

JOINT REGIONAL PLANNING PANEL (Southern Region)

THIRD SUPPLEMENTARY MEMO

JRPP No	2015STH002
DA Number	18/2015
Local Government Area	Shellharbour
Proposed Development	Extension of Dunmore Sand Extraction, Emplacement of Potential Acid Sulfate Soils & Rehabilitation
Location	Lot 21 DP 653009, 44 Buckleys Road Dunmore
Date	11 August 2016
Report by	Anthony Randall – Team Leader Planning Geoff Hoynes – Acting Director City Outcomes

Application 2015STH002 was reported to the Joint Regional Planning Panel on 17 March 2016. The matter was deferred for the applicant to provide additional information. The additional information and the related Supplementary Memo providing an assessment of the information was subsequently submitted to the Southern Joint Regional Planning Panel (JRPP).

On the 27th of July 2016 the JRPP Secretariat requested that a second supplementary memo be provided from the Council that addressed the assessment of the social and economic impacts of the proposal, which was provided on that day.

On the 1st of August 2016 the JRPP Secretariat requested that a third supplementary memo be provided from the Council that addressed the:

1. The Biodiversity Offset Package and adequacy of the associated condition;
2. The hours of the current operation;
3. Clarification regarding information submission dates and several conditions of consent.

In this regard the following information is provided:

1. The Biodiversity Offset Package and adequacy of the associated condition/s:

Section 79C (1)(b) - the likely impacts of the development, including environmental impacts on both the natural and built environments, and social and economic impacts on the locality;

Biodiversity

The vegetation of the proposed development site has been characterised as highly modified and disturbed.

The biodiversity assessment completed for the proposal identified a number of vegetation types, including two endangered ecological communities comprising:

- Swamp Oak Floodplain Forest (SOFF) in the NSW North Coast, Sydney Basin and South East Corner Bioregions, listed as Endangered under the TSC Act; and
- Coastal Saltmarsh in the New South Wales North Coast, Sydney Basin and South East Corner Bioregions (Coastal Saltmarsh), listed as Endangered under the TSC Act. This community is also listed as Subtropical and Temperate Coastal Saltmarsh, a Vulnerable Ecological Community under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The fauna habitat of the development area includes disturbed woodland and grassland, aquatic habitat within drainage lines and swamp habitat to the south.

It is proposed to clear a total of approximately 2.65 hectares of vegetation including disturbed grassland (1.33 hectares), regrowth Swamp Oak Floodplain Forest (0.76 hectares) and revegetation - swamp oaks (0.56 hectares). The removal of this vegetation will also impact on fauna habitat, though no threatened fauna listed under the EPBC Act or TSC Act were recorded in the study area.

The biodiversity impacts associated with the proposal have been investigated and adequately assessed against relevant legislation and industry guidelines. The 7-Part Test of Significance undertaken pursuant to Section 5A of the Environmental Planning and Assessment Act found that the proposal does not give rise to any significant adverse impacts on threatened species, or their habitats, or any endangered ecological communities. For this reason a Species Impact Statement (SIS) has not been required to be prepared, which is the usual process by which biodiversity offset strategies are investigated in mitigating significant impacts on threatened species.

In any case, the proponent has voluntarily elected to compensate for the removal of Swamp Oak Floodplain Forest, an endangered ecological community under the TSC Act and potential threatened species habitat, through provision of a biodiversity offset strategy.

This approach has been encouraged by the Office of Environment and Heritage's (OEH) in correspondence sent to Council (see Attachment 1), therein requesting that an offset strategy *should* be prepared rather than mandating that an offset package *must* be done as would be required if the impacts were deemed significant. If that were that case, resolution of the biodiversity offset strategy would become determinative, rather than being a matter able to be voluntarily included by the proponent, and thereby recommended as being able to be resolved as a condition of consent.

The offset strategy has been prepared by an accredited biobanking assessor using the Office of Environment and Heritage's (OEH) Biobanking Assessment Methodology and associated Biobanking Calculator.

The Biodiversity Offset Strategy outlines three offset options to compensate for the loss of biodiversity associated with the proposal as outlined below:

- Offset Measure 1 - Secure additional native vegetation on lands adjacent to the impact area, to be protected through establishment of an offset site under a Biobanking Agreement.
- Offset Measure 2 - Establishment of an offset site under another suitable mechanism that ensures the land is managed for conservation in perpetuity.
- Offset Measure 3 - Use of supplementary measures in lieu of offsets.

