



New South Wales Government
Independent Planning Commission

Dunmore Lakes Sand Extraction Project Modification 2

DA 195-8-2004 Mod 2

Statement of Reasons for Decision

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Dunmore Lakes Sand Extraction Project Modification 2 Final Report ©
State of New South Wales through the Independent Planning Commission 2020

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DEFINED TERMS

ABBREVIATION	DEFINITION
Applicant	Dunmore Sand & Soil Pty Ltd, a wholly owned subsidiary of Boral Resources (NSW) Pty Ltd
Application	Dunmore Lakes Sand Extraction Project – Modification 2
ARP	Department’s Assessment Report Paragraph
Commission	Independent Planning Commission of NSW
Council	Shellharbour City Council
CZMP	Coastal Zone Management Plan
DCP	Development Control Plan
Department	NSW Department of Planning, Industry and Environment
Department’s AR	Department’s Assessment Report, dated September 2020
EA	Applicant’s Environmental Assessment, dated 10 April 2019
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EPI	Environmental Planning Instrument
ESD	Ecologically Sustainable Development
Existing Approval	Development Consent DA 195-8-2004 granted by the then Minister for Infrastructure and Planning in 2005. DA 195-8-2004 was modified in 2016 (DA 195-8-2004 Mod 1) and in 2020 (DA 195-8-2004 Mod 3).
FMR	Friends of Minnamurra River
GEPS	Gerroa Environment Protection Society
ILALC	Illawarra Local Aboriginal Land Council
KMC	Kiama Municipal Council
LEP	Local Environmental Plan
LGA	Local Government Area
Relevant Considerations	Relevant matters for considerations, as provided in s 4.15(1) of the EP&A Act
Minister	Minister for Planning and Public Spaces
Original Approval	Development Consent DA 16-01-1999, granted by the then Minister for Urban Affairs and Planning in 2000
PMF	Probable maximum flood
Project	Dunmore Sand and Soils Pty Ltd dredge sand extraction operations at Dunmore, NSW
Project Site	Dunmore Lakes Sand Extraction Project Stages 1 – 4
Regulations	<i>Environmental Planning and Assessment Regulations 2000</i>
RtS	Response to Submissions
SCC	Shellharbour City Council
SEPP	State Environmental Planning Policy
SRD SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>
Site	Stage 5 Site as defined in paragraph 7 of this Statement of Reasons
SSD	State Significant Development
STOP Reg	<i>Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017</i>
VENM	Virgin Excavated Natural Material

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1 INTRODUCTION

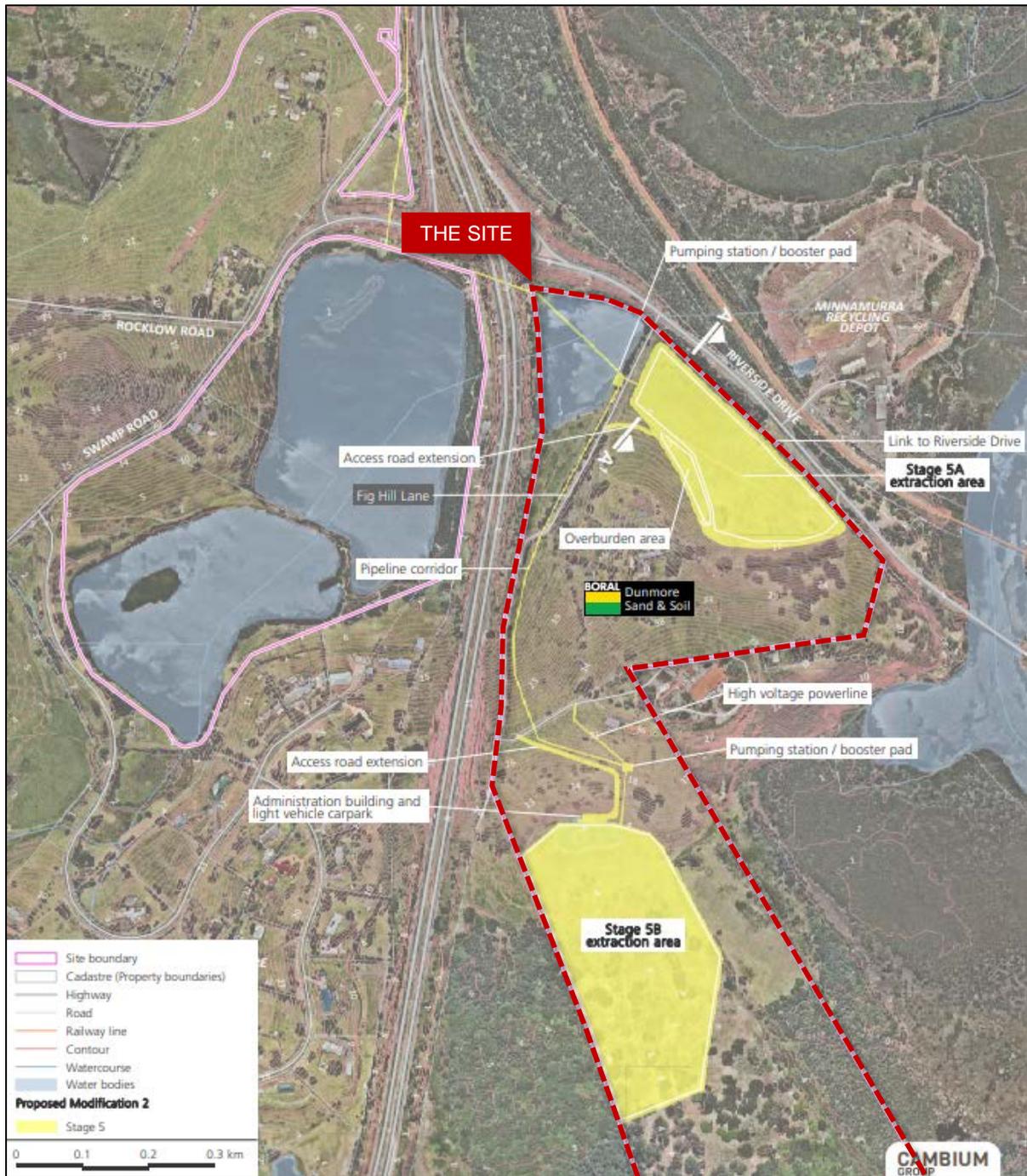
1. On 21 September 2020, the NSW Department of Planning, Industry and Environment (**Department**) referred a modification application (DA 195-8-2004 Mod 2) (**Application**) to the NSW Independent Planning Commission (**Commission**) for determination. Dunmore Sand & Soil Pty Ltd (**Applicant**), a wholly-owned subsidiary of Boral Resources (NSW) Pty Ltd (**Boral**) seeks approval for the Dunmore Lakes Sand Project Modification 2 located in the Shellharbour City Council Local Government Area (**LGA**) under section 75W of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**).
2. The Application was submitted to the Commission as a transitional Part 3A Project under clause 2 of Schedule 2 of the *Environmental Planning and Assessment (Savings, Transitional and Other Provisions) Regulation 2017* (**Transitional Regulation**). The Commission is the consent authority in respect of such transitional Part 3A Projects under the Minister for Planning's delegation of that function to the former Planning Assessment Commission (**PAC**) by instrument of delegation dated 14 September 2011, given that the Commission is taken to be the same legal entity as the PAC, pursuant to clause 7 of the Transitional Regulation.
3. The ability to modify transitional Part 3A Projects under section 75W of the EP&A Act (**s75W**) has been discontinued; however, as the request contained in this Application was made before the cut-off date of 1 March 2018, the provisions of Schedule 2 relating to a modification made pursuant to such a request continue to apply. The Commission notes some submissions received argued that the Application should not be considered under s75W and this is addressed in further detail in Section 4.2 of this Statement of Reasons.
4. Professor Mary O'Kane AM, Chair of the Commission, nominated Dianne Leeson (Chair) and Peter Cochrane to constitute the Commission determining the Application.

