Department of
Infrastructure, Planning and Natural Resources

ASSESSMENT REPORT

DEVELOPMENT APPLICATION (DA-211-9-2004)

PROPOSED DREDGING OF MANNING RIVER HARRINGTON WATERS

JANUARY 2005

1. INTRODUCTION

On 1 September 2004, the Roche Group Pty Ltd (the Applicant) lodged a Development Application (DA-211-9-2004) and Environmental Impact Statement with the Department of Infrastructure, Planning and Natural Resources (the Department) to dredge material from the bed of the Manning River in the Greater Taree local government area.

The proposal involves the extraction of up to 520,000 m^3 of material from the Manning River, transportation of this material in slurry form through pipelines to onshore processing facilities and subsequent use as fill material for the Harrington Waters residential development.

This report presents the outcomes of the Department's assessment, and a final position in relation to the environmental impacts of the proposed development. The Department concludes that the proposed development can be operated within acceptable environmental limits, subject to conditions recommended within the report.

1.1 Background

Prior to 1998 the Applicant was granted a licence to extract sediment from the Manning River, 2 km upstream of the Harrington Inlet of the river, adjacent to the entrance of the Harrington Back Channel, to fill flood-prone land for residential development (Harrington Waters estate). The original licence approved the extraction of 750,000 m^3, which was later extended by a further 400,000 m^3. An application to extend the licence up to a total of 1.8 million m^3 was refused because of the potential impact on the adjacent beaches.

Consequently the Applicant sought approval for material to be extracted from the river upstream of the Harrington Waters estate. On 25 November 2002 the former Minister granted development consent (DA-122-5-2002) to the Applicant to extract sand from the bed of the Manning River to be used as building fill for the adjacent Harrington Waters residential estate (Stages 3 and 4). The approval was for extraction of up to 1,000,000 m^3 of river bed sediments, transportation by pipeline to an onshore processing facility and use of the material to fill land for residential development.

The Applicant subsequently extracted approximately 900,000 m^3 of material from the river, yielding approximately 700,000 m^3 of usable fill. The Applicant states a further 520,000 m^3 of material would need to be removed from the river to meet the demand for fill material (when accounting for losses, poor quality material, shrinkage and settlement) to complete Stage 3 of the Harrington Waters development.

1.2 Existing Operations

The existing extraction area covers approximately 0.34 km^2, spanning a river length of approximately 1250 metres between Mangrove Island to the west and Pelican Point to the east refer to location plan in Figure 1. The dredging was undertaken to a depth of approximately 7.6 m below the Australia Height Datum, and maintaining a maximum underwater slope no steeper that 1 in 8.

The proposed method for removal of the resource utilises a bucket wheel cutter section dredger, achieving a production rate of around 400m^3/hour. Material from the bucket wheel cutting head is delivered to a discharge pipeline which would convey the material ashore as hydraulic slurry to on-shore processing facilities. The works associated with onshore fill activities are the subject of separate development approvals from Greater Taree Council.

The Department undertook a compliance audit of the dredging operations on 30 April 2004. The audit found 10 non-compliances with the development consent and 9 improvement opportunities. The non-compliances are considered to be minor and were mainly in the areas of dredging, water management and reporting. The improvement opportunities were mainly in the areas of dewatering and settlement management, water management and stormwater and sediment control. The Applicant advised the Department on 8 July 2004 that a number of actions had been taken or proposed to correct the non-compliances and improvement opportunities. The Department is satisfied that the Applicant has addressed the recommendations of the compliance audit.

Under the development consent for the previously dredged area the Applicant is required to submit regular monitoring and compliance reports. The Department is generally satisfied that the existing dredging activities have operated in accordance with the development consent.

2. PROPOSED DEVELOPMENT

2.1 Proposed Development Site

The proposed dredging area covers approximately 200,000 m^2 of the Manning River, located upstream of Pelican Bay and some 5 km from the entrance of the river at Harrington Inlet. The proposed dredge area spans a length of 1200 m and a width of 170 m and is immediately downstream of the previously dredged area (see Figure 1) and upstream of the area dredged prior to 1998. The proposal would remove the point bar shoal located on the inside of the river bend, upstream of Pelican Point.