The proposed recommendations to compensate for the clearing of native vegetation detailed in the strategy have been assessed and are supported by OEH.

Offset Measure 1 is identified by the proponent as the preferred priority to achieve the objectives of the Biodiversity Offset Strategy, Offset Measures 2 and 3 would only be considered after further consultation with relevant stakeholders.

The proposed biodiversity offset site (i.e. Offset Measure 1), as described in the offset strategy is comprised of an approximately seven hectare area of land in the south-west of the site, located immediately adjacent to the areas to be impacted by the proposal (refer Attachment 5 in the First Supplementary Memo).

It is proposed to establish a biobank site on the proposed offset site, to be managed in perpetuity under a Biobanking Agreement. The proponent will be required to undertake the necessary additional environmental assessment work and consultation to prepare a Biodiversity Offset Management Plan for the preferred offset option prior to works commencing. This work will be required to be undertaken by an accredited BioBanking assessor, in accordance with OEH's Biobanking Assessment Methodology and in consultation with OEH and the property owner.

Considering the biodiversity offset package is not required to mitigate any significant impact on threatened species or communities, it is not mandatory that it be provided at law as would be the case had a significant impact on threatened species been determined and a Species Impact Statement prepared to address the impacts. Therefore the condition of consent has been framed and drafted to include a level of flexibility with respect to the options the proponent may wish to pursue to deliver the offset package, and is required to be implemented when the site preparation and establishment works for the sand extraction proposal commence. In these circumstances it is considered reasonable to include a range of options in the condition.

The following further amended condition of consent has been recommended to manage the proposed voluntary biodiversity offset package:

4 Biodiversity

Prior to any works commencing, a biodiversity offset package must be developed in consultation with the Office of Environment and Heritage and the land owner and be submitted and approved by Council. The biodiversity offset package shall detail how the ecological values lost as a result of the development will be offset and must include:

- i. Identification of the biodiversity offset site; and*
- ii. Details of a Biobanking Agreement or another suitable mechanism for long-term protection of the biodiversity offset site, such as a Property Vegetation Plan or a Voluntary Conservation Agreement; and*
- iii. Management and monitoring requirements for the biodiversity offset site.*

The adopted biodiversity offset measure must be implemented when the site preparation and establishment works for the sand extraction proposal commence.

2. The hours of the current operation:

Activities associated with sand extraction would be undertaken during the normal operating hours for the Council's Dunmore Recycling and Waste Disposal Depot (DRWDD), being:

- 7.30am - 4.00pm, weekdays
- 8.00am - 4.00pm, weekends and Public Holidays
- Closed Christmas Day and Good Friday

3. Clarification regarding information submission dates and several conditions of consent.

The table submitted with the First Supplementary Memo was compiled in error with respect to:

- The reference to Condition No. 1 recommending a change to the condition to include the additional information submitted 16.06 and 01.07.2016, was an error and should have been 3.6.06 and 01.07.2016 which have been correctly included in the recommended schedule of conditions.
- The recommended conditions relating to the noise mitigation measures which were identified as three conditions numbered 16-18, when in fact only two conditions were included that were described as condition 16 and 17 (renumbered 15 and 16 in Attachment 2). The condition No. 17 (renumbered condition 16 in Attachment 2) requires that the noise wall be constructed prior to the issue of an Occupation Certificate. The condition has been reworded to make that arrangement clear.

- The recommended Condition 2 in relation to the DPI – Fisheries General Terms of Approval has been deleted because it is covered by Condition 20 (renumbered condition 19 in Attachment 2).

Attachment 1 – OEH Correspondence



**Office of
Environment
& Heritage**

Date: 31 July 2015
 Your reference: DA 18/2015
 Our reference: DOC15/271085-2
 Contact: Calvin Houlison
 4224 4179

Victoria Nicholson
 Senior Development Assessment Officer
 Shellharbour City Council
 Locked Bag 155
 SHELLHARBOUR NSW 2529
 E-mail: victoria.nicholson@shellharbour.nsw.gov.au

Dear Ms Nicholson

RE: Dunmore Sand Extraction – Biodiversity Offset Strategy (DA18/2015)

Thank you for the opportunity to provide comment on the Biodiversity Offset Strategy (Hyder, July 2015), submitted in support of DA18/2015 as recommended in our comments dated 10 April 2015. We have reviewed the strategy and generally support the findings. Based on our preliminary review, it appears likely that the calculations will require fine tuning prior to an application for a Biobanking Agreement being submitted. We recommend discussion with our office as early as possible to ensure a smooth process moving forward with the biobanking options.