2 THE APPLICATION

2.1 Site and Locality

5. Paragraph 1.3.1 of the Department's Assessment Report (**Department's AR**), dated 18 September 2020, states that the current site is predominately located within the rural suburb of Dunmore within the Shellharbour LGA.
6. The existing 'Stages 2, 3 and 4' Land comprises Part Lot 6 DP 611159, Part Lot 3 and Lots 4 DP 1030504, Part Lots 5 & 6 DP1001931 and Lot 1 DP 213575.
7. The proposed 'Stage 5 Site' comprises Lot 501 DP 1174897 and Lot 51 DP 1012246. The Stage 5 Site is illustrated in Figure 1 below which includes the 5A and 5B extraction areas.
8. The Project Site is intersected by the Princess Highway and is currently accessed via the Princes Highway and Tabbita Road.

Figure 1 – Site Location (Source: Applicant's EA, dated 10 April 2019)



2.2 The Application

9. Sections 1.2 and 1.3 of the Department's AR set out the Application's approval history and its local context.
10. Paragraph 2.1.3 of the Department's AR state that the Application is seeking approval to extract sand from two new extraction areas, known as Stages 5A and 5B, within the existing approved life of the operations. The Department's AR states, "*these proposed extraction areas are situated on a private property located between the Princes Highway, Riverside Drive and the Minnamurra River, which would be leased to the Applicant*".
11. Paragraph 2.1.4 of the Department's AR states:

Stage 5A covers an area of 3.42ha and comprises a 12m deep extraction pit that would be expected to yield around 234,000 tonnes of sand. Stage 5B covers an area of 8.12ha and comprises a 27m deep extraction pit that would be expected to yield around 1.12 million tonnes of sand. Extraction in the two areas would take around 3 to 4 years to complete.
12. Table 1 of the Department's AR provides a comparison of approved operations and the Application. An extract of the key changes identified in Table 1 of the Department's AR is provided at **Appendix A**.

2.3 Need and Strategic Context

13. Section 1.4 of the Department's AR provides an overview of the strategic context for the Application.
14. Paragraph 1.4.7 of the Department's AR states:

[The Project] is located in one of four strategic 'feeder' areas which adjoin the greater Sydney region. These feeder areas supply around 60% of the natural sand products required in the Sydney's construction industries (FY 2018 figures).
15. Paragraph 1.4.9 of the Department's AR states:

The proposed modification seeks to provide continued supply chain certainty by enabling access to an addition (sic) 1.35 million tonnes of high-quality sand resources, located in close proximity to the existing Dunmore Lakes operations and processing facilities. Access to these resources are expected to provide Boral with an additional 3 to 4 years (sic) worth of construction sand supplies during a period of growth and high demand for construction materials in the Greater Sydney Region.
16. The Commission acknowledges that the Application would extend the life of an established quarrying operation and would ensure the continued delivery of high-quality construction sand products to the Illawarra and Greater Sydney regions.

3 COMMUNITY PARTICIPATION & PUBLIC SUBMISSIONS

3.1 Community Group Attendance at the Site Inspection

17. On 28 September 2020, the Commission conducted an inspection of the Project Site. The Commission also invited representatives from community groups to attend and observe at the site inspection. The following community groups were represented at the site inspection:
 - Friends of Minnamurra River (**FMR**);
 - Illawarra Local Aboriginal Land Council (**ILALC**); and
 - Gerroa Environment Protection Society (**GEPS**).

3.2 Public Meeting

18. The Commission's Public Meeting was undertaken on 28 October 2020 and was held electronically. 15 speakers registered to present to the Commission at the Public Meeting. 13 of these speakers were representatives of community groups and members of the public.
19. Presentations made at the Public Meeting have been considered by the Commission as submissions on the Application and are referenced below in Section 3.3.

3.3 Public Submissions

20. All persons were offered the opportunity to provide written submissions to the Commission up until 4 November 2020. The Commission received a total of 162 written public submissions. A breakdown of the submissions received by the Commission is provided below:
 - 52 submissions in support of the Application;
 - 109 objections to the Application; and
 - 2 comments on the Application.
21. The Commission heard concerns from speakers at the Public Meeting and received written comments regarding a number of issues which have been summarised below. Common concerns raised related to potential ecological impacts, surface and groundwater impacts, potential acid sulfate soils, heritage impacts (including Aboriginal Cultural Heritage and historic heritage), impacts on traffic and transport, and impacts on local amenity and tourism.

Ecological Impacts

22. The Commission heard concerns from speakers at the Public Meeting and received written comments raising concern about potential impacts to the terrestrial and aquatic ecosystems of the Minnamurra River and surrounding catchment area.
23. Particular concern was raised by the community and special interest groups about the removal and disturbance of existing Bangalay Sand Forest (**BSF**), a listed endangered ecological community (**EEC**) under the *Biodiversity Conservation Act 2016 (BC Act)* and a habitat for owls, sugar gliders, eagles and other birds and wildlife.
24. The Commission heard concerns from speakers at the Public Meeting and received written comments about the presence of a nearby White-bellied Sea Eagle nest:

The White-bellied Sea Eagle nests in the vicinity and was recorded during fieldwork.