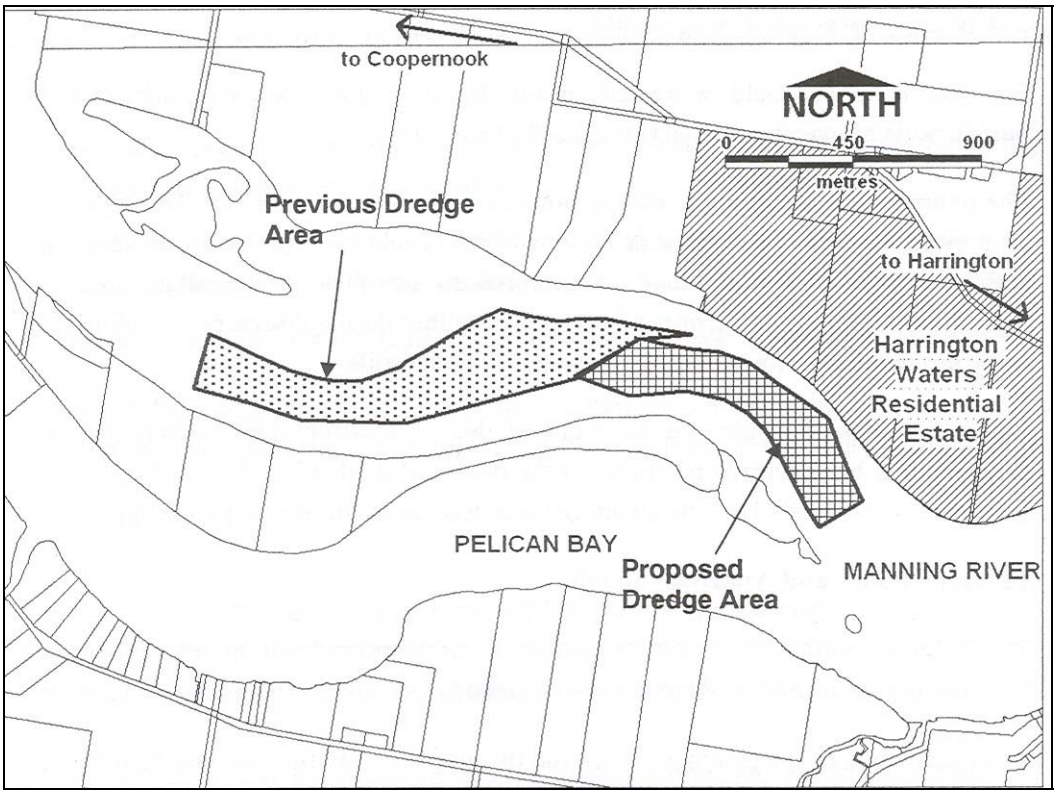

Figure 1 – Location Plan

2.2 The Proposal

The proposal is to extract approximately 520,000m^3 of material from the bed of the Manning River and pump this material to the onshore treatment facility for use as building fill in the adjacent Harrington Waters residential estate. The material to be removed is of fluvial origin and is not considered to be part of the active marine flood tide shoal.

The thalweg of the channel is proposed to be lowered by a maximum of 1.5 metres. The bulk of the material to be dredged from the proposed footprint is contained within the existing point bar shoal on the inside of the river bend. A maximum cut of 6 metres would be required within the depth of the river reaching -11 AHD.

The dredged material is transported by submerged and floating pipeline to the existing settlement ponds and treatment facility within the Harrington Waters estate. The onshore facilities were established as part of the previous dredging operations. No modification to the onshore operations are required as part of this proposal.

2.3 Ownership

The DA area consists of the bed of the Manning River. The beds of tidal rivers, up to high water mark, are Crown land. Under the provisions of the *Crown Lands Act 1989*, the Department of Lands is considered to be landowner of all Crown land. Consent to lodge the DA was therefore gained from the Department of Lands.

2.4 Production and Hours of Operation

The EIS details that a total of approximately 520,000 m^3 of material would be removed from the proposed dredge area over the life of the operation. As the proposed extraction operations will be the same as the operations that have been undertaken immediately upstream, the rates of removal would be similar. The maximum production capacity of the dredge is around 400 m^3/hour, but given an allowance for delays and down time, an average production rate of around 300 m^3/hr would be achievable.

It is proposed that the dredge would generally operate for eleven hours (7am to 6pm) per day, Monday to Friday and five hours (8am-1pm) on Saturday, with no work on Sunday and Public Holidays. An extra hour would be used each day for maintenance activities. The expected production rate is approximately 18,000 m^3 per week and 900,000m^3 per annum.

