

## RECORD OF BRIEFING

### SOUTHERN REGIONAL PLANNING PANEL

#### BRIEFING DETAILS

|                             |                                 |
|-----------------------------|---------------------------------|
| <b>BRIEFING DATE / TIME</b> | Wednesday, 9 March 2022, 9.30am |
| <b>LOCATION</b>             | Video Conference (MS Teams)     |

#### BRIEFING MATTER

PPSSTH-102 – SHOALHAVEN – RA21/1000 – Terara Road TERARA 2540 - Terara Sands Extension to Dredge Area (Extractive Industry - Extension to dredge area to the Western end and Northern side of Pig Island on the bed of the Shoalhaven River adjacent to Lots 1, 2, 3 and 4 DP 1184790 below MHWL / near lot 97 DP 755922).

#### PANEL MEMBERS

|                                 |  |
|---------------------------------|--|
| <b>IN ATTENDANCE</b>            | Chris Wilson (Acting Chair), Renata Brooks and Doug Lord |
| <b>APOLOGIES</b>                | None   |
| <b>DECLARATIONS OF INTEREST</b> | None   |

#### OTHER ATTENDEES

|                                 |  |
|---------------------------------|--|
| <b>COUNCIL ASSESSMENT STAFF</b> | Justin Lamerton, Rebecca Lockart, Andre Vernez |
| <b>DPE STAFF (RSD TEAM)</b>     | Amanda Moylan, Verity Rollason                 |

#### KEY ISSUES DISCUSSED

##### History of the existing dredging and sand extraction operations and approvals

- Original Permissive Occupancy approval from 1968, which allowed up to 100,000 tonnes/year of material to be extracted (noting the volume refers to the amount dredged, not the amount of sand sold at gate). The Panel questioned how the extracted material was measured (i.e. in-situ cubic metres, wet tonnes or dry tonnes).
- Typically only 70,000 tonnes/year are extracted.
- The site also has a controlled activity approval under the *Water Management Act 2000* (administered by NRAR).
- The extracted material is taken to Terara where the fines and sand are separated and the fines returned to Pig Island for placement in 1 of 3 proposed mounds
- The percentage of dredged material that is sand versus fines that are not usable has not been specified. The composition of both fractions has not been provided.
- 2012 – approval given to 2040 for dredging into an extension area (that is not subject of this DA).
- The operation is approaching the end of available sand resources in the existing approved areas, hence this DA submission seeking an extended area for dredging. No explanation is provided as to why the

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previous approval underestimated the available resource, given that approval was for a further 20 years and the average extraction rate was only around 75% of that approved.

- This DA submission is seeking approval for another 40 years. Should approval of this DA submission be forthcoming, it is likely the existing consent will need to be surrendered.
- It was noted that the existing approved area did experience some infilling after floods in 2019, however it is not known whether this included any sand sized material. An assessment of the supply to the dredge holes (if any) over the previous extraction period is not provided.
- It was noted the site operators are currently dredging outside of their approved area, and within the area that is the subject of this DA.
- The EPA licence for the existing approved area has also lapsed. This DA approval is required to enable the site operators to get a new EPA licence.
- The council briefing made note of the existing important habitats in proximity to the site, including seagrasses, saltmarshes and habitat for migratory shore birds. The extraction area in relation to the seagrasses needs to be clearly delineated so as to accurately identify potential impacts.
- The potential for amenity impacts on the local community residing at Terara was also noted.
- The current and proposed dredging method involves a suction dredge that disturbs sediment on the river bed which is then suctioned up. This style of dredging can result in deeper holes across a smaller location, compared with a more even removal of material to a shallower depth across a larger area. Dredging of deep holes may have implications for water quality, and channel stability.

### **Status of Internal and External Referrals**

Council is awaiting receipt of all referrals prior to sending out their Request for Further Information to the applicant. The applicant was informed that the SEARs from the 2012 application are suitable to apply to this application also. Referral agencies have tended to request more thorough assessments that go beyond simply relying on the information in the 2012 EIS.