I am also concerned that the resident White Breasted Sea Eagles will be severely stressed by all the activity associated with construction of the 5B pit... I believe the loss of mature Bangalays that are no doubt used for perching and the noise and visual disturbance caused by the whole extraction process is likely to drive these apex predators away from their current nest which they have been using for many years.
25. The Commission heard concerns from speakers that despite the proposed offset measures being in place to account for tree removal, there would still be a net loss of BSF which could negatively impact the biodiversity of the area.
26. The Commission heard concerns from speakers at the Public Meeting and received written comments about the removal of existing hollow bearing trees. In a written submission, a member of the community stated:

The competition for hollows would be extraordinary as the Bangalay sand forest has been reduced in this location over the last two hundred [years] and considering it takes approximately 150 years to create a hollow, it stands to reason that this loss of so many hollows in such a small location would have severe adverse impacts on the local wildlife.

27. The Commission also received written submissions from the community that support the Application and considered that environmental impacts could be appropriately mitigated to ensure “no long lasting ill effects to the environment”.

Acid Sulfate Soils

28. The Commission heard concerns from speakers at the Public Meeting and SCC and received written comments raising concern about potential risks of acid sulfate soils, including oxidisation and importation of potentially contaminated VENM.

Invasive Species

29. The Commission heard concerns from speakers at the Public Meeting and received written submissions regarding potential impacts caused by invasive species, including invasive aquatic and terrestrial flora and fauna species. Particular concern was raised about the potential for invasive fish species, such as Carp, to enter the ponds and subsequently the Minnamurra River.

Water Associated Issues

30. The Commission heard concerns from speakers at the Public Meeting and received written comments regarding the Project’s potential impact on the Minnamurra River, including the potential for impacts on the Minnamurra wetland area and associated ecosystems, which are protected under the *State Environmental Planning Policy (Coastal Management) 2018 (Coastal Management SEPP)*.
31. The Commission heard concerns from speakers at the Public Meeting and received written comments regarding potential flooding risks to the Minnamurra River during a 100-year average recurrence interval (**ARI**) event or probable maximum flood (**PMF**) event which could “alter the flow of water and increase the intensity of surface water flow”.
32. Concerns were raised by SCC regarding the water quality of Rocklow Creek and the Minnamurra River and potential impacts of sedimentation and groundwater contamination. SCC and KMC raised particular concern regarding potential flooding impacts.
33. Concerns were raised by Kiama Municipal Council (**KMC**) and community members regarding impacts to groundwater, including potential for changes to groundwater flow direction and contamination.
34. In written submissions, members of the community raised concerns relating to toxins entering the watercourse:

I fear this new proposal could cause leaching into the Minnamurra River Catchment with detrimental effects, endangering the ecological species with possible toxic blooms, which often occur in shallow lakes... If this were to occur, it will take years to rehabilitate the river system.

The area is a floodplain which is not suitable for mining and there is much risk in allowing toxic substances to leak out from the nearby Land fill site.

Aboriginal Cultural Heritage

35. Members of the public and community groups raised concerns regarding the significant cultural value of the landscape, the presence of Aboriginal artefacts and possible presence of Aboriginal burial sites.
36. The Commission heard from representatives of ILALC and noted their submission to the Department, which states:

The destruction of this area will eliminate, without the potential for repair, a significant cultural and environmental landscape which has already seen the destructive hand of western values.

37. In a written submission, a representative of GEPS raised concern regarding the potential impacts of the Application on Aboriginal cultural heritage and stated:

The archaeological report for the sand quarry provides evidence of significant aboriginal occupation in the vicinity of the proposed dredge pond so it appears this area was heavily utilised by Aboriginal people in the past.

38. The Commission heard concerns raised by the public regarding the proximity of the Site to the location of a massacre recorded as occurring in the broader area connected with the Minnamurra River in the early 1800s.

Historic Heritage

39. The Commission heard concerns from speakers at the Public Meeting and received written comments regarding the Application's impact on the local heritage item known as 'Dunmore House Complex, Dry Stone Walls and Trees', including visual impacts and changes to its curtilage and setting. SCC in their submission to the Department raised concerns regarding the impacts on the heritage significance of Dunmore House and Minnamurra vegetation area.

Traffic and Transport

40. The Commission heard concerns from speakers at the Public Meeting and received written comments regarding the Application's impact on the existing road network, road safety and associated amenity impacts from the Application, including noise and dust. The Commission also notes the concern raised by KMC in their letter to the Department about the ongoing maintenance burden of the Application on Riverside Drive.

41. Written objections expressed concern regarding the expected increase in local truck movements to deliver VENM, stating:

I believe around 325,000 tonnes of fill will be transported by road along Riverside Drive to fill in Stage 5A, and the noise, dust and traffic issues will seriously impact the surrounding residents and tourists.

Amenity Impacts

42. The Commission heard concerns from speakers at the public meeting and received written comments regarding the Application's potential impact on the amenity of the local community. Members of the public raised concerns regarding increased noise impacts, visual impacts, air pollution and dust.

43. The Commission received written comments regarding the Application's impact on local tourism and the impact of reduced amenity on local businesses.

44. In a written objection to the Commission, a local resident discussed the potential impacts of the Application to their property (a proposed ecotourism site), stating:

It goes without saying that our proposed development and the proposal to sand mine either side of us are in total conflict with each other and it is difficult to imagine two more dramatically opposed development applications.

Rehabilitation

45. The Commission received written submissions from the community in support of the Application that considered the proposed rehabilitation of the Site would be acceptable based on the Applicant's successful rehabilitation of previous Stages:

Boral's commitment and track record of successfully rehabilitating mined areas demonstrate its commitment to operate responsibly.

46. The Commission also received written submissions that raised concern that the Applicant's ability to ensure rehabilitation is undertaken successfully is limited as the Stage 5 Site is on privately-owned land.

Economic Impacts

47. The Commission received written submissions from the community in support of the Application because of the proposed economic benefits, including providing local jobs. Written submissions considered that the economic benefits of the Application could be balanced with managing environmental impacts through the implementation of appropriate mitigation measures.
48. The Commission received written submissions from the community stating that sand is an essential resource and the extraction of sand from the Site will support development projects and new infrastructure across the region.

