

23 May 2019

Department of Planning & Environment  
GPO Box 39  
SYDNEY NSW 2001

Attention: Director – Resource Assessments

Dear Sir

Kiama Municipal Council considered a report in relation to the proposed Dunmore Lakes Sand Extraction Project Modification 2 at its meeting held on 21 May 2019 and formally resolved its strong opposition to the application.

Council requests that the application be refused based on the following matters of environmental concern:

### **1. Planning Pathway**

Council understands that the test for whether the proposal is able to be assessed and determined under of the old section 75W of the Environmental Planning and assessment Act is quite open. While some elements of the proposal are consistent with the previous approval (e.g. mining methods, operational hours, annual production limits) the impacts of extending into Areas 5A and 5B are not comparable with the previous approval and are far more significant.

The areas proposed in Modification 2 are physically separated from those considered in the original approval and have a far greater likelihood of causing environmental impact. Areas 5A and 5B are both located in very close proximity to the Minnamurra River, and unlike the existing extraction areas, have the potential to impact on ecologically important ecosystems such as Coastal Wetlands and Bangalay Sand Forest, in addition to impacts on tourism and the scenic amenity that is of very high value to the Kiama community.

Stage 5 was never identified as a future stage in the original approvals. Therefore the implications of the current proposal were not considered in that assessment process and conditions of consent are not tailored to mitigate the impacts from Stage 5.

The original consent required separate applications to be submitted for subsequent stages 2 to 4 of the identified Dunmore sand resource area (which does not include the Stage 5A or 5B areas). The assessment of this current proposal as a modification of the original consent is therefore inconsistent with the previous approvals processes.

Council is of the view that the current assessment process should be terminated and that the proposal should be required to submit a new proposal for the assessment of Areas 5A and 5B. This would enable the proposal to be assessed against contemporary environmental policy settings including the Coastal Management Act 2016.

Our assessment of the proposal is that it appears to be inconsistent with the Objectives in Part 2 Section 6 of the Coastal Management Act 2016 (and the former SEPP 71) which are:

- (a) to protect coastal wetlands and littoral rainforests in their natural state, including their biological diversity and ecosystem integrity,*
- (b) to promote the rehabilitation and restoration of degraded coastal wetlands and littoral rainforests,*
- (c) to improve the resilience of coastal wetlands and littoral rainforests to the impacts of climate change, including opportunities for migration,*
- (d) to support the social and cultural values of coastal wetlands and littoral rainforests,*
- (e) to promote the objectives of State policies and programs for wetlands or littoral rainforest management.*

## **2. Access to Site for Inspection**

Neither council nor the community has been provided access to Area 5B to allow evaluation of the impacts of the proposed Modification.

As part of this (or any new) proposal, the Department should request the proponent arrange a guided site tour with an invitation to Kiama and Shellharbour councillors and staff and interested community group representatives to attend.

## **3. No strategic alignment**

The Illawarra Shoalhaven Regional Plan was developed to provide strategic policy, planning and decision making framework to guide the region to sustainable growth over the next 20 years. While it is specifically designed to guide plan making processes, it is considered relevant to have regard to its strategic context for the purpose of the development assessment process.

Whilst there is recognition within the Regional Plan of the need to consider expansion of extractive industries into adjacent areas, the importance of areas of high biodiversity value are also mapped and addressed within the plan. Shellharbour's LEP has areas of the proposed 5B extraction area mapped as E3 Environmental Management, and the Regional Plan has parts of this area mapped as High Environmental Value. These areas are not mapped as a Mineral Resource area in the Illawarra Shoalhaven's Resources map within the plan. So currently there is no conflict over mapped resources in the environmental mapped areas, however the proposal to open resource extraction in the environmental zonings appears to conflict with the intent and zoning of the environmental classifications.

#### **4. Groundwater Hydrology and Acid Sulfate Soils**

The potential change in the groundwater hydrology and its impact upon the groundwater movement in the vicinity of the Minnamurra Waste and Recycling Depot is likely to have an effect on the water quality in Rocklow Creek and Minnamurra River Estuary. This is an issue that needs further investigation.

If this issue is not investigated and managed properly, there may be the potential that the leachate contaminated groundwater under the landfill could move towards the dredging site or the adjoining Minnamurra River estuary ecosystem in an unexpected way, either accelerating movement or changing the movement of the leachate contaminated groundwater. Council has undertaken a number of rehabilitation works for the former landfill site at Minnamurra, and is currently implementing a leachate remediation program at the site. The potential effect of the proposed 5A extraction area on the local groundwater has not been sufficiently investigated or interpreted, to satisfy Council that there will not be any adverse impact to the local wetlands and waterways.