#### *Referrals received to date*

- RMS: there is no maintenance dredging on Shoalhaven River in this area at present, have advised no expected issues for river navigation.
- BCD team from DPE
- EPA: as the dredging currently extends deeper than the depth of sampling conducted by the applicant to date, they have requested further sediment sampling and analysis at or deeper than the level of dredging.
- Council's internal environmental team: concerned about the removal of habitat, therefore they have advised that the applicant should conduct their assessment assuming that migratory birds utilise the area and therefore will be impacted.
  - The international agreements for migratory birds were noted by the panel.
  - Federal legislation relating to environmental impacts (i.e., EPBC Act) was also noted as needing to be referenced in the applicant's environmental assessment.
- DPI Fisheries: the impacts on oyster aquaculture from fine sediment being remobilised either during dredging or from the fines in the stock mounds during floods needs to be investigated. Impacts on downstream fisheries and bait collecting needs also to be investigated in the applicant's environmental assessment.

#### *Referrals still outstanding*

- NRAR (who also issue the controlled activity approval under the WM Act.)
- DPE (no comment received to date from DPIE on whether any State or regionally significant issues that need to be addressed).

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## Issues Discussed

### *Bank and Channel Stability Assessment*

The Panel raised substantial concerns regarding the lack of sufficient assessment of the impact of dredging operations on the short and long term stability of the estuary's channels and banks. Impacts may include channel deepening and migration, splitting of the channel flows north and south of the island, and bank erosion and undermining (including of the flood levy), at and downstream of the site. This assessment should include an assessment of past changes and potential future changes if dredging proceeds. These impacts have flow on impacts to important estuary habitats such as seagrass and saltmarshes upon which many species are reliant.

The Panel noted that the assessment of channel migration and bank erosion in the SEE relies only on the outputs from the 2-Dimensional flood modelling and limited photographs. Outputs from a 2D flood model are not adequate to characterise the potential changes in channel location, scouring or bank erosion, either during floods or during average river flow conditions.

The Panel noted that the EIS lacked any description of the geomorphology (and formation) of the estuary and Pig Island. The EIS also lacked assessment of historical data to describe how the banks and channels may have changed over time since dredging operations commenced, and therefore, the potential future impacts of the dredging operations on bank and channel stability. Given the length of the approval, the removal of sand from the coastal sediment budget, and tidal regime changes with entrance training and sea level rise in the future, potential impacts to estuary bank and channel stability over the long term needs also to be assessed.

The Panel has made recommendations for a substantially improved assessment of dredging impacts on bank and channel stability that are detailed at the end of this Record of Briefing.

### *Air Quality*

- There is the potential for air quality impacts particularly to nearby Terara Village from wind mobilisation of the fines in the stock mounds on Pig Island, particularly if these stock mounds are not stabilised/revegetated.
- The Panel supports Council's view that the applicant needs to provide further assessment and information regarding this issue.

### *Aboriginal Heritage and Cultural Impacts*

- The EIS provides a copy of a letter from the Local Aboriginal Land Council in support of the dredging operations. Consultation with this group is also identified.
- The Panel seeks clarification as to whether there are any native title or land rights claims over this area (which includes the bed of the estuary).
- The EIS has indicated there are no likely impacts to Aboriginal Heritage items on Pig Island, and also state the same for the bed of the estuary because it is underwater.
- The Panel indicated that there was the potential for Aboriginal Heritage occupation on the river bed and therefore the potential for Aboriginal Heritage items. This needs to be confirmed.
- The Panel seeks clarification from Council as to whether the applicant has adhered to the 2010 guidelines for Aboriginal consultation, which require more than just consultation with the LALC, in so far as the guidelines are relevant to Regionally Significant Development.

### *Visual Impacts*

- The EIS does not currently discuss visual impacts from the proposed development.

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- The Panel seeks proper consideration of the visual impacts, given that dredging operations are already visible from Nowra Bridge.

#### *Licensing arrangements*

- As this is an entirely a new consent, not a modification, new licences will be required (i.e., controlled activity approval, crown lands licence, EPA licence).
- The Panel seeks a clear explanation of the licences required, what is required to attain and maintain these, and how they relate to the DA before the Panel.

### **ISSUES TO BE RESOLVED**

The Panel requests further clarification and information on the following issues.