4 THE COMMISSION'S CONSIDERATION

4.1 Material Considered by the Commission

49. In this determination, the Commission has carefully considered the following material (the **Material**) along with the other documents referred to in this Statement of Reasons:

- the Applicant's EA prepared by Element Environment Pty Ltd, dated 10 April 2019;
- submissions made to the Department, received during exhibition;
- Government agency advice, received during exhibition;
- the Applicant's RtS, dated 25 June 2019;
- Government agency advice on the RtS;
- the Department's AR, dated September 2020, including material considered in that report;
- the Department's draft Development Consent, dated 21 September 2020;
- the Department's submissions correction, dated 23 September 2020;
- SCC response to the Commission, dated 6 October 2020;
- the Department's response to the Commission, dated 13 October 2020;
- the Applicant's response to the Commission, dated 14 October 2020;
- all speaker comments made to the Commission at the Public Meeting on 28 October 2020;
- all written comments received by the Commission up until 5pm, 4 November 2020;
- matters for consideration specified by the EP&A Act, including s 75W.

4.1.1 Additional Considerations

50. The Commission has taken into consideration the following Environmental Planning Instruments (**EPis**):

- State Environmental Planning Policy (Coastal Management) 2018;
- State Environmental Planning Policy (State and Regional Development) 2011;

- State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007;
- State Environmental Planning Policy No. 33 – Hazardous and Offensive Development;
- State Environmental Planning Policy 55 – Remediation of Land; and
- Shellharbour Local Environmental Plan 2013.

The Commission agrees with the Department's assessment of EPIs set out in Appendix F of the Department's AR. The Commission therefore adopts the Department's assessment.

51. In determining this Application, the Commission has also considered:

- NSW Road Noise Policy (**RNP**)
- Interim Construction Noise Guideline (**ICNG**)
- NSW Noise Policy for Industry (**NPfi**)
- Acid Sulfate Soil Manual (**ASS Manual**)
- Minnamurra Coastal Zone Plan of Management (**CZPM**)

4.2 Statutory Context

52. Paragraphs 3.1.1, 3.1.2 and 3.1.3 of the Department's AR state:

The Dunmore Lakes Project (DA 195-8-2004) was originally approved under Part 4 of the EP&A Act. However, the project is considered to be a "transitional Part 3A project" in accordance with Schedule 2 to the EP&A (Savings, Transitional and Other Provisions) Regulation 2017 (STOP Regulation).

Despite the repeal of Part 3A of the EP&A Act, as the modification request was made before the transitional cut-off date of 1 March 2018 for Section 75W modification applications, the provisions of clause 3 of Schedule 2 of the STOP Regulation continue to apply to this application. The modification application is therefore to be assessed and determined under the former Section 75W of the EP&A Act.

The Department has carefully considered the application of the modification powers under Section 75W in terms of the scope of the proposal and recognises that this was a key concern expressed by the community.

53. In paragraph 3.1.4 of the Department's AR, the Department states that the Application can be considered as a modification to the existing development consent and provided the following reasons for reaching this conclusion:

- *the key approved operating functions of the quarry would not change, including the approved extraction rate, site processing infrastructure, the processing rate, hours of operation, the approved product transportation arrangements and consented quarry life;*
- *the proposed additional extraction areas represent a relatively small expansion (less than 20% increase in area) of the existing operations, and extraction would be sourced from the same sand resource as approved for the project (i.e. the Illawarra Coastal Plains alluvial floodplains sand resource);*
- *the use of VENM for site rehabilitation purposes would not change, as VENM imported for the proposed modification would not exceed the yearly amount currently permitted and VENM used for rehabilitation of Stage 5 would be managed in accordance with existing established VENM compliance protocols; and*
- *based on the Department's assessment, the proposed modification would not result in any significant environmental or amenity impacts, and the residual impacts can be managed, mitigated and offset by updating the existing conditions of consent for the quarry.*

54. The Commission agrees with the Department above that the Application meets the requirements of the former section 75W of the EP&A Act for the reasons it has provided. It is satisfied that the Application falls within the scope of that section and can therefore be determined. The Commission acknowledges that as the Application is a Modification under former section 75W to the existing development consent, the Commission can determine the Application under the Minister’s delegation dated 14 September 2011.

4.3 The Department’s Assessment Report

55. Sections 4 and 5 of the Department’s AR provide an overview of the assessment process up until the Department’s referral to the Commission.
56. The Commission considers that it is permitted to take into account the Department’s AR, but that it should be weighed in the same manner as the other Material referred to in Section 4.1 of this Statement of Reasons. To the extent that any policy outside of the EP&A Act purports to require the Commission to give the Department’s AR greater weight than the other Material, the Commission has not applied that policy.
57. The Commission agrees with the Department’s assessment referenced in paragraphs 52 and 53 and finds that the Modification is able to be assessed and determined under the former section 75W of the EP&A Act.

4.4 The Commission’s Meetings

58. As part of its determination process, the Commission met with various persons, as set out in **Table 1** below. All meeting and site inspection notes were made available on the Commission’s website.

Table 1 – Commission’s Meetings

Meeting	Date of Meeting	Transcript/Notes Available on
Department	1 October 2020	9 October 2020
Applicant	1 October 2020	9 October 2020
Shellharbour City Council	1 October 2020	9 October 2020
Kiama Municipal Council	9 October 2020	14 October 2020
Site Inspection	28 September 2020	22 October 2020
Public Meeting	28 October 2020	6 November 2020

4.5 Key Issues

4.5.1 Water

Water Quality

59. The Department’s AR states the process and monitoring requirements set out in paragraphs 5.2.22 – 5.2.25 of the Department’s AR would be appropriate to manage the potential water quality impacts of the proposed operations and has recommended they be reflected in an updated Water Management Plan for the Application.
60. The Commission notes recommended Schedule 3, Condition 30 requires the Applicant to prepare a Soil and Water Management Plan. The Commission also notes that Schedule 3, Condition 24 requires the Applicant to ensure that water quality in the dredge ponds and groundwater comply with specific water quality objectives.

61. The Commission finds that Schedule 3, Conditions 24 and 30, as referenced above, are appropriate in managing and mitigating any adverse impacts of the Application on water quality and therefore imposes these Conditions.

