

PLANNING ASSESSMENT REPORT

JOINT REGIONAL PLANNING PANEL
(Southern Region)

JRPP No	2012STH001
DA Number	2011.500
Local Government Area	Bega Valley Shire Council
Proposed Development	Designated Development – Extractive Industry (Sand & Topsoil)
Street Address	Nullica Short Cut Road, Boydtown
Applicant/Owner	Bruce Lyon (Boydtown Pastoral Company Pty Ltd)
Number of Submissions	7 (Includes 1 late submission)
Recommendation	*
Report by	Mark Fowler Development Control Planner (Bega Valley Shire Council)

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1.0 INTRODUCTION

1.1 Executive Summary

Boydton Pastoral Pty Ltd is the proponent for the proposed Extractive Industry (Sand and Topsoil). The proposal involves the extraction of both sand and topsoil approximately 1km west of Boydton and 5 km to the south west of Eden.

The proposed site is predominantly used for agriculture, namely the grazing of livestock. A small extractive industry for the winning of sand materials also exists on the site. The site has had several approvals in the past for extractive industries however these have now lapsed.

The development is defined as an extractive industry under Bega Valley Local Environmental Plan 2002 and is designated development pursuant to Schedule 3 of the Environmental Planning and Assessment Regulation 2002. In accordance with Schedule 4A of the Environmental Planning and Assessment Act 1979 the Southern Region Joint Regional Planning Panel (SRJRPP) is the consent authority.

The development application has been assessed in accordance with the Environmental Planning and Assessment Act 1979 (EP&A Act 1979) and relevant state, regional and local Environmental Planning Instruments.

The application was notified for a period of 40 days with 6 submissions received objecting to the proposed development. The objections raised concerns regarding the potential impacts associated with the development, including, noise, visual appearance of the development from public vantage points and residential dwellings, impacts on flora and fauna, dust generation, potential acid sulfate soils, traffic generation and traffic safety and impacts on tourism.

The proponent prepared a Submissions Report in response to concerns raised in submissions.

Referrals were sent to a range of external agencies and staff internally for comment. The development is “Integrated Development” as defined under the EP &A Act 1979 with the concurrence of Environmental Protection Agency (EPA) and NSW Roads and Maritime Service (RMS) required. Both authorities have provided their comments and General Terms of Approval.

Based on the Section 79C assessment provided in the report, the development application is recommended for approval subject to the conditions contained in the draft consent.

1.2 Reasons for consideration by Joint Regional Planning Panel

The Proposal has been referred to the Joint Regional Planning Panel (JRPP) as it constitutes Regional Development under Schedule 4A of the Environmental Planning and Assessment (EP&A) Act 1979 as it is defined as an Extractive Industry and is classed as Designated Development under Schedule 3 of the EP&A Regulation Act 2000.

1.3 Scope of this report

This report is structured to firstly provide an overview of the proposal and the statutory assessment procedure used during the processing of the development application (DA). An assessment of the key environmental issues of the development is then provided which culminates in the recommendation to the JRPP.

1.4 The Development

The proposal is for the construction and operation of an Extractive Industry - sand and topsoil quarry as follows;

- Total extraction of approximately 1.1 million tonnes of sand and approximately 105,000m³ of topsoil from 3 pits.
- Pit 1 and 2 would be operated in sequence with sand extraction not to commence at Pit 2 until Pit 1 was at least 60% exhausted and the extracted areas rehabilitated.
- Pit 1 is expected to have an operational life of nine years and Pit 2 with an expected operational life of 19 years.
- Pit 3 would operate concurrently with Pit 1 with an estimated resource of 22,000 tonnes with an expected operational life of 3 to 5 years.
- The development proposes to extract up to 40,000 tonnes of sand per year.
- The total life expectancy of operations from the site is 28 years.
- Operating times are proposed between 7am and 7pm weekdays and 8am and 1pm on Saturdays.
- Access and haulage to/from the site is via Nullica Short Cut Road to the Princes Highway and then to surrounding markets.
- Estimated heavy vehicle (truck and dog) traffic generation is up to a total of 80 peak daily vehicle movements per day.
- The method of extraction is via excavation with the use of an excavator and front end loader, generally directly onto trucks. Screen processing and stockpiling of materials for loading of trucks would also be available.

The proposal is otherwise described in written and graphical form in the EIS.

Map 1 – Proposed development



1.5 Site description and surrounding land use and development context

The Site is situated approximately 1 kilometre west of the Seahorse Inn, Boydtown and approximately 5 kilometres south west of Eden (**See Locality Plan**). The Site comprises relatively flat to undulating land used for minor grazing of livestock, namely cattle. Areas of the site have been retained and continue to be utilised for sand extraction as described in the EIS (p. 14-22). The land has been extensively cleared, however, there are numerous remnant trees located over the Site and significant native vegetation located along Reedy Creek that dissects the Site.

The Site fronts both the Princes Highway and Nullica Short Cut Road. All accesses into the Site are currently from Nullica Short Cut Road.

The applicant generally owns land to the east and south of the Site and ranges from partly cleared grazed lands, timbered forested areas and tourist related businesses. There are two other land uses adjoining or located in the vicinity of the Site. There are semi-rural/rural

residential land uses located to the west and south of the proposed Site and Twofold Bay Beach Resort located to the north east of the Site.

The site is otherwise best described in graphical form in the plans located in the EIS.



2.0 STATUTORY DEVELOPMENT ASSESSMENT FRAMEWORK

2.1 Legislation

Environmental Planning and Assessment Act 1979

Pursuant to Section 77A of the EP&A Act the Proposal is identified as “designated development” as the Proposal falls within Schedule 3 of the EP&A Regulations being an “extractive industry”, that would:

- obtain or process for sale, or reuse, more than 30,000 cubic metres of extractive material per year (Approximately 40,000 tonnes per year)
- disturbance of a total surface area of more than 2 hectares of land (total area approximately 30.9 ha)
- be in an area of contaminated soil or acid sulfate soil (the land is identified as possibly containing acid sulfate soils under Bega Valley Local Environmental Plan BVLEP 2002)
- be located within 500 metres of the site of another extractive industry that has operated during the previous five years (the site contains an existing sand quarry located adjacent to proposed Pit 3).

Further, pursuant to Section 91 of the EP&A Act the application is defined as “integrated development” with approval required to be obtained from the EPA under the Protection of the Environment Operations Act 1997 and Roads and Maritime under the Roads Act 1993. Both authorities have been notified. The comments of both Authorities and General Terms of Approval are attached as **(Appendix 1)**.

In accordance with Section 79 and 79A of the EP&A Act the development application was publicly exhibited for a period of 40 days. A total of 6 submissions were received during the exhibited period. One late submission was also received. Issues raised in all submissions are detailed and discussed under Sections 4 and 5 of this report.

The EIS is considered to have been adequately prepared and is considered to adequately address all of the Director-General’s requirements detailed in Appendix 3 of the EIS.

2.2 Chronology of events and public notification and statutory referrals

Basic chronology of events concerning public notification and statutory referral of the DA

DA lodged -	2 December 2011
DA Advertised -	13 December 2011 and 30 January 2012
Notices placed in local newspapers -	11, 12, 13, 25, 26, 27 January 2012 and 1, 2, 3, 15, 16, 17 February 2012
Length of public notification period -	12 January 2012 to 11 February 2012 Lengthened to 20 February 2012
DA referred to statutory referral authorities/agencies (OEHS -EPA, RMS, DPI, NSW Lands, Office of Water) -	12 December 2011

Advertising signs erected on-site - 19 January 2012 (Replaced 30 January 2012)

Basic chronology of public submissions or government department or agency referral responses received by Council

Referral authority/agency (Lands) - 18 January 2012 & 20 March 2012

Referral authority/agency (RMS) - 21 December 2011 (Revised 1 May 2012)

Referral authority/agency (OEH-EPA) - 15 February 2012

Referral authority/agency (Office of water) - 10 February 2012, 15 August 2012

Referral authority/agency (DPI) - 22 February 2012

Copies of all public submissions including late submissions and government department or agency responses are provided at **Appendix 2**.

3.0 SECTION 79C PLANNING ASSESSMENT

Section 79C 1(a)(i) Environmental Planning Instruments

3.1 Bega Valley Local Environmental Plan 2002

Bega Valley Local Environmental Plan 2002

The site is located within the 1(a) Rural General Zone. The development is defined as an 'Extractive Industry' and is permissible subject to consent.

extractive industry means:

- (a) the winning of extractive material, or
- (b) an undertaking, not being a mine, which depends for its operations on the winning of extractive material from the land upon which it is carried on, and includes any washing, crushing, grinding, milling, or separating into different sizes of that extractive material on that land.

extractive material means:

sand, gravel, clay, turf, soil, rock, stone or similar substances.

The following provisions apply;

- Clause 2: Aims of plan
- Clause 8: Zone objectives and development control table
- Clause 12: General controls for development - Zone 1(a) (Rural General Zone)
- Clause 56: Aims in relation to heritage
- Clause 61: Development within vicinity of heritage items
- Clause 63: Development affecting places or sites of known or potential Aboriginal heritage significance
- Clause 64: Development affecting known or potential archaeological sites or relics of on-Aboriginal heritage significance

- Clause 65: General principles for development and use of land and buildings
- Clause 75: Land subject to bushfire hazard
- Clause 76: Contaminated land
- Clause 78: Land filling and excavation
- Clause 79: Ecologically sustainable development
- Clause 84: Building Lines
- Clause 85: Height of buildings

Clause 2: Aims of plan <i>This plan aims to establish the framework for future development within the local government area of Bega Valley and to achieve the following objectives:</i>	
<i>(a) to ensure a balanced approach to development which is sensitive to both the economic and social needs of the community,</i>	The EIS has detailed the extent of the sand and topsoil resource available to the site, proposed staging of extraction to meet local demands for the resource and the proposed mitigation measures to protect the existing and surrounding environment.
<i>(b) to protect and improve the economic, natural, social and cultural resources within the Council's area,</i>	The EIS has addressed the impacts associated with the development having regard to the economic, natural, social and cultural resources at the site and on adjoining lands.
<i>(c) to encourage the efficient and effective delivery of services, and</i>	The EIS has addressed the developments staging to provide for the efficient and effective delivery of sand and topsoil material from the site.
<i>(d) to recognise, protect and improve the inherent natural and built character of the Council's area,</i>	The EIS recognises important natural characteristics of the site, including Reedy Creek and addresses the likely impact of the development on the natural character of the site. Protection and enhancement measures are proposed. It is considered that the design of the development protects the existing surrounding built environment through quarry design and proposed mitigation and management measures.
<i>(e) to ensure that development has regard to the principles of ecologically sustainable development.</i>	The EIS has assessed the development in regards to the principle of ecologically sustainable development. See Section 4.14 of this report for the detailed assessment.
Clause 8 Zone objectives and development control table	The development has been assessed in accordance with the relevant Rural 1(a) zone

<i>(3) Consent must not be granted to development proposed within a zone unless the consent authority has taken into consideration such of the objectives of the zone as are relevant to the proposal and is satisfied that the development is consistent with those objectives.</i>	objectives detailed below. The following assessment considers that the development is consistent with the relevant 1(a) zone objectives.
Clause 12 General controls for development—Zone 1 (a) (Rural General Zone) (2) Objectives of the zone <i>The objectives of Zone 1 (a) are as follows:</i>	
<i>(a) to encourage continued growth in the area's rural economic base,</i>	Consistent with the objective
<i>(b) to encourage other forms of development, including tourism, that are compatible with agricultural activities and do not create undesirable environmental and cultural impacts,</i>	As outlined in Section 4 of this report, it is considered that the development would be compatible with agricultural activities, and would not create undesirable environmental or cultural impacts subject to the recommended mitigation and management measures being implemented.
<i>(c) to protect and conserve the productive potential of prime crop and pasture land,</i>	The Agricultural Land Classification Atlas Far South Coast Region NSW identifies the subject site as Class 5. Class 5 does not fall within the BVLEP2002 definition of prime crop and pasture land. Lands not used during quarrying purposes and on rehabilitation post quarrying activities would be used for ongoing grazing purposes.
<i>(d) to maintain the scenic amenity and landscape quality of the area,</i>	As outlined in Section 4.8 of this report, the development would be visible from limited locations, namely the Princes Highway and Nullica Short Cut Road. It is considered that provided the proposed bunding and screen plantings are established and maintained, and the facility is operated in accordance with the proposed staging, the development would maintain the scenic amenity and landscape quality of the area.
<i>(e) to promote the protection, and the preservation and enhancement, of natural ecological systems and processes,</i>	As outlined in Sections 4.1, 4.4, 4.5 & 4.6 of this report, it is considered that the proposed development would be consistent with this objective. It is proposed to create a Riparian Protection Zone along Reedy Creek. As part of the development, 78 paddock trees would be required to be removed with

	17 of those trees identified as providing potential habitat. It is proposed to replace the significant number of Manna Gums required to be removed. It is considered that the proposed rehabilitation, including the replacement of Manna Gums would mitigate any trees required to be removed for quarrying purposes. The proposal was referred to the EPA for consideration. The EPA has issued GTA's which provide the developments minimum standards as to not cause pollution on the surrounding environment. Subject to adherence with the draft consent attached to this report, it is considered that the development would protect the existing natural ecological systems and processes as well as enhance the Reedy Creek riparian zone that traverses the site.
<i>(f) to provide proper and coordinated use and protection of rivers, riparian corridors and water catchment areas,</i>	It is considered that the development provides proper protection of rivers, riparian corridors and water catchment areas.
<i>(g) to promote the economic provision of services compatible with the nature and intensity of development and the character of the area,</i>	As outlined in Section 4.2, 4.8, 4.11 & 4.12 of this report, the EIS has detailed the level of services required for the quarry to operate from the site. The applicant is responsible for the upgrading of services, including the upgrade of access to and from the site. The proposed upgrade works and associated infrastructure are considered compatible with the nature and intensity of the quarry and the current character of the area.
<i>(h) to ensure that development and management of the land has minimal impact on water quality and environmental flows of receiving waters,</i>	As outlined in Section 4.4 & 4.6 of this report, the EIS has detailed that with various mitigation and management measures, the development would maintain water quality on-site and not adversely impact on receiving waters. The EPA has issued their GTA's which provide the developments minimum standards as to not cause pollution on the surrounding environment, including protection for receiving waters.
<i>(i) to maintain significant features of natural and cultural heritage.</i>	As outlined in Section 4.8 & 4.9 of this report, the EIS has provided an archaeological assessment of the site. Although no sites were identified, suitable draft conditions have been provided to

	ensure significant features of natural and cultural heritage are maintained.
61 Development in the vicinity of heritage items <i>(1) Before granting consent to development in the vicinity of a heritage item, the consent authority must assess the impact of the proposed development on the heritage significance of the heritage item.</i>	As outlined in Section 4.9 of this report, the EIS identified all heritage items located in the vicinity of the site and provided an assessment on the potential impact of the development on the heritage significance of the heritage item.
<i>(2) This clause extends to development:</i> <i>(a) that may have an impact on the setting of a heritage item, for example, by affecting a significant view to or from the item or by overshadowing, or</i> <i>(b) that may undermine or otherwise cause physical damage to a heritage item, or</i> <i>(c) if the heritage item is a place, that will otherwise have any adverse impact on the heritage significance of the place within which it is situated.</i> <i>(3) The consent authority may refuse to grant any such consent unless it has considered a heritage impact statement that will help it assess the impact of the proposed development on the heritage significance, visual curtilage and setting of the heritage item.</i> <i>(4) The heritage impact statement should include details of the size, shape and scale of, setbacks for, and the materials to be used in, any proposed buildings or works and details of any modification that would reduce the impact of the proposed development on the heritage significance of the heritage item.</i>	The site does not contain any heritage listed items. The nearest item is Boyd's Church and Grave site. It is considered that the intervening topography and vegetation around these items would protect the setting of these items. It is considered that there would be no adverse impact from the operation of the extractive industry due to the distance and extraction method. The proposed methods of extraction and distance of the development to the heritage items ensures there would be no undermining or physical damage to them. It is considered that the EIS has provided an adequate assessment of the potential impact the development would have on the known heritage items in the locality and it is considered that a separate heritage impact statement is not required.
65 General principles for development and use of land and buildings <i>(1) Before granting consent for development within any zone, consideration shall be given by the consent authority to such of the following as are relevant to the proposed development:</i> <i>(a) the impact of that development on:</i>	
<i>(i) the water quality of waterbodies, and</i>	As outlined in Section 4.6 of this report, the EIS identified the potential impact the

	development would have on existing waterbodies located on and downstream of the site. The EIS provides several mitigation and management measures to mitigate any potential impact.
<i>(ii) the ability of rural land to be used for agricultural production or industry, or both, and</i>	As outlined in Section 4.10 of this report, the EIS identified the sites current suitability for agriculture. The remaining lands can continue to be utilised for grazing purposes. Upon completion and rehabilitation of quarrying activities, the land can continue to be used for grazing.
<i>(iii) soil resources, and</i>	The development proposes to access soil resources located on-site. As outlined in Section 4.4 of this report, the EIS has assessed the soil resources on-site and identified that the removal of the resources would not impact on the remaining soil resources that are utilised for agricultural purposes.
<i>(iv) existing vegetation, native flora and fauna and riparian corridors, and</i>	As outlined in Sections 4.1, 4.4 & 4.6 of this report, the EIS details the extent of the impact the development would have on existing vegetation including the removal of 78 mature paddock trees and the potential impact this would have on fauna. The assessment identifies several mitigation and management measures to protect existing vegetation, native flora and fauna and riparian corridors over the site.
<i>(v) the topography and setting of the land, and</i>	As outlined in Section 4.8 of this report, the EIS demonstrates that there would be temporary impacts on the existing topography and setting of the land as the proposed extractive industry is constructed and operational activities move through the general staging of the development. Upon completion of quarrying activities, the topography and setting of the land would revert back to open pastures interspersed with vegetation and water bodies.
<i>(vi) the streetscape character of the locality, and</i>	As outlined in Section 4.8 of this report, the EIS demonstrates that the development would have suitable setbacks and visual screening from the Princes Highway and Nullica Short Cut Road to help protect the streetscape character of the locality.

<i>(vii) the scale and design of neighbouring development, and</i>	As outlined in Section 4.8 of this report, the EIS has provided a detailed assessment on the existing land uses located within the vicinity of all Proposed Quarry Pits. The assessment details several land uses located around the site that may be impacted by the development, these are namely residential and tourist related land uses.
<i>(viii) significant views enjoyed from parks, reserves, roadways, footpaths and other public places, and</i>	As detailed in point (vi) above, the development would have suitable setbacks from the Princes Highway and Nullica Short Cut Road which are the two main public vantage points to view the development. There would be some impacts on the views obtained from both these roadways during varying stages of the quarry operations.
<i>(ix) the energy efficiency of the site and any buildings on the site, and</i>	As outlined in Section 4.14 of this report, the EIS has provided a detailed assessment on the energy proposed to be utilised by plant and equipment on-site. It is considered that the development would not have an impact on the energy efficiency of the site.
<i>(x) the availability of a water supply to adequately provide for domestic, agricultural and fire fighting purposes and, where that proposed water supply is from a river, creek, dam or other waterway, the effect upon the other users of that water supply, and</i>	As outlined in Section 4.6 & 4.7 of this report, the EIS has detailed the provision of water needs for the development. There are no proposals to source water from a river, creek, dam or other waterway to service the needs of the development. It is considered that there would be no impact on the availability of water supply.
<i>(xi) waste generation, and</i>	As outlined in Section 4.11 of this report, the EIS has assessed that little waste generation would be created from the construction and operation of the development.
<i>(xii) the cultural significance of the land, and</i>	As outlined in Section 4.9 of this report, the EIS has assessed the cultural significance of the land. The development does involve the excavation of soils which does have the potential to impact.
<i>(xiii) the treatment of stormwater prior to discharge or the use of stormwater, and</i>	As outlined in Section 4.6 of this report the EIS identified that the development would alter the surface of the ground and ultimately disrupt stormwater over the site.
<i>(xiv) traffic generation and appropriate vehicular access into and around</i>	As outlined in Section 4.2 of this report the EIS has adequately assessed the impact of the development on traffic generation and

<i>the site, and</i>	vehicular access into and around the site by the development. The development was identified as generating up to 80 truck movements per day which would be a considerable increase on traffic that currently utilises Nullica Short Cut Road.
<i>(xv) any measures necessary to mitigate any of these impacts,</i>	Section 4 of this report details all the impacts that the development is considered to have on the existing environment by the development and all measures proposed by the applicant to mitigate those impacts. It is considered that the measures detailed in the EIS generally mitigate the impacts detailed in Section 4, however, further conditions have been proposed and are detailed in the draft conditions of consent to ensure that all likely impacts have been adequately addressed.
<i>(b) the cumulative impact on the environment of:</i> <i>(i) the development, and</i>	As outlined in Section 4.13 of this report the EIS has assessed the cumulative impacts on the environment by the development.
<i>(ii) other development in the vicinity of the proposed development.</i>	As outlined in Section 4.13 of this report, the EIS addressed the cumulative impact on the environment by the development and for existing development in the vicinity of the site. In particular, cumulative impacts have been considered in respect to air emissions, traffic and noise.
74 On-site sewage management <i>Before granting consent to development that will result in the generation of sewage or other effluent, consideration shall be given by the consent authority to:</i>	
<i>(a) whether the site of the proposed development should be connected to public sewerage facilities, and, if so, whether the land is capable of being connected to public sewerage facilities either now or in the future, and</i>	The EIS detailed that effluent is capable of being treated on-site. It is considered that connection to the Boydtown sewerage facility is unnecessary given the sites capability to accommodate the waste generated by the development.
<i>(b) the suitability of the site for on-site disposal of effluent and the ability of the effluent disposal system to function effectively over the long term without causing adverse effects on adjoining land, where public sewerage facilities are not to be provided to the land, and</i>	As outlined in Section 4.6 & 4.11 of this report, effluent generated from the development would be treated entirely within the boundaries of the site.