Based on these figures, and allowing downtime and other delays, it is expected that the work would be finished within 30 weeks (7-8 months) from commencement.

2.5 Transport of Material

The EIS describes that material will be transported via hydraulic slurry (solids content of approximately 30%) from the point of extraction to the onshore facilities. The hydraulic slurry would be pumped ashore through a flexible pipeline of approximately 300 mm diameter. As the maximum distance between the extremities of the proposed dredge footprint and the onshore facilities is in the order of 1500m, it is likely that a booster pump will be required to help transport the material through the pipeline from some sections of the dredge footprint. The dredge is capable of pumping the slurry a distance of around 1000-1200 metres and with a booster pump adding a further 800-1000 metres to the pumping distance.

The slurry from the dredge will be hydraulically pumped to a series of ponds or fill areas within Stage 3 of the Harrington Estate. The return waters from the settling ponds (approximately 70% of the slurry is river water) will be held and treated prior to discharge to the river to ensure compliance with agreed criteria. For the previous dredging operations the water quality criteria nominated in the Environmental Impact Statement was included in the DEC's Environment Protection Licence water quality requirements for the operation.

3. STATUTORY PLANNING FRAMEWORK

3.1 Permissibility

The proposal is within the Greater Taree local government area. The DA site is zoned 1(a) Rural General under the Greater Taree Local Environmental Plan 1995. Extractive industries are not listed as being prohibited nor considered to be inconsistent with zone objectives. The proposal is permissible with consent.

3.2 Minister's Role

As detailed below, the proposed development is State significant development, and the Minister for Infrastructure and Planning is the consent authority for the development application.

3.3 Legislative Context

In accordance with the provisions of the *Environmental Planning and Assessment Act 1979* (the Act) and the *Environmental Planning and Assessment Regulation 2000* (the Regulation), the proposed development is State significant, designated and integrated development.

State Significant Development
The proposed development constitutes State Significant development, as defined by section 76A(7) of the Act, as it meets the criteria described in Schedule 2 of *State Environmental Planning Policy No. 71 – Coastal Protection* and the criteria in the Minister's Declaration dated 3 August 1999 applying to extractive industries with a proposed extraction rate greater than 200,000 tonnes per annum.

The proposal is for extractive industry in terms of Schedule 2 of SEPP 71 and an extractive industry with an extraction rate of approximately 520,000 m^3, which is well above the 200,000 tonnes per annum criteria stipulated in the Declaration of 3 August 1999. As such the proposed development is State significant development, and the Minister for Infrastructure and Planning is the consent authority.

Designated Development
Under Schedule 3 of the *Environmental Planning and Assessment Regulation 2000* (the Regulation), the proposed development is defined as 'designated development' since it is an extractive industry which meets several of the criteria listed in Clause 19 of Schedule 3 of the Regulation. Subsequently, the proposal required the preparation of an EIS in support of the Application.

Director-General's requirements for the EIS were issued to the Applicant on 2 August 2004, the EIS was prepared by WBM Oceanics Australia and submitted with the DA. The Department was satisfied that the Director-General's requirements had generally been addressed and the EIS was adequate to be placed on exhibition.

Procedures relating to the preparation and public notification of the EIS have been followed.

Integrated Development

The development proposal constitutes integrated development, as defined by section 91 of the Act. In addition to development consent the proposed development requires an Environment Protection Licence (EPL) from the Environment Protection Authority (EPA) under the *Protection of the Environment Operations Act 1997*.

The Department of Environment and Conservation (DEC – incorporating the EPA) was consulted during the preparation of development application and notified of the lodgement of the development application. The DEC has supplied comments and general terms of approval (GTAs) to the Department, which have been reflected within this assessment report and the Department's recommended instrument of consent. The DEC has indicated that it is prepared to issue an EPL, should the Minister grant consent for the proposal.

Exhibition and Notification

The Department notified, and provided a copy of the DA and accompanying EIS, the following public authorities:

- Department of Lands;
- Department of Environment and Conservation;
- NSW Heritage Office;
- Department of Primary Industries (Fisheries)
- NSW Marine Authority; and
- Greater Taree Council.