Flooding

62. The Commission acknowledges the potential flooding risks under a 100-year ARI or PMF event noted by the Department in paragraph 5.2.69 of the Department's AR. The Commission also notes that Fisheries NSW raised concern regarding the proximity of the Site to *"key fish habitat associated with Rocklow Creek and the Minnamurra River and recommended measures to manage this impact. Fisheries NSW recommended that the flood bunds be designed to manage significant flood events in order to protect nearby fish habitat"* as stated by the Department in paragraph 4.4.16 of the Department's AR.
63. The Commission agrees with the Department in paragraph 5.2.71 of the Department's AR that reasonable efforts should be implemented to increase the freeboard of the Stage 5B dredge pond to separate it from the river during flood events. The Commission agrees with the Department that the Stage 5B flood bunds should be engineered to withstand and prevent interactions under a PMF event. The Commission acknowledges that the Department's approach to additional flood mitigation *"is consistent with the recommendations of [Biodiversity Conservation Division of the Department (BCD)], EPA and Fisheries NSW to ensure biodiversity, water quality and key fish habitat is [sic] adequately protected"* as stated in paragraph 5.2.76 of the Department's AR.
64. The Commission therefore imposes Schedule 3, Condition 29C which states that *"the Applicant must retain and maintain the flood bunds around the Stage 5B area to prevent interactions with the probable maximum flood, unless otherwise agreed in writing by the Planning Secretary"*. The Commission also imposes Schedule 3, Condition 29D which requires the Applicant to undertake regular monitoring of the stability of flood bunds throughout the extraction, rehabilitation, closure phases, and the long-term management of Stage 5 quarry operations. The Commission finds that with these measures in place, adverse impacts as a result of flooding would be minimised and mitigated as far as practicable.

Groundwater, Minnamurra River & Coastal Wetlands

65. The Department has undertaken an assessment of the Coastal Management SEPP in Appendix F of the Department's AR. The Department's assessment of the Application against the Coastal Management SEPP is set out in Appendix F of the Department's AR. The Department's AR states that *"Overall the biodiversity and groundwater assessments contained in the EA... demonstrate that the proposed modification would not significantly or detrimentally affect the biological diversity and ecosystem integrity of the wetland"*. The Commission agrees with the Department and is of the view that the Application can be carried out in a manner that is consistent with the aims, objectives and provisions of the Coastal Management SEPP. The Commission therefore adopts the Department's assessment.
66. The Commission acknowledges the concerns raised by KMC regarding the potential for changes to groundwater flow direction as a result of the extraction as stated in paragraph 5.2.32 in the Department's AR. The Commission notes that DPIE Water and the Department are both satisfied that the Application would not result in material groundwater drawdown and as such represents a very low risk of causing a material reversal of the current groundwater flows in the area as stated in paragraph 5.2.33 of the Department's AR, including the groundwater beneath the Council's landfill and recycling facilities. The Commission agrees with the Department that the inflows into the Stage 5B pond are not considered sufficiently large so as to result in a serious or sustained reversal of the groundwater regime as stated by Department in paragraph 5.2.34.

67. The Commission also notes the Department's AR which states that "*both the Stage 5 areas are setback at a sufficient distance from mapped groundwater dependent ecosystems and that the Stage 5B pond is located outside the zone of affectation of the groundwater influence of the coastal wetland area*". The Commission agrees with the Department's assessment in paragraph 5.2.38 of the Department's AR and is of the view that the Application would not result in unacceptable impacts to the coastal wetland areas to the east of the Site.
68. The Commission notes that the Department and DPIE Water consider that the potential impacts of the Application on the local groundwater regime would be manageable and licensable as stated by the Department in paragraph 5.2.40 of the Department's AR. The Commission agrees with the Department and DPIE Water and for the reasons set out above, the Commission imposes Schedule 3, Condition 30 which requires the Applicant to prepare a Soil and Water Management Plan which includes the requirement for both a Surface Water Management Plan and a Groundwater Management Plan to be prepared.

4.5.2 Biodiversity

Terrestrial Biodiversity

69. In relation to impacts on terrestrial biodiversity, paragraph 5.3.2 of the Department's AR acknowledges that the Application would require the clearance of approximately 7.5 ha of native vegetation. The Department and the BCD agree that the terrestrial biodiversity impacts associated with this clearing can be offset in accordance with the BC Act.
70. As set out in paragraph 5.3.8 of the Department's AR, the Applicant would be required to retire 71 ecosystem credits to account for the impacts associated with the proposed clearing of BSF, which is a listed EEC under the BC Act. The Applicant would also be required to retire a further 161 species credits comprising 19 credits for impacts on Southern Myotis and 71 credits each for potential impacts to the Barking Owl and Masked Owl respectively.
71. The Commission notes the presence of a White-bellied Sea Eagle nest located approximately 280m south of the Site. The Commission acknowledges that the exact nesting location was disputed, as stated by the Department in paragraph 5.3.9; however, notes that the nest is not situated within the Site boundary or proposed extraction area. The Commission agrees with the Department's AR that any disturbance to the habitat caused by the Application would be offset and accounted for through the retirement of the 71 ecosystem credits already required for the BSF EEC. The retirement of credits must be carried out in accordance with the Biodiversity Offsets Scheme of the BC Act, as set out at Condition 37A.
72. The Commission acknowledges that the Application will result in biodiversity impacts associated with the clearing of EEC and removal of habitat trees, including hollow bearing trees. The Commission agrees with the Department's assessment referenced in paragraphs 69 – 71 above and finds that terrestrial biodiversity impacts associated with the Application can be offset in accordance with the BC Act. The Commission therefore imposes Schedule 3, Condition 37A which sets out the biodiversity credit requirements for the Application.
73. To ensure that impacts on flora and fauna are minimised and mitigated as far as practicable, the Commission has imposed Schedule 3, Condition 38 which requires the Applicant to prepare a Flora and Fauna Management Plan. The Commission acknowledges the concerns raised in relation to the loss of tree hollows as a result of the Application and has imposed Schedule 3, Condition 38(d)(v) which requires the salvaging of resources, including tree hollows, for beneficial reuse including fauna habitat enhancement. Additionally, Condition 38(e)(iv) is imposed to ensure habitat features, such as nest boxes and salvaged tree hollows, are provided in the final landform to support threatened fauna species.

Aquatic Biodiversity

74. The Commission acknowledges that the Minnamurra River and Rocklow Creek are mapped as key fish habitat, as stated in paragraph 5.3.17 of the Department's Assessment Report.
75. The Commission notes that Fisheries NSW did not object to the Application on the basis of impacts to key fish habitat and noted that the proposed disturbance areas for Stages 5A and 5B are over 100 m from key fish habitat, as stated in paragraph 5.3.18 of the Department's AR. The Commission also notes the Department and Fisheries NSW are of the view that the Application represents a low risk of any potential impacts to fish habitat and can be appropriately managed to ensure the protection of key fish habitat, as stated in paragraph 5.3.20 of the Department's AR. The Commission agrees with the Department and Fisheries NSW and, as stated in paragraph 68 and 73 above, has imposed Schedule 3 Condition 30 requiring the preparation of a Soil and Water Management Plan and Condition 38 requiring a Flora and Fauna Management Plan. These Plans require the Applicant to implement specific measures to ensure the protection of fish habitats.