(c) <i>the likely effect of any on-site effluent disposal area on:</i> (i) <i>any waterbodies in the vicinity, or water supply catchments, and</i> (ii) <i>groundwater resources, and</i> (iii) <i>seasonally waterlogged soils, and</i>	As outlined in Section 4.6 & 4.11 of this report, the location of the effluent disposal would be located as to not impact on any waterbodies in the vicinity, including groundwater resources or seasonally waterlogged soils. This is achieved through the protection of existing waterways and the extensive land area of the site to identify a suitable effluent disposal area.
(d) <i>the cumulative environmental impacts of all on-site systems or works in the area with respect to water quality, soil degradation and odour.</i>	As outlined in Section 4.11 and 4.13 of this report, suitable groundwater monitoring will be undertaken to ensure that the cumulative impacts are considered during the life of quarry operations.
75 Land subject to bushfire hazard <i>Consent must not be granted to the subdivision of land or the erection of a building on land which is, in the opinion of the consent authority, subject to bushfire hazards unless it is satisfied that:</i>	The subject site is identified as Bushfire Prone land containing land within the categories Vegetation 1, Vegetation 2 and Buffer Zone of Council's certified Bushfire Prone Mapping.
(a) <i>adequate provision will be made for access for fire fighting vehicles,</i>	Access to the site is readily available off Nullica Short Cut Road and the site is level and generally cleared to provide adequate access for fire fighting vehicles.
(b) <i>adequate safeguards will be adopted in the form of fire breaks, reserves and fire radiation zones, and</i>	The proposed facilities building would be positioned in a disturbed area close to excavations and stockpiles. It is considered that these areas provide adequate forms of firebreaks to the amenities building and for plant and equipment.
(c) <i>adequate water supplies will be available for fire fighting purposes as recommended by the New South Wales Rural Fire Service.</i>	Given the proposed use of the site, minimal water supply is required. However, the EIS identified that water harvesting would be collected from the site offices roof and a water tanker would be available for dust management.
76 Contaminated land (1) <i>Consent must not be granted to the subdivision of land or the erection of a building on any land unless the consent authority has made an assessment of:</i> (a) <i>any contamination of the land resulting from previous use of the land, and</i> (b) <i>any measures to mitigate against any adverse impacts arising from the</i>	The subject site is not known to contain contaminated land. Site inspections identified no other uses within the proposed areas of extraction except for general grazing and past quarrying activities. As outlined in Section 4.7 of this report, suitable measures and conditions of consent are proposed to mitigate any adverse impacts arising from the contamination of the land by quarrying activities.

<i>contamination of the land.</i>	
<i>(2) This clause does not affect any requirement made by the State Environmental Planning Policy No 55—Remediation of Land.</i>	The requirements of SEPP No 55 are detailed below.
77 Development along arterial roads <i>Consent must not be granted to the development of land which has a frontage to an arterial road unless, in the opinion of the consent authority:</i>	
<i>(a) wherever practicable, vehicular access to that land is provided by a road other than the arterial road, and</i>	As outlined in Section 4.2 of this report, access into and out of the site will be via Nullica Short Cut Road which then meets the Princes Highway, an arterial road, at a designated intersection.
<i>(b) the safety and efficiency of the arterial road will not be adversely affected by the proposed development as a result of:</i> <i>(i) the design of the access to the proposed development, or</i> <i>(ii) the emission of smoke or dust from the proposed development, or</i> <i>(iii) the nature, volume or frequency of vehicles using the arterial road to gain access to the proposed development.</i>	The application has been assessed by the Roads and Maritime Service (RMS). The RMS has detailed that the intersection of Nullica Short Cut Road with the Princes Highway is required to be upgraded. The RMS recommendations are included in the draft consent attached to this report. The EIS has detailed that dust generation would not impact on adjoining properties or impact on the functioning of the Princes Highway as Nullica Short Cut Road would be sealed and there would be no dust generated within the sand quarry to affect the functioning of the Princes Highway.
78 Land filling and excavation <i>(1) A person shall not, without development consent, excavate or fill any land or waterbody (other than a farm dam) to which this plan applies.</i>	
<i>(2) Before granting an application for consent required by subclause (1), the consent authority must have regard to:</i> <i>(a) the likely disruption of, or detrimental effect on, existing drainage patterns, vegetation, sedimentation and soil stability in the locality that would be caused by the proposed work, and</i> <i>(b) the effect of the proposed work on the likely future use or redevelopment of the land, and</i>	As outlined in Section 4.1, 4.4 & 4.6 of this report, there would be no disruption of or detrimental effect on existing drainage patterns, vegetation, sedimentation and soil stability over the site, or on adjoining lands. The proposal details measures to protect Reedy Creek and important vegetation areas over the site. The site during and upon completion of extraction works would continue to be used for grazing purposes. Excavated areas would be rehabilitated to provide additional water

<i>(c) the effect of the proposed work on the existing and likely amenity of adjoining properties.</i>	bodies. The assessment of the development identified that it would not affect the future use of the land or any redevelopment potential of the land. Section 4.8 of this report identified potential impacts that may affect the existing and likely amenity of adjoining properties. Proposed mitigation measures are considered reasonable to ensure the existing and likely amenity of adjoining properties are maintained.
<i>(3) Subclause (1) does not apply to:</i> <i>(a) any excavation or filling of land necessarily carried out to allow development for which a consent was granted under the Act, or</i> <i>(b) any excavation or filling of land which, in the opinion of the prospective consent authority, is of a minor nature, including minor landscaping works.</i>	This Clause does apply.
79 Ecologically sustainable development <i>Before determining an application for consent to development, consideration shall be given by the consent authority to the following in so far as they are relevant to the proposed development and may promote the principles of ecologically sustainable development:</i>	
<i>(a) building and allotment orientation,</i>	Not Applicable.
<i>(b) conservation, protection and enhancement of natural resources (including riparian areas and remnant native vegetation),</i>	Section 4.1 of this report has detailed what mitigation measures are proposed for the conservation, protection and enhancement of natural resources over the site. This is namely achieved through the protection and enhancement of Reedy Creek and during the rehabilitation process by the creation of wildlife corridors.
<i>(c) optimisation of the use of natural features of the site,</i>	The location and staging of the development has to some extent dictated the ordered use of sand resource located on-site. However, the location and staging has utilised natural features like Reedy Creek and other vegetation to minimise impacts associated with the development.

<i>(d) reduction of car dependence,</i>	As outlined in Section 4.12 of this report, the EIS identified that materials sourced from the site would replace materials that are currently obtained from outside the Bega Valley Shire. This replacement would reduce current road haulage of materials to the local area.
<i>(e) use of landscaping to improve air, soil and water quality,</i>	Section 4.1 of this report details the extent of landscaping proposed over the site. The provision of a buffer around Reedy Creek would improve water quality as it would improve vegetation and remove livestock along it.
<i>(f) optimisation of energy efficiency,</i>	The use of plant and machinery at the site is not considered relevant to the assessment of optimisation of energy efficiency for the proposed development.
<i>(g) waste minimisation.</i>	Section 4.11 of this report detailed that waste generation would be kept to a minimum. All organic matter and vegetative debris removed from extraction areas will be stockpiled and used for rehabilitation purposes. Remaining wastes will be sorted to ensure recyclable materials are removed from the remaining waste stream.
81 Flood liable land <i>(1) A person shall not subdivide land or build or carry out a work on flood liable land except with development consent.</i>	The Proposal details the erection of a facilities building to be used in conjunction with the quarry operations.
<i>(2) Consent must not be granted to the subdivision of, or to the erection of a building or the carrying out of a work on, flood liable land if, in the opinion of the Council, the subdivision, building or work would be likely:</i> <i>(a) to impede the flow of flood waters on that land or land within its immediate vicinity, or</i>	The subject site is not identified or mapped as flood liable land. The topography of the land is relatively flat and during the processing of the application, the site did have small areas of ponded water after extensive rainfall. The proposed location of the facilities building and areas of quarry operations are not considered to impede the flow of waters on the land or land within its immediate vicinity.
<i>(b) to imperil the safety of persons or to cause damage to property on the land or land within its immediate vicinity in the event of those lands being inundated by floodwaters, or</i>	The subject site is not identified as flood liable land, therefore the Proposal is not considered to imperil the safety of persons or to cause damage to property on the land or land within the vicinity.
<i>(c) to aggravate the consequences of</i>	The subject site is not identified or mapped

<i>floodwaters flowing on to that land or land within its vicinity with regard to erosion, siltation or the destruction of vegetation, or</i>	as flood liable land, therefore the Proposal is not considered to aggravate the consequences of floodwaters.
<i>(d) to have an adverse effect on the water table of that land or of land within its immediate vicinity, or</i>	Section 4.6 of this report identified potential impacts the quarry would have on groundwater. This is detailed in Appendix 7 of the EIS and also with the Hydrogeological Addendum dated 2012. It is considered that the findings and proposed mitigation measures would not have any adverse effect on the water table of the site or of land within its immediate vicinity.
<i>(e) to cause pollution or contamination of floodwaters or land as a result of inundation by floodwaters.</i>	The subject site is not identified or mapped as flood liable land, therefore the development is not considered to cause pollution or contamination of floodwaters or land as a result of inundation by floodwaters.
<i>(3) Consent shall not be granted to development on flood liable land unless the consent authority has taken into consideration the cumulative impact of development on flooding within the area.</i>	The subject site is not identified of mapped as flood liable land.
<i>(4) Before granting an application for development consent, the consent authority shall consider the possible effects of floods in excess of the flood planning level and the significance of the risk proposed by larger floods to the development.</i>	The subject site includes Reedy Creek and the Site adjoins Nullica River. It is considered that any flooding of these two watercourses would not impact on the operation of the development due to the extensive setbacks of plant and equipment to these watercourses.
Clause 82 Development on land identified on acid sulfate soils planning maps (1) Consent usually required <i>A person shall not, without development consent, carry out works described in the following Table on land of the class specified for those works, except as provided by subclause (3).</i>	The subject site is identified as containing class 5 Acid Sulfate Soils (ASS).
(3) Exception following preliminary assessment <i>This clause does not require consent for the carrying out of works if:</i> <i>(a) a copy of a preliminary assessment of the proposed works undertaken in accordance with the Acid Sulfate Soils Assessment Guidelines has</i>	As detailed in Section 4.4 of this report, a Soil Investigation was undertaken by the applicant to review the presence of Potential Acid Sulfate Soils (PASS) over the site. The Investigation identified two areas as possibly containing PASS materials. The investigation concluded that an Acid Sulfate Soils Management Plan (ASSMP) was not

<i>been given to the Council, and</i> <i>(b) the Council has provided written advice to the person proposing to carry out works confirming that results of the preliminary assessment indicate the proposed works need not be carried out pursuant to an acid sulfate soils management plan prepared in accordance with the Acid Sulfate Soils Assessment Guidelines.</i>	required as, one area identified with possible PASS materials measured potential acidity below laboratory limits of reporting and that there was no noticeable presence of pyrites, iron staining or of jarosite during the field investigation. The second area identified with possible PASS materials was redesigned to locate quarry operations away from this area. It is considered that the assessment undertaken in the EIS has suitably assessed the presence of PASS materials and a ASSMP is not required. Proposed management regimes for the testing of water and soils is considered appropriate and included in an Annual EMRP.
(4) Considerations for consent authority <i>A consent required by this clause must not be granted unless the consent authority has considered:</i> <i>(a) the adequacy of an acid sulfate soils management plan prepared for the proposed development in accordance with the Acid Sulfate Soils Assessment Guidelines, and</i> <i>(b) the likelihood of the proposed development resulting in the discharge of acid water, and</i>	Not required to be assessed due to the preliminary site investigations included in the EIS.
Clause 84 Building Lines <i>(1) Consent must not be granted to the erection of a building on land with frontage to a road unless the building is required to be set back from the nearest alignment of the road at a distance determined by the consent authority.</i>	The EIS detailed the erection of a facilities building to be used in conjunction with quarry operations.
<i>(2) In determining a distance for the purposes of this clause, the consent authority shall have regard to:</i> <i>(a) the nature, scale and function of the building, and</i> <i>(b) the maximisation of sight distances for drivers using the road, including visibility of points of access to the road, and</i> <i>(c) the minimisation of distractions to drivers using the road, and</i>	The proposed facilities building, is to be set back approximately 200 metres from Nullica Short Cut Road and the Princes Highway. The setback is considered suitable for the nature, scale and function of the building, maximising sight distances and minimises distraction to drivers on adjoining roads. Its location would not impact on any future road realignments and maintains existing roadside vegetation. The setback is consistent with Council's Development Control Plan No 6 - Minimum Setbacks to Roads and Nominated

(d) any possible future need to alter the road alignment, and (e) the desirability of maintaining existing roadside vegetation.	Waterways. Additional landscape buffering detailed in Section 4.1 & 4.8 of the EIS would further screen the building from the Princes Highway and Nullica Short Cut Road.
Clause 85 Height of buildings (1) A building shall not be erected on land to which this plan applies where: (a) in the case of land within 50 metres of the mean high water mark: (i) the building contains more than 2 storeys, or (ii) the vertical distance between any part of the building and the natural ground level exceeds 7.5 metres, or (b) in all other cases: (i) the building contains more than 3 storeys, or (ii) the vertical distance between any part of the building and the natural ground level exceeds 10 metres. (2) When the number of storeys in a proposed building are counted for the purposes of this clause, any storeys that are basements, cellars or similar structures and that do not protrude more than 1.2 metres above finished ground level at the perimeter of the building are excluded. (3) A reference in this clause to a building does not include a reference to any of the following: (a) an aerial, (b) a chimney stack, (c) a mast, (d) a pole, (e) a receiving tower, (f) a silo, (g) a transmission tower, (h) a utility installation, (i) a ventilator, (j) a building erected or to be erected on	All proposed buildings would be below the 10m height limit for the land.

land within Zone 4 (a).	
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3.2 State Environmental Planning Policies

SEPP (Mining, petroleum production and Extractive Industries) 2007

The proposed development is defined as an Extractive Industry and therefore this policy applies to the assessment of the development. The clauses of the SEPP relevant to the assessment of this application are outlined below, with comments provided as to how the development satisfies the requirements.

Clause 12: Compatibility of proposed mine, petroleum production or extractive industry with other land uses	
Before determining an application for consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must: (a) consider:	
(i) the existing uses and approved uses of land in the vicinity of the development, and	The land is currently used for limited grazing purposes and an extractive industry has previously operated from part of the site. The site is rural in nature and has been used for general grazing activities. The proposed extractive industry would cover approximately 30.9 ha of grazing land and upon its completion would generally be rehabilitated and include two additional freshwater wetlands. The EIS has detailed several approvals and operations of quarries over the Site previously including both sand and gravel extraction. The adjoining land uses are generally semi-rural/rural residential in nature to the south and west of the Site, with a Caravan Park located to the north east. A submission to the south of Proposed Pit 1 has approval for an additional dwelling and the proposed location and its future construction has been taken into consideration in Section 4.8 of this report. Further comment regarding anticipated adverse impacts or lack thereof to this dwelling arising from the Proposal is discussed below. Lands to the North of the Site are Crown Lands and comprise reserves and the Nullica

	River.
(ii) <i>whether or not the development is likely to have a significant impact on the uses that, in the opinion of the consent authority having regard to land use trends, are likely to be the preferred uses of land in the vicinity of the development, and</i>	The land is currently zoned 1(a) Rural General under BVLEP 2002 and proposed as RU2 Rural Landscape under draft Bega Valley LEP 2012. Extractive industries are identified as permitted uses in both zones.
(iii) <i>any ways in which the development may be incompatible with any of those existing, approved or likely preferred uses, and</i>	The EIS identified the potential impacts which may be incompatible with the existing, approved or likely preferred uses and they are detailed in Section 4 of this report.
(b) <i>evaluate and compare the respective public benefits of the development and the land uses referred to in paragraph (a) (i) and (ii), and</i>	It is considered that the EIS suitably identified the public benefit the development would have in terms of providing a large sand resource for the local and general greater Bega regional market. The EIS detailed that it would reduce costs associated of obtaining these materials from outside the greater Bega area.
(c) <i>evaluate any measures proposed by the applicant to avoid or minimise any incompatibility, as referred to in paragraph (a)(iii).</i>	As detailed in Section 4 of this report, the EIS has detailed all potential impacts and the proposed mitigation measures needed to avoid or minimise those impacts. This assessment identified that there is specific conditions to be included to avoid or minimise incompatibility between the quarry with nearby residents and the Caravan Park.
Clause 13: Compatibility of proposed development with mining, petroleum production or extractive industry	
(1) <i>This clause applies to an application for consent for development on land that is, immediately before the application is determined:</i>	
(a) <i>in the vicinity of an existing mine, petroleum production facility or extractive industry, or</i>	The applicant has demonstrated that there have been several approvals and operations of quarries over the Site previously and these are best described in graphical form in the plans located in the EIS. One submission has identified the noise generated by a quarry located off Nullica Road and from noise generated from these premises from time to time. This quarry is

	approximately 6 kilometres north west of the proposed development and is not considered to be in the vicinity of the Site.
(b) <i>identified on a map (being a map that is approved and signed by the Minister and copies of which are deposited in the head office of the Department and publicly available on the Department's website) as being the location of State or regionally significant resources of minerals, petroleum or extractive materials, or</i>	Not identified on any mapping.
(c) <i>identified by an environmental planning instrument as being the location of significant resources of minerals, petroleum or extractive materials.</i>	Not identified on any mapping.
(2) <i>Before determining an application to which this clause applies, the consent authority must:</i> (a) <i>consider:</i>	
(i) <i>the existing uses and approved uses of land in the vicinity of the development, and</i>	There have been several approvals over the site for varying resource extraction. The EIS has suitably identified existing resource extraction developments in the vicinity of the development.
(ii) <i>whether or not the development is likely to have a significant impact on current or future extraction or recovery of minerals, petroleum or extractive materials (including by limiting access to, or impeding assessment of, those resources), and</i>	The proposed method of extraction is unlikely to have a significant impact on remaining sand resources located over the site.
(iii) <i>any ways in which the development may be incompatible with any of those existing or approved uses or that current or future extraction or recovery, and</i>	The development is not considered incompatible with existing sand extraction located on-site.
(b) <i>evaluate and compare the respective public benefits of the development and the uses,</i>	It is considered that the development will be of public benefit in terms of providing a large sand resource for the general local and

extraction and recovery referred to in paragraph (a) (i) and (ii), and	greater Bega regional markets. This would reduce costs associated with obtaining these materials from outside the greater Bega area.
(c) evaluate any measures proposed by the applicant to avoid or minimise any incompatibility, as referred to in paragraph (a) (iii).	Nil measures considered warranted or proposed.
Clause 14: Natural resource management and environmental management	
(1) Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring that the development is undertaken in an environmentally responsible manner, including conditions to ensure the following:	
(a) that impacts on significant water resources, including surface and groundwater resources, are avoided, or are minimised to the greatest extent practicable,	Likely impacts on groundwater have been assessed by the Office of Water. Their comments attached as Appendix 2 Refer to related recommended conditions of consent to maintain surface and groundwater resources.
(b) that impacts on threatened species and biodiversity, are avoided, or are minimised to the greatest extent practicable,	Section 4.1 of this report identifies the potential impact the development would have on flora and fauna over the site, including threatened species, Endangered Ecological Communities and biodiversity. It also provides the mitigation and management measures to mitigate or reduce those impacts.
(c) that greenhouse gas emissions are minimised to the greatest extent practicable.	The EIS identified the following mitigation activities for both management and operational activities; 1. Review energy efficiency in plant and equipment operation, consideration to be given to the advantages of energy efficient components such as high efficiency screens and 2. Review operational initiatives such as turning off idling plant equipment. It is considered that these measures would

	minimise greenhouse gas emissions to the greatest extent practicable.
(2) <i>Without limiting subclause (1), in determining a development application for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider an assessment of the greenhouse gas emissions (including downstream emissions) of the development, and must do so having regard to any applicable State or national policies, programs or guidelines concerning greenhouse gas emissions.</i>	The EIS assessed the extent of greenhouse gas emissions to be created and removed by the development. The assessment was made in accordance with the National Greenhouse and Energy Reporting System and methodology established in the National greenhouse and Energy Report. It is considered that the assessment adequately addresses greenhouse gas emissions.
Clause 15: Resource recovery	
(1) <i>Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider the efficiency or otherwise of the development in terms of resource recovery.</i>	The efficiency of the development in terms of resource recovery has been assessed and the proposed extraction staging and methodology is considered acceptable.
(2) <i>Before granting consent for the development, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at optimising the efficiency of resource recovery and the reuse or recycling of material.</i>	No conditions concerning 'optimising the efficiency of resource recovery' are considered warranted as the proposed extraction staging and methodology is considered acceptable. A condition is recommended concerning the reuse or recycling of material. Refer to related recommended conditions of consent.
(3) <i>The consent authority may refuse to grant consent to development if it is not satisfied that the development will be carried out in such a way as to optimise the efficiency of recovery of minerals, petroleum or extractive materials and to minimise the creation of waste in association with the extraction, recovery or processing of minerals, petroleum or extractive materials.</i>	Not recommended for refusal given comments provided above.
Clause 16: Transport	
(1) <i>Before granting consent for development for the purposes of mining or extractive industry that involves the transport of materials, the consent authority must consider</i>	

<i>whether or not the consent should be issued subject to conditions that do any one or more of the following:</i>	
<i>(a) require that some or all of the transport of materials in connection with the development is not to be by public road,</i>	Access to and from the site is only available by public road. There are no alternate transport options available to the site.
<i>(b) limit or preclude truck movements, in connection with the development, that occur on roads in residential areas or on roads near to schools,</i>	Nullica Short Cut Road is the primary transport road from the site for trucks before they enter and exit the Princes Highway. There are no limitations required as the trucks do not pass any driveways to residences or through school zones.
<i>(c) require the preparation and implementation, in relation to the development, of a code of conduct relating to the transport of materials on public roads.</i>	It is recommended that a Code of Conduct be developed for the development. Refer to related recommended conditions of consent.
<i>(2) If the consent authority considers that the development involves the transport of materials on a public road, the consent authority must, within 7 days after receiving the development application, provide a copy of the application to:</i>	
<i>(a) each roads authority for the road, and</i>	The RMS was notified of the application for the Princes Highway and Bega Valley Shire Council Engineering Section for Nullica Short Cut Road.
<i>(b) the Roads and Traffic Authority (if it is not a roads authority for the road).</i>	The DA was referred to the RMS (formally RTA) as the site abuts the Princes Highway and trucks enter and exit from the Princes Highway from Nullica Short Cut Road.
<i>(3) The consent authority:</i>	
<i>(a) must not determine the application until it has taken into consideration any submissions that it receives in response from any roads authority or the Roads and Traffic Authority within 21 days after they were provided with a copy of the application, and</i>	The response from the RMS has been considered and is attached in Appendix 2 . An upgrading of the intersection of Nullica Short Cut Road with the Princes Highway is required. Refer to related recommended conditions of consent.
<i>(b) must provide them with a copy of the determination.</i>	Noted.