The development application was publicly exhibited between Friday 1 October and Friday 5 November 2004, at the following locations:

- DIPNR –Sydney City
- DIPNR – Newcastle
- Greater Taree Council – Taree; and
- Nature Conservation Council –Sydney City.

An advertisement, in accordance with the requirements of the Act, was placed in the Taree Manning River Times on two occasions: 1 October 2004 and 22 October 2004. This advertisement advised how an interested party could view the exhibited development application, and how submissions could be made.

In addition to relevant government authorities, the Department sent notices to 50 land owners and/or land occupiers in Manning Point, Mitchells Island and Harrington Waters. The Department also notified the Nature Conservation Council.

3.4 Relevant Environmental Planning Instruments

The assessment of the proposed development is subject to the following environmental planning instruments:

- *State Environmental Planning Policy No. 14 – Coastal Wetlands;*
- *State Environmental Planning Policy No. 33 - Hazardous and Offensive Development*;
- *State Environmental Planning Policy No. 44 – Koala Habitat Protection*;
- *State Environmental Planning Policy No. 71 - Coastal Protection; and*
- *Hunter Regional Environmental Plan 1989.*

State Environmental Planning Policy No. 14

State Environmental Planning Policy No. 14 – Coastal Wetlands aims to ensure that coastal wetlands are preserved and protected in the environmental and economic interests of the State. The Policy identifies wetlands of high natural value and land clearing, levee construction, drainage work or filling may only be carried out within these wetlands with the consent of the local council and the agreement of the Department.

The proposed dredge envelope is adjacent to areas of SEPP 14 wetlands. These are zoned Environmental Protection Habitat under the Greater Taree LEP 1995 and dredging is prohibited. No dredging is proposed within the SEPP 14 wetlands under the proposal. A 50 metre setback is maintained between the dredge envelope and any sea grass beds which generally surround the wetlands.

State Environmental Planning Policy No. 33

State Environmental Planning Policy No. 33 - Hazardous and Offensive Development aims to identify proposed developments with the potential for significant off-site impacts, in terms of risk and/ or offence (odour, noise etc). A development is defined as potentially hazardous and/ or potentially offensive if, without mitigating measures in place, the development would have a significant risk and/ or offence impact on off-site receptors.

The Department has reviewed the proposed development and concluded that it is not considered to be "potentially hazardous development" as it does not pose a significant off-site risk impact (unmitigated scenario). As such the proposal does not trigger the risk impact provisions of the SEPP and a Preliminary Hazardous Analysis is not required. The proposal is potentially offensive development but the DEC has indicated they are able to issue a licence, therefore SEPP 33 does not apply.

State Environmental Planning Policy No. 44

State Environmental Planning Policy No. 44 – Koala Habitat Protection applies to all land within the Greater Taree local government area, as it is identified in Schedule 1 of the policy as a local government area where koalas are known to occur. The SEPP applies to DA's involving more than 1 hectare of land. As the DA area consists of the bed of the Manning River, it does not constitute core or potential koala habitat.

State Environmental Planning Policy No. 71

State Environmental Planning Policy No. 71 – Coastal Protection applies to development in the coastal zone and aims to ensure that such development is appropriate and suitably located, to ensure that there is a consistent and strategic approach to coastal planning and management and to ensure there is a clear development assessment framework for the coastal zone.

The Policy includes matters for consideration which 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. The Department has assessed the proposal in terms of these matters for consideration and is satisfied that the proposal is consistent with SEPP 71 (see Appendix A – Section 79C Consideration).

Hunter Regional Environmental Plan 1989

The *Hunter Regional Environmental Plan 1989* applies to the proposal. The REP provides a framework to guide and control growth and development in the region. The REP includes objectives relating to the management of extractive industries in the region. The Department's assessment considers that the proposal is consistent with the objectives of the REP (see Appendix A – Section 79C Consideration).

3.5 Other Statutory Requirements

Environment Protection and Biodiversity Conservation Act, 1999

The Commonwealth *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act) commenced operation on 16 July 2000, with the primary objective of providing protection for the environment, particularly those aspects of the environment that are matters of "national environmental significance". The EPBC Act establishes a scheme requiring environmental assessment and approval of proposals likely to significantly impact on such matters and a determination by the Commonwealth Minister for the Environment and Heritage as to whether the proposal is a "controlled action" under the EPBC Act.