Our preferred option for offset arrangements for the proposed development is Option 1, comprising an offset site adjacent to the impact area as per the recommendations of the strategy, or alternatively in another site containing the same vegetation community being removed as part of the current proposal. However, it is important to note that Clause 11(1)(d)-(e) of the Threatened Species Conservation (Biodiversity Banking) Regulations 2008 relates to offset measures being secured by any formal mechanism prior to the issue of a Biobanking Agreement. This clause states as follows:

(1) 'Land is not to be designated as a biobank site by a biobanking agreement if:

...

- (d) the Minister is of the opinion that the land is already the subject of a requirement to carry out biodiversity conservation measures of an ongoing nature on the land under a condition of an approval or consent granted under Part 3A, 4 or 5 of the Environmental Planning and Assessment Act 1979 (this extends to any land that is the subject of a conservation agreement entered into under the National Parks and Wildlife Act 1974 for the purpose of compliance with such a condition), or*
- (e) the Minister is of the opinion that biodiversity conservation measures are already being carried out, or are required to be carried out, on the land under an offset arrangement made for the purpose of complying with requirements imposed by or under any Act (including the requirements of any authority granted by a public authority under any Act).'*

Therefore should Council be minded to recommend approval of the application, we recommend that the following condition be applied:

'Impacts associated with the clearing of native vegetation shall be addressed in accordance with one of the recommendations contained within Table 8 of the Biodiversity Offset Strategy Report No. AA005925 (Hyder, 3 July 2015), as prepared by an accredited BioBanking assessor in accordance with the OEH BioBanking Assessment Methodology'.

Please contact me on 4224 4179 or via e-mail calvin.houlison@environment.nsw.gov.au should you wish to discuss further.

Yours sincerely



CALVIN HOULISON
Conservation Planning Officer



Date: 10 April 2015
Your reference: DA18/2015
Our reference: DOC15/101955-6
Contact: Calvin Houlison
4224 4179

Tim Collins
Assessment Officer
Shellharbour City Council
Locked Bag 155
SHELLHARBOUR NSW 2529
E-mail: tim.collins@shellharbour.nsw.gov.au

Dear Mr Collins

RE: Dunmore Sand Quarry Extraction (DA18/2015)

Thank you for providing us the opportunity to provide comments on the Dunmore Sand Quarry Extraction EIS (Hyder, 2015). We have conducted a review of the proposal and provide the following comments:

Biodiversity & Offsetting

The proposal will result in the removal of endangered ecological community (EEC) and threatened species habitat, namely portions of Swamp Oak Floodplain Forest (SOFF) which is listed as an EEC under the NSW Threatened Species Conservation Act (TSC) Act 1995. This is found in both a regrowth and revegetated (planted) form on the site, with the southern portion of SOFF contiguous with a large patch which extends offsite to the south. Marginal habitat for the Green & Golden Bell Frog (GGBF) has also been identified on the site.

In summary, an offsets strategy should be developed to compensate for this loss utilising BioBanking Assessment Methodology (BBAM) (2014) and the associated OEH Biobanking Calculator to determine suitable offsets for the proposal. This should be provided prior to issuing of consent to ensure a suitable offset is available and will be provided to compensate for the removal of vegetation from the site as proposed. Should this not be provided before the project is approved, a condition of consent requiring an offsets strategy to be prepared should be imposed by the consent authority.

The following detailed comments are provided for your consideration:

- The proposal involves clearing of endangered vegetation and sand extraction within RU1 and E3 zoned land. The E3 zone objectives are aimed at protecting areas of ecological value, including EEC's and threatened species habitat. The proposal to sand mine in an E3 zone is therefore inconsistent with the zone objectives and ideally should be removed from the E3 zoned portion of the site which covers only a small component of the proposed extraction area.
- The proposal involves the removal of an area of SOFF EEC. The DGR's require 'a detailed description of the measures to maintain or improve the biodiversity values within the development area' and OEH's supporting comments state that any unavoidable residual impacts should be offset utilising the BBAM calculator. The Ecological Assessment (Hyder, 2014) makes reference to this requirement however no offset calculation has been provided. This offset assessment should be undertaken up front and detailed in an Offset Strategy so that the requirement to provide the offset can be conditioned on any consent, should one be forthcoming.