Clause 17: Rehabilitation	
(1) <i>Before granting consent for development for the purposes of mining, petroleum production or extractive industry, the consent authority must consider whether or not the consent should be issued subject to conditions aimed at ensuring the rehabilitation of land that will be affected by the development.</i>	Rehabilitation of the site would be staged to follow the sequencing of the quarry. Refer to related recommended conditions of consent to ensure enforcement of rehabilitation works.
(2) <i>In particular, the consent authority must consider whether conditions of the consent should:</i>	
(a) <i>require the preparation of a plan that identifies the proposed end use and landform of the land once rehabilitated, or</i>	It is considered that the EIS already contains such a plan which will be referred to in related recommended conditions of consent.
(b) <i>require waste generated by the development or the rehabilitation to be dealt with appropriately, or</i>	Refer to related recommended conditions of consent.
(c) <i>require any soil contaminated as a result of the development to be remediated in accordance with relevant guidelines (including guidelines under section 145C of the Act and the Contaminated Land Management Act 1997), or</i>	Refer to related recommended conditions of consent.
(d) <i>require steps to be taken to ensure that the state of the land, while being rehabilitated and at the completion of the rehabilitation, does not jeopardise public safety.</i>	It is considered that the final landform would not jeopardise public safety as all works are located on private land, well away from public grounds. Refer to related recommended conditions of consent for final rehabilitation of the site.

SEPP No. 44 – Koala Habitat Protection

SEPP 44 applies to the whole of the state. The Site contains Koala feed trees and therefore the development application has been assessed in accordance with the Policy. The clauses of the SEPP relevant to the assessment of the proposed development are outlined below, with comments provided as to how the development satisfies the requirements.

Clause 7 <i>Step 1—Is the land potential koala habitat?</i> <i>(1) Before a council may grant consent to an application for consent to carry out development on land to which this Part applies, it must satisfy itself whether or not the land is a potential koala habitat.</i>	The Bega Valley Shire is listed in Schedule 1, which encourages the conservation and management of koala habitats. A site inspection identified areas of remnant vegetation over the site as possibly supporting preferred Koala Habitat. This included stands of Manna Gum located along the sides of Reedy Creek and along the boundary with the Princes Highway.
<i>(2) A council may satisfy itself as to whether or not land is a potential koala habitat only on information obtained by it, or by the applicant, from a person who is qualified and experienced in tree identification.</i>	The EIS included an Ecological Assessment by EcoBiological which included a Koala Habitat Assessment (detailed in Appendix 4 of the EIS). It is considered that the Koala Habitat Assessment suitably assesses the likelihood of Koala habitat and the presence of koalas on-site.
<i>(3) If the council is satisfied:</i> <i>(a) that the land is not a potential koala habitat, it is not prevented, because of this Policy, from granting consent to the development application, or</i> <i>(b) that the land is a potential koala habitat, it must comply with clause 8.</i>	As the site was identified as having preferred Koala Habitat, Clause 8 has been considered below.
Clause 8 <i>Step 2—Is the land core koala habitat?</i> <i>(1) Before a council may grant consent to an application for consent to carry out development on land to which this Part applies that it is satisfied is a potential koala habitat, it must satisfy itself whether or not the land is a core koala habitat.</i>	Council is satisfied that the land is not core koala habitat based on (2) below.
<i>(2) A council may satisfy itself as to whether or not land is a core koala habitat only on information obtained by it, or by the applicant, from a person with appropriate qualifications and experience in biological science and fauna survey and management.</i>	The EIS included an Ecological Assessment by EcoBiological which included a Koala Habitat Assessment (detailed in Appendix 4 of the EIS). It is considered that the Koala Habitat Assessment suitably assesses the likelihood of core Koala habitat.
<i>(3) If the council is satisfied:</i> <i>(a) that the land is not a core koala habitat, it is not prevented, because of this Policy, from granting consent</i>	As the site was not identified as containing Koalas or Koala faecal pellets, it is not considered to be a core Koala habitat and an assessment is not required under Clause 9.

<i>to the development application, or</i> <i>(b) that the land is a core koala habitat, it must comply with clause 9.</i>	
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SEPP No. 71 – Coastal Protection

SEPP 71 applies to the development. The clauses of the SEPP relevant to the assessment of the proposed development are outlined below, with comments provided as to how the development satisfies the requirements.

2 Aims of Policy <i>(1) This Policy aims:</i>	
<i>(a) to protect and manage the natural, cultural, recreational and economic attributes of the New South Wales coast, and</i>	As detailed in Section 4 of this report, the EIS identified existing natural, cultural, recreational and economic attributes of the site and its surrounds. The EIS identified the proposed mitigation measures to protect and manage those attributes.
<i>(b) to protect and improve existing public access to and along coastal foreshores to the extent that this is compatible with the natural attributes of the coastal foreshore, and</i>	The site does not abut a coastal foreshore.
<i>(c) to ensure that new opportunities for public access to and along coastal foreshores are identified and realised to the extent that this is compatible with the natural attributes of the coastal foreshore, and</i>	The site does not abut a coastal foreshore.
<i>(d) to protect and preserve Aboriginal cultural heritage, and Aboriginal places, values, customs, beliefs and traditional knowledge, and</i>	As detailed in Section 4.9 of this report, the EIS undertook an archaeological assessment of the site. Although no sites were identified, suitable draft conditions have been provided to ensure significant features of natural and cultural heritage are maintained.
<i>(e) to ensure that the visual amenity of the coast is protected, and</i>	As detailed in Section 4.8 of this report, the EIS has assessed the visual amenity of the coast and how it is protected.
<i>(f) to protect and preserve beach environments and beach amenity, and</i>	The development would not be visible from any beach environments including tidal reaches of the Nullica River by existing vegetation communities located along it.
<i>(g) to protect and preserve native coastal vegetation, and</i>	As detailed in Section 4.1 of this report, the EIS has assessed the impact the development would have on flora and fauna.

	The mitigation measures proposed in the EIS details the methods to protect and preserve the native vegetation on-site.
<i>(h) to protect and preserve the marine environment of New South Wales, and</i>	As detailed in Section 4.4 & 4.6 of this report, the EIS has assessed water management for the site. Through mitigation measures, the development proposes to protect and preserve the marine environment which is located within close proximity to the site.
<i>(i) to protect and preserve rock platforms, and</i>	No rock platforms identified on-site.
<i>(j) to manage the coastal zone in accordance with the principles of ecologically sustainable development (within the meaning of section 6 (2) of the Protection of the Environment Administration Act 1991), and</i>	As detailed in Section 4.14 of this report, the EIS has assessed the development in accordance with the principles of ecologically sustainable development.
<i>(k) to ensure that the type, bulk, scale and size of development is appropriate for the location and protects and improves the natural scenic quality of the surrounding area, and</i>	Section 4.8 of this report details all likely impacts the development may and will have on the environment and the proposed means of mitigating those impacts. In assessing all impacts, the applicant has demonstrated that the development is a type, bulk, scale and size which is appropriate for its location and protects and in certain areas, improves the natural scenic quality of the surrounding area.
<i>(l) to encourage a strategic approach to coastal management.</i>	Not applicable to this assessment.
7 Application of clause 8 matters <i>The matters for consideration set out in clause 8:</i> <i>(b) are to be taken into account by a consent authority when it determines a development application to carry out development on land to which this Policy applies.</i>	Clause 8 is discussed herewith.
8 Matters for consideration <i>The matters for consideration are the following:</i>	
<i>(a) the aims of this Policy set out in clause 2,</i>	The aims of the Policy are discussed above.
<i>(b) existing public access to and along the coastal foreshore for pedestrians or</i>	Not applicable to this assessment as there are no public access to and along the coastal

<i>persons with a disability should be retained and, where possible, public access to and along the coastal foreshore for pedestrians or persons with a disability should be improved,</i>	foreshore.
<i>(c) opportunities to provide new public access to and along the coastal foreshore for pedestrians or persons with a disability,</i>	Not applicable to this assessment.
<i>(d) the suitability of development given its type, location and design and its relationship with the surrounding area,</i>	As detailed in Section 4 of this report, the EIS has considered all potential impacts this development may have. The assessment of the impacts considered the suitability of the quarry given its use, location, design and relationship with the surrounding area.
<i>(e) any detrimental impact that development may have on the amenity of the coastal foreshore, including any significant overshadowing of the coastal foreshore and any significant loss of views from a public place to the coastal foreshore,</i>	Not applicable to this assessment.
<i>(f) the scenic qualities of the New South Wales coast, and means to protect and improve these qualities,</i>	As detailed in Section 4.8 of this report, the scenic qualities have been assessed and suitable measures are proposed to protect these scenic qualities when viewed from the Princes Highway and Nullica Short Cut Road.
<i>(g) measures to conserve animals (within the meaning of the Threatened Species Conservation Act 1995) and plants (within the meaning of that Act), and their habitats,</i>	As detailed in Section 4.1 of this report, the EIS has assessed the likely impacts on flora and fauna over the site. Impacts on flora and fauna have been considered by both the EPA and Council's Environmental Service Section. The assessment and proposed mitigation measures outlined in the EIS and the proposed conditions of consent provide suitable measures to conserve flora and fauna within the site.
<i>(h) measures to conserve fish (within the meaning of Part 7A of the Fisheries Management Act 1994) and marine vegetation (within the meaning of that Part), and their habitats</i>	The impact on the marine environment has been investigated and no adverse impact is considered.
<i>(i) existing wildlife corridors and the impact of development on these corridors,</i>	A riparian buffer along Reedy Creek would provide an improved wildlife corridor from south to north through the site. Additional

	planting around final water bodies on completion of quarry activities would provide suitable wildlife corridors from west to east through the site in the future.
<i>(j) the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards,</i>	The EIS has demonstrated that the site and development would not be impacted upon by coastal processes and coastal hazards over the life of the quarry. Given the site setbacks, the development would not impact on any coastal processes and coastal hazards.
<i>(k) measures to reduce the potential for conflict between land-based and water-based coastal activities,</i>	Not applicable to this assessment.
<i>(l) measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals,</i>	Section 4.9 of this report details the proposed mitigation measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals.
<i>(m) likely impacts of development on the water quality of coastal waterbodies,</i>	Section 4.4 and 4.6 of this report, the likely impacts the development would have on the water quality of surrounding coastal waterbodies has been assessed. The proposed mitigation measures and draft conditions of consent would maintain the existing water quality of coastal waterbodies.
<i>(n) the conservation and preservation of items of heritage, archaeological or historic significance,</i>	Section 4.9 of this report identifies no destruction on items of heritage, archaeological or historic significance. Proposed conditions of consent provide suitable measures to conserve any items that maybe identified during site works.
<i>(o) only in cases in which a council prepares a draft local environmental plan that applies to land to which this Policy applies, the means to encourage compact towns and cities,</i>	Not applicable to this assessment.
<i>(p) only in cases in which a development application in relation to proposed development is determined:</i> <i>(i) the cumulative impacts of the proposed development on the environment, and</i> <i>(ii) measures to ensure that water and energy usage by the proposed development is efficient.</i>	The EIS assessed the cumulative impacts on the environment by the development. The EIS provided a detailed assessment on the energy proposed to be utilised by plant and equipment on-site. It is considered that the development would not have an impact on the energy efficiency of the site.

Note. Clause 92 of the Environmental Planning and Assessment Regulation 2000 requires the Government Coastal Policy (as defined in that clause) to be taken into consideration by a consent authority when determining development applications in the local government areas identified in that clause or on land to which the Government Coastal Policy applies.	
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Lower South Coast Regional Environmental Plan 2

By virtue of being within the Bega Valley Local Government Area, the Lower South Coast Regional Environmental Plan No. 2 (REP No. 2) applies to the subject site. The clauses of REP No. 2 relevant to the proposed development are outlined below, with comments provided as to how the development satisfies the requirements.

Standard	Comment
Clause 21	
<i>Councils, before granting consent to the development of rural land for purposes other than agriculture must, where the land is classified as Class 1, 2 or 3 on the maps marked “Agricultural Land Classification Map—Lower South Coast Region” copies of which are deposited in the office of the councils, be satisfied that the development will not significantly reduce the agricultural potential of the land or adjoining lands.</i>	The land is identified as Class 5 Agricultural land. It is considered that the development would not impact on the agricultural viability of the land.
Clause 24	
<i>In considering a development application relating to land in the vicinity of surface or groundwater water supplies, the council shall:</i> <i>(a) consider the impact the proposed development is likely to have on water quality and availability, and</i> <i>(b) only consent to the application if satisfied that adequate water quality and availability will be maintained if the proposed development is carried out.</i>	Section 4.6 of this report assesses the likely impacts the development would have on water quality of surrounding coastal waterbodies. The proposed mitigation measures and draft conditions of consent would maintain the existing water quality of coastal waterbodies.
Clause 29	
<i>In considering an application to carry out development for any purpose within, adjoining or upstream of a fishery habitat area or within the drainage catchment of a fishery habitat area, the council shall consider:</i>	The site contains Reedy Creek which flows into the tidal reaches of the Nullica River which in turn flows into Twofold Bay which supports a fishing industry including Mussel farming.

<i>(a) the need to maintain or improve the quality or quantity of flows of water to the habitat,</i> <i>(b) the need to conserve the existing amateur and commercial fisheries,</i> <i>(c) any loss of habitat which will or is likely to be caused by carrying out the development,</i> <i>(d) whether the development would result in pollution of the waters and any measures to eliminate pollution,</i> <i>(e) the proximity of aquatic reserves dedicated under the Fisheries and Oyster Farms Act 1935 and the effect the development will have on those reserves, and</i> <i>(f) the need to ensure that native vegetation surrounding the fishery habitat area is conserved.</i>	The impact on the quality and quantity of flows of water has been investigated and no adverse impacts are considered. With no impact envisaged on the existing fishing industry.
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SEPP (State and Regional Development) 2011

SEPP (State and regional Development) 2011 applies to the whole the state. The third aim of the SEPP is to “confer functions on joint regional planning panels to determine development applications”.

In accordance with Part 4 (Regional Development) of the SEPP, the Southern Joint Regional Planning Panel shall exercise the determination functions of the application.

SEPP 14 Wetlands

SEPP14 applies to the whole of the state. There are no SEPP 14 wetlands located on the site or within the immediate area.

SEPP (Infrastructure)

SEPP (Infrastructure) applies to the whole the state. The Clauses of the SEPP relevant to the assessment of the proposed development are Clauses 101 – Development with Frontage to Classified Road and 104 - Traffic Generating Development. In respect to Clause 101, the site does front the Princes Highway, however, access to and from the site will be via Nullica Short Cut Road.

The intersection of Nullica Short Cut Road with the Princes Highway has been assessed having regarding to the existing road safety of the Highway, that the development would not impact on the function of the Highway and that the proposed development would not be impacted upon by the existing operation of the Highway.

In respect to Clause 104, the development is of a relevant size or capacity under Schedule 3 as it is considered that the development would generate more than 200 or more motor vehicles. Accordingly, the development application was formally referred to the RMS for its consideration and this is detailed in **Section 4.2** of this report.

The assessment of the application by the RMS has detailed that the intersection of Nullica Short Cut Road and the Princes Highway and to the safety of the corresponding access off Boydtown Park Road would be required to be upgraded to ensure suitable road safety to accommodate this development.

SEPP (Rural Lands) 2008

This Policy applies to the Bega Valley Shire Council in relation to lands zoned or with an equivalent zoning of RU1, RU2, RU3, RU4 and RU 6. The land is currently zoned Rural 1(a) which is considered an equivalent zone to RU1.

The EIS did not provide any comment in relation to the Rural SEPP, however, it did assess the likely impacts the development would have on the agricultural use of the site and adjoining lands. This is further detailed and discussed under **Section 4.10** of this report.

In assessing the application, the Rural Planning Principles detailed under Clause 7 of the SEPP were considered.

Clause 7 - Rural Planning Principles The Rural Planning Principles are as follows:	
<i>(a) the promotion and protection of opportunities for current and potential productive and sustainable economic activities in rural areas,</i>	Upon completion of quarrying activities, the land would be rehabilitated and be available for agricultural use.
<i>(b) recognition of the importance of rural lands and agriculture and the changing nature of agriculture and of trends, demands and issues in agriculture in the area, region or State,</i>	The land has been identified as being suitable for the grazing of livestock. The ongoing use for this purpose can continue even after the development has ceased.
<i>(c) recognition of the significance of rural land uses to the State and rural communities, including the social and economic benefits of rural land use and development,</i>	The site is identified as containing Class 5 agricultural land and therefore has limited agricultural benefit. The reduced availability of agricultural land during the quarries life and upon its completion and rehabilitation, it is considered there would not be a significant social or economic loss of its rural land use.
<i>(d) in planning for rural lands, to balance the social, economic and environmental interests of the community,</i>	Consultation has been undertaken with the community in accordance with the relevant provisions of the EP& A Act 1979 and its regulations. Concerns raised in submissions have been reviewed to determine the balance of social, economic and environmental interests of the community.
<i>(e) the identification and protection of natural resources, having regard to maintaining biodiversity, the protection of native vegetation, the importance of water resources and avoiding constrained land,</i>	The EIS identified all relevant environmental impacts that the development may and would have on the site and surrounding area. The EIS details appropriate mitigation measures for the protection of natural resources, including biodiversity, native vegetation, water resources and avoiding constrained land.
<i>(f) the provision of opportunities for rural</i>	Not relevant to the assessment of this

<i>lifestyle, settlement and housing that contribute to the social and economic welfare of rural communities,</i>	application.
<i>(g) the consideration of impacts on services and infrastructure and appropriate location when providing for rural housing,</i>	Not relevant to the assessment of this application.
<i>(h) ensuring consistency with any applicable regional strategy of the Department of Planning or any applicable local strategy endorsed by the Director-General.</i>	The development is consistent with the South Coast Regional Strategy 2006. The development would not fragment any agricultural land and its scale is considered to have been developed having regard to the adjacent rural residential and tourist land uses.

SEPP No. 33 (Hazardous and Offensive Developments)

State Environmental Planning Policy No. 33 – “Hazardous and Offensive Development” (SEPP 33) is an enabling instrument that aims to ensure the merits of a proposal are properly assessed prior to determination (NSW Government Department of Planning 1994).

Potentially Hazardous Industry is defined as:

...a development for the purposes of any industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would pose a significant risk in relation to the locality:

- (a) to human health, life or property, or
 - (b) to the biophysical environment,
- and includes a hazardous industry and a hazardous storage establishment.

Potentially Offensive Industry is defined as:

...a development for the purposes of an industry which, if the development were to operate without employing any measures (including, for example, isolation from existing or likely future development on other land) to reduce or minimise its impact in the locality or on the existing or likely future development on other land, would emit a polluting discharge (including for example, noise) in a manner which would have a significant adverse impact in the locality or on the existing or likely future development on other land, and includes an offensive industry and an offensive storage establishment.

The EIS does not identify the proposed development as being either potentially hazardous or offensive due to a number of factors including; no hazardous materials or dangerous goods will be stored or used on-site and the development does not require an environmental protection licence from the EPA.

It is considered that the development complies with objectives d) and e) of the Policy.