The porosity and permeability of the imported soil that will be used to backfill the proposed dredge pond in the Stage 5A has the potential to result in significant changes to the hydrology of the catchment area and impacts associated with increased acid sulfate soils generation.

The Environmental Assessment report does not contain details or requirements relating to the porosity and permeability by standards to be achieved by the imported soil to be used to backfill the proposed dredged pond at Stage 5A this will need to be adequately dealt with in the assessment and conditioning of the proposal should it be approved.

To prevent any significant changes in the groundwater hydrology in the catchment area including in the vicinity of the Minnamurra Waste and Recycling Facility, it is important that the soil used for backfilling be of a similar porosity and permeability currently located on the Stage 5A site. The backfill soil to be used must also be tested and certified that it meets this requirement.

In Stage 5A one of the major risks associated with acid sulfate soils is likely to be as a result of the oxidation of natural in-situ or imported reduced sulphides within any imported Virgin Excavated Natural Material (VENM) used for site rehabilitation works.

Stage 5B has identified extraction of sand to a depth of 27m. Given the close proximity to the Minnamurra River, Coastal Wetlands and other Endangered Ecological Communities the environmental assessment is not sufficiently comprehensive to determine the potential effects of the excavated dredge pond on local hydrology, particularly the interaction between groundwater, the dredge pond and the vegetation communities. This is particularly relevant given the potential impacts of sea level rise and areas for these vegetation communities to migrate. In many areas of the lower Minnamurra River catchment there are barriers to estuarine and other vegetation communities for migration as sea levels rise, however this site provides areas for this

migration to occur with no current barriers to their migration. This has not been adequately addressed by the environmental assessment.

## **5. Flooding Impacts**

The Environment Assessment indicates that the Stage 5A extraction area lies within flood prone land associated with the Rocklow Creek catchment, while the Stage 5B extraction area lies within the floodplain of Minnamurra River.

The proposed modification would result in ground disturbance which has the potential to expose ground surfaces to erosion and result in sedimentation of local watercourses and ultimately Rocklow Creek and Minnamurra River, and associated coastal wetland.

Area 5B is very low-lying and council is concerned that the extraction will impact on natural groundwater and surface water (flood) flows with resultant impacts on the adjoining coastal wetland ecosystems.

## **6. Road Maintenance Riverside Drive**

Dunmore Sand & Soil proposes to import up to 325,000 tonnes per annum of virgin excavated natural material (VENM) by road to the Stage 5 extraction area.

From the information provided the proposed haulage route to and from the site is via the Princes Highway and then using the entry and exist onto and off Riverside Drive. The vehicles will enter and exit the site via Fig Hill Lane which is located opposite to the Minnamurra Waste and Recycling depot.

There are safety concerns associated with the proposed road access to the site which will need to be upgraded. A concept road entrance plan has been prepared however, Kiama Municipal Council has not had input into in the proposed road entry and exit access road upgrade.

This section of Riverside Drive is under the care and control of both the Kiama and Shellharbour Councils and they share the road maintenance costs. The large number of vehicles entering and leaving this site will result in the deterioration of the road pavement of Riverside Drive over a period of time.

As yet a road pavement dilapidation report has not been undertaken. Such a report should be completed prior to commencement of any site works and again after the Stage 5A rehabilitation works are completed.

If the proposal proceeds, all road maintenance costs of this section of Riverside Road should be funded by Dunmore Sand and Soil Pty Ltd including a complete road reseal if required.

In addition to road maintenance and intersection safety concerns, the implications of the additional heavy traffic on the primary northern access road to the suburbs of



Minnamurra, Kiama Downs and Gainsborough and has not been adequately addressed.

## **7. Environmental Operational Impacts**

The proposed modification will have a number of environmental operational impacts from the new sites where sand extraction and site rehabilitation works occur. These impacts include noise, dust and surface water runoff which have the potential to impact on the environment and affect the amenity of nearby residents. It is noted that Minnamurra Village is located within 500 metres of Area 5A.

## **8. Aboriginal cultural heritage**

Forty-five test pits were excavated in the modification site to characterise the subsurface archaeology and test predictions and the survey results. Three Aboriginal sites were identified within the modification site, in which a total of 1,292 artefacts were discovered.