4.5.3 Aboriginal Cultural Heritage

76. Paragraph 5.4.21 of the Department's AR acknowledges that a massacre of Aboriginal people has been recorded as occurring in the broader area connected with the Minnamurra River in the early 1800s. The Commission understands that the massacre site is of cultural and spiritual importance. According to paragraph 5.4.22 of the Department's AR, records indicate that the massacre may have occurred closer to the river than the proposed Stage 5 extraction areas and, furthermore, the Aboriginal cultural heritage assessment identifies that the surveys and archaeology of the Site do not identify a direct connection to the massacre event.
77. The Commission acknowledges the Department's assessment that the massacre is likely to have occurred in the broader area and is unlikely to have occurred within the proposed disturbance area.
78. The Commission accepts the Department's view in paragraph 5.4.24 of the Department's AR that in terms of mechanisms to protect and conserve cultural heritage sites and values, the current legislative framework provides appropriate protection against any further impacts to heritage values. The Commission further notes that the Site would be clearly demarcated to ensure no potential cultural heritage sites are damaged outside of the approved disturbance area.
79. The Commission therefore imposes Schedule 3, Condition 40, which requires the Applicant to ensure that the development does not cause any direct or indirect impact on any identified heritage item located outside of the approved disturbance areas, beyond those impacts predicted in the documents listed in Schedule 2, Condition 2(c). The Commission also imposes Schedule 3, Condition 41 which requires the Applicant to prepare a Heritage Management Plan (**HMP**). Condition 41(d) sets out measures specific to preserving and protecting Aboriginal objects and Aboriginal places within and also outside the Site.
80. At the Commission's site inspection on 28 September 2020, a representative of the ILALC highlighted the importance of the understanding the site in the context of its place in a wider cultural landscape where Aboriginal people had camped, hunted, fished and held ceremonies, and pointed out that the physical presence of artefacts was only one aspect of a long connection to, use of and responsibility for that wider landscape. The Commission respects and acknowledges the importance of Aboriginal Cultural Heritage and its greater significance than the presence of artefacts might indicate and notes, given the likely use of the area by Aboriginal people, that there is the potential for the site to contain human remains. Given these considerations, the Commission imposes Schedule 3 Condition 41 requiring the preparation of an HMP.

4.5.4 Traffic and Transport

81. Paragraph 5.5.1 of the Department's AR states that the Applicant is not seeking to change the existing production rate or the road and rail product haulage arrangements, and therefore product haulage movements would not increase over that previously assessed and approved for the Project as a whole.
82. Paragraph 5.5.2 of the Department's AR states that Application would however require project-related traffic (primarily construction and VENM importation related) to travel on a short section of Riverside Drive which heads south-east from the exit ramp from the Prince Highway at Dunmore.
83. A new access point from Riverside Drive is proposed as part of the Application. Paragraph 5.5.5 of the Department's AR states that an intersection treatment has been proposed to more effectively distribute heavy vehicle movements and mitigate the impacts on local traffic flow. The Department considers that this new channelised right turn intersection with Riverside Drive would appropriately minimise traffic impacts and address safety considerations. The Commission agrees with the Department's assessment above, for the reasons set out in paragraph 5.5.5 of the Department's AR.
84. Paragraphs 5.5.6 and 5.5.7 of the Department's AR state the key traffic impacts of the Application would occur during the importation of VENM to the site to backfill Stage 5A and rehabilitate the Stage 5B pond (requiring an average of three trucks per hour delivering VENM to the site for at least two years following the completion of the extraction operations). The Commission agrees with the Department's statement at paragraph 5.5.9 that the proposed volume of trucks on the road network and traffic impacts at key intersections is manageable subject to appropriate management measures.
85. For the reasons set out above, the Commission imposes Schedule 3, Condition 56 which requires the Applicant to prepare a Traffic Management Plan in consultation with TfNSW, SCC and KMC to ensure that the traffic impacts of the Application are properly managed.

4.5.5 Amenity

Noise

86. The Commission notes the Department's summary in paragraph 5.6.1 of the AR which anticipates that the key noise impacts of the Application would arise from temporary construction activities associated with the development of the access intersection to Riverside Drive, internal access road and car park, and operational noise impacts from the establishment of the extraction areas, the operation of the dredge and rehabilitation activities.
87. Paragraph 5.6.3 of the Department's AR states that construction activities for the internal road, site offices, car park and extraction area preparation would occur during standard construction hours and be subject to the noise limits in the *Interim Construction Noise Guideline 2009 (ICNG)*.
88. In relation to operational impacts, paragraph 5.6.4 of the Department's AR states that the noise modelling conducted in accordance with the contemporary *Noise Policy for Industry (NPfI)* indicated that the Application would now be audible to additional residences west and north of Stage 5B and residential receivers in Minnamurra, including 79 Fig Hill Lane.
89. Paragraph 5.6.12 of the Department's AR states:

The Department considers that Boral's proposal to enter into a negotiated agreement with the landowner to manage noise impacts generated by the development would be a preferred and proportionate mechanism to manage the noise impacts at 79 Fig Hill Lane and has recommended a condition that would afford the owner of 79 Fig Hill Lane with mitigation rights should a residence be built during the life of the project".

90. Paragraph 5.6.15 of the Department's AR states that the Department and EPA consider that the noise impacts generated by the Application could be mitigated and appropriately managed through a suite of proposed management and mitigation measures. The Commission agrees with the Department and EPA and has therefore imposed Schedule 3, Conditions 13 – 18 which require the Applicant to comply with specific construction and operational noise criteria and prepare a Noise Management Plan.
91. The Commission has also imposed Schedule 4, Conditions 1 and 2 which provide a mechanism for the owner of any residence at 79 Fig Hill Lane, Dunmore to request additional noise mitigation measures.

Visual Impact

92. The Commission notes the Department's comment at paragraph 5.8.3 of the AR that during operation the dredge ponds would look similar to large dams and ponds that are not uncommon in a rural landscape setting. The Commission agrees with the Department's statements at paragraph 5.8.10 of the AR that visual impacts can be appropriately managed through the implementation of the proposed visual mitigation measures and future rehabilitation of the site in accordance with the Rehabilitation Management Plan.
93. The Commission has imposed Schedule 3, Conditions 58 – 63 to minimise the visual impacts of the development by providing vegetated screening and minimising off-site lighting impacts.

Air Quality

94. Table 2 of the Department's AR states that the Application would contribute negligible air quality impacts relative to the existing operations. The Department's AR also noted that EPA was consulted on the air quality assessment for the Application and did not raise any concerns about the potential air quality impacts. The Department's AR recommended:

The current strict air quality conditions and criteria would continue to apply to the new extraction areas, and the Department has recommended that contemporary PM₁₀ and PM_{2.5} standards are included in the conditions.