SEPP No. 55 – Remediation of Land

The policy applies to the whole of the state. Clause 7 of the policy details when contamination and remediation are to be considered in determining development application. Clause 7 states;

- (1) A consent authority must not consent to the carrying out of any development on land unless:
 - (a) it has considered whether the land is contaminated, and
 - (b) if the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or will be suitable, after remediation) for the purpose for which the development is proposed to be carried out, and
 - (c) if the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied that the land will be remediated before the land is used for that purpose.

The EIS has assessed the likely incidences of contamination over the site. The assessment identified that the site has been extensively used for agriculture purposes and to some extent, extractive industries. These uses are not known sources too likely suggest that the site is contaminated.

The site is also not listed as a contaminated site with Council. In accordance with a) above, it is considered that the land is not contaminated, and further assessment under the policy is not required.

Section 79C 1(a)(ii) Draft Environmental Planning Instruments

3.3 Draft Bega Valley Local Environmental Plan 2012

The site is proposed to be zoned E3 – Environmental Management and E2 – Environmental Conservation under the draft LEP 2012. All Pits would generally be located within the E3 zone as the E2 zone generally corresponds to the proposed riparian buffer located along Reedy Creek. The proposal would be defined as “Extractive Industry” under the standard instrument as detailed below;

Extractive Industry means the winning or removal of extractive materials (otherwise than from a mine) by methods such as excavating, dredging, tunnelling or quarrying, including the storing, stockpiling or processing of extractive materials by methods such as recycling, washing, crushing, sawing or separating, but does not include turf farming

Note: extractive industries are not a type of industry.

An extractive industry is prohibited in the E3 or E2 zone. The draft mapping overlays also highlights that the land includes mapped areas of Biodiversity, Riparian land and waterways, Acid sulfate soils and Coastal risk land.

The following provisions of the Draft BVLEP 2012 were considered in the assessment of the development application;

- Clause 2.3: Zone objectives and land use table
- Clause 5.5: Development within the coastal zone
- Clause 5.9: Preservation of trees or vegetation
- Clause 6.2: Biodiversity

- Clause 6.3: Riparian land and Waterways
- Clause 6.5: Acid Sulfate Soils
- Clause 6.6: Coastal Risk Planning

Standard	Comment
Clause 2.3 – Zone objectives and land use table.	The EIS accompanying the development application identified all impacts associated with the development. An assessment of those impacts identified that the development would generally comply with the objectives of the E3 and E2 zone. The development has identified and aims to protect and restore areas of high ecological values such as Reedy Creek and provide a development that does not have an adverse effect on the ecological values of the site. As detailed above, extractive industries are prohibited in the E3 and E2 zones.
Clause 5.5 - Development within the coastal zone	The site includes land that is located within the coastal zone. Existing or possible additional public access to a coastal foreshore has been considered in respect to SEPP71 discussed above. It is considered that there would be no impact on public accesses to coastal foreshores. The development complies with the principles of the NSW Coastal Policy as they apply to this development. The EIS details an assessment involving the landscape and visual amenity, biodiversity and cultural heritage applying to the land and within its locality. As assessed under Section 4 of this report, all identified impacts from the proposed development have been detailed.
Clause 5.9 – Preservation of trees or vegetation	The EIS identified the extent of trees and vegetation required to be removed over the life of the quarry. The EIS also details the extent of vegetation to be retained, rehabilitated and extended to offset the extent of trees and vegetation required to be removed. It is considered that the EIS has adequately addressed the preservation of trees and vegetation located over the site.
Clause 6.2 – Biodiversity	The potential impact on biodiversity was assessed in the EIS and is detailed in Section 4.1 of this report.

	Advice has been received from OEH of additional mitigation measures to be considered by Council having regard to vegetation located on-site. Comments from Council's Environmental Services Section has identified that the development has been suitably addressed with the proposed mitigation measures for the protection of native flora and fauna, protecting ecological processes and encouraging the recovery of native flora and fauna.
Clause 6.3 – Riparian land and Waterways	The site is identified as containing a waterway. The mapping overlays Reedy Creek. It is considered that the development has assessed the likely impacts the development would have on riparian land and provides suitable mitigation measures to protect them. It is considered that the development meets the objectives of this Clause and details the protection and restoration of Reedy Creek and waterbodies.
Clause 6.5 – Acid Sulfate soils	The site is identified as containing Class 4 Acid Sulfate Soils. The EIS assessed the presence of Potential Acid Sulfate Soils in the areas proposed for sand extraction and this is detailed in Section 4.4 of this report. The assessment identified that acid sulfate was not located except in two locations in which the proposal was modified to exclude areas of risk. It is considered that the EIS adequately addressed the presence of Potential Acid Sulfate Soils having regard to the extent of this development.
Clause 6.6 - Coastal Risk Planning	The site is identified as containing a coastal risk area. The EIS identified the likelihood of Coastal Hazard impacts on the site and this is detailed in Section 4.7 of this report. It is considered that the development would not be impacted upon by coastal hazards.

Section 79C 1(a)(iii) Development Control Plans

3.4 Bega Valley Shire Council Development Control Plans

The development application has been assessed in accordance with the following;

DCP 2 – Subdivision Standards

The EIS commented that the Plan was used by the applicant as a guide for construction standards for roads servicing the proposed development as detailed in Section 5.2 of the EIS. The applicant has sought a variance to the rural road provisions as defined under Clause 34 of the Plan.

The assessment on the required road formations to serve the development is detailed in Section 4.2 were considered by Council's Development Engineering Section and their comments and recommendations are detailed in **Section 4.2** of this report.

DCP 3 – Notification Policy

The development application was advertised in accordance with the provisions of EP&A Act 1979 and EP&A Regulations 2000. It is considered that the advertising required under these provisions satisfies the requirements of DCP 3.

DCP 5 – On-site Sewerage Management

The on-site amenities building proposed to be located on-site was assessed by Council's Area Health and Building Surveyor in respect to the provisions of this policy. No issues were raised and it is considered that the development is consistent with the objectives and provisions of this policy.

DCP 6 – Minimum Setbacks to Roads and Nominated Waterways

The EIS has detailed the extent of the setbacks of each Pit, including ancillary infrastructure including site office, plant and equipment from both Nullica Short Cut Road and the Princes Highway. It is considered that setbacks are suitable and comply with the objectives and provisions of this policy.

3.5 Bega Valley Shire Council Section 94 Contribution Plans

Existing Rural Roads Section 94 Contribution Plan

The development would add heavy vehicle traffic to Nullica Short Cut Road which is a Council maintained rural road. In accordance with the Council's Existing Rural Roads Section 94 Contribution Plan, the increase in traffic should require the payment of Section 94 Contributions for the additional traffic this development would generate.

Through the assessment of potential impacts, the development would impact on the surrounding environment through dust generation, noise, reduced road safety and soil erosion and sedimentation. Council's Engineering Services Section assessed what reasonable mechanisms were available to allow the development to operate without these impacts including mitigation measures proposed by the applicant. Council's Engineering Services Section detailed that these impacts would be offset subject to Nullica Short Cut Road being upgraded at the full cost of the applicant in two stages to reflect the extent of Proposed Pits 1 and 2.

Council's Engineering Services Section advised that upgrading works to Nullica Short Cut Road would only require general maintenance if the development was not to proceed.

The EIS detailed that the applicant would undertake the full upgrading works to Nullica Short Cut Road for stage 1, being to the entrance of Pit 1 and not to Pit 3 at their full cost. Stage two upgrading would be undertaken over 5 years with the applicant only paying 75% of these upgrading works to the entrance of Pit 2.

An Analysis of Proportional Road Contribution Justified for Pit 2 Impacts was undertaken by Garret Barry Planning Services Pty Ltd and was included as Appendix 14 of the EIS. It took into account the potential for further subdivisions of Rural 1(c) land located further along Nullica Short Cut Road. Over 50% of this land available for further subdivision is owned by the applicant.

Council's Development Control Plan No 2 – Subdivision standards currently requires the sealing of roads for Rural 1(c) subdivisions and as such it is not considered that the justification for proportional road contribution is not considered appropriate.

As Nullica Short Cut Road is recommended to be upgraded and sealed in accordance with Staging at the applicants full cost to mitigate the impacts the development would have on the environment, it is recommended that Rural Roads Section 94 Contributions would only be for proposed Pit 3 as that Section of road is not proposed to be widened or sealed at Stage 1.

Proposed Condition

37. Section 94 payments shall be made in accordance with *Rural Roads Contribution Plan* and arrangements as follows:-

- a) The contribution rates shall be \$0.18 per tonne per km travelled on Nullica short Cut Road for all materials extracted from Pit 3. These amounts apply in 2011/2012 and will be indexed annually on 1 July in keeping with movements in the CPI.
- b) The operator of the quarry is to keep a record of tonnes hauled and the destination of each load and shall submit the calculated payment, the calculations made and a copy of all truck despatch/delivery dockets for all the loads hauled for the year up to 30 June each year shall be included in the Annual EMRP.

Reason: Appropriate upgrade of the roads affected by the increase in traffic resulting from this development.

3.6 1(a)(iv) – Environmental Planning and Assessment Regulation 2000

The project has been assessed and processed in accordance with the relevant sections of the Environmental Planning and Assessment Regulation 2000.

4.0 SECTION 79C 1(B) AND (C) – LIKELY IMPACTS OF THE DEVELOPMENT AND SUITABILITY OF THE SITE FOR THE DEVELOPMENT

The EIS addresses the likely impacts of the development on the environment and recommends measures proposed to mitigate any adverse effects of the development including a list of any approvals that must be obtained under any Act or law before the development may be lawfully carried out.

The likely impacts and proposed mitigation measures are outlined below.

4.1 Flora and Fauna

An Ecological Assessment Report and a Vegetation Management Plan for the development was undertaken by EcoBiological and were included as Appendix 4 and 2 of the EIS respectively. The applicant has submitted that the reports were prepared in accordance with all relevant Acts and Policies relating to flora and fauna assessment and identified all impacts that the proposed development may have on flora and fauna.

Concerns were raised in submissions about the impact the development would have on existing flora and fauna located over the site, especially in regards to the loss of habitat trees and the resultant impact on Threatened Species and Endangered Ecological Communities (EEC). Further, two submissions raised concerns with the proposed finished land form comprising wetlands and their possible affect of increased mosquito generation.

The proposed development would impact on the subject site through the removal of a total of 78 scattered paddock trees, mainly *Eucalyptus viminalis* (Manna Gum). The removal of these trees would exacerbate the key threatening processes by clearing of native vegetation, including the loss of 17 trees containing habitat hollows.

The assessment report and EIS identified that the impact on the removal of these trees would be mitigated through a number of biodiversity offset strategies as part of the overall rehabilitation plan to ensure that the key threatening processes are not exacerbated within the local context.

Proposed Mitigation Measures

The management and mitigation measures recommended for the development fall within 3 criteria being, environmental protection areas, creek and pit rehabilitation, and site and infrastructure management issues. These three management and mitigation measures would be achieved through;

- The creation of a Riparian Protection Zone for Reedy Creek to be a minimum of 50 metres either side of the creek in accordance with the Vegetation Management Pan.
- Provide 20 metre buffers around existing dams and wetland areas in accordance with the Vegetation Management Pan.
- The creation of a Riparian Rehabilitation Plan for the Riparian Protection Zone. The Plan is to include weed management, rehabilitation and re-vegetation, as well as an ongoing monitoring program. The Plan aims to enhance and protect the riparian and coastal sand forest vegetation, as well as maintain the local hydrology.
- The creation of Wetland Rehabilitation Plan so Pits will be rehabilitated into wetlands in a post-operational phase so as to enhance the areas of wetland on the site.
- Old sand extraction area adjoining Pit 3 will be shaped to final landform and topsoil placed, fenced to exclude stock and plant and primary rehabilitation planting placed and under management within 5 years of commencement of Proposed Pit 3.
- Annual Environmental Management and Rehabilitation Plan (EMRP) to address the rehabilitation activity for the past year, assessed against the performance requirements of the EMRP, the Vegetation Management Plan and other provisions specified in the EIS.
- The creation of Soil and Water Management Plan to ensure that present water bodies and groundwater systems are not negatively impacted by the sand mining operations such as sediment runoff, stormwater discharge and management of stockpiles.

- Management of any road surface as to minimise the erosion by wind and water.
- Installation of nest box in adjacent retained vegetation to offset habitat hollows to be removed.

The EPA reviewed the development application and made the following comments on Threatened Species and EEC within the site;

1. The EPA supports the majority of the mitigation measures, however, notes ... the development will remove hollow bearing trees and roosting resources for fauna both protected and threatened from across the site. The EPA recommends Council considers the relocation of the large hollow bearing trees to alternative locations across the site to retain the hollow bearing resource, if there is no other alternative available to protect trees.
2. The EPA notes the impacts of the development on the EEC (Bangalay Sand Forest) known to occur on-site. The development ... will result in the removal of 27ha of what is described as low condition EEC. Although it is in low condition the removal of this vegetation has not been offset by the replanting of the riparian area, Council may therefore wish to consider increasing the area of rehabilitation of this EEC into the residual land remaining on-site.
3. The EPA has identified an issue with the use of barbed wire in fencing of the areas designated for rehabilitation. Barbed wire is not recommended due to the mortality risk to bats, birds and Yellow Bellied Gliders using the site. The EPA recommends all reference to barbed wire should be removed from the Vegetation Management Plan and Council should apply conditions to ensure barbed wire is not used for fencing the rehabilitation areas.

A review of the Ecological Assessment Report and the EPA comments by Council's Environmental Services Section indicated that provided that the actions listed in the Statement of Commitments are implemented including other proposed mitigation activities, the proposed development impacts on the local environment can be minimised.

To ensure impacts on flora and fauna are mitigated and managed, the following consent conditions should be imposed on any consent issued:

7. The proponent is to prepare an Annual Environmental Management and Rehabilitation Plan (EMRP), to the satisfaction of Bega Valley Shire Council, which includes:-
 - Baseline data,
 - A description of the relevant statutory requirements and relevant performance measures/limits placed on the project by this consent,
 - A description of the measures that will and have been implemented to comply with the relevant statutory requirements, performance measures/limits,
 - A program to monitor and report impacts and environmental performance of the project and the effectiveness of any management measures including the Vegetation Management Plan and Wetland Rehabilitation Plan,
 - Provide a review of past quarry activities on-site and detail the performance of past rehabilitation measures for these activities.
 - A complaints handling and reporting system.

The Annual EMRP reporting period shall be from 1 July through to the 30 June. A copy of the Annual EMRP shall be submitted to Council within 1 month from the end of the reporting

period.

Reason: To ensure the proposal complies with the conditions of consent.

8. The applicant shall provide an amended Vegetation Management Plan (VMP) to include all proposed 20 metre wide vegetation buffers located to the east and south of Proposed Pit 1 and along the west and south of Pit 2. The amended VMP shall delete all reference to the use of barbed wire in the fencing of any proposed creek buffers or proposed vegetation buffers. The amended VMP shall include the replacement of the 78 mature paddock trees required to be removed for the development. The replacement trees shall be Manna Gums.

The amended VMP is to be submitted and approved by Bega Valley Shire Council prior to any works commencing on-site.

Reason: To ensure the site is stabilised and screened prior to extraction commencing on-site.

9. The proposed 20 metre wide vegetation buffers for Stage 1 of Pit 1 and the entire buffer strip for Pit 2 shall be implemented prior to any materials being removed from the site.

Reason: To ensure the site is stabilised and screened prior to extraction commencing on-site.

10. Machinery to be used on the site should be thoroughly washed before its use to avoid introducing any weed seeds or soil pathogens onto the site.

Reason: To stop the introduction of weeds to the site for the duration of the development.

11. Removal of any trees should only occur between February to July to avoid the breeding season of bats, birds or arboreal fauna. Fauna habitat attributes such as fallen timber, logs and rocks/boulders are to be relocated adjacent to the sites to provide potential habitat for fauna species.

Reason: To mitigate the impact on fauna habitat during the construction and operation of the development.

12. Installation of nest boxes in adjacent retained vegetation to offset habitat hollows shall be erected prior to any vegetation being removed from site. The location of nest boxes shall be undertaken in consultation with Bega Valley Shire Council.

Reason: To mitigate the impact on fauna during the construction and operation of the development.

13. Old sand extraction area adjoining Pit 3 will be shaped to final landform and topsoil placed, fenced to exclude stock and plant and primary rehabilitation planting placed and under management within 5 years of commencement of Proposed Pit 3.

Reason: To mitigate the impact on fauna during the construction and operation of the development.

14. Tree and vegetation removal shall only be undertaken one month before a new stage is to commence or in consultation with Bega Valley Shire Council. All hollow bearing trees are to be suitably marked prior to their removal. Upon removal, all hollows are to be inspected by a suitably qualified fauna officer with any animals being rescued.

Reason: To mitigate the impact on fauna during the construction and operation of the

development.

15. The recommendations detailed in the Wetland Rehabilitation Plan prepared by EcoBiological and WorleyParsons shall be complied with.

Reason: To ensure the development is progressively rehabilitated and stabilised upon completion of extraction activities.

4.2 Traffic, Roads and Access

Traffic Generation

A Traffic Impact Assessment for the development was undertaken by McLaren Traffic Engineering and was included as Appendix 5 of the EIS.

The Traffic Impact Assessment has assessed the traffic generation, and the impact this would have on the existing road network and the road safety for existing users.

Access to all three proposed pits would be via Nullica Short Cut Road. The location of loading facilities for heavy vehicles and workers vehicles are considered to minimise the extent of haulage of materials and travel by employees from the site to the nearest major road being the Princes Highway.

Nullica Short Cut Road currently provides access to several residential dwellings located beyond all proposed Pits.

The EIS detailed a number of matters that would be needed to ensure road safety of existing users of Nullica Short Cut Road. The EIS states that the upgrading of Nullica Short Cut Road will be done in two stages, being,

Phase One

The unsealed section of Nullica Short Cut Road, which extends from the Princes Highway intersection to the entry gate of proposed Pit 1 will be sealed immediately before extraction commences at the proponents full cost.

Phase Two

The unsealed section of Nullica Short Cut Road, which extends from the entry gate of proposed Pit 1 up to the entry gate of proposed Pit 2 will be sealed over 5 years following commencement of extraction from Pit 2 with the proponent making a 75% contribution to such sealing. The justification for the 75% contribution relates to the proportional impact of the development on the road as argued in Appendix 14.

Prior to commencement of Pit 2, the proponent will effect the signage, curve improvement/sight distance enhancement work and strengthening of gravel pavement at the proponents full cost. It is proposed that the detailed plans for road improvements in Phase 2 be prepared to Council's satisfaction prior to commencement of any works.

The sealing of the two sections of Nullica Short Cut Road and other improvements outlined above will ensure a safe hauling of other traffic, greatly minimise dust generation and mitigate against potential impacts to existing air quality.

Proposed Mitigation Measures

The assessment identified several mitigation and management measures in terms of traffic flow efficiency, road safety and local amenity considerations. They are;

- Widen road segment of Nullica Short Cut Road at the driveway (gate) locations for Pit 1, 2 and 3 in accordance with swept path requirements of the “Truck and Dog” design combination;
- The unsealed section of Nullica Short Cut Road be sealed at the applicants full cost from the Princes Highway intersection to the entry gate of Proposed Pit 1 before extraction commences.
- The unsealed section of Nullica Short Cut Road from the entry gate of Proposed Pit 1 up to the entry gate of Proposed Pit 2 will be sealed over 5 years following the commencement of extraction from Pit 2 with the proponent making a 75% contribution to such sealing.
- Advance curve warning and advisory speed signs at all bends along the corridor in accordance with AS1742. The bends should be widened to achieve at least 7m width and be supplementary with truck warning signs (W5-22) facing both approach traffic directions. Advisory speed signs of 35km/hr should be installed at all bends with the appropriate curve warnings;
- Narrow bridge warning sign is required at the 5.4 m wide timber bridge located at chainage 1.1km from the Princes Highway. Guard rails with reflectors should also be installed on the timber bridge as the depth of the drop is greater than 1m;
- Installation of guide posts at intervals compliant with relevant standards for the full segment of Nullica Short Cut Road for the distance of 1.3km from the Princes Highway;
- The proponent has committed to an annual maintenance contribution to be resolved with Council to fairly represent the normal wear and tear on those sections of Nullica Short Cut Road impacted by current haulage actions in the year under consideration.
- Develop and implement a driver code for all plant and trucks which will address;
 - Sensitive operation with respect to generation of noise or dust;
 - Safe operational procedures off site and on-site
 - Induction procedures for new staff and site visitors; and
 - Site security and public safety.

Council’s Engineering Section assessed the impact the development would have on Nullica Short Cut Road and the safety of existing road users. They identified that the development would require upgrading works, including sealing of Nullica Short Cut Road, to ensure that it is maintained in a safe manner for existing road users and reflect the staging of the development.

The upgrading works identified the need to upgrade the existing crossing over Reedy Creek situated along Nullica Short Cut before the commencement of extraction at Pit 2. Council’s Engineering Section stated,

“there is a limited life of the existing timber bridge along Nullica Short Cut Road. Council will be placing a 10 tonne load limit on the bridge, due to the amount of extraction and vehicle movements, the bridge will need to be replaced. This replacement will need to be undertaken by the proponent as the development by far reduces the service life of the bridge.”

Provided that Nullica Short Cut Road, including the upgrade of the timber bridge over Reedy Creek is upgraded to Council's Engineering Section requirements, the potential for any traffic conflict with exiting road users would be mitigated. The assessment of the application details that if the development was not carried out, the existing road formation and bridge over Reedy Creek would not require upgrading. Therefore the upgrading of Nullica Short Cut Road is to be undertaken at the full cost of the applicant as the development directly impacts on the existing formation of the road.