- However, should the consent authority impose a condition requiring a biodiversity offset strategy to be prepared post consent, we suggest that the strategy be prepared by an accredited BioBanking assessor. The offset strategy should be prepared in accordance with the BBAM and associated Biobanking Calculator in consultation with OEH.
- The proposal also involves the relocation of a drainage line which runs along the eastern boundary of the proposed extraction area. The documentation indicates that this will be extended into the area of SOFF and into an existing drainage line. The plans indicate that the proposed line will extend beyond the existing drainage line, requiring the removal of SOFF to facilitate its construction (see Figure 18 of the Ecological Assessment). This appears to be unnecessary and if possible, should be re-designed to the minimal extent required, in turn reducing the extent of SOFF clearing required.
- The requirement for a detailed rehabilitation plan to be prepared should form part of any consent for sand extraction, to ensure that the site is suitably rehabilitated post extraction.

Water Quality & Flooding

We suggest that Council be satisfied that the following matters have been adequately addressed with relation to floodplain management:

- the impact of flooding on the potential development (including overland flow)
- the impact of the potential development on flood behaviour (particularly topography changes) including any management measures to mitigate adverse flood impacts
- the impact of flooding on the safety of people/users of the development including flood hazard on access routes and access requirements in times of flood
- the full range of flood events, up to and including the PMF
- the impact of climate change (including sea level rise and rainfall intensity increases)

Based upon the information available, consideration should be given to these issues in their entirety, particularly with regard to overland flow and climate change impacts.

In relation to estuary health and water quality impacts, we suggest Council ensure the proposed development is consistent with the Fisheries Management Act (Particularly Part 7), State Environmental Planning Policy No 14 (SEPP 14) – Coastal Wetlands, the NSW Coastal Policy, the NSW Aquatic Habitat Management and Fish Conservation Policy and guidelines, the NSW State Rivers and Estuary Policy, Shellharbour LEP 2013 (particularly Clauses 6.1-6.4) and the Minnamurra River Estuary Management Plan and its objectives.

It is unclear whether adequate consideration has been given to contingencies related to the dredging, stockpiling, treatment, and disposal of PASS & ASS and erosion impacts particularly if failure of the leachate collection system occurs and/or if the design capacity is exceeded. We recommend further refinement to the risk management methodology be considered to account for acidification, in line with current engineering best practice to minimise impacts upon downstream SEPP 14 wetlands and the Rocklow Creek / Minnamurra River estuary.

Please contact me on 4224 4179 or via e-mail calvin.houlison@environment.nsw.gov.au should you have any further queries.

Yours sincerely



CALVIN HOULISON
 Conservation Planning Officer

Attachment 2 – Further Amended Schedule of Conditions

1 Development in Accordance with Plans

The development must be in accordance with the following approved Development Application plans and documents as endorsed by Council's stamp except as modified by conditions of this consent.

Name of Plan	Prepared By	Report No.	Drawing Date
Environmental Impact Statement - Volumes 1 & 2, including Mitigation Measures of Section 11	Hyder Consulting Pty Ltd	-	12.01.2015 (front cover dated December 2014)
Biodiversity Offset Strategy	Hyder Consulting Pty Ltd	AA005925	03.07.2015
Acid Sulfate Soil Management Plan	Environmental Earth Sciences	115047 Version 1	26.06.2015
Noise and Vibration Assessment	Wilkson Murray	13222 Version B	18.12.2014
Biodiversity Assessment	Hyder Consulting Pty Ltd	AA005925	16.12.2014
Letter titled 'Dunmore Sand extraction proposal – response to JRPP' (4 pages) and supporting Noise Wall Plans	Wilkson Murray	A13222Ltr01072016	01.07.2016
	Arcadis	AA005925 S0001-S0005 Issue A	03.06.2016

~~2 NSW Department of Primary Industries – Fisheries NSW~~

~~The development must comply with the advice and conditions of the Department of Primary Industries – Fisheries NSW, as contained in their letter with reference OUT15/11 dated 19 February 2015, consisting of two (2) pages, and forms part of this Notice of Determination.~~

~~The Ground Water Monitoring and Management Plan must be to the satisfaction of Fisheries NSW prior to any works commencing.~~

23 NSW Department of Primary Industries – NSW Office of Water

The net loss to the aquifer system from the proposed sand mining has been estimated at 15.0 to 17.5 megalitres per annum.

