant a tree day. (27 July 2007)	DSS/Boral	14 March 2007
5.	DSS to investigate using Stage 1 rehabilitation methods as a project for a university student.	DSS/Boral	14 December 2006
6.	DSS to consider making a presentation to Council following the completion of the LTMS.	DSS	14 March 2007
7.	DSS to lodge an application to modify the consent conditions relating to the timing and funding for the LTMS.	DSS/Boral	14 December 2006
8.	DSS to provide a tree screen along the Renton's southern boundary before Christmas in accordance with their request.	DSS	25 December 2006
9.	DSS to ensure CCC members receive documents at least 2 weeks before the meeting is held.	DSS/Boral	Ongoing
10.	The word passive to be included in Section 4.1 for future reviews of the Stages 2-4 LTMS.	DSS/Boral	Next review

From: Phil Costello
To: Lawton, Ronnie
Subject: RE: Dunmore Lakes Sand Project Draft Long Term Management Strategy
Date: 16 December 2016 2:03:31 PM
Attachments: image001.png

Good afternoon Ronnie, I have no record of your original email, however I have briefly reviewed the Long Term Management Study and raise no concerns in regard to the content. I would ask that Kiama Council be on the mailing list for the annual reporting, Thanks,

Phil Costello
Director Environmental Services
Kiama Municipal Council
P: 02 4232 0444
F: 02 4232 0555
PO Box 75, Kiama NSW 2533
www.kiama.nsw.gov.au

From: Lawton, Ronnie [mailto:Ronnie.Lawton@boral.com.au]
Sent: Thursday, 15 December 2016 1:05 PM
To: Phil Costello
Subject: RE: Dunmore Lakes Sand Project Draft Long Term Management Strategy

Good Afternoon Phil,

Hope this email finds you well. I am emailing to follow up with the below email regarding the Dunmore Lakes Sand Project Long Term Management Strategy consultation requirements for the Long Term Management Strategy.

Could you please let me know if you have received the attached.

Kind regards,
Ronnie

RONNIE LAWTON
Environmental Coordinator

Telephone: 02 4237 8414
Mobile: 0401 892 133
Fax: 02 4237 8891
Email: Ronnie.Lawton@boral.com.au