To cater for the additional traffic generated by the development, the following consent conditions should be imposed on any consent issued:

36. The applicant shall prepare a Traffic Management Plan/Code of Conduct for the operation of plant and equipment and the transport of materials on public roads to the satisfaction of Bega Valley Shire Council and is to ensure that all truck drivers associated with haulage to and from the quarry comply with the code of conduct.

The Code of Conduct shall as a minimum incorporate;

- Driver awareness of the nearest morning and afternoon school bus drop off and pick-up points near the intersections of Nullica Short Cut Road/Boydton Park Road with the Princes Highway.
- Sensitive operation with respect to generation of noise or dust;
- Safe operational procedures off site and on-site
- Induction procedures for new staff and site visitors; and
- Site security and public safety.

Reason: Safety for road users and amenity of nearby residents

49. **Conditions to be satisfied prior to Engineering Construction Certificate**

The following matters shall be completed prior to the endorsement of a Construction Certificate for each stage of this development:

- a) dedication as Public Road of such land for **road widening** as is necessary to contain the constructed road in use, and known as Nullica Short Cut over the frontages of the land. A copy of the plan registered by the NSW Land Titles Office dedicating this land as road shall be provided to the Council to demonstrate compliance with this requirement.

(Reason: To rectify encroachments as part of the development).

- b) approval of **detailed construction plans and specifications** for access and road works by Council's Director of Engineering Services or his delegate.

These works shall be designed and specified in conformity to the standards set out in Council's Technical Specifications (or other documents formally adopted by Council for the purpose of specifying standards for construction works, DCP No. 2) as current at the date of approval, and sound engineering practice.

These detailed construction plans must include all **erosion and sediment control**

works necessary to ensure that the quality of stormwater discharged from these works, both during and after the construction period, will not result in erosion, sedimentation or pollution of any land or water. These plans shall be in accordance with Council's Development Design Specification D7, Erosion Control and Stormwater Management.

(Reason: to ensure that the development is compatible with the design of the specified works and to specify technical standards.)

- c) No work shall be carried out within three metres of or adjacent to the carriageway of a public road subject to motor vehicle traffic until Council has approved a satisfactory Traffic Control Plan relating to that work, and the Roads and Traffic Authority has approved any associated Road works Speed Limit.

The Traffic Control Plan shall be prepared by a person who is authorised by the Roads and Traffic Authority to prepare these plans. The Traffic Control Plan must bear the name, signature and Traffic Control at Worksites Certificate Number of the person who prepared it.

All measures described in the Traffic Control Plan shall be implemented and maintained for the duration of any work within or adjacent to the road carriageway.

(Reason: so that work on public roads is performed safely.)

- d) **lodgement of security with Council** in an amount of \$20,000.00 (Allocation No. 19755.9755.9800) as security for remedying any defects in any public work required in connection with this consent (such as road work stormwater drainage and environmental controls) that arise within six months after the works are completed, and for making good any damage caused to Council property as a consequence of the doing of anything to which the consent relates.

The security lodged with Council shall be either in money or unconditional bank guarantee in a form acceptable to Council.

The funds realised from this security may be paid out by Council to meet any costs referred to in this condition. A Bond Administration Fee may be payable to Council.

This condition is authorised by Section 80A(6)-(10) of the Environmental Planning and Assessment Act 1979.

(Reason: to ensure that public works are in satisfactory condition when transferred to Council and that any damage to Council property is remedied.)

- e) **Qualifications and insurance of engineering designers (Public Works)**
All public works (such as road work and environmental controls) shall be designed by persons holding suitable qualifications for the design of works of this type and current professional indemnity insurance.

(Reason: to ensure appropriate professional standards.)

- f) **Contractor's insurance (Public Works)**
Each contractor engaged in the construction of public works (such as road work and environmental controls) must hold current public liability insurance for an amount of not less than \$20,000,000.00 suitably endorsed to note the contractor and Council for their respective rights and interests.

Prior to the commencement of the construction of these public works Council must be provided with evidence of the currency of this insurance.

(Reason: to ensure that contractors hold suitable public liability insurance.)

50. Conditions to be satisfied prior to commencement of use subject to Council acceptance for Pit 1.

The following matters shall be completed prior to the commencement of use of Pit 1 of this development:

These works shall be designed and constructed in conformity with Council's Technical Specifications (or other documents formally adopted by Council for the purpose of specifying standards for construction works) as current at the date of the approval of construction plans, and sound engineering practice:

One or more Compliance Certificates must evidence the satisfactory completion of these works. See below.

Road works

- a) construction of the following in Nullica Short Cut from its intersection with the Princes Highway to 20.0 metres west of the proposed entry to Pit 1:
- **6.4 metre wide bitumen sealed road** pavement,
 - 1.5 metre wide table drains as necessary,
 - all associated stormwater and subsoil drainage works,
 - installation of guideposts, protection fencing, pavement markings and signposting to the standards specified in the *Road Design Guide* published by the NSW Roads and Traffic Authority,
 - all other works necessary to achieve the above,

The design speed for this road shall be not less than 60 km/h.

(Reason: To provide an appropriate standard of access to the land and to accommodate the traffic likely to be generated by this development).

- b) construction of a BAL **intersection treatment** at the junction of the proposed entry to Pit 1 with Nullica Short Cut in conformity with the standards specified in the *Road Design Guide* published by the NSW Roads and Traffic Authority.

The left turn treatment is to be in accordance with a BAL treatment, figure 4.8.34. The BAL is to be sealed to a minimum of 20 metres from the edge of the traffic lane. The gate or grid at the entrance to the property shall be indented a minimum of 20 metres from the edge of the through carriageway of Nullica Short Cut.

The design shall ensure that no water is directed onto the formation of the through roadway (Nullica Short Cut). The applicant will be required to provide suitable drainage, including structures if necessary, underneath the driveway. Drainage headwalls shall be located outside the Clear Zone of the roadway. The width of the Clear Zone must be in accordance with Section 3.7 of the RTA's *Road Design Guide*.

The applicant shall submit detailed engineering plans, including drainage, at a scale of 1:200 to Council to be assessed for approval.

(Reason: To provide an appropriate standard of access to the land and to

accommodate the traffic likely to be generated by this development).

- c) Compliance Certificate(s) in relation to the **inspection and testing of all public works** associated with this consent (such as road work, kerbing and guttering, footway construction, stormwater drainage, water supply and sewerage works and environmental controls) must be obtained either from Council or from an Accredited Certifier to demonstrate that these works have been completed.

These public works must be inspected and tested either by Council's inspector, or by an Accredited Certifier at each of the following stages of construction to confirm compliance with the standards set out in the approved plans and specifications. Any inspection and testing performed by Accredited Certifiers shall be documented by Compliance Certificate(s) for those parts of the public work.

- after placement of all signs in accordance with the approved Traffic Control Plan.
- after stripping of topsoil from roads and fill areas, all Soil & Water Management Plan controls shall be in place at this stage.
- After completion of road subgrade.
- After placement and compaction of each layer of gravel pavement material.
- Prior to the application of bitumen seal or asphaltic concrete wearing surface.
- After laying and jointing of all stormwater pipelines prior to backfilling.
- After completion of works.
- As otherwise required to confirm that the works are satisfactorily executed and in conformity with environmental controls.

It should be noted that Council charges fees for inspections and Compliance Certificates. These fees must be paid prior to the endorsement of a Final Occupation Certificate.

(Reason: to demonstrate that subdivision works are completed in conformity with development consent conditions and to appropriate technical standards).

- d) **Works as executed plans**

Upon completion of all civil construction work, Council shall be provided with one complete copy of the plans to which the Construction Certificate relates, clearly marked up to show all variations of the completed works from the approved design in regard to alignment, levels and other details of the works. These plans must show the location and depth of any filling placed on any lot. Works-as-executed plans must be prepared and certified by a Registered Surveyor or Chartered Professional Engineer as a complete and accurate record of the subdivision work.

A complete record of all cadastral information, roads and stormwater drainage works for this development shall also be provided to Council in an electronic format.

The electronic / digital data must be suitable for inclusion in Council's Geographic Information System with a brief metadata description of the projection, survey control and layers.

The preferred format for this electronic/digital data is as follows:

- File format: AutoCAD DWG or DXF files.

- Map Projection: MGA94 Zone 55
- Map Layers: To delineate map data into subdivision, water, sewer and drainage.
- Survey Control: map point location and name or table format of control points showing name and coordinates used for survey.

Data will need to be resupplied if coordinates are not valid for the surveyed area.

The works as executed plans must be examined and accepted by Council's engineering staff prior to the endorsement of the Subdivision Certificate by the Principal Certifying Authority (Council).

(Reason: To ensure that Council holds complete records of civil engineering works being transferred to Council ownership).

51. Extended maintenance responsibility

The developer shall perform all works necessary to maintain all erosion and sediment control measures for this development to effectively control potential soil erosion, sedimentation and other environmental impacts until all civil construction work has been completed, stabilized and revegetated. Particular attention is required to the regular removal of accumulated material in sediment traps and water quality control ponds.

(Reason: to minimise the environmental impacts of this development.)

52. Conditions to be satisfied prior to commencement of use subject to Council acceptance for Pit 2.

The following matters shall be completed prior to the commencement of use of Pit 2 of this development:

These works shall be designed and constructed in conformity with Council's Technical Specifications (or other documents formally adopted by Council for the purpose of specifying standards for construction works) as current at the date of the approval of construction plans, and sound engineering practice:

One or more Compliance Certificates must evidence the satisfactory completion of these works. See below.

Road works

- a) construction of the following in Nullica Short Cut from its intersection with the Princes Highway to 20.0 metres west of the proposed entry to Pit 2:
- **6.4 metre wide bitumen sealed road** pavement,
 - 1.5 metre wide table drains as necessary,
 - all associated stormwater and subsoil drainage works,
 - installation of guideposts, protection fencing, pavement markings and signposting to the standards specified in the *Road Design Guide* published by the NSW Roads and Traffic Authority,
 - all other works necessary to achieve the above,

The design speed for this road shall be not less than 60 km/h.

(Reason: To provide an appropriate standard of access to the land and to

accommodate the traffic likely to be generated by this development).

- b) construction of a BAL **intersection treatment** at the junction of the proposed entry to Pit 2 with Nullica Short Cut in conformity with the standards specified in the *Road Design Guide* published by the NSW Roads and Traffic Authority.

The left turn treatment is to be in accordance with a BAL treatment, figure 4.8.34. The BAL is to be sealed to a minimum of 20 metres from the edge of the traffic lane. The gate or grid at the entrance to the property shall be indented a minimum of 20 metres from the edge of the through carriageway of Nullica Short Cut.

The design shall ensure that no water is directed onto the formation of the through roadway (Nullica Short Cut). The applicant will be required to provide suitable drainage, including structures if necessary, underneath the driveway. Drainage headwalls shall be located outside the Clear Zone of the roadway. The width of the Clear Zone must be in accordance with Section 3.7 of the RTA's Road Design Guide.

The applicant shall submit detailed engineering plans, including drainage, at a scale of 1:200 to Council to be assessed for approval.

(Reason: To provide an appropriate standard of access to the land and to accommodate the traffic likely to be generated by this development).

- c) design (full engineering design plans) and construction of a replacement structure for the timber bridge over the water course bisecting Nullica Short Cut to be a two lane concrete structure, constructed to recognized engineering standards and providing a design service life of not less than 80 years. All works associated with the construction of the structure and its approaches shall be carried out and completed in accordance with detailed engineering plans and specifications as prepared by a suitably qualified engineer and as approved by Council.

Prior to the endorsement of the Subdivision Certificate for this development, Council shall be provided with certification from a suitably qualified and experienced Chartered Professional Engineer (NPER 3 registered) confirming that the works identified in the condition referred to above satisfies the specified performance and acceptance criteria.

(Reason: To provide an appropriate standard of access to the land and to accommodate the traffic likely to be generated by this development).

- d) Compliance Certificate(s) in relation to the **inspection and testing of all public works** associated with this consent (such as road work, kerbing and guttering, footway construction, stormwater drainage, water supply and sewerage works and environmental controls) must be obtained either from Council or from an Accredited Certifier to demonstrate that these works have been completed.

These public works must be inspected and tested either by Council's inspector, or by an Accredited Certifier at each of the following stages of construction to confirm compliance with the standards set out in the approved plans and specifications. Any inspection and testing performed by Accredited Certifiers shall be documented by Compliance Certificate(s) for those parts of the public work.

- after placement of all signs in accordance with the approved Traffic Control

Plan.

- after stripping of topsoil from roads and fill areas, all Soil & Water Management Plan controls shall be in place at this stage.
- After completion of road subgrade.
- After placement and compaction of each layer of gravel pavement material.
- Prior to the application of bitumen seal or asphaltic concrete wearing surface.
- After laying and jointing of all stormwater pipelines prior to backfilling.
- After completion of works.
- As otherwise required to confirm that the works are satisfactorily executed and in conformity with environmental controls.

It should be noted that Council charges fees for inspections and Compliance Certificates. These fees must be paid prior to the endorsement of a Final Occupation Certificate.

(Reason: to demonstrate that subdivision works are completed in conformity with development consent conditions and to appropriate technical standards).

e) **Works as executed plans**

Upon completion of all civil construction work, Council shall be provided with one complete copy of the plans to which the Construction Certificate relates, clearly marked up to show all variations of the completed works from the approved design in regard to alignment, levels and other details of the works. These plans must show the location and depth of any filling placed on any lot. Works-as-executed plans must be prepared and certified by a Registered Surveyor or Chartered Professional Engineer as a complete and accurate record of the subdivision work.

A complete record of all cadastral information, roads and stormwater drainage works for this development shall also be provided to Council in an electronic format.

The electronic / digital data must be suitable for inclusion in Council's Geographic Information System with a brief metadata description of the projection, survey control and layers.

The preferred format for this electronic/digital data is as follows:

- File format: AutoCAD DWG or DXF files.
- Map Projection: MGA94 Zone 55
- Map Layers: To delineate map data into subdivision, water, sewer and drainage.
- Survey Control: map point location and name or table format of control points showing name and coordinates used for survey.

Data will need to be resupplied if coordinates are not valid for the surveyed area.

The works as executed plans must be examined and accepted by Council's engineering staff prior to the endorsement of the Subdivision Certificate by the Principal Certifying Authority (Council).

(Reason: To ensure that Council holds complete records of civil engineering works being transferred to Council ownership).

53. **Extended maintenance responsibility**

The developer shall perform all works necessary to maintain all erosion and sediment control measures for this development to effectively control potential soil erosion, sedimentation and other environmental impacts until all civil construction work has been completed, stabilized and revegetated. Particular attention is required to the regular removal of accumulated material in sediment traps and water quality control ponds.

(Reason: to minimise the environmental impacts of this development.)

54. Conditions to be satisfied prior to commencement of use subject to Council acceptance for Pit 3.

The following matters shall be completed prior to the commencement of use of Pit 3 of this development:

These works shall be designed and constructed in conformity with Council's Technical Specifications (or other documents formally adopted by Council for the purpose of specifying standards for construction works) as current at the date of the approval of construction plans, and sound engineering practice:

One or more Compliance Certificates must evidence the satisfactory completion of these works. See below.

Road works

- a) construction of a BAL **intersection treatment** at the junction of the proposed entry to Pit 3 with Nullica Short Cut in conformity with the standards specified in the *Road Design Guide* published by the NSW Roads and Traffic Authority.

The left turn treatment is to be in accordance with a BAL treatment, figure 4.8.34. The gate or grid at the entrance to the property shall be indented a minimum of 20 metres from the edge of the through carriageway of Nullica Short Cut.

The design shall ensure that no water is directed onto the formation of the through roadway (Nullica Short Cut). The applicant will be required to provide suitable drainage, including structures if necessary, underneath the driveway. Drainage headwalls shall be located outside the Clear Zone of the roadway. The width of the Clear Zone must be in accordance with Section 3.7 of the RTA's Road Design Guide.

The applicant shall submit detailed engineering plans, including drainage, at a scale of 1:200 to Council to be assessed for approval.

(Reason: To provide an appropriate standard of access to the land and to accommodate the traffic likely to be generated by this development).

- b) Compliance Certificate(s) in relation to the **inspection and testing of all public works** associated with this consent (such as road work, kerbing and guttering, footway construction, stormwater drainage, water supply and sewerage works and environmental controls) must be obtained either from Council or from an Accredited Certifier to demonstrate that these works have been completed.

These public works must be inspected and tested either by Council's inspector, or by an Accredited Certifier at each of the following stages of construction to confirm compliance with the standards set out in the approved plans and specifications. Any inspection and testing performed by Accredited Certifiers

shall be documented by Compliance Certificate(s) for those parts of the public work.

- after placement of all signs in accordance with the approved Traffic Control Plan.
- after stripping of topsoil from roads and fill areas, all Soil & Water Management Plan controls shall be in place at this stage.
- After completion of road subgrade.
- After placement and compaction of each layer of gravel pavement material.
- Prior to the application of bitumen seal or asphaltic concrete wearing surface.
- After laying and jointing of all stormwater pipelines prior to backfilling.
- After completion of works.
- As otherwise required to confirm that the works are satisfactorily executed and in conformity with environmental controls.

It should be noted that Council charges fees for inspections and Compliance Certificates. These fees must be paid prior to the endorsement of a Final Occupation Certificate.

(Reason: to demonstrate that subdivision works are completed in conformity with development consent conditions and to appropriate technical standards).

c) **Works as executed plans**

Upon completion of all civil construction work, Council shall be provided with one complete copy of the plans to which the Construction Certificate relates, clearly marked up to show all variations of the completed works from the approved design in regard to alignment, levels and other details of the works. These plans must show the location and depth of any filling placed on any lot. Works-as-executed plans must be prepared and certified by a Registered Surveyor or Chartered Professional Engineer as a complete and accurate record of the subdivision work.

A complete record of all cadastral information, roads and stormwater drainage works for this development shall also be provided to Council in an electronic format.

The electronic / digital data must be suitable for inclusion in Council's Geographic Information System with a brief metadata description of the projection, survey control and layers.

The preferred format for this electronic/digital data is as follows:

- File format: AutoCAD DWG or DXF files.
- Map Projection: MGA94 Zone 55
- Map Layers: To delineate map data into subdivision, water, sewer and drainage.
- Survey Control: map point location and name or table format of control points showing name and coordinates used for survey.

Data will need to be resupplied if coordinates are not valid for the surveyed area.

The works as executed plans must be examined and accepted by Council's engineering staff prior to the endorsement of the Subdivision Certificate by the

Principal Certifying Authority (Council).

(Reason: To ensure that Council holds complete records of civil engineering works being transferred to Council ownership).

55. Extended maintenance responsibility

The developer shall perform all works necessary to maintain all erosion and sediment control measures for this development to effectively control potential soil erosion, sedimentation and other environmental impacts until all civil construction work has been completed, stabilized and revegetated. Particular attention is required to the regular removal of accumulated material in sediment traps and water quality control ponds.

(Reason: to minimise the environmental impacts of this development.)

4. This consent will lapse after 1,100,000 cubic metres of sand material and 105,000m³ of topsoil have been extracted from the site, or 28 years after the date it commences, whichever comes first.
5. No more than 40,000 tonnes of sand and 10,000 tonnes of topsoil a year shall be extracted and transported from the site.

Reason: Development is undertaken in accordance with this consent & is used for the approved purpose only

Intersection

Concerns were raised in submissions concerning the safety of the intersection of Nullica Short Cut Road with the Princes Highway and the potential impact on an existing bus stop located at that intersection.

The Traffic Impact Assessment by McLaren Traffic Engineering identified that,

“based on volumes at the intersection, only a “BA” basic intersection is required. The vehicle numbers along the Princes Highway are too low to give merit to any more advanced intersection design.”

The report further detailed that based on the low volumes, no further upgrade is required apart from tapered diverging and merging pavement conditions based upon the swept path needs of the design “Truck & Dog” vehicle.

In accordance with Clause 104 of the Infrastructure SEPP, the RMS were notified of the development application. RMS advised that the existing arrangements at the junction of Nullica Short Cut Road and the Princes Highway were inadequate to cater for traffic associated with the development, particularly right-turning traffic. The RMS provided several conditions for inclusion if development consent was to be granted. The assessment of the intersection by the RMS and recommended upgrading works are detailed in their letter dated 1 May 2012 included in **Appendix 2** of this Report.

In regard to concerns raised in submissions with existing bus stops near the intersections were commented on by the RMS who stated,

“RMS does not raise concern with regard to the bus stops in relation to this DA, as it is not considered to be a matter of relevance to the proposed development.”

The bus stop is located just off the Princes Highway and buses do not enter into Nullica Short Cut Road. Dependent on social changes for residents located in the area, the requirements for bus stops may change. It is considered that issues relating to the bus stop should be identified as part of road haulage to and from the site. It is recommended that as part of the Truck Management Plan, all drivers should be trained in the awareness of all bus sites located immediately around the intersections of Nullica Short Cut Road/Boydton Park Road with the Princes Highway.

To ensure safe intersection requirements, compliance with the RMS conditions detailed in their letter dated 1 May 2012 would adequately address the concerns raised in submissions.

To cater for the impact generated by the development, the following consent conditions should be imposed on any consent issued:

3. The intersection onto the Princes Highway shall be upgraded in accordance with the requirements of the Roads and Traffic Authority letter dated 1 May 2012 as attached to this consent.