Based on the above, the following will be required under the *Water Management Act 2000*:

- Water Access Licence (WAL) - for the incidental water extraction, and
- Water Supply Works and/or Use approval - for the operation.

To apply for the necessary approvals, the following steps must be completed:

1. Apply for a Zero Share Water Access Licence (WAL) under section 61 (1)(b) of the *Water Management Act 2000*. An application form and guide are attached. The fee for this application fee is \$268.70.
2. Apply for a Water Supply Works and/or Use approval under section 92 of the *Water Management Act 2000*. In support of this application, a full hydrogeological report will also be required to be submitted. An "Application for approval for water supply works, and/or water use" is attached. The fee for this application is \$1,286.30.

3. Once the Zero Share WAL has been registered and issued by Land & Property Information (LPI), you will need to purchase water from an existing licence holder within the same water source and transfer the required groundwater entitlement (17.5 ML) into the zero share account.
4. The transfer is undertaken through a s71Q (assignment of shares) or a s71M (full transfer) dealing under the *Water Management Act 2000*.

The required licences must be applied for, and obtained, prior to any works commencing.

34 Biodiversity

~~Prior to any works commencing, a biodiversity offset management plan must be prepared in consultation with the Office of Environment and Heritage and the land owner and be submitted and approved by Council. The biodiversity offset management plan must specify the details of a Bio-banking Agreement or alternatively another method is to be prepared to protect the biodiversity offset site, such as a Property Vegetation Plan or a Voluntary Conservation Agreement.~~

~~The adopted biodiversity offset measure must be implemented when the site preparation and establishment works for the sand extraction proposal commence.~~

Prior to any works commencing, a biodiversity offset package must be developed in consultation with the Office of Environment and Heritage and the land owner and be submitted and approved by Council. The biodiversity offset package shall detail how the ecological values lost as a result of the development will be offset and must include:

- Identification of the biodiversity offset site; and
- Details of a Biobanking Agreement or another suitable mechanism for long-term protection of the biodiversity offset site, such as a Property Vegetation Plan or a Voluntary Conservation Agreement; and
- Management and monitoring requirements for the biodiversity offset site.

The adopted biodiversity offset measure must be implemented when the site preparation and establishment works for the sand extraction proposal commence.

45 Odour

An odour assessment report must be prepared by a suitably qualified professional prior to the commencement of any works. The assessment is to identify and characterise any potential odour impacts, including from the oxidisation of potential acid sulfate soils. The odour assessment report must outline any necessary odour management provisions and when these mitigation measures are to be implemented.

56 Construction Environmental Management Plan

A construction environmental management plan (CEMP) must be prepared by a suitably qualified environmental scientist/engineer prior to the commencement of any works. The CEMP must be prepared in accordance with any relevant industry guidelines or standards that apply to specific areas of management to be addressed under the CEMP. The plan must clearly detail how all relevant environmental management and monitoring procedures and safeguards outlined within the Environmental Impact Statement (Hyder, 2015) will be implemented and monitored for adequacy and maintained for the duration of the development. The CEMP must be implemented for the life of the development.

67 Operational Environmental Management Plan

An Operational Environmental Management Plan (OEMP) must be prepared by a suitably qualified environmental scientist/engineer prior to the commencement of any works. The

OEMP must be prepared in accordance with any relevant industry guidelines or standards that apply to specific areas of management to be addressed under the OEMP. The plan must clearly detail how all relevant environmental management and monitoring procedures and safeguards outlined within the Environmental Impact Statement (Hyder, January 2015) will be implemented and monitored for adequacy and maintained for the duration of operational activity. The OEMP must be implemented for the duration of the operation.

78 Noise

A. Operational Noise Management Plan

An Operational Noise Management Plan (ONMP) must be prepared prepared by a suitably qualified acoustic consultant prior to any works commencing. The ONMP is to be prepared in accordance with all relevant industry standards and guidelines.

All potential noise impacts are to be identified and it is to be demonstrated how the project specific noise levels specified in the table below will be met through the implementation of suitable acoustic attenuation measures.