Most of the artefacts were flakes or broken flakes, with some stone tools also discovered. All the Aboriginal sites in the modification site will be lost due to creation of the dredge ponds and associated sand extraction.

## **9. Biodiversity Impacts on Flora and Fauna**

There are potential biodiversity impacts resulting from the clearing occurring as part of Stage 5 Modification 2 with Stage 5B creating the most impact. Area 5B is surrounded on three sides by the Minnamurra River and coastal wetland containing mangrove forests and salt marsh and 56% of is made up of Bangalay Sand Forest vegetation that is classified to be in either moderate or good condition.

Also, the ongoing operation of the sand extraction process could have further potential biodiversity impacts unless properly managed. The potential impact on Flora and Fauna is likely to be significant and has not been evaluated sufficiently. As identified in the NSW Scientific Committee – final determination, in relation to the Bangalay Sand Forest of the Sydney Basin and South East corner bioregion vegetation community, 'North of Gerroa, only small fragments of the community persist, for example on Minnamurra Spit (Mills 2000), around Primbee and Windang (NPWS 2002).

Given the regional significance of the Bangalay Sand Forest EEC in the Illawarra area, and the ongoing pressures associated with fragmentation and deterioration of condition, far greater weight should be placed on the value of this vegetation community and its retainment, rehabilitation and restoration. Destruction of vegetation communities which will provide ecosystem services long beyond the estimated 5-7 years of proposed resource extraction should be carefully weighed up in determining this modification application. Areas where moderate and good conditions Bangalay Sand Forest EEC are located should be excluded from the extraction area if the modification is approved.

Details contained in the Environment Assessment indicated that the following direct impacts would result from the proposed modification:

- clearing of native vegetation and associated habitat, conservatively estimated to be 7.5 ha, including 4.53 ha of Bangalay - Old-man Banksia open forest on coastal sands, Sydney Basin Bioregion and South East Corner Bioregion TEC;
- clearing of approximately 4.04 ha of exotic grassland vegetation;
- clearing of associated species credit fauna habitat, including hollow bearing trees and logs;
- a total of 12 Bangalay trees containing hollows will require removal for the proposed modification.
- Potential impacts on fauna such as the Barking Owl and the Masked Owl and the Southern Myotis a species of bat.

The existing Dunmore Sand and Soil Quarry Flora and Fauna Management Plan (Arcadis, 2017) (FFMP) does not include management of the proposed Stage 5 extraction areas to minimise potential adverse impacts on biodiversity whilst the sand mining operations are occurring. While it is proposed to update this plan, concern about the following are raised:

- Vegetation outside the modification site require protection
- Hollows that host threatened species are at risk of being cleared – this is a particular concern during breeding season. Installation of nest boxes south of the Stage 5B site cannot fully compensate for the loss of hollows that will be removed.
- Weed infestation of the site and surrounding properties are likely to occur if not appropriately managed.
- Vehicles have the potential to impact on vegetation
- Erosion and sedimentation will occur if regular maintenance of erosion and sediment controls are not adequate during construction and until exposed surfaces areas are stabilised.
- There is strong anecdotal evidence that the White-bellied Sea Eagle observed to frequent the area adjacent to the site, does nest in the vegetation directly adjacent to the proposed 5B extraction area. This has not been identified through the current assessment, nor adequately dealt with in terms of the potential impact of the operation on the nesting site.

## **10. Visual Impacts**

Although an earth flood mound is to be constructed as part Stage 5A which will provide some screening along Riverside Drive Dunmore, machinery including the dredge will still be visible to users of this road. Unless screen planting is provided, this will create a negative visual impact as viewed by visitors and users of this northern access road leading into the Kiama Municipality.

## **11. Monitoring of operational compliance Community Consultative Committee**

As a condition of initial development consent the Boral owned Dunmore Sand Mining Project must operate a Community Consultative Committee (CCC). The CCC must be operated in general accordance with the Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects (Dept. of Planning 2007).

In accordance with these guidelines, the committee should be comprised of an independent chair and appropriate representation from the applicant, Council and the local community.

To date stages 1 to 4 of the sand mining operation have been overseen by the CCC currently consisting of representatives from Boral, the local community and members of Shellharbour City Council's planning division. Kiama Council has not been a part of that Committee for many years which is not acceptable.