Reason: Development is undertaken in accordance with this consent & is to comply with the Protection of the Environmental Operations Act 1997 and Roads Act.

On-site Parking

Council does not specify any on-site parking rates for extractive industries and each application is assessed on its merits. The Traffic Impact Assessment undertaken by McLaren Traffic Engineering has recommended on-site parking supply for 4 car spaces (2 staff, 2 visitors) and for 3 trucks (up to 19 metres in length, to allow for semi-trailers). A further area for an occasional "Truck & Dog" temporary parking has also been provided.

It is considered the parking provisions detailed in the Traffic Impact Assessment adequately caters for the on-site parking needs to the development.

4.3 Noise

A Noise Impact Statement for the development was undertaken by Wilkinson Murray and was included as Appendix 8 of the EIS. The Statement identifies that the development has the potential to impact on adjoining residential and tourist related industries through the generation of noise by plant and equipment used during the construction and ongoing operation of quarrying activities and through the additional traffic generated by the development.

Concerns were raised in submissions relating to noise currently being generated by existing sand quarry operations approved under Development Consent 1987.1303, located adjacent to proposed Pit 3.

The noise impact statement was prepared in accordance with the NSW Industrial Noise Guidelines. The statement detailed a noise exceedance for the Twofold Bay Beach Resort even with the allowance of a 4 metre high sand bund to be located between Pit 1 and the Resort. The noise statement also identified an exceedance for the western residence located off Nullica Short Cut Road.

Proposed Mitigation Measures

The noise impact statement provided several recommendations to mitigate identified noise impacts to ensure compliance with the NSW Industrial Noise Guidelines. Those mitigation measures are;

- The construction of a 4 metre high sand bund along the eastern boundary between Pit 1 and the Twofold Bay Beach Resort prior to commencement of commercial excavation of Pit 1.
- Pit 2 will not commence until Pit 1 is 60% exhausted.
- The treatment of the engine compartment and exhausts to provide a reduction of between 5 and 10 dBA of plant and equipment on-site.
- Annual EMRP report will include a report on compliance with the noise management suggestions contained in the Wilkinson Murray Noise Impact Assessment.
- Logs any noise complaints received by the proponent will be kept and actions to address recorded.
- Ensure regular maintenance of the Plant.
- Plant Operations Code to contain measures to limit truck exhaust braking to 9am to 4pm and generally minimise non essential operational noise.

Council's Environmental Manager initially reviewed the Noise Impact Statement and requested clarification on several matters of the modelling undertaken to ensure the Noise Impact Statement was undertaken in accordance with the NSW Industrial Noise Guidelines. A revised statement responding to the matters raised was received on 24 May 2012 and further reviewed by Council's Environmental Manager.

Council's Environmental Manager raised no concerns with the recommendations in the report and detailed that all proposed mitigation measures proposed should be included as conditions of consent.

The development if approved, would be a licensed premises with the EPA. The EPA has included within their General Terms of Approval, minimum noise limits for the development to operate in respect to the nearest affected residences.

The applicant responded to noise issues raised in submissions, especially to concerns raised with noise generated by existing quarrying activities on-site and noise generated by reversing alarms. The applicant has agreed to the improve quarry operations through improved management practices and the installation of smart alarms.

It is considered that the assessment undertaken by the applicant has adequately assessed the likely noise impacts the development would have on the nearest affected residences and Twofold Bay Beach Resort. The proposed mitigation measures detailed in the noise impact statement and the additional improved quarry management practices and the installation of smart alarms would mitigate potential noise impacts from the development. These mitigation measures would be managed by the NSW EPA through their General Terms of Approval.

The following consent conditions should be imposed on any consent issued to mitigate and manage noise for the development:

- | |
|---|
| <ol style="list-style-type: none">2. The development shall be undertaken in accordance with the General Terms of Approval (GTAs) issued on 10 February 2012 by the NSW EPA as attached to this consent. |
|---|

6. The quarry is to be operated between the following hours: Monday to Saturday 7:00am to 7:00pm, Monday to Friday and 8.00am to 1.00pm on Saturdays. No work is to be carried out on Sundays or public holidays.

Reason: To avoid potential conflict with adjoining land residential land uses.

30. All noise mitigation measures detailed in the noise impact Assessment prepared by Wilkinson Murray shall be implemented and complied with.

Reason: To ensure appropriate noise control practices are in place.

31. Noise monitoring measures and a complaints handling system are to be included in the annual EMRP required by these conditions of consent.

Reason: To ensure appropriate noise control practices are in place.

32. All plant and equipment used shall be effectively maintained in good working condition.

Reason: To ensure appropriate noise control practices are in place.

33. Prior to the commencement of the development the reversing sound equipment on all vehicles associated with the extraction and haulage of material shall be modified to digital broadband alarms, self adjusting or smart alarms or a suitable alternative, as endorsed by the appropriate regulatory authorities. Details are to be submitted to Council prior to work commencing.

Reason: To ensure appropriate noise control practices are in place.

4.4 Soil, Geological and Erosion

An assessment on soils was undertaken through a Soil and Water Investigations report undertaken by WorleyParsons and included as Appendix 7 of the EIS. The investigation assessed the local geology, the extent of the resource and the presence of Acid Sulfate Soils over the site.

The proposal is sited within an ancient beach ridge plain, which extends from the Boydtown Beach to 200/500 metres west of proposed Pit 2. The EIS identified that the proposal will provide for economic use of a proportion of this sand resource without disturbing the geological integrity of the area with no particular actions beyond the proposed erosion controls and site rehabilitation.

One objection to the development raised the concern of the potential presence of Acid Sulfate Soils over the site and the potential impact the development would have on those soils. The submission requested that a copy of a preliminary assessment of the proposed works be undertaken in accordance with the Acid Sulfate Soils Management Plan prepared by a suitably qualified consultant.

The Soil Investigation reviewed the presence of Acid Sulfate Soils over the site as it is mapped as containing Class 5 Acid Sulfate Soils under BVLEP 2002. The testing was undertaken in accordance with the Acid Sulfate Soil Management Advisory Committee (ASSMAC) guidelines, the Acid Sulfate Soils Manual and the Acid Sulfate Soils Laboratory Methods Guidelines (WorleyParsons Appendix 7).

Two test pits identified Potential Acid Sulfate Soils (PASS), being Test Pit 17 located in proposed Pit 2 and Test Pit 24 located adjacent to proposed Pit 3. The assessment identified that Test Pit 17 had an actual acidity which marginally exceeded the ASSMAC criteria. The

testing concluded that an ASSMP was not required as the measured potential acidity was below laboratory limits of reporting and that there was no noticeable presence of pyrites, iron staining or of jarosite during the field investigation.

Test Pit 24 did identify PASS and the report recommended that an ASSMP was not required provided that no works are undertaken that would result in the disturbance of PASS material in the vicinity of Test Pit 24. The design of Proposed Pit 3 was adjusted to exclude the area within the influence of Test Pit 24.

Proposed Mitigation Measures

The assessment identified two mitigation measures. Firstly, the design has been amended to remove the area of excavation around Test Pit 24.

The second is for inclusion in the CEMP to prevent disturbance or lowering of the water table at TP24 would be to avoid dewatering at the southern pit.

Provided that the development is carried out in accordance with the findings detailed in the Soil and Water Investigations report undertaken by WorleyParsons, it is considered that impacts on soils, geology and erosion have been suitably assessed and potential impacts mitigated.

The following consent conditions should be imposed on any consent issued to mitigate impacts associated with the development:

1. Development shall take place in accordance with the attached endorsed plans and reports;
 - a. *Proposed Sand Extraction, Boydtown Group Ownership, Boydtown, NSW Environmental Impact Statement including Appendices 1 to 17, prepared by Garret Barry Planning Services Pty Ltd, dated August 2011.*
 - b. *Additional information prepared by Garret Barry Planning Services Pty Ltd dated 12 and 21 March 2012.*
 - c. *Noise Impact Assessment prepared by Wilkinson Murray, dated May 2012.*
 - d. *Hydrogeological Addendum prepared by Worley Parsons, dated 2012.*
 - e. As may be amended in red by the consent authority. Any specified amendments are to be incorporated in the Construction Certificate plans.

Reason: Development is undertaken in accordance with this consent & is used for the approved purpose only.

2. The development shall be undertaken in accordance with the General Terms of Approval (GTAs) issued on 10 February 2012 by the NSW EPA as attached to this consent.
25. A Soil and Water Management Plan shall be developed prior to works commencing on-site and approved by Bega Valley Shire council to ensure that present water bodies and groundwater systems are not negatively impacted by the sand mining operations such as sediment runoff, stormwater discharge and management of stockpiles.

Reason: To ensure soil and water is managed on-site and does not impact the surrounding environment.

26. Drilling and Installation of Shallow groundwater management bores at various locations around Pit 1 and 2 shall be undertaken in consultation with Bega Valley Shire Council

and the EPA. Monthly monitoring of groundwater levels and field water quality parameters (pH, electrical conductivity, dissolved oxygen, and redox potential) in all nearby groundwater wells, including the production well at Twofold Bay Beach Resort shall be undertaken and detailed in the Annual EMRP.

Monitoring should begin as far in advance of the start of sand extraction operations as possible to acquire baseline data and assess any naturally occurring long term changes to either groundwater levels and quality.

Reason: To ensure soil and water is managed on-site and does not impact the surrounding environment.

27. Surface water drainage is not to be re-directed onto adjoining private or public land. Alterations to the surface contours must not impede or divert natural surface water run-off, so as to cause a nuisance to adjoining property owners or create an erosion or sediment problem.

Reason: Stormwater disposal does not impact on the building or neighbouring properties.

28. Rainwater tanks will be connected to the roofs of the proposed transportable amenities/lunch building to collect rainwater.

Reason: To ensure water is managed on-site.

29. A Refuelling Hazard Plan will be implemented for on-site refuelling and a copy be provided to Bega Valley shire Council before works commence on-site.

Reason: To ensure soil and water is not impacted upon by quarry operations.

4.5 Air Quality

An Air Quality Assessment for the development was undertaken by NH2 Dispersion Sciences and was included as Appendix 9 of the EIS. The assessment identified all potential emissions associated with the development.

Concerns were raised in submissions regarding the suitability of the assessment undertaken as meteorological information was sourced from Merimbula, rather than Eden, and the impact of dust generation on nearby premises, namely impact of dust on Twofold Bay Beach Resort.

The Assessment was undertaken following standard methods outlined by the “DECCW in the Approved Methods and Guidance for the Modelling and Assessment of Air Pollutants in New South Wales.” The assessment identified that there was no ambient air quality monitoring data available to assist in establishing reasonable values for existing air quality levels at the site. The assessment undertook modelling to assess the potential impacts and using conservative estimates of emissions indicates that the development operations are unlikely to cause any exceedances of the relevant DECCW assessment criteria.

Proposed Mitigation Measures

The applicant detailed additional mitigation measures to further ensure dust generation is minimal. They are;

- Keep the footprint of the active extraction area as small as possible while still achieving effective operation.

- The use of coarser rock material on the haul roads to minimise dust.
- Contributing towards sealing a section of Nullica Short Cut Road.
- Provide a water cart on haulage days in dry weather and water the gravel accesses and plant movement areas to a sufficient standard to ensure dust is contained on site.

The development if approved, would be a licensed premises with the EPA. The EPA has included within their General Terms of Approval, operating conditions relating to dust.

It is assessed that the potential impacts associated with air quality by the development have been reasonably considered and suitable mitigation measures are proposed to control any dust generation to the development site.

The following consent conditions should be imposed on any consent issued to mitigate any impact to air quality:

2.	The development shall be undertaken in accordance with the General Terms of Approval (GTAs) issued on 10 February 2012 by the NSW EPA as attached to this consent.
38.	The applicant shall respond to Councils direction to provide dust suppression on roads leading to, adjacent to and within the Development in the event that weather conditions and construction traffic are giving rise to abnormal generation of dust.
	Reason: To ensure that local residents are not disadvantaged by dust during the life of the development.
39.	Extraction from any Pit shall be conducted in stages in accordance with the approved plan. No more than 50 percent of any Pit is exposed at any given time.
	Reason: To ensure that the development is managed to mitigate the potential for dust generation and soil erosion and sedimentation.
40.	Rehabilitation of extracted areas shall be undertaken progressively as soon as extraction in the exposed portion is completed.
	Reason: To ensure that the development is managed to mitigate the potential for dust generation and soil erosion and sedimentation.
41.	Diversion banks and other stockpiles of topsoil or non-commercial material which are not proposed for short term use shall be stabilised with grass cover as soon as completed by sowing rehabilitation grass mix.
	Reason: To ensure that the development is managed to mitigate the potential for dust generation and soil erosion and sedimentation.
42.	Extraction and stockpiling operations which may give rise to dust shall not be undertaken on days of high wind when there is a significant risk of dust nuisance.
	Reason: To ensure that the development is managed to mitigate the potential for dust generation and soil erosion and sedimentation.
43.	All loaded vehicles entering or leaving the site are to be covered to prevent the escape of dust and debris.
	Reason: To ensure that the development is managed to mitigate the potential for dust

generation and soil erosion and sedimentation.

4.6 Water Resources

A Soil and Groundwater Investigations for the development was undertaken by WorleyParsons and was included as Appendix 7 of the EIS. The assessment identified the surface and groundwater resources located at the site and provided an assessment of the likely impacts the proposed development would have on them.

The assessment identified that, “significant impacts on surface water and local groundwater levels and quality are unlikely as a result of the proposed sand extraction operations and rehabilitation works.” (pg112, EIS)

Groundwater modelling indicated that the development operations are unlikely to adversely impact on groundwater levels or availability to groundwater dependent ecosystems.

Proposed Mitigation Measures

The assessment undertaken by WorleyParsons identified a number of proposed management and mitigation measures for surface and groundwater. These measures included;

- The establishment of catchment drains around areas created with low permeability being screening/stockpiling and parking areas and access/haul roads which are directed to large areas of open grassland.
- Rainwater tanks will be connected to the roofs of the proposed transportable amenities/lunch building to collect rainwater.
- Erosion and sedimentation control devices will be implemented in accordance with the Code of Practice for Managing Urban Stormwater – Soils and Construction.
- Drilling and Installation of shallow groundwater management bores at various locations around Pits 1 and 2.
- Monthly monitoring of groundwater levels and field water quality parameters (pH, electrical conductivity, dissolved oxygen, and redox potential) in all nearby groundwater wells, including the production well at Twofold Bay Beach Resort.
- Monitoring should begin as far in advance of the start of sand extraction operations as possible to acquire baseline data and assess any naturally occurring long term changes to either groundwater levels and quality.
- All vegetation material screened on-site will be placed on the surface above the water table where it will decay at natural rates and is unlikely to adversely impact on groundwater quality.
- All effluent from the amenities building is to be disposed in a septic tank and absorption trench disposal system that will be serviced by a licensed contractor.
- Fuel and oil storage will be kept to a minimum on-site with all equipment being refuelled off-site where practicable. A Refuelling Hazard Plan will be implemented for on-site refuelling.(add as Condition of consent)

The development application was referred to the NSW Department of Primary Industries (DPI). The DPI Office of Water initially reviewed the EIS and requested additional

information/investigation of the local groundwater resources particularly in regard to fresh/salt water interface and the potential for saltwater intrusion into the proposed ponds.

An additional assessment was undertaken and provided as a Hydrogeological Addendum by WorleyParsons. DPI identified of note of the Addendum was;

The interception of brackish water in MW 1 indicating the presence of a fresh/salt water interface between MW2 and MW1 which would be at a depth between 5 and 10 m below ground level. Groundwater levels from piezometres indicated an upward vertical component in the groundwater gradient...And that the underlying brackish groundwater is maintained by the presence of the overlying fresh water lens. Any loss/extraction of groundwater from the pit (including evaporation losses) would create the potential for the upward movement of the fresh/salt water interface.

The Office of Water was satisfied with the assessment undertaken on the fresh/salt water interface, but identified that the Addendum did not consider the environmental impacts of a brackish pond or how could such an impact be monitored and/or managed given that the Addendum identified the risk of salt water intrusion for the western pit to be in the low-high risk and for the eastern pit between the low to moderate risk range.

It is considered that the monthly monitoring of groundwater levels and field water quality parameters would mitigate the concern raised by the Office of Water. The monthly monitoring is to be included within the annual EMRP for the development.

The EPA in their General Terms of Approval has requested that a groundwater monitoring bore be provided. This would further mitigate the concerns raised in the Office of Water submission.

The following consent conditions should be imposed on any consent issued to protect surface and groundwater resources on site and downstream from the site:

2. The development shall be undertaken in accordance with the General Terms of Approval (GTAs) issued on 10 February 2012 by the NSW EPA as attached to this consent.
25. A Soil and Water Management Plan shall be developed prior to works commencing on-site and approved by Bega Valley Shire council to ensure that present water bodies and groundwater systems are not negatively impacted by the sand mining operations such as sediment runoff, stormwater discharge and management of stockpiles.

Reason: To ensure soil and water is managed on-site and does not impact the surrounding environment.

26. Drilling and Installation of Shallow groundwater management bores at various locations around Pit 1 and 2 shall be undertaken in consultation with Bega Valley Shire Council and the EPA. Monthly monitoring of groundwater levels and field water quality parameters (pH, electrical conductivity, dissolved oxygen, and redox potential) in all nearby groundwater wells, including the production well at Twofold Bay Beach Resort shall be undertaken and detailed in the Annual EMRP.

Monitoring should begin as far in advance of the start of sand extraction operations as possible to acquire baseline data and assess any naturally occurring long term changes to either groundwater levels and quality.

Reason: To ensure soil and water is managed on-site and does not impact the surrounding

environment.

27. Surface water drainage is not to be re-directed onto adjoining private or public land. Alterations to the surface contours must not impede or divert natural surface water run-off, so as to cause a nuisance to adjoining property owners or create an erosion or sediment problem.

Reason: Stormwater disposal does not impact on the building or neighbouring properties.

29. A Refuelling Hazard Plan will be implemented for on-site refuelling and a copy be provided to Bega Valley shire Council before works commence on-site.

Reason: To ensure soil and water is not impacted upon by quarry operations.

4.7 Hazards

Coastal Processes and Coastline Hazards

The development is located within the Coastal Zone and as such State Environmental Planning Policy 71 – Coastal Protection applies. A Coastline Hazard Assessment was undertaken by WorleyParsons and included as Appendix 6 of the EIS.

The assessment considered such site specific matters as Astronomical tide, Sea level rise, Extreme still water levels, wave climate and wave run-up. All matters were assessed as to not impact on the development given its distance from the ocean and tidal reaches of the Nullica River.

The assessment also assessed such matters as coastal hazards and included, beach erosion, shoreline recession, combined erosion/recession hazard, coastal inundation and impacts of the development on coastal processes and hazards. The assessment concluded that, “given the sites several hundred metres from the shorelines (and unaffected by erosion and recession to beyond 2100), any development at the subject sites would not have an impact on coastal processes and coastline hazards. (pg. 6, Appendix 6)”

It is considered that the matters relating to coastal processes and coastline hazards were adequately addressed in the EIS.

Flooding

The EIS did not identify that the site is subject to flooding. There are no Council records indicating that the site is subject to flooding.

During the assessment of the development application, the site experienced prolonged wet weather and areas of the site were subject to prolonged water ponding. This is consistent with the Soil and Groundwater Investigations undertaken by WorleyParsons detailed in Appendix 7 of the EIS. The investigation detailed that the water table is quite high at the site, though it was considered to be susceptible to seasonal variances. It is considered that any water ponding occurring on the site would not impact on the operation of quarry activities or create any cumulative impacts associated with water management over the site.

Bushfire

The entire site is mapped as being bushfire prone land. The EIS identified that the escape from fire needs specific management and would be achieved through plant exhaust arrestors being maintained and the work areas surrounds slashed over the fire season. A water cart

will be on-site and an Emergency Management Plan being developed to include potential bushfire escape from the development.

It is considered that bushfire has been adequately addressed in the EIS.

Public safety

The public will be denied access to the active areas of the extraction areas and from entering the pits of rehabilitated water bodies. All visitors will be required to report to the site office for induction. An Emergency Management Plan being developed to include pit edge hazard management, plant manoeuvring on-site and training and induction of staff and site visitors.

It is considered that public safety has been adequately addressed in the EIS.

23. Prior to undertaking any site establishment construction works:

- A registered land surveyor is to be engaged to mark out the boundaries of the approved limits of extraction;
- These boundaries are to be clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify those limits.

Reason: The site is managed in a safe manner.

24. The site where works are proposed to be carried out shall be identified by a sign sited in a visually prominent position containing the following information;

- name of the principal contractor (if any) and 24 hour contact telephone number, and
- a statement that “unauthorised entry to the quarry site is prohibited”.

Reason: The site is managed in a safe manner.

44. The extraction Pits are to be fenced with 1.8m high cyclone wire fencing for the duration of extraction and until the rehabilitation of the sites is achieved. The use of barbed wire is not permitted.

Reason: To ensure the site is protected.

45. The applicant shall ensure that the storage, and transport of any dangerous goods is to be carried out in accordance with relevant Australian Standards, particularly AS19402004: The storage and handling of flammable and combustible liquids and AS/NZS 1596:2002: The storage and handling of LP Gas, and the Dangerous Goods Code

Reason: To ensure materials are handled correctly and safely on site.