The proposal was not referred to the Department of the Environment and Heritage under the EPBC Act. Although a number of migratory species, listed under the Act, are known to use the Manning River near the DA site, and certain fish species, such as the Eastern population of the Grey Nurse Shark is listed as threatened, the EIS concluded that these species or their habitat, are unlikely to be significantly affected by the proposal. The Department concurs that a referral under the EPBC Act was not required.

Threatened Species Conservation Act, 1995

The EIS addresses each of the matters set out in section 5A of the EP&A Act, and concludes that there was unlikely to be a significant impact on threatened species, populations or ecological communities or their habitats and therefore a species impact statement (SIS) was not required. The Department's assessment of flora and fauna concludes that the proposal is unlikely to significantly impact on any threatened species.

3.6 Conclusion

The Department is satisfied that all requirements of the Act and Regulations have been met in relation to the notification and exhibition of the development application and public involvement in the assessment process. The proposed development is generally consistent with the provisions of relevant statutory legislation and environmental planning instruments.

4. ISSUES RAISED IN SUBMISSIONS

In accordance with section 79 of the Act, the Department received a total of 5 submissions in response to the exhibition of the proposal. Two submissions were received from government agencies, two from the local community and one from a special interest group. The issues raised in these submissions are discussed below and summarised in detail in Appendix B.

- The Department of Primary Industries (Fisheries) identified concerns relating to water quality impacts (turbidity and acid sulfate soils) and impacts on seagrass beds and bank stability from dredging of the manning River. The DPI requested that these concerns be addressed in conditions of consent and did not object to approval of the proposal.
- The Department of Environment and Conservation requested additional information from the Applicant on acoustical impacts, and subsequently issued its General Terms of Approval.
- One public submission objected to the proposed dredging because of impacts on the structure of beaches within the mouth of the river and the erosion of the river bank and impacts on fish habitats.
- One public submission raised concern about changing the natural flow of the river and impacts of the land build up at Harrington Waters and consequent flooding impacts on Pelican Point.

- One submission from the Manning Delta Landholders Protection Committee did not object to the proposal, but raised concern at the release of acid sulfate soils from dredging and filling of land with river sediments.

The Department notified Greater Taree Council, however, the Council did not make a submission on the proposal.

5. CONSIDERATION OF ENVIRONMENTAL ISSUES

The Department has undertaken a detailed review of information supplied by the Applicant in the Environmental Impact Statement (EIS) and additional information, and issues raised in submissions received in response to the public exhibition of the development application. In light of these considerations, the Department has been able to complete a preliminary screening of environmental planning and assessment issues associated with the proposed development. The primary purpose of the preliminary screening is to ensure focussed consideration of key issues associated with the proposed development, with an appropriate level of detail applied depending on the relative importance of the issue under consideration (see Table 1 below).

From the review of the EIS, the Department has nominated environmental planning issues as either key, major, moderate or low significance. In all cases, a conservative approach has been applied and in the case of any doubt, a precautionary approach has taken to ensure that at worst, issues have been overestimated rather than assigned a lower significance. As a general indication, levels of environmental planning and assessment significance have been applied as follows:

- **Key significance** – those issues of fundamental importance to the proposal. Resolution of these matters is considered fundamental to achieving acceptable environmental and public health and amenity outcomes, and in some cases may include tests or requirements that must be met by the proposal before it could be determined.
- **Major significance** – those issues representing the most significant environmental impacts associated with the proposal. Assessment has either indicated that relevant criteria or outcomes cannot be met, or compliance is predicted to be marginal. These issues also include matters for which there remains some doubt as to the assessment approach or outcomes.
- **Moderate significance** – those issues assessed as meeting relevant criteria or outcomes, but with a significant residual impact that needs to be mitigated and managed.
- **Low significance** – those issues that are either not associated with the proposal, clearly within acceptable environmental criteria, and/ or are the subject of well-established and applied environmental management measures. These issues also include those matters that could be easily and effectively addressed through conditions of consent, should the Minister determine to approve the proposed development.

All issues identified as having moderate, major or key significance as a result of the Department's consideration of the EIS have been carried forward for further assessment. In addition, issues raised in submissions have been considered both in the context of the frequency of occurrence and the level of concern expressed. Similar definitions have been used to characterise the significance of issues raised in submissions:

- **Key significance** – issues raised in the majority of submissions, issues representing primary public concern or the subject of detailed public comment or criticism.
- **Major significance** – issues raised in most submissions or subject to specific comment on a fundamental component of the proposal.
- **Moderate significance** – issues raised in detail in some submissions or as a general statement across the majority of submissions.
- **Low significance** – not raised in submissions, or only noted in a cursory manner.