### **Potential Conditions of Consent**

Kiama Council has significant concerns about the Dunmore Lakes Sand Extraction Project Modification 2 and requests that the application be refused. However, should the Minister be of the view to approve the application, Council requests that the following be included as conditions of consent.

#### In relation to Groundwater and Surface Hydrology Assessment testing:

- 1) Prior to an operational approval being granted by NSW Department of Planning, Industry and Environment for the proposed Stage 5A sand extraction site an additional comprehensive hydrological assessment is to be undertaken to assess any potential changes in the groundwater hydrology and its likely impact upon the groundwater movement in the vicinity of the Minnamurra Waste and Recycling Depot and towards the Stage 5A sand extraction site. The report is to identify all issues of concern including liability considerations if the groundwater hydrology does change in the future and any recommended environment control works and ongoing groundwater hydrology and water quality testing required.
- 2) Kiama Municipality Council and the NSW EPA is to be consulted prior to conducting and upon completion of the outcomes and any recommendations contained in the additional comprehensive hydrological assessment report
- 3) Any ground water and surface water hydrological and water quality testing is to be undertaken to coincide with the dates and times of quarterly groundwater and surface testing as required to be undertaken by Kiama Municipal Council by the NSW EPA as part of the Minnamurra Landfill Depot Closure Plan
- 4) Kiama Municipal Council is to be provided with copies of all groundwater and surface water testing results on a quality basis and in any annual environmental monitoring reports.

#### In relation to the Site Rehabilitation Management Plan Stage 5A:

- 5) Kiama Municipal Council is to be consulted in the preparation of the Draft Stage 5 sand extraction Site Rehabilitation Plan and be notified of the final plan to be adopted for implementation.

- 6) The following matters be included as actions to be contained in the Stage 5 sand extraction Site Rehabilitation Plan to prevent any changes to the current ground water hydrology and acid sulphate soils:
  - i) The Virgin Excavated Natural Material (VENM) to be used for the backfilling of the dredged lagoon located on the Stage 5A sand extraction site shall have the same porosity and permeability characteristics (to be nominated) of the soil that was on the subject site prior to sand extraction taking place.
  - ii) Prior to any soil being delivered and used for site rehabilitation purposes soil analysis testing and certification be provided that the soil complies nominated porosity and permeability characteristics and does not contain potential acid sulphate soils
  - iii) Copies of all sampling and analysis results and compliance reports are to be submitted to Kiama Municipal Council

In relation to Road Maintenance Riverside Drive Dunmore and proposed Stage 5A new access entry:

- 7) Kiama Municipal Council is to be consulted in the preparation of the final design plan for the new access entry and exit road for the Stage 5A site located off Riverside Drive Dunmore/Minnamurra
- 8) A road payment dilapidation report is to be prepared before site works commence and after the completion of the rehabilitation plan works. This report is cover the road payment from the Princes Highway onto Riverside Drive Dunmore/Minnamurra and to the entrance and exit of the Stage 5A sand extraction site
- 9) A negotiated royalty payment per tonne of Virgin Excavated Natural Material (VENM) delivered to Stage 5A sand extraction site for the purposes of construction, operational and rehabilitation purposes shall be paid to the councils of Kiama and Shellharbour to cover ongoing road repairs and maintenance costs of the vehicle transport route along Riverside Drive Dunmore/ Minnamurra to and from the subject site

In relation to Environmental Operational Impacts:

- 10) The Operational Environment Management Plan for Stage 5 dust monitoring and additional controls during the operation of the sand mining activities and especially when the back filling of the sand lagoon occurs as part of Stage 5A rehabilitation works.

In relation to Biodiversity Offset Strategy:

In this proposal no existing or new Biodiversity Stewardship sites have been identified, either in the Minnamurra River Catchment area or in similar environment located in a different location.

- 11) Further investigations be undertaken and consultation with both the Councils of Kiama and Shellharbour with the aim of establishing a new Biodiversity Stewardship Site located in the Minnamurra River Catchment area to a restore degraded areas and improve and maintain the local biodiversity. The site could be a privately or publicly owned.



- 12) Due the proposed sand extraction located in Stage 5A and 5B will be occurring in the catchment area of the Minnamurra River Estuary and if the modification of development consent is approved, then NSW State Government be requested as a royalty payment to provide annual funding for the implementation of projects as identified in the Minnamurra River Coastal Zone Management Plan.