36. The applicant shall prepare a Traffic Management Plan/Code of Conduct for the operation of plant and equipment and the transport of materials on public roads to the satisfaction of Bega Valley Shire Council and is to ensure that all truck drivers associated with haulage to and from the quarry comply with the code of conduct.

The Code of Conduct shall as a minimum incorporate;

- Driver awareness of the nearest morning and afternoon school bus drop off and pick-up points near the intersections of Nullica Short Cut Road/Boydton Park Road with the Princes Highway.
- Sensitive operation with respect to generation of noise or dust;
- Safe operational procedures off site and on-site
- Induction procedures for new staff and site visitors; and

- Site security and public safety.

Reason: Safety for road users and amenity of nearby residents.

Contamination

The EIS did not identify any past uses at the site that would likely have caused contamination of the site. The assessment identified that the site has been extensively used for agriculture purposes and to some extent, extractive industries. These uses are not known sources to likely suggest that the site is contaminated.

The EIS detailed that as part of quarrying activities, refuelling on site will be limited to loader, excavator and screen plant. Where practical the loader may be filled at the depot. A dedicated fuel cart will be utilised and regularly maintained. Refuelling will take place in a defined area with concrete base and bund wall to prevent soil penetration in the case of a spill. This area will form part of the compound.

It is considered that contamination of the site and possible contamination of the site by the development have been adequately addressed in the EIS. It is recommended that the following conditions be included to ensure that any oils or fuels are appropriately managed on-site.

- 29 A Refuelling Hazard Plan will be implemented for on-site refuelling and a copy be provided to Bega Valley shire Council before works commence on-site.

Reason: To ensure soil and water is not impacted upon by quarry operations.

4.8 Context, Setting and Visual Impact

Character and Amenity of the locality

The Site has largely been modified to facilitate agricultural pursuits, namely grazing. It has also to some extent been modified by past quarrying activities including both sand and gravel extraction.

The open grazing lands are characterised by scattered paddock trees dominated by red gums and a vegetation strip located along Reedy Creek that dissects the site.

The general locality supports scattered semi-rural and rural residential land uses that retain dwellings to the west and south of the site. Tourist related uses like Twofold Bay Beach Resort, dominate lands to the east given its close proximity to Twofold Bay. This area also contains various heritage items including Boyds Church and graveyard and the Seahorse Inn. Lands to the north are vacant and comprise the Nullica River which is bordered by extensive vegetated Crown and State Forest lands.

Landscape, Views and Scenic Quality

An assessment of the existing visual environment and amenity and the potential impact the development would have was undertaken by the applicant and is detailed in Section 5.8 of the EIS.

The development would remove vegetation, topsoil, overburden and the sand resource from the defined areas on the site. This would result in alterations to the existing landform and

during active extraction, the exposure of parts of the site to adjoining roads and nearby dwellings.

Objections received in relation to development identified the impact the development would have on the visual amenity of the area, in particular having regard to tourist related industries located adjacent to the site, namely Twofold Bay Beach Resort and for visitors to the area travelling past the site along the Princes Highway.

The site is visible from two main public vantage points. The first vantage point is the Princes Highway which would have intermittent views of Proposed Pit 1. The second vantage point is Nullica Short Cut Road with all passing traffic having intermittent views to all Proposed Pits.

It is considered that the visual assessment provided in the EIS to adequately address the issues raised in respect to the visual impact the development would have on both the Princes Highway and Nullica Short Cut Road. The applicant further commented on the issues raised in the submission advising that in relation to views obtained from the Princes Highway and Nullica Short Cut Road that;

A traveller on the highway travelling north at the suggested average speed of 90kph...passes about 350 metres of semi open to fully open view. So the closest pit workings of 300 metres away would appear for 12 seconds. After that the existing roadside vegetation only allows filtered views at best. The bund wall will be more apparent through this screen but will be sown down swiftly and should blend in within 12 months.

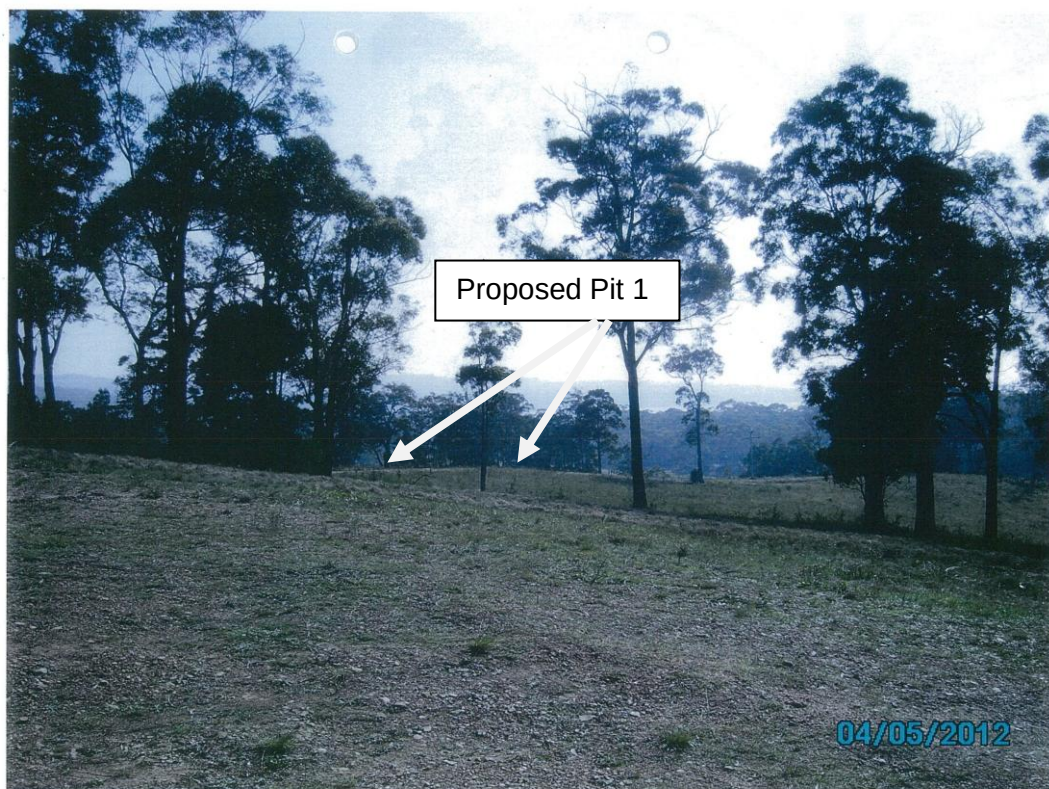
The EIS demonstrates once the screen vegetation is 2-4 years old, the faster growing species will be totally able to obscure any view of pit one. So the issue remaining is the first 2-4 years.

The applicant is prepared to extend the screen if deemed necessary along the first straight of the highway so that minimal area of Pit One would be visible from Nullica Short Cut Road travellers. After the first straight, existing road side vegetation limits views to a very filtered level.

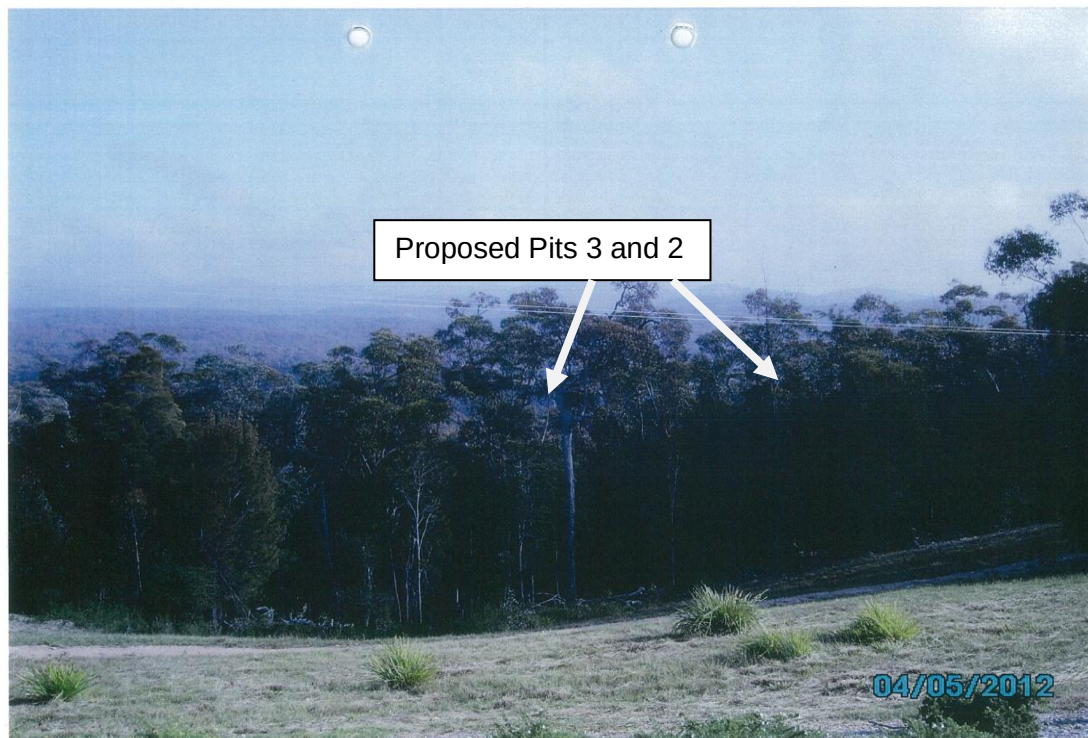
Three submissions objected to the impact the development would have on the visual amenity afforded to dwellings located to the south and west of the site. An inspection of the affected dwellings and proposed dwellings was undertaken. All existing and proposed dwellings would have filtered views over proposed Pits 1, 2 and 3, as all dwellings are located on more elevated lands than the subject site.



Photograph from B&K Stone Residence – Lot 251 DP 601821, 47 Havard Lane, Boydtown looking north towards Pits 2 and 3.



Photograph from P Barber Residence – Lot 1 DP772069, 20 Yarran Road, Boydtown looking north towards Pit 1.



Photograph from P Barber Residence – Lot 11 DP811856, 22 Yarran Road, Boydtown looking northwest towards Pits 2 and 3.

These elevated building sites provide views over the valley and back towards Eden and Twofold Bay. Most existing and proposed dwellings have intervening vegetation to partially screen proposed Pits. This vegetation is located on both the proponents adjoining lands and/or on the affected dwellings land.

The applicant further commented on the issues raised in the submission advising that in relation to views obtained from existing and proposed dwellings that;

...the only part of the overview area in stage 1 or 2 would be visible at any one time given the sequence of extraction and revegetation. This would see around 1.2 ha of stage 1 and 2.1 ha of stage 2 exposed at any one time.

The views from Lot 11 would likely be panoramic and we assess as such this overall view impact of the development to be minor.

The visual impact of proposed Pit 1 to Twofold Bay Beach Resort is already reasonably mitigated through existing roadside vegetation located along the Princes Highway. Further screen planting of the proposed bund wall would further mitigate any visual impacts from the Resort.

Proposed Mitigation Measures

The applicant has provided the following visual safeguards to mitigate impacts on the Scenic Quality of the area;

- Retain and enhance the Coastal Sand Forest vegetation along the Princes Highway reservation and undertake extensive planting of suitable screening species along the un-vegetated section of the projects side boundaries, including the revegetation of the noise bund. Areas to be fenced out to exclude livestock.

- Proposed plantation strip screens around the perimeter of Pit 2 and along the western boundary of the project. The applicant proposes that the plantation strip screens are established before sand extraction operations commence at Pit 2.
- Rehabilitate and widen the Riparian Zone to 50 metres either side of Reedy Creek through the promotion and active planting of native endemic species. Areas to be fenced out to exclude livestock and primary rehabilitation effected within 3 years of commencement.
- Ongoing management and reporting to be provided in the annual EMRP.
- Provide suitable sequencing to the quarry operations to minimise the extent of the quarry open for the winning of materials;
- Upon completion of sand extraction activities at each of the proposed pits, rehabilitation works of the pits into wetlands that will form part of a final lake system.

It is considered that the EIS and the response to submissions has suitably identified and assessed all potential visual and scenic amenity impacts.

The potential visual impact on existing and proposed dwellings located to the south of the site were inspected with the owners present and assessed accordingly. The inspections identified that intervening vegetation located on both the objectors land and the applicant's adjoining lands already provide reasonably good screening over the proposed development site.

All existing and proposed dwellings would have filtered views over different stages of the development. It is considered that sequencing of extraction and progressive rehabilitation would provide minor short term impacts, however, the panoramic views already obtained from these elevated dwelling sites would be retained.

The proposed landscaping around Pit 2 to screen from the dwelling to the west was assessed and identified that the vegetation would take some time to become established as Pit 3 is located below the adjoining property with no intervening vegetation. It is considered that the landscape strip between Pit 2 and the dwelling to the west would need to be planted at the same time as the establishment of Pit 1 to provide adequate time to become established. It is not considered reasonable to establish the landscaping prior to the commencement of Pit 2.

To mitigate and manage the identified visual impacts by the development, the following consent conditions are proposed:

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| <p>9. The proposed 20 metre wide vegetation buffers for Stage 1 of Pit 1 and the entire buffer strip for Pit 2 shall be implemented prior to any materials being removed from the site.</p> |
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Reason: To ensure the site is stabilised and screened prior to extraction commencing on-site.
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| <p>11. Removal of any trees should only occur between February to July to avoid the breeding season of bats, birds or arboreal fauna. Fauna habitat attributes such as fallen timber, logs and rocks/boulders are to be relocated adjacent to the sites to provide potential habitat for fauna species.</p> |
|---|

Reason: To mitigate the impact on fauna habitat during the construction and operation of the

development.

13. Old sand extraction area adjoining Pit 3 will be shaped to final landform and topsoil placed, fenced to exclude stock and plant and primary rehabilitation planting placed and under management within 5 years of commencement of Proposed Pit 3.

Reason: To mitigate the impact on fauna during the construction and operation of the development.

14. Tree and vegetation removal shall only be undertaken one month before a new stage is to commence or in consultation with Bega Valley Shire Council. All hollow bearing trees are to be suitably marked prior to their removal. Upon removal, all hollows are to be inspected by a suitably qualified fauna officer with any animals being rescued.

Reason: To mitigate the impact on fauna during the construction and operation of the development.

4.9 Aboriginal/Non-Indigenous Heritage

Aboriginal Heritage

An Aboriginal Cultural Heritage Assessment Report for the development was undertaken by NSW Archaeology and was included as Appendix 10 of the EIS.

The assessment was prepared in compliance with the Due Diligence Code of practice for the protection of Aboriginal Objects in NSW, Code of Practice for archaeological Investigations of Aboriginal Objects in NSW and Aboriginal Cultural Heritage Consultation Requirements for Proponents.

The assessment, including the review of AHIMS records, consultation with the Aboriginal community and site survey, “did not identify any Aboriginal heritage areas, objects or places relevant to the areas proposed for development in the EIS and the immediate surrounds.” (pg. 127 of EIS).

The archaeologist concluded (p2 Appendix 10)...”No further cultural and archaeological heritage investigations are required in respect of the proposed activity and assessment process. Given the absence of identified Aboriginal areas, objects and culturally significant places, no Aboriginal Heritage Impact Permits are required”.

Proposed Mitigation Measures

Although no sites were identified the following mitigation measures were identified in the EIS;

- Plant operators and their supervisors will be trained in cultural awareness with an emphasis on identification of possible heritage and the procedures to follow when encountered.

The EPA reviewed the development application and made several comments on the final Aboriginal Cultural Heritage Assessment Report. EPA stated, “Based on a consideration of the... assessment...the recommendations in the final ACHAR are appropriate given the survey coverage, previous disturbance levels and consideration of the potential for burials to occur in sand bodies on the south coast.”

EPA further commented, “There are a large number of other ancillary activities occurring on the site in relation to the project described in the EIS and associated appendices such as; the establishment or upgrade of haul roads, temporary stockpiles..... As such the AHMP should

also include a strategy to monitor all ground disturbing works in all sand deposits across the site, where, relevant, not just within the proposed areas for sand extraction activities.

EPA provided several conditions that Council should consider for the protection of aboriginal heritage values.

It is considered that the assessment undertaken by the applicant, the proposed mitigation measures detailed in the EIS and the proposed mitigation measures detailed in the EPA letter, would mitigate any impacts on any Aboriginal Cultural Heritage that may exist on-site.

The following consent conditions should be imposed on any consent issued:

16. An Aboriginal Heritage Management Plan (AHMP) must be developed by a qualified archaeologist, in conjunction with Aboriginal stakeholders and the NSW Office of Environment and Heritage as required, and approved by Bega Valley Shire Council prior to commencement of any development activities on the site.

The AHMP must include, but not be limited to:

- a. Detail of the process to be followed for monitoring and assessing topsoil removal prior to the establishment of each stage of pit construction;
- b. Consideration of monitoring and assessment for all ground disturbing activities related to any ancillary work such as; the establishment or upgrade of haul roads, temporary stockpile placement, site facilities, noise barriers, any proposed erosion and sedimentation controls, and any future landscaping/rehabilitation activities;
- c. Detail on the procedures to be followed if Aboriginal objects are found at any stage during the life of the development works and allow for the formulation of appropriate measures to manage any unforeseen impacts to Aboriginal heritage values;
- d. Specifically detailing the procedures to be followed if any Aboriginal skeletal material is uncovered during the development works and allow for the development of appropriate measures to manage this material;
- e. Outlining the process that will be followed for continuing consultation with the Aboriginal stakeholders and the NSW Office of Environment and Heritage, where required; and
- f. Outlining the process for how the AHMP procedures will be managed and adhered to during the operational life of the project.

Reason: To protect Aboriginal heritage.

17. No aboriginal objects may be harmed unless an Aboriginal Heritage Impact Permit (AHIP) has been issued by the NSW Office of Environment and Heritage.

Reason: To protect Aboriginal heritage.

18. If any Aboriginal objects (such as stone artefacts or shell material) are unearthed during the development activity all work must cease immediately and the NSW Office of Environment and Heritage must be contacted for advice before any work re-commences.

Reason: To protect Aboriginal heritage.

19. If any Aboriginal skeletal remains, or potential burials, are unearthed during the development activity all work must cease immediately and the NSW Police and NSW Office of Environment and Heritage must be contacted for advice before any work re-commences.
20. All site workers and contractors must be provided with induction training on the identification of Aboriginal objects, Aboriginal cultural awareness and the AHMP procedures that must be followed during the operational life of the project and in the event of discovery of unknown Aboriginal objects.

Reason: To protect Aboriginal heritage.

21. The Annual EMRP shall include the requirement for auditing compliance of the AHMP procedures during the operational life of the project.

Reason: To protect Aboriginal heritage.

Non-Indigenous Heritage

The EIS undertook a detailed assessment on the known European Heritage Items that are been listed under Schedule 5 of BVLEP 2002. These five listed items are all listed by the National Trust, however, the Seahorse Inn and Boydtown's Church and Grave site are also listed under the Register of the National Estate.

The nearest heritage item likely to be impacted upon by quarry operations are Boydtown's Church and Grave site. During a site inspection for the assessment of this development application, it was identified that the proposed quarry would not impact upon visual setting of these items based on distance and extensive vegetation located around the heritage items.

The EIS provided suitable management and mitigation measures in case items are identified on-site including training for plant operators and supervisors for heritage awareness and if items found, the NSW Heritage Council being notified of any discovery in accordance with Section 146 of the NSW Heritage Act.

Proposed Mitigation Measures

Although no sites were identified the following mitigation measures were identified in the EIS;

- Plant operators and their supervisors will be trained in cultural awareness with an emphasis on identification of possible heritage and the procedures to follow when encountered.

It is considered that the development and the mitigation measures detailed in the EIS would not impact on any known European Heritage Items located in the immediate area and any unknown sites that may exist on-site.

4.10 Agricultural Issues

The EIS states that, "according to the Agricultural Land Classification Map – Lower South Coast Region, the agricultural suitability of the site is considered to be low and as such is classified as Class 3 and/or Class 4 Agricultural Land, which is defined as grazing land or land well suited to pasture improvement (Class 3) and land suitable for grazing, but not for cultivation (Class 4).

A review of the Agricultural Land Classification Map – Far South Coast Region published by the Department of Agriculture in 1986 identifies the site as being Class 5 Agricultural Land being lands not suited to agriculture or suited only to rough grazing. Agricultural production, if any, is very low. As the land is assessed as Class 5 land, it does not fall within the BVLEP 2002 definition of prime crop and pasture land.

During the operation of the quarry, there would be minimal lands removed for the continued grazing of livestock over the site. Upon completion of stages of quarried areas they would be rehabilitated and be available for future rural/agricultural pursuits.

It is considered that if the operation of quarrying activities is undertaken in accordance with the mitigation measures detailed in the EIS and proposed conditions of consent, the agricultural resources located on-site would be maintained.

23. Prior to undertaking any site establishment construction works:

- A registered land surveyor is to be engaged to mark out the boundaries of the approved limits of extraction;
- These boundaries are to be clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify those limits.

Reason: The site is managed in a safe manner.

4.11 Waste Management

The EIS detailed that very little waste will be produced by the development. The development proposes that all organic matter and vegetative debris removed from areas of extraction will be stockpiled and used for rehabilitation purposes.

All other wastes will be managed at the location of the site amenities. Separate receptacles are proposed for general domestic waste as well as recyclables. These wastes will be taken to the Boydtown Depot and collected by a licensed disposal contractor.