Regardless of the assessed significance of issues from the EIS, any matter identified as being of major or key significance from public submissions has been carried forward for further detailed assessment. Preliminary screening, including comments on the screening and identification of matters for further assessment, is outlined in Table 1.

Table 1 - Screening of Environmental Impacts for Detailed Consideration

Issue	Assessed Environmental Significance	Assessed Public Interest/ Concern	Comment
Noise Impacts	Key significance	Low significance	The EIS predicted that at most of the locations the noise levels exceed the EPA's noise criterion. However, the noise study suggested that when the construction noise criteria is applied the noise exceedance is only experienced at the nearest residential receiver (Harrington Waters estate 75 metres from the dredge) during calm weather conditions. The Applicant's revised assessment (in light of requests for additional information) predicted that only 5 residences would be potentially affected by excessive noise from dredging operations. Given that most of the (vacant) blocks at Harrington Waters has not yet being developed, there is significant potential for this number to increase if the project is prolonged. The DEC's General Terms of Approval for the proposal include the predicted noise levels. The Applicant has proposed a number of noise management and mitigation measures to reduce noise from dredging operations. In light of this, the Department is satisfied that the noise impact associated with the proposed development can be managed and that proposed mitigation measures can manage noise related issues. **Carried forward for further assessment – section 5.1.**
Impacts on River Beds and Banks	Key significance	Key significance	The EIS concluded that dredging of the river bed would have minimal impact on the fluvial hydraulics of the Manning River, the erosion and sediment processes in the river would not be significantly affected by the proposed dredging, and the impact on downstream river banks is likely to be minimal. The Applicant proposes a number of mitigation measures to ensure that the impacts of the proposal can be managed. The Department considers the monitoring of the proposed and the existing dredged area to be an important and ongoing process. The issue of river bank erosion and flooding impacts has also being raised in 2 submissions. **Carried forward for further assessment – section 5.2.**
Water Quality Impacts	Major significance	Major significance	The water quality of the Manning River in the vicinity of the DA site is generally of a high level. The proposal has potential for short-term localised impacts from increased turbidity around the dredge head or from ruptures in the submerged/floating slurry pipeline, and from oil and fuel spillages. The return waters from the settlement ponds may increase the pH if acid sulfate soils are not treated or may be turbid if fines settlement has not been adequately treated prior to discharge to the river. The Department is satisfied that the proposed mitigation measures will adequately manage any potential water quality impacts. **Carried forward for further assessment – section 5.3.**
Impacts on Aquatic Flora and Fauna	Moderate significance	Low significance	The aquatic ecology in the vicinity of the dredge area consists of plant communities such as seagrass beds in the river shallows, macro-algae on hard structures in the river, mangrove and saltmarsh in the river's intertidal zone. Animal communities include the macroinvertebrate fauna in the intertidal and subtidal sediments and attached to sub-surface strata, fish, marine mammals and bird species. The dredge footprint avoids seagrass beds and the surrounding wetland areas. The EIS concluded the proposal has minimal impacts on the aquatic ecology. **Carried forward for further assessment – section 5.4.**