Boral would also be required to update its Air Quality Management Plan for the site to reflect the modified project.

95. The Commission agrees with the Department's assessment and acknowledges that the EPA did not raise any concerns regarding potential air quality impacts. The Commission is of the view that air quality impacts can be minimised and appropriately managed by imposing conditions of consent in line with contemporary practice. The Commission therefore imposes Schedule 3, Conditions 19 – 20C which set air quality criteria, air quality operating conditions and require the Applicant to prepare an Air Quality Management Plan.

4.5.6 Importation of VENM

96. Paragraph 5.7.10 of the Department's AR states that all of the material that would be used to rehabilitate the Stage 5 extraction areas of the Application would be verified as non-potential acid sulfate soil VENM and handled in accordance with the established protocols already in place for the approved Stages 2 to 4 operations. The AR also stated that receipt protocols would be implemented in accordance with those specified in the approved Waste Management Plan for the Application and would be updated to include the Stage 5 extraction areas.
97. The Commission has imposed Schedule 3, Condition 33 requiring the preparation of an Acid Sulphate Soils Management Plan and Schedule 3, Condition 65 to ensure appropriate safeguards for potential acid sulfate soils.
98. The Commission noted comments raised by the Department of Primary Industries that VENM sourced from the Sydney region is a biosecurity concern as Sydney is a Phylloxera Infested Zone (**PIZ**). In this regard the Commission notes the Site is located in a Phylloxera Exclusion Zone (**PEZ**) and that it is an offence under the *Biosecurity Act 2015* to transport soil and other materials from a PIZ into a PEZ. The Commission notes the Applicant must ensure they meet their general duty under the *Biosecurity Act 2015*.

4.5.7 Socio-economics

99. Table 2 of the Department's AR states that the Application would generate a range of benefits for the region and for NSW including:
 - *continued operation and optimisation of an established sand extraction operation;*
 - *continued employment for around 10 people; and*
 - *provision of high quality sand products for use in major construction projects in the Illawarra and Greater Sydney regions.*
100. Table 2 of the Department's AR also states that the socio-economic impacts of the Application can be appropriately managed in accordance with the proposed conditions.
101. In relation to social benefits, Table 4 of the Department's AR states:

The proposed modification would provide ongoing social benefits through continuing employment and the supply of the product sand to the construction industry to provide further community benefit.

The proposal promotes proper management and development of an important sand resource, which has been determined to be significant from a State and regional perspective without significantly increasing the approved environmental impacts.
102. The Commission agrees with the Department's assessment that the Application will generate economic benefits for the region and for NSW, as set out by the Department in paragraph 99. The Commission also acknowledges that the Application will provide ongoing social benefits through continuing employment, as stated by the Department above.
103. The Commission understands that the Application would extend the life of an established quarrying operation and would ensure the continued delivery of high-quality construction sand products to the Illawarra and Greater Sydney regions. The Commission is of the view that the continued development and recovery of a State significant sand resource is an orderly and economic development of the Site. The Commission agrees with the Department's statement in Table 2 and Table 4 of the Department's AR and is of the view that the socio-economic impacts of the Application can be appropriately managed in accordance with the imposed conditions.

4.5.8 Other Issues

Rehabilitation

104. Paragraph 5.7.11 of the Department's AR states:

Rehabilitation at the existing Project Site is undertaken in accordance with a detailed Rehabilitation Management Plan, which describes the short, medium and long term measures that would be implemented to rehabilitate the site. This plan includes detailed landscaping plans and completion criteria for the rehabilitation activities associated with Stages 2 to 4 and the processing facilities.

105. The Commission agrees with the Department in paragraph 5.7.12 of the Department's AR that the Rehabilitation Management Plan (**RMP**) should be updated to incorporate the detailed design of the proposed flood bunds (see section 4.5.1) and rehabilitation strategies for Stage 5B, with an emphasis on providing clear guidance on landscaping at the Site so that a wetland area can be created as soon as possible.

106. The Commission has therefore imposed conditions relating to rehabilitation under Schedule 3, Conditions 42 – 49C, which require the preparation and implementation of a Rehabilitation Management Plan (in consultation with SCC and KMC), a Riparian Area Management Plan and lodgement of a Rehabilitation and Conservation Bond, as agreed by the Planning Secretary.

Invasive species management

107. The Commission notes the Applicant must ensure they meet their general duty under the *Biosecurity Act 2015*.

108. As set out in paragraph 75 above, Fisheries NSW did not object to the Application and noted that the proposed disturbance areas for Stage 5 are over 100m from key fish habitat.

109. The Commission imposes Schedule 3, Condition 38 which requires an update to the Flora and Fauna Management Plan to ensure the control of weeds, including measures to avoid and mitigate the spread of noxious weeds, and feral pests.

Historic Heritage

110. The Commission notes the Department's comments at Table 2 (paragraph 5.9.1) of the AR that the Application would result in minor and temporary impacts within a small section of the curtilage of a local heritage item known as '*Dunmore House Complex, Dry Stone Walls and Trees*'. The Commission notes the Application would not cause any direct impacts to the residence and impacts would be limited to temporary vegetation clearance within the curtilage of the heritage item for the Stage 5A dredge pond and new intersection with Riverside Drive. The Stage 5B dredge pond would not be visible from the residence due to intervening topography.

111. The Commission agrees with the Department and has imposed Schedule 3, Condition 40 requiring protection of heritage items, and Conditions 41 and 41A requiring the preparation and implementation of a Heritage Management Plan which will be prepared in consultation with Heritage NSW.

112. The Commission agrees with the Department in Table 2 of the AR that the Applicant be required to provide an updated Rehabilitation Management Plan, including how it intends to restore the Dunmore House curtilage. The Commission agrees with the Department and has imposed Schedule 3, Conditions 42 to 44 which require the Rehabilitation Management Plan be updated to the satisfaction of the Planning Secretary to ensure the site is rehabilitated and consistent with the concept final landform and the restoration of the Dunmore House curtilage.

4.5.9 Objects of the EP&A Act and Public Interest

Objects of the Act

113. In this determination, the Commission has carefully considered the objects of the EP&A Act. The Commission agrees with the Department's assessment of the Application against the objects of the EP&A Act provided at Table 4 of the AR (paragraph 3.3.10) which finds that the Application can be approved in a manner that is consistent with those objects. The Commission adopts the Department's assessment and is of the view that the Application is in accordance with the objects of the EP&A Act.
114. The Commission finds the Application has been assessed in accordance with relevant environmental planning instruments and is capable of complying with the required mitigation measures to achieve consistency with the objects of the EP&A Act.