The mitigation measures to be included in the ONMP must include all recommendations detailed in the documentation and plans prepared by Wilkinson/Murray that form part of condition no. 1 including at receiver treatment, limiting operational hours to those agreed to with residents, engineered at source noise mitigation on project plant/vehicles. The ONMP must also include a complaint response procedure developed in consultation with identified affected residences.

PrNoise in dBA(A)

Locality	Location	Noise Limits dB(A)
		Day
		L _{Aeq} (15 minute)
R1, R2, R3, R7 & R8	1, 21 & 51 Dunmore Road, Dunmore and isolated residences on Swamp and James Road	45 dB(A)
R4	21 Buckleys Road Shell Cove	42 dB(A)
R5	North East receivers along Augusta Parkway Shell Cove	41 dB(A)
R6	Killalea State Camp Site	50 dB(A) L _{Aeq, 1hr} when in use

The ONMP must be implemented for the life of the development.

B. Traffic Noise Management Strategy

A Traffic Noise Management Strategy (TNMS) for the purpose of managing noise associated with the construction, operational and rehabilitation stages must be developed by an appropriately qualified consultant prior to any works commencing. The TNMS shall ensure that feasible and reasonable noise management strategies for the vehicle movements associated with the facility are identified and applied, and includes but not necessarily limited to the following:

- driver training to ensure that noisy practices such as the use of compression engine brakes are not unnecessarily used near sensitive receptors,
- best noise practice in the selection and maintenance of vehicle fleets,
- due consideration of installing broadband reversing alarms on all mobile plant (including transport vehicles) instead of tonal alarms,

- movement scheduling where practicable to reduce impacts during sensitive times of the day, for example before 10am on weekends,
- communication and management strategies for non-licensee/proponent owned and operated vehicles to ensure the provision of TNMS are implemented,
- a system of audited management practices that identifies non-conformances, initiates and monitors corrective and preventative action (including breaches of noise minimisation procedures) and assesses the implementation and improvement of the TNMS, and
- specific procedures to minimise impacts at identified sensitive areas, and clauses in conditions of employment, or in contracts, of drivers that require adherence to the noise minimisation procedures.

89 Groundwater Monitoring and Management Plan

A Groundwater Monitoring and Management Plan (GMMP) must be prepared by a suitably qualified environmental scientist prior to the commencement of any works. The GMMP is to clearly outline the objectives of the monitoring program, identify all risks and potential impacts to groundwater resources and detail how such impacts will be appropriately monitored and managed. The plan shall incorporate all relevant environmental management information contained within the Environmental Impact Statement (Hyder, January 2015), and recommendations contained in the Hydrogeological Assessment (Earth Environmental Sciences, September 2014).

The GMMP must be implemented for the operational life of the development.

940 Survey

Prior to the commencement of works, a survey plan of the boundaries of the sand extraction area shall be prepared by a registered surveyor.

These boundaries are to be clearly marked at all times in a permanent manner that allows operating personnel, staff and inspecting officers to clearly identify those limits.

1044 Vegetation – Levee Bank & Drainage Channel

The levee bank, bed of the realigned channel and the riparian corridor of the realigned channel must be planted out with local endemic species. Evidence of stock provenance shall be provided.

1142 Protection of Trees on Site

The existing screening vegetation along the western and northern boundaries that provide a visual buffer of the site from public places and from residences on Dunmore Road are to be retained. Prior to any works commencing, the trees must be enclosed with temporary protective fencing to prevent any excavation activities, storage or the disposal of materials within the fenced area. The protective fence must:

- a. be located a minimum of 2.5m from the base of the tree,
- b. have a minimum height of 1.5m, and
- c. be clearly marked at all times with the use of high visibility plastic hazard tape.

The tree protection fencing must be maintained intact throughout the site preparation and establishment period of the development.

1243 Operating Hours

The operational hours of the sand extraction proposal are:

- 7.30am-4pm weekdays
- 8am-4pm weekends

No works on public holidays.

1344 Soil and Water Management Plan (SWMP)

Prior to works commencing, a Soil and Water Management Plan must be prepared by a suitably qualified consultant. The SWMP must clearly identify site features, constraints and soil types together with the nature of the proposed land disturbing activities and also specifies the type and location of erosion and sediment control measures. In addition rehabilitation techniques that are necessary to deal with such activities should be referred to.