Waste Generation and Management	Low significance	Low significance	Waste generated by the dredging operations would be removed from the dredge area and placed within the Harrington Waters estate. Return waters would be generated by as part of the dredging operations. The discharge of return waters would be subject to water quality control and monitoring requirements.
Air Quality Impacts	Low significance	Low significance	The Applicant states the proposal may generate odours from disturbance of anaerobic areas of the river bed and pollutants from the air exhaust of engines on the dredger and booster pumps. The usage of 20,000 litres of fuel per week is expected to generate the equivalent of 2860 tonnes of carbon dioxide (greenhouse gases) per year. The Department is satisfied that air quality impacts will not have a significant impact on the environment.
Traffic and Transport Impacts	Low significance	Low significance	Other than trucks used for the establishment and removal of the dredging operations and weekly fuel deliveries the proposal is unlikely to generate significant amounts of traffic on the local roads. The impacts on navigation on the river is likely to minimal as the majority of the dredging is to occur on the southern half of the river, leaving the northern half clear for vessel navigation. Boating on the river is minimal although boating traffic is higher during weekends and holiday periods associated with increased recreational boating traffic. The onshore treatment facility is located on the northern bank of the river, which will require the slurry pipeline to be located on the river bed to permit river traffic to navigate along the northern half of the river.
Visual Amenity Impacts	Low significance	Low significance	Residents most likely to be impacted by the dredge are those within the Harrington Waters estate. Dredging will not take place immediately in front of the Harrington waters estate but will be limited to the far bank. The EIS considers the dredging operation will not have a detrimental impact on the visual or scenic amenity enjoyed by the residents as the dredge is mobile, the dredging operations extend over the dredge area, the dredge is low level and is not large enough to create a visual obstruction, given the expanse of the waterway. The Department is satisfied that the visual impacts of the dredging operations are likely to be minimal.
Impacts on Heritage	Low significance	Low significance	There is limited potential for intact Aboriginal sites or objects within the proposed dredge area. The EIS has considered European maritime heritage in the vicinity of the proposed dredge area. The only area of heritage significance is the remains of Newton's (Pelican Bay) shipyard on the northern bank of the river. The shipyard is of significance being the largest shipyard on the Manning River, when shipyards in the area were the most productive centres of the shipping industry north of Sydney.

5.1 Noise Impacts

An acoustical assessment of the proposed extension to the dredge area was undertaken to establish the potential noise impacts of the proposal. The ambient noise levels were measured and found to be between L_{A90} 34 and 36 dB(A) for the daytime period, which is typical for rural and suburban areas. In accordance with the *Industrial Noise Policy* an intrusiveness criteria of L_{Aeq} 41 dB(A) would apply to the residences within the Harrington Waters estate to the northeast and the township of Manning Point to the southeast (approximately 825 metres distance). A lower intrusiveness criteria of L_{Aeq} 39 dB(A) would apply at the next closest residence at 1541 Manning Point Road (to the southwest).

The predicted noise levels for the various operating scenarios are provided in Table 2, below.

Table 2 – Predicted Noise Levels L_{Aeq} dB(A)

RECEPTOR	DREDGE LOCATION	CALM	WIND 3m/s	L_{Aeq} Intrusiveness criteria	L_{Aeq} Amenity criteria	L_{A10} Construction criteria
Harrington Waters	West	46	56	41	50	56
	Mid	55	61	41	50	56
	Nearest	66	67	41	50	56
	East	56	62	41	50	56
	West south bank	45	55	41	50	56
	Mid south bank	52	59	41	50	56
	Nearest south bank	55	61	41	50	56
	East south bank	53	60	41	50	56
Manning Point	West	37	47	41	50	56
	Mid	40	49	41	50	56
	East	45	55	41	50	56
Manning Point Road	West	43	53	39	50	54
	Mid	40	49	39	50	54
	East	39	49	39	50	54

As shown in Table 2 the predicted noise levels for the proposed dredge area exceeds the noise criteria (41 and 39 dB(A)) at most locations. The most significant exceedances are predicted to occur in the Harrington Waters estate where the dredge would be operating as close as 75 metres to the nearest residence. The Applicant states that the dredge would only spend a relatively short period of time in proximity to the northern bank as there is less material in this area. The dredge would spend the majority of the time closer to the southern bank of the river where there is a concentration of material.

The EIS suggests that as the proposed dredging is a short term project lasting up to 12 months, alternative criterion have been proposed. These are a daytime amenity criterion of L_{Aeq} 50 dB(A) to apply to all 3 locations and an L_{A10} construction criteria of 56 and 54 db(A). With the application of the construction criteria there would be no exceedances at Manning Point or Manning Point Road during calm or wind conditions. There would only be one exceedance when the dredge was operating closest to the Harrington Waters residences during calm

weather conditions. However, under windy conditions the construction criteria would be exceeded at Harrington Waters under all scenarios.
The acoustical study concludes that with mitigation measures including operating the dredge to minimise noise levels, restricted daytime operating hours and the substitution of a dredge with a lower sound power would ameliorate noise levels.

Issues raised in submissions

The Department did not receive any public submissions raising concerns about noise impacts from the dredging operations.