It is considered that waste management has been adequately addressed in the EIS. The development if approved, would be a licensed premises with the EPA. The EPA has included within their General Terms of Approval, operating conditions relating to waste.

2. The development shall be undertaken in accordance with the General Terms of Approval (GTAs) issued on 10 February 2012 by the NSW EPA as attached to this consent.

34. All waste materials generated on-site during construction and during operation of the quarry are to be stored in enclosed containers and deposited in an approved landfill at regular periods.

Reason: To ensure adequate waste management practices are in place during the construction phase.

35. No construction or trade waste is to be deposited at a Bega Valley Shire Council operated waste facility without a trade waste agreement with Bega Valley Shire Council.

Reason: To ensure adequate waste management practices are in place to satisfy Council requirements.

4.12 Social and Economic Impact

An Assessment on the available sand resources on the site was undertaken through WorleyParsons and is detailed in Appendices 1 and 7 of the EIS. These assessments are considered to suitably demonstrate the extent of the economic resource on-site and the appropriate methods of extraction including staging.

The EIS has provided an analysis on the social profile of the local community, its structure, community identity, values and issues. The development proposes to add two full time positions to the Boydtown workforce and possibly further equivalent positions in add on services such as plant maintenance and/or rehabilitation work and growth in haulage work for local contractors. However, some long distance sand haulage work may cease due to sand materials being obtained from outside the Shire.

It is considered that the development would provide a very minor social and economic impact when considering employment generation alone. The development would remove approximately 30-40 hectares of agricultural land. However, it has been demonstrated that the land is not prime crop or pasture land and the site would be able to be utilised for the grazing of livestock during and after quarrying activities cease on-site.

The EIS detailed that the principle social considerations that are likely to arise from the development have been determined through consideration of the physical impacts of the proposal and impacts identified at a neighbours meeting during the formulation of the development application and EIS.

Proposed Mitigation Measures

The following mitigation measures were identified in the EIS;

- Prior to commencement of any operations, the Proponent will implement, publicise and list with a telephone company a contact phone number, which will enable the general public to reach a person who can arrange appropriate response action to the enquiry. The Proponent will maintain a register to record details of all enquiries received and action undertaken in response. The Proponent will supply the OEH and Council with a copy of the enquiries register as part of the annual report.
- If desired by neighbours and Council, the Proponent is prepared to commit to the establishment of a Community Consultative Committee.

It is considered that the EIS has suitably assessed the likely social and economic impact the development would have on the surrounding environment. It is not considered that a Community Consultative Committee is required to be formed given the extensive reporting required for the development.

4.13 Cumulative impacts

The EIS stated,

“Generally most adverse impacts of the proposal can either be fully mitigated or offset.”

The assessment of the development did not identify any cumulative impacts associated with its construction and operation that would impact on the surrounding environment. Issues relating to traffic, loss of vegetation and noise, have been readily addressed with suitable mitigation and management measures proposed for the development.

It is considered that the cumulative impacts of the development have been satisfactorily addressed in the EIS.

4.14 Ecological Sustainable Development

The EIS stated,

“...few extractive industries can achieve the status of a true ecologically sustainable development (ESD). In almost all cases the product at a site is finite in volume and is exhausted over time.”

The EIS identified that the key improvement for ESD is through the lessening of haulage impacts on the environment, as reduced haulage of materials currently obtained from outside the Shire would reduce fuel consumption and ultimately greenhouse gases.

It is considered that the development has adequately addressed ESD in the EIS.

Sections 1(d) – Submissions made in accordance with the EP& A Act 1979

5.0 PUBLIC SUBMISSIONS

A chronology of the public notification and referral process undertaken as a part of the DA is provided at **Section 2.2: Chronology of events and public notification and statutory referral process.**

Full copies of all submissions are provided at **Appendix 2.**

An inspection with the nearest affected residents was undertaken. Additional concerns raised at those inspections are included below in the summary list of issues raised during public exhibition and brief response.

<i>Issues raised</i>	Comment
<i>Air Quality</i>	
...to rely upon a weather station which has no relationship to the site location to the coast and the local topography is inconceivable.	Detailed in Section 4.4 & 4.5 of this report, the EPA has conditions relating to dust generation from the development and suitable measures are proposed to maintain dust on-site.
The dust particulates from pit site 1.... has the potential to have devastating consequences on the Caravan Park and on the Princes Highway....	Detailed in Section 4.4 & 4.5 of this report, the EPA has conditions relating to dust generation from the development and suitable measures are proposed to maintain dust on-site.
...increased dust also has an impact on the caravan parks costs for cleaning of units and other facilities.	Detailed in Section 4.4 & 4.5 of this report, the EPA has conditions relating to dust generation from the development and suitable measures are proposed to maintain dust on-site.
Sand pit 2 and 3 places my place at risk... during peak period and under a north easterly and easterly winds, when the winds are at their strongest during the summer months...	Detailed in Section 4.4 & 4.5 of this report, the EPA has conditions relating to dust generation from the development.

Nullica Short Cut Road should be sealed to reduce dust particles and continual damage to the road, with all costs to Boydtown sandmining.	Detailed in Section 4.2 of this report, it is recommended that Nullica Short Cut Road be sealed. This would mitigate dust generation from that road by the additional haulage to be generated by this development.
Noise Impact Assessment	
<i>The noise impact assessment relies upon the construction of a 4 metre high bund wall to ensure compliance. To rely upon such design elements to merely achieve compliance raises serious questions/concerns about the appropriateness of the proposed quarry given its close proximity to sensitive land uses.</i>	Noise limits have been conditioned in the General Terms of Approval by the EPA and include the construction of the bund wall. Proposed revegetation of the wall ensures visual impacts of it are managed. Compliance with noise limits are proposed to be monitored within the Annual EMRP.
<i>...what performance regime will the applicant be required to maintain the noise bund,...</i>	Noise limits have been conditioned in the General Terms of Approval by the EPA. Compliance with noise limits are proposed to be monitored within the Annual EMRP.
<i>...machinery noise has already impacted on me and my family to varying degrees, however, in the interest of good neighbourly interactions I have not made any formal complaints to authorities regarding the current sand mining extraction.</i>	Noise limits have been conditioned in the General Terms of Approval by the EPA. Compliance with noise limits are proposed to be monitored within the Annual EMRP.
<i>Reversing safety beepers are exceptionally loud and the lower muffler or muffled reversing sounders that are now on the market should be mandatory.</i>	The applicant has given an undertaking to install smart beepers.
<i>The 3 to 4 metre bund would be insufficient in reducing noise as most machinery would be higher than the wall and as the pit becomes deeper sound will bounce off the walls creating disastrous effects on locals and holiday makers.</i>	Noise limits have been conditioned in the General Terms of Approval by the EPA. Compliance with noise limits are proposed to be monitored within the Annual EMRP.
<i>...strict time frames of operation of hours should be included and enforced as this operator has breached operation hours in the past and sound buffering be increased and noise inhibitors to machinery be included, but it is my preference that the submission be rejected...</i>	Limits to the hours of operations are detailed in the EIS. These are proposed in the draft consent and General Terms of Approval by the EPA.
<i>Noise travels up the valley from the existing quarry to this property. The worst noise is a loud metallic clanging, presumably from clearing loader buckets by shaking them and a loud booming noise from contact with truck</i>	The applicant has given an undertaking to improve quarry operations to mitigate noise. Noise limits have been conditioned in the General Terms of Approval by the EPA.

bodies.	
Incompatible land use	
<i>Potential loss of revenue due to Pit 1 operations could be in the order of millions of dollars. Tourism is Edens only growth area. Anything that lessens tourist attractiveness harms the local economy</i>	Section 4 of this report reviews all impacts of the development identified in the EIS. The proposed mitigation and management measures would protect adjoining land uses, including tourism.
<i>Like tourism, mining is a legitimate use of land, however, where the development of a quarry results in detrimental impacts on the amenity of other established land use serious consideration needs to be given about the appropriateness of locating 2 fundamentally incompatible land uses directly adjoining each other.</i>	Section 4 has assessed all impacts of the development. The proposed mitigation and management measures are considered appropriate and would not provide any detrimental impacts on the amenity of established land uses in the immediate area.
<i>This quarry would be located opposite Eden and Boydtown's pristine caravan and camping areas located along Princes Highway and would be an eyesore for any of our many tourists who frequent our beautiful unspoilt natural coast.</i>	Section 4 of this report reviews all impacts of the development identified in the EIS. The proposed mitigation and management measures would protect existing caravan and camping areas located along the Princes Highway.
Bega Valley LEP 2002	
<i>A review of the LEPs objectives raises serious questions about the ability of the proposed quarry to comply with the ... relevant objectives...in an area which adjoins the Princes Highway and is located within the regional significant Boydtown area cannot comply with the above objectives and therefore the only proper course is to refuse the application.</i>	An assessment of the BVLEP 2002 objectives and relevant Clauses has been provided in Section 3 of the report.
<i>At the very least Pit site 1 should not be contemplated as it does not maintain the scenic amenity and landscape quality of the area under the Rural General Zone objectives and pit site three creates undesirable environmental and cultural impacts.</i>	Section 4.8 has assessed the visual impact of the development. It is assessed that suitable mitigation and management measures are proposed to maintain the scenic amenity and landscape quality of the area.
<i>Surely this land must be zoned as rural and should be kept this way.</i>	An assessment of BVLEP 2002 objectives and relevant Clauses, has been provided in Section 3 of this report. It is considered that the EIS has suitably demonstrated the impact of the development on the agricultural use of the site.
Draft Bega LEP 2012	
<i>Under the draft Bega Valley Local</i>	The development was assessed in

<i>Environmental Plan 2012, the Pit 1 land will be given a Zone E3 Environment Management Zoning. Pit 1 would not meet Zone E3 Objectives..... Any benefits claimed such as cheaper sand and an extra job for a quarry worker would be outweighed by this disbenefit to the tourism dependent local community.</i>	accordance to the relevant provisions of the draft BVLEP and this is detailed in Section 3 of this Report
Traffic Generation	
<i>...concern of trucks entering and exiting Nullica Shortcut Road and merging with Princes Highway traffic travelling at the designated highway speed of 100km per hour.</i>	An assessment on traffic safety and proposed road and intersection upgrades has been assessed in Section 4.2 of this Report.
<i>With the entrance and exit at the base of the Boydtown hill a lot of traffic on the highway are travelling at speed down this hill and I don't think a fully loaded truck coming down the hill would pull up in time to avoid an accident.</i>	An assessment on traffic safety and proposed road and intersection upgrades has been assessed in Section 4.2 of this Report.
<i>I can't understand why they must use the shortcut road which has children being picked up for school at the intersection with the Princes Highway.</i>	An assessment on traffic safety and proposed road and intersection upgrades has been assessed in Section 4.2 of this Report.
<i>I feel there is an alternative to this route with the existing small bridge crossing the creek in the middle of the two major proposed mine sites this bridge could be upgraded to be able to take trucks and the excavator/loader and the entrance could be made to be up the Eden end of the Mines utilising the track made along the power line which enters the highway about half way between the caravan park and the bridge giving an area that has a very good view of oncoming traffic, it is out of the way of kids and other traffic.</i>	It is considered that the proposed access to and from the site is appropriate and meets both NSW RMS and Council's road design requirements for the proposed traffic this development would generate. This assessment is detailed in Section 4.2 of this Report.
<i>The Nullica Short Cut Road and Reedy Creek Bridge are already being impacted by the current sand mining operations. The bridge has timber falling away and I would ask the question is the bridge rated to carry the weight of fully loaded heavy vehicle and dog? If not either the bridge would need to be upgraded to sustain those weights or limited loads to the capacity of the bridge.</i>	The proposed conditions would require the upgrade of both the Nullica Short Cut Road and the current bridge over Reedy Creek.
<i>...it states that residences should pay 25% of the costs to seal the Nullica Short Cut Road...I dispute this cost and am outraged</i>	An assessment on the upgrading works has been undertaken in Section 3 and 4.2 of this report. Upgrading works are considered to be undertaken at the applicants full cost as well

<i>that this should be suggested.</i>	as the payment of annual Rural Roads Section 94 contributions.
<i>There should also be a reduction of operation hours to prevent children in unnecessary risk of trucks with poor vision of children's unpredictable movements.</i>	Concern with traffic safety for children and school buses is detailed in Section 4.2 of this report. It is recommended that a Traffic Management Plan be provided for the development and include matters associated with bus stops at the intersections of the Princes Highway with Nullica Short Cut Road and Boydtown Park Road.
<i>Any application should include a Traffic Management Plan.</i>	It is recommended that the development requires a Traffic Management Plan.
Flora and fauna	
<i>...with ever decreasing natural areas protected I am perplexed at the necessity to remove any threatened ecological community (TEC) that is in good health.</i>	Section 4.1 of this Report identifies the impact the development would have on flora and fauna over the site. It is considered that the proposed mitigation measures identified in the EIS are appropriate. Additional conditions are recommended to ensure that the habitat trees that are required to be removed are done to minimise any impact to fauna and that during the life of the development, are replaced.
<i>I would ask how these disease carrying insects (mosquitoes) are to be controlled as this does not appear to have been addressed in any of the submissions?</i>	Section 4.1 of this Report identifies the impact the development would have on flora and fauna over the site. No impacts were identified to mosquito generation associated with the final rehabilitation plans detailing freshwater water bodies. Proposed monitoring of the site would identify any likely increases and detail proposed mitigation measures.
<i>There are 13 hollow bearing trees that should be protected....All six species of threatened species found during the survey period all require hollow bearing trees to roost in.</i>	Section 4.1 of this Report identifies the impact the development would have on the removal of the 78 paddock trees which includes the removal of 17 hollow bearing trees. It is considered that the proposed mitigation measures identified in the EIS are appropriate. Additional conditions are recommended to ensure that any hollow bearing trees that are required to be removed is done to minimise impacts to fauna and that during the life of the development, are offset through the landscaping and rehabilitation of the site.
<i>Yellow-bellied glider.... . Large-Footed Myotis... Gang Gang and the Glossy Black Cockatoo ...Powerful Owl have the potential to be impacted from all proposed sandmining</i>	Section 4.1 of this Report identifies the impact the development would have on the fauna. It is considered that the EIS has suitably assessed the likely impacts the

sites..	development would have on all threatened species.
<i>The removal of the dam/wetlands at pit site 3 should not be completed due to the impact on the Large-Footed Myotis.</i>	Section 4.1 of this Report identifies the impact the development would have on the fauna. It is considered that the EIS has suitably assessed the likely impacts the development would have on all threatened species.
Quarry sequences	
<i>... Pit 2 is the main resource and that in a normal sequence, the smaller pit would be kept in reserve...yet the applicant seeks to reverse the normal order and get planning permission for a pit which, in the normal order of events, would not be needed for about two decades.</i>	Section 4.12 has reviewed the appropriateness of the proposed sequencing of the development. It is considered reasonable given the needs to extend infrastructure like roads and minimise impacts on the surrounding environment.
Visual Impact	
<i>The visual impact from pit 1 for myself, the local community and intra and interstate tourists will be high due to its closeness to the Princes Highway and the Caravan Park, directly opposite, on the east of the Highway.</i>	Section 4.8 has assessed the visual impacts the development would have on the surrounding environment. It is considered that the proposed mitigation and management measures are appropriate.
<i>At pit site 2 I will have the full visual impact of the mine site as I am elevated and have limited tree coverage and have always enjoyed the view to the northeast aspect of my house looking across bushland and rolling hills towards the ocean.</i>	Section 4.8 has assessed the visual impacts the development would have on the surrounding environment. Inspections to affected dwellings were carried out and it is considered that intervening vegetation and proposed sequencing of quarry extraction would minimise visual impact on existing and proposed dwellings.
<i>The consultant asserts at section 5.8.5.2 of the EIS that no direct view of Pit 1 could be obtained from house 1 property...Elements of the quarry complex will extend to the eastern boundary of the subject land and there will be oblique filtered views of a portion of the main quarry area. There will also be filtered views from House 3. Extractive Industry invariably means bright coloured worked soils which are highly noticeable between gaps in vegetation. The fourth house site...is elevated and it will have direct views over all of the Pit 1 area.</i>	Section 4.8 has assessed the visual impacts the development would have on the surrounding environment. Inspections to affected dwellings were carried out and it is considered that intervening vegetation and proposed sequencing of quarry extraction would minimise visual impact on existing and proposed dwellings. The applicant reviewed the submission and did ascertain views on different parts of the quarry would be available, however, the areas of quarries would not block any views and be a small component of the existing views currently obtained from existing and proposed dwellings.
<i>Vegetative screens take many years to grow to effective height and density. Any elements</i>	Section 4.8 has detailed the visual impacts the development would have on the

<i>of the Pit 1 quarry complex including mounding, equipment and truck parks, stockpiles and haul roads that would be visible from the Princes Highway would stay that way for many years at best.</i>	surrounding environment. There is already extensive vegetative screening along the Princes Highway. Proposed additional vegetative screening is to further mitigate views into the site.
Site history and compliance	
<i>I am reluctant to believe that Boydtown sandmining will comply with the vegetation, wetland or riparian management plan and has a reputation of non compliance.</i>	The EIS detailed past approvals for quarrying activities over the site. Site inspections identified that the disused quarry off Nullica Short Cut Road has had little to no rehabilitation undertaken. It is considered that any approval should require assessment of all past quarry activities over the site to be reviewed and where required, that materials gained through extraction processes should be utilised on-site to stabilise those disused quarries.
<i>... operator should be held financially liable for any non compliance and funds be held in trust by either the shire or more importantly the office of Environment and Heritage.</i>	The EIS details that an EMRP is to be undertaken for the site. It is considered that the Plan should be undertaken annually to detail compliance of the operation of the quarry. The report would identify the progress of rehabilitation of quarried areas. It is not considered that funds should be retained for the activities. Suitable mechanisms are available to Bega Valley Shire Council to ensure that all rehabilitation measures are carried out in accordance with the recommendations of the EIS.
Acid Sulfate soils management plan	
<i>... a copy of the ASSMEP be prepared by a suitably qualified consultant...</i>	The EIS, namely Appendix 7 – Soil and Groundwater Investigations, provided a detailed assessment on the presence of Acid Sulfate Soils. The assessment was carried out in accordance with “ASSMAC guidelines and the Acid Sulfate Soils Laboratory Methods Guidelines” (pg19. Appendix 7 – Soil and Groundwater Investigations). The assessment and testing that was undertaken identified one site where the net acidity was found to exceed the action criteria provided in the Acid Sulfate Soils manual. The report considered that an ASSMP is not required provided that no works are undertaken that would result in the disturbance of PASS material in the vicinity of this one site through either direct

	excavation or lowering of the water table in the vicinity to that site. It is considered that the assessment undertaken in the EIS does not require an ASSMEP as provided for in Clause 82 of BVLEP 2002. It is recommended that further monitoring be undertaken for each Pit area and be included in the annual EMRP.
End use	
<i>It is proposed that Pit 1 would be rehabilitated and revegetated post extraction but turned into a water feature. This means that a large body of stagnant water would be created to act as an ideal breeding ground for mosquitoes near hundreds of caravan park occupants....The proposed earth bund on the eastern boundary of the pit 1 site would prevent such winds from disturbing the surface level of the water feature as a means of mitigating this problem. No other long term solution after abandonment of the site by the operator is apparent.</i>	The area does retain various waterbodies both salt and freshwater with varying depths. The proposed Annual EMRP would identify rehabilitation of Proposed Pit 1 to ensure that it is constructed and maintained in a healthy freshwater waterbody.

Sections 1(e) – The public interest

The development was advertised and publicly exhibited in accordance with Section 79 and 79A of the EP&A Act. A total of 6 submissions were received during the exhibition period and one late submission was also received. All submissions objected to the proposal except for the late submission which supported the proposal.

Section 5.14 of the EIS identified the social and economic impacts the development may have on the surrounding area. The extraction of sand resource materials would have the ability to remove or reduce the quantity of sand that is currently transported into the Shire which is considered to be in the public interest.

The objections raised in submissions have been reviewed and it is considered that the EIS has demonstrated that impacts can be suitably mitigated and managed to ensure the amenity of adjoining land uses would be maintained.

6.0 CONCLUSION

The development is for the construction and operation of an Extractive Industry - Sand and Topsoil Quarry.

The development proposes to extract approximately 1.1 million tonnes of sand and approximately 105,000m³ of topsoil from 3 pits. Extract up to 40,000 tonnes of sand per year for a total life expectancy of 28 years. It would operate between 7am and 7pm weekdays and 8am and 1pm on Saturdays. Access and haulage to/from the site would be via Nullica Short Cut Road to the Princes Highway and then to surrounding markets with an estimated heavy vehicle (truck and dog) traffic generation of up to a total of 80 peak daily vehicle movements per day.

The development application is designated and an EIS was submitted to identify all potential impacts on both the physical and social environment. It is considered that the EIS has been prepared in accordance with the Director Generals Requirements issued by the NSW Department of Planning and all relevant legislation for the assessment of the development and the identified impacts are assessed within Sections 3 and 4 of this Report.

The development application was processed and advertised in accordance with the provisions of the EP&A Act 1979 and the EP&A Regulations 2000. A total of 6 submissions were received during the exhibition period who objected to the development. The reasons for objections are included in this report and detailed in Section 5 of this report.

Based on the above Section 79C assessment of the development application, it is recommended to the Southern Region JRPP that the development application be approved subject to the conditions listed in **Appendix 3**.