- Further information on the material to be dredged (grain size distribution and composition) including a clear dredging plan which identifies method, timing, shape of the dredged area upon completion, setbacks or slopes to seagrasses and banks of the island, and ongoing monitoring and review.
- Clarification as to whether the original DA from 2012 sought approval for the larger area that is now the subject of this DA. If so, the reasons the larger area was refused should be outlined.
- With respect to the stockpile mounds on Pig Island:
  - a description of the current and proposed stabilisation or revegetation program for the mounds,
  - a description of the potential for acid sulphate soils risks from the stockpiled material,
  - an assessment of potential air quality impacts from fines being blown from the stockpiles into nearby settlements and environments,
  - an assessment of the potential for the stockpiled fines being remobilised into the water column during rain or by floodwaters, and any potential water quality impacts at and downstream of the site associated with this. The assessment should consider any water quality sampling or modelling relevant to the site, and
  - Any expected flooding impacts associated with the mounds. The assessment should consider the past performance of the mounds and their future response during floods, including both the likelihood of the mounds being washed away versus the impact to flood levels in the unlikely event that the stock mounds remain stable during a major flood.
- A description of this potential for Aboriginal Heritage items to be disturbed on the river bed during dredging and an unexpected finds protocol should this occur.
- Clarification of the current requirements for Aboriginal consultation for this DA (e.g., 2010 guidelines or similar), and a description of how the EIS meets the requirements or otherwise.
- An assessment of the potential for visual impacts arising from the development, and associated mitigation measures.
- Clarification of the licences that are currently held and will be required in relation to this DA approval (e.g. controlled activity approval, EPA licence, Crown Lands licence, and others if required).
- Clarification of the monitoring and response regime to be implemented during dredging operations, to monitor for and respond to potential environmental and other impacts.

The Panel also requests a substantially expanded assessment of potential bank and channel instability impacts, including the following.

- A description of the formation of the estuary (geomorphology) at and downstream of the dredging operations, including the formation of Pig Island (e.g. during the Holocene period).
- Use of historical and other data (such as historical photographs, historical river surveys, and presumably, survey data presumably collected by the dredging operators over time in association with their past EPA licence, academic research papers such as by RC Carvalho of University of Wollongong, for example) to provide an assessment of:

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- changes in the location and depth of the channels and banks at and downstream of the dredging operations, from prior to dredging to present day
- the rate of infilling of deep dredge holes, and infilling of the dredge area more broadly, including recent flood events, over the last 20+ years
- the impact of deep dredge holes on nearby channels (in terms of channel location and depth).
- An assessment of the sedimentological data (such as the samples collected by the dredging operators in accordance with their EPA licence, and academic research papers as noted above), to clearly describe:
  - the volume of sediment removed during dredging (annually),
  - for the dredged material, the proportion of sand extracted versus the proportion of material returned to the stock mounds and/or the river, and the grain size(s) of returned material,
  - existence of acid sulphate soils and the potential for this material to be exposed during operations or in stock mounds.
- Given that the sand resource is finite and is being removed permanently from the sediment system, and that past and future approvals are sought for 20 to 50 years or more, assessment of the potential long-term impacts from dredging is sought, including:
  - long term impacts to Shoalhaven's beaches and beaches further north given that a substantial portion of sand sized material is being removed by dredging rather than being supplied to the coast (noting that the Shoalhaven/Crookhaven River is one of only 2 rivers in NSW that supplies sand sized material to the coast). This assessment needs also to consider the combined impact of the dam built upstream in 1976 that will already have contributed to a reduced sand supply to the estuary and coast,
  - the long-term changes in the geomorphology of the lower estuary due to the increase in tidal regimes from training of the Shoalhaven River and how this may have interacted or will interact with dredging impacts, and
  - future long-term impacts of sea level rise which is expected to increase the tidal ranges in the estuary and may therefore change the impact of dredging operations on surrounding channels and banks.

***The Panel seeks the above requests to be issued to the Applicant at least 2 weeks prior to the proposed Site Inspection with Council and the Applicant in May, 2022.***

#### **NEXT BRIEFING DATE (TENTATIVE)**

**Site Inspection – date to be confirmed in May 2022.**

RFI including the above requests should be issued to Applicant at least 2 weeks prior to the site inspection date.

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