The Department of Environment and Conservation (DEC) requested additional information from the Applicant about the noise impact on residences in the Harrington Waters estate and the mitigation measures which would be employed to reduce noise impacts. The DEC has reviewed the additional information provided by the Applicant and does not agree with the proposal to apply construction noise criteria for the dredging operation. The Industrial Noise Policy makes provision for proposals which may not meet the recommended L_{Aeq} noise levels. These provisions may require the Applicant to demonstrate that all feasible and reasonable mitigation measures have been considered and if necessary, that potentially affected residents have been consulted and negotiated agreements reached. The DEC has issued its General Terms of Approval for the proposal, which includes the more stringent noise levels determined in accordance with the Industrial Noise Policy.

The Department's position

The Department is satisfied that the noise impacts have been adequately assessed by the Applicant, however does not agree to the proposal to apply the construction noise criteria for noise compliance. The EIS predicted that at most locations the noise criteria under the Industrial Noise Policy would be exceeded. Using the construction noise criteria, exceedances would only occur with the dredge closest to Harrington Waters during calm weather and under all dredge scenarios during windy conditions. The Department does not consider it is appropriate to apply the construction noise criteria to dredging activities, which is essentially an operational activity. Under certain phases of the dredging operation noise is likely to exceed by as much as 26 db(A) above the Industrial Noise Policy's intrusiveness criteria.

In order to minimise the potential noise impacts the Applicant has proposed noise management and mitigation to be documented in a Noise Management Plan. The Plan would:

- Distribute information to potentially affected residents outlining proposed works and mechanism for registering complaints;
- Adopt a dredge plan that prevents the dredger from working within 250 metres of existing residences for more than 5 consecutive days, and commence dredging at the downstream (southern) end closest to the Harrington Waters residences to minimise the additional residences that will be impacted in the future;
- Undertake noise monitoring at a complainants residence, to determine if an exceedance of the noise criteria is occurring;
- If exceedances are recorded at the residences during unfavourable wind conditions only, dredging could be temporarily ceased when steady winds (3m/s) occur from the southwest;
- If multiple complaints received and/or personal consultation with complaints cannot be resolve the issue, then the dredger engine should be reduced and concurrent monitoring of noise levels at the affected residences will be required to determine if, and how much engine output needs to be reduced to comply;

- If reducing engine output does not reduce the noise output sufficiently or the required engine output reduction compromises the efficiency of the dredging operation, additional mechanical noise reduction/attenuation should be carried out; and
- a protocol for handling noise complaints that includes recording, reporting and acting on complaints.

However, with the implementation of the above measures, noise levels in the Harrington Estate are likely to exceed the noise criteria when the dredge is operating in close proximity to the residences. The Applicant states that under calm weather conditions 5 dwellings in the Harrington Waters estate would potentially be affected, however the number could be increased as many of the vacant blocks are undeveloped, if the project is prolonged. The DEC has advised that where noise criteria are exceeded with noise mitigation measures implemented, the Industrial Noise Policy provides for negotiated agreements between the proponent and the affected community.

The Department considers that the requirement for the Applicant to negotiate an agreement with the affected residences to be appropriate in addressing the noise impacts of the proposed dredging activity. The recommended conditions of consent, should the Minister approve the proposal, require the Applicant to enter into an agreement with all landowners where the noise limits specified in Table 2 are exceeded. The recommended conditions include the DEC's general terms of approval and a requirement for a compliance noise assessment report to be submitted to the Director-General at three-monthly intervals.

5.2 Impacts on River Beds and Banks

The impacts of the proposed dredging on the Manning River's hydrodynamics and sediment transport processes were assessed by utilising a two-dimensional model. The same model was used to assess the river processes of the previous dredging works. The Applicant identified and assessed the key impacts of the proposal as:

- tidal hydraulics;
- fluvial hydraulics;
- sediment transport, erosion and accretion; and
- bank erosion.

The modelling assessed two dredging scenarios, the dredging of approximately 400,000 m^3 of material to a depth of 0.5 m below the existing thalweg level, and the removal of approximately 520,000 m^3 of material (the proposal) to a depth of 1.5 m below the existing thalweg level. The EIS concluded both scenarios had minimal impacts on the river processes.

Tidal hydraulics

The EIS acknowledges that the removal of a substantial amount of material from the riverbed (deepening) would reduce frictional resistance associated with river flows which could potentially impact upon the high and low tide levels both upstream and downstream of the site. The modelling of the river's hydrodynamics predicted a decrease in tidal velocities in the immediate vicinity of the dredged area and a