The SWMP must take into account the requirements of Landcom's publication *Managing Urban Stormwater - Soils and Construction (2004)* thus ensuring the following objectives are achieved, namely:

- a. minimise the area of soils exposed at any one time,
- b. conserve topsoil for reuse on site,
- c. identify and protect proposed stockpile locations,
- d. preserve existing vegetation and identify revegetation techniques and materials,
- e. control surface water flows through the development site on a manner that:
 - i. diverts clean run-off around disturbed areas
 - ii. minimises slope gradient and flow distance within disturbed areas
 - iii. ensures surface run-off occurs at non-erodible velocities
 - iv. ensures disturbed areas are promptly rehabilitated.
- f. trap sediment on site to prevent off site damage. Hay bales are not to be used as sediment control devices. To ensure regular monitoring and maintenance of erosion and sediment control measures and rehabilitation works until the site is stabilized (includes landscaping),
- g. specifies measures to control dust generated as a result of activities on site,
- h. temporary sediment ponds must be fenced where the batter slope exceeds 1 vertical to 5 horizontal,
- i. design scour protection for the 10 year ARI event at all inlet and outlet structures, and
- j. including measures to prevent the tracking of sediment off the site.

The measures required in the Soil and Water Management Plan must be implemented prior to the commencement of works.

The soil and water management controls must be maintained at all times during each stage of the development and checked for adequacy daily. The controls must not be removed until the development is completed and the disturbed areas have been stabilised.

1415 Construction Certificate & PCA Notification ***Environmental Planning & Assessment Act 1979 Section 81A***

Before any site works for the noise barrier wall commence the person having the benefit of the development consent must:

- a. obtain a Construction Certificate from Shellharbour City Council or other accredited certifier, and
- b. appoint a Principal Certifying Authority.

1546 Structural Details

Details of the structural engineer's design for all reinforced concrete footings for the noise barrier must be provided to the Certifying Authority prior to commencing work on the noise barrier.

Council records indicate that acid sulfate soils may be present in this area. The engineer's design must make specific reference to acid sulfate soils as a consideration.

The engineer's design shall include the location of the noise barrier from the stand of vegetation. The location of the proposed noise barrier shall be generally in accordance with the approved plans of condition no. 1 to ensure the health of the trees are not compromised.

1647 Occupation Certificate

~~An Occupation Certificate must be issued on completion of noise barrier wall.~~

The noise barrier wall must be constructed prior to the issue of any Occupation Certificate by any Principal Certifying Authority.

1748 Site Rehabilitation Plan – Option 1 - Wetland

Where the site rehabilitation option 1 – wetland is adopted, a wetland management plan must be prepared for the site by a suitably qualified professional to Council's satisfaction. This plan must be submitted to Council for assessment at least 3 months prior to this option being adopted.

1849 Final Site Rehabilitation Plan

A final site rehabilitation plan must be submitted to, and approved by, Shellharbour City Council prior to the commencement of rehabilitation works. Council's approval of this Plan is to be sought at least 3 months prior to when the stockpile site will no longer be required to ensure there is minimal delay in carrying out the final site rehabilitation works. Council's requirements for the Plan are to be sought prior to the preparation of the Plan. Any maintenance period should be a minimum of 36 months.

The final site rehabilitation plan shall:

- a. be site specific,
- b. identify the proposed end use and landform of the land use once rehabilitated,
- c. consider any relevant management requirements and provisions of the DRWDD site rehabilitation plan, and
- d. consider the Biodiversity Offset Management Plan to be prepared for the development site.

If the final rehabilitated landscape is proposed to incorporate any wetland or waterway environments, a wetland management plan must be prepared for the site.

- The Wetland Management Plan must be prepared by a suitably qualified professional to Council's satisfaction and implemented for a period of 3 years after Practical Completion of the wetlands.
- Annual reports documenting implementation measures and containing all monitoring results are to be submitted to Council during this phase. Council may request site visits as required.
- Approaching hand over, a site meeting with Council must be arranged by the proponent. The objective of the meeting will be to identify any outstanding actions that require rectification by the proponent before hand over.

The final site rehabilitation plan must be implanted to the satisfaction of Council.

1920 NSW Department of Primary Industries – Fisheries NSW

The development must comply with the advice and conditions of the Department of Primary Industries – Fisheries NSW, as contained in their letter with reference OUT15/11 dated 19 February 2015, consisting of two (2) pages, and forms part of this Notice of Determination.

The Ground Water Monitoring and Management Plan must be to the satisfaction of Fisheries NSW prior to any works commencing.



Department of Primary Industries

Our Ref: OUT15/11
Your Ref: DA No 18/2015

19 February 2015

Victoria Nicholson
Senior Development Assessment Officer
Shellharbour City Council
Locked Bag 155
SHELLHARBOUR CITY CENTRE NSW 2529

Dear Ms Nicholson

**Re: Designated IDA 18/2015 Extension of Dunmore Sand Extraction,
Potential Acid Sulphate Soil Disposal and Rehabilitation Works
Lot 21 DP635009 – 44 Buckleys Road Dunmore**

I refer to your letter dated 23 January 2015 (INW15/4588) and accompanying information seeking comments from Fisheries NSW, a division of NSW Department of Primary Industries, on the above proposal.

Fisheries NSW is responsible for ensuring that fish stocks are conserved and that there is "no net loss" of key fish habitats upon which they depend. To achieve this, the Department ensures that developments and land use planning complies with the requirements of the *Fisheries Management Act 1994* (namely the aquatic habitat protection and threatened species conservation provisions in Parts 7 and 7A of the Act respectively) and the associated *Policy and Guidelines for Aquatic Habitat Management and Fish Conservation (1999)*. In addition the Department is responsible for ensuring the sustainable management of commercial and recreational fishing and aquaculture within NSW.

Fisheries NSW has reviewed the proposal prepared for Shellharbour City Council (SCC) by Hyder Consulting dated December 2014 and supporting documentation. We understand that there will be no direct impact upon important fish habitats including seagrass, mangrove and saltmarsh communities.

The subject site is situated adjacent to Rocklow Creek and SEPP 14 Wetland No. 374a, draining to the Minnamurra Estuary. The potential impacts on these waterways resulting from the discharge of sediment laden waters, particularly during high rainfall events, as well as groundwater drawdown and creek realignment is of interest to this Department.

The REF has identified that the site area is 'subject to frequent flooding' and that the proposal represents a 'high risk of impact to the quality and quantity of surface and ground water'. The proposal includes provisions for surface water quality monitoring (Volume 2, Appendix C, Part 6, p7) to be conducted on a quarterly basis. It is Fisheries NSW policy that all developments should aim to achieve no net impacts on receiving waterways. The proposed water quality monitoring and management measures regime will not provide adequate information to verify that there is no

significant impact upon adjacent waterways because high rainfall events are not likely to coincide with the sampling dates.

The EIS suggests that groundwater will be drawn down by 3m in the vicinity of the dredging works. The Department is concerned that this may pose a risk to nearby wetland habitats.

Based on the information provided, Fisheries NSW does not object to the extension of the Sand Extraction works, subject to the following conditions being included in any approval of the planning proposal:

1. All works conform to and are consistent with the Environmental Impact Statement (EIS) by Hyder Consulting dated December 2014;
2. A surface water quality management and monitoring plan is to be developed and submitted to Fisheries NSW for approval prior to any works taking place. The plan must include sampling and testing regimes for the construction and operational phases and include provisions for sampling of water quality during discharge events;
3. A copy of the draft Ground Water Monitoring and Management Plan is to be submitted to Fisheries NSW for comment prior to any works taking place;
4. The draft design plans for the realignment of the western diversion channel including stormwater dissipation devices and water quality improvement devices are to be submitted to Fisheries NSW for approval prior to any works taking place.
5. Environmental safeguards (e.g. silt curtains, sediment fences, booms etc.) are to be installed and maintained throughout the proposal in accordance with "*Managing Urban Stormwater: Soils and Construction*" (4th Edition Landcom, 2004, aka the Blue Book) to ensure that there is no escape of turbid plumes into the adjacent aquatic environment;
6. Spill kits suitable for the containment of fuel and oil spills must be kept on site;
7. Fisheries NSW (1800 043 536) is to be immediately notified of any fish kills in the vicinity of the works. In such cases, all works other than emergency response procedures are to cease until the issue is rectified and written approval to proceed is provided by Fisheries NSW.
8. Independent audits of the operation of the dredging operation are to be conducted after 12 months and thereafter at 3 yearly intervals. Audits are to be conducted by suitably qualified practitioners. A copy of each audit report is to be provided to Fisheries NSW within 3 months.

If you require any further information, please do not hesitate to contact me on (02) 4428 3406.

Yours sincerely



Jillian Reynolds
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Aquatic Ecosystems