In relation to Visual Impacts:

- 13) As part of the design of the earth flood mound and new vehicle entrance access to be constructed as part of Stage 5A sand extraction site, landscape screen planting should be installed to reduce the visual impact of the sandmining operations to users of the Riverside Drive Dunmore
- 14) The councils of Kiama and Shellharbour shall be consulted in the preparation and development of the earth flood mound and new vehicle entrance access landscape plan

In relation to the Community Consultative Committee

- 15) The existing membership of the Community Consultative Committee for the Dunmore Sand Mining Project be expanded to include an elected member and staff officer from the Kiama Municipal Council.

Council resolved that copy of the council resolution be included in its Submission to the NSW Department of Planning and Industry. (Refer to Submission Attachment 1).

I thank you for the opportunity to make a submission to the Dunmore Lakes Sand Extraction Project Modification 2. Should you wish to discuss any matter raised in this submission, I have arranged for Mr Paul Czulowski to be of assistance.

Kind regards,



Linda Davis  
**Director Environmental Services**

## Submission Attachment 1

### Kiama Municipal Council

#### **11.7 Boral Limited Dunmore Lakes Sand Extraction Project Modification 2 19/1730C**

**Committee recommendation** that Council:

1. Advise the Department of Planning of our strong opposition to Modification 2 for the reasons set out in the attached submission, and because:
  - (a) The areas proposed in Modification 2 are physically separated from those considered in the original approval and have a far greater likelihood of causing environmental impact.
  - (b) Areas 5A and 5B are both located in very close proximity to the Minnamurra River, and unlike the existing extraction areas, has the potential to impact on ecologically important ecosystems such as Coastal Wetlands and Bangalay Sand Forest, in addition to impacts on tourism and the scenic amenity that is of very high value to the Kiama Community.
  - (c) Area 5A is located opposite Kiama Municipal Council's Waste and Recycling Depot and sand extraction in that location will potentially impact upon groundwater hydrology, mobilising contaminated groundwater with resultant impacts on the adjacent Minnamurra River. This potential risk has not been sufficiently evaluated.
  - (d) The proposal appears to be inconsistent with the Objectives in Part 2 Section 6 of the Coastal Management Act 2016 (and the former SEPP 71) which are as follows:
    - (i) to protect coastal wetlands and littoral rainforests in their natural state, including their biological diversity and ecosystem integrity,
    - (ii) to promote the rehabilitation and restoration of degraded coastal wetlands and littoral rainforests,
    - (iii) to improve the resilience of coastal wetlands and littoral rainforests to the impacts of climate change, including opportunities for migration,
    - (iv) to support the social and cultural values of coastal wetlands and littoral rainforests,
    - (v) to promote the objectives of State policies and programs for wetlands or littoral rainforest management.
  - (e) The potential impact on Flora and Fauna is likely to be significant and has not been evaluated sufficiently. Area 5B is surrounded on three sides by the Minnamurra River and coastal wetland containing mangrove forests and salt marsh.

- (f) Area 5B is very low-lying and council is concerned that the extraction will impact on natural groundwater and surface water (flood) flows with resultant impacts on the adjoining coastal wetland ecosystems.
  - (g) According to the supporting documentation, 56% of Area 5B is made up of Bangalay Sand Forest vegetation that is classified to be in either moderate or good condition and it is proposed to remove completely 4.53 hectares of this ecologically endangered forest.
  - (h) Council is concerned about noise and dust pollution to the residents of The Village (part of Minnamurra, off Riverside Drive), located within 500 metres of Area 5A.
  - (i) Council is concerned that increased heavy vehicle traffic on Riverside Drive to service area 5A (including proposed backfill at that site) will add a significant traffic risk on the primary northern access road to the suburbs of Minnamurra, Kiama Downs and Gainsborough and has not been adequately addressed.
  - (j) Neither council nor the community has been provided access to Area 5B to allow evaluation of the impacts of the proposed Modification.
2. Request the Department of Planning terminate the current assessment process and consider this a new proposal, as Areas 5A and 5B are distant from the current approved extraction areas and will have a range of different impacts.
  3. Request the Department of Planning, either as part of this (or any new) proposal, offer a guided site tour in conjunction with the proponents to Kiama and Shellharbour councillors and staff and interested community group representatives.
  4. Amend the Submission to the NSW Department of Planning and Industry to add the points raised above and include a copy of the council resolution.
  5. Forward a copy of this resolution to Shellharbour Council (and councillors) for their information as soon as practicable.

(Councillors Way and Rice)