Public Interest

115. Paragraph 7.1.11 and 7.1.12 of the Department's AR states that:

On balance, when considered against the limited environmental impacts of the proposal and the avoidance and management measures proposed to address residual risks, the Department is satisfied that the benefits of the modification could be realised subject to the imposition of suitable conditions.

Accordingly, and based on its assessment, the Department considers that the proposed modification is in the public interest and is approvable, subject to the recommended conditions

116. The Commission finds that on balance, and when weighed against the Objects of the EP&A act, ESD principles and benefits, the impacts are acceptable the Application is in the public interest. For the reasons set out in section 4.5 above, the Commission is of the view that the Application is in accordance with the EP&A Act and is in the public interest.

5 CONCLUSION: THE COMMISSION'S FINDINGS AND DETERMINATION

117. The views of the community were expressed through public submissions and comments received (as part of exhibition and as part of the Commission's determination process), as well as in oral presentations to the Commission at the public meeting. The Commission carefully considered all of these views as part of making its decision. The way in which these concerns were taken into account by the Commission is set out in section 4.5 above.
118. Based on its consideration of the Material provided, the Commission finds the Application should be approved subject to conditions of consent. The reasons for the Commission's position are as follows:
 - the Application would extend the life of an established quarrying operation and would ensure the continued delivery of high-quality construction sand products to the Illawarra and Greater Sydney regions (see section 2.3);
 - impacts on water quality, groundwater, flooding, coastal wetlands and flora and fauna have been adequately assessed and where there are predicted impacts, mitigation measures have been implemented as far as practicable (see sections 4.5.1 and 4.5.2);
 - in relation to Aboriginal Cultural Heritage, the Commission acknowledges that a massacre of Aboriginal people is likely to have occurred in the broader area and is unlikely to have occurred within the proposed disturbance area. The Commission finds that the current legislative framework provides appropriate protection against any further impacts to heritage values and has therefore imposed conditions of consent to ensure the preservation and protecting of Aboriginal objects and Aboriginal places

- within and also outside the Site (see section 4.5.3);
- traffic and transport impacts can be managed subject to the preparation and implementation of a Traffic Management Plan, prepared in consultation with TfNSW, SCC and KMC (see section 4.5.4);
 - impacts to amenity, including noise, visual impacts and air quality, can be mitigated in accordance with the imposed Conditions (see section 4.5.5);
 - the potential impacts of the Application on historic heritage values, namely the Dunmore House heritage item, are relatively low and can be adequately managed through rehabilitation of the curtilage, as required by the imposed Conditions (see section 4.5.7);
 - the imposed Conditions ensure the control of invasive species, including measures to avoid and mitigate the spread of noxious weeds and feral pests (see section 4.5.7);
 - the Application will generate economic benefits for the region and for NSW and will also provide ongoing social benefits through continuing employment;
 - the continued development and recovery of a State significant sand resource is an orderly and economic development of the Site (see section 4.5.7); and
 - the Application is in accordance with the Objects of the EP&A Act and is in the public interest (see section 4.5.9).

119. As noted in paragraph 118 above, the Commission has determined to grant consent subject to conditions. These conditions are designed to:

- prevent, minimise and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance
- require regular monitoring and reporting; and
- provide for the on-going environmental management of the development.

120. The reasons for the Decision are given in this Statement of Reasons for Decision dated 16 November 2020.



Dianne Leeson (Chair)
Member of the Commission



Peter Cochrane
Member of the Commission

APPENDIX A

Summary of the Application (Source: Department's AR, dated 10 April 2019)

Aspect	Approved Operations	Proposed Modification
Extraction Areas	Existing 63 ha of approved extraction areas: <ul style="list-style-type: none"> • 37 ha for Stage 2 • 21 ha for Stage 3 • 5 ha for Stage 4 	Additional 11.57 ha of extraction areas: <ul style="list-style-type: none"> • 3.45 ha for Stage 5A • 8.12 ha for Stage 5B
Approved period of operations	Until 31 December 2030	No change
Annual Extraction Rate	Up to 800,000 tonnes of sand per annum	No change
Extraction and delivery methods	Extraction using an excavator and dredge, with extracted sand material sent to the processing facility as a wet slurry via pipelines	No change
Sand processing	Screening, processing, and stockpiling of sand at the Stage 1 processing facility	No change
Product sand transport	A maximum of 800,000 tonnes of product sand per annum on public roads	No change
VENM importation	Around 250,000 tonnes of VENM per year imported for rehabilitation 120,000 tonnes of VENM per year allowed to be processed and blended with product sand	No change in VENM annual import rates, however some imported VENM would be used for construction of flood bunds
Surface infrastructure	Existing surface infrastructure includes: <ul style="list-style-type: none"> • Water management system, including sediment ponds, dredge pipelines, clean water drainage; • product stockpiles; • administration and workshop facilities; and • sand washing infrastructure including conveyors and hoppers 	Minor additional surface infrastructure including: <ul style="list-style-type: none"> • sand delivery and water return pipelines from Stage 5; • internal access roads; • administration building; and • carpark
Water Use	At an average extraction rate of 450,000 tonnes per year, up to 36 megalitres (ML) per year of water leaves the site in the sand products and around 34 ML/year is required for dust suppression	No change to water leaving the site in sand. Increase in dust suppression water use to 38 ML/year
Hours of operation	Dredging operations: <ul style="list-style-type: none"> • 06:00 – 18:00 Monday to Saturday • 08:00 – 16:00 Sundays and Public Holidays Excavator extraction: <ul style="list-style-type: none"> • 06:30 – 18:00 Monday to Saturday • At no time on Sundays and Public Holidays Delivery, distribution and maintenance: <ul style="list-style-type: none"> • 05:00 – 00:00 Monday to Friday • 06:00 – 18:00 Saturdays • 08:00 – 16:00 Sundays and Public Holidays Delivery and distribution via Shellharbour Road: <ul style="list-style-type: none"> • 07:00 – 22:00 Monday to Friday • 07:00 – 18:00 Saturdays • 08:00 – 16:00 Sundays and Public Holidays 	No change
Employment	Employment of approximately 10 full-time equivalent personnel and associated truck drivers	No change
Quarry access	Existing road access from Tabbita Road and the Princes Highway	No change to access to processing site. Access to Stage 5 via a new intersection treatment at Riverside Drive
Rehabilitation	Decommissioning of processing facilities. All extraction areas rehabilitated to form ponds with wetland areas and verges	Stage 5A backfilled and rehabilitated to pasture at the request of the landowner Stage 5B rehabilitated to form a pond with wetland verges as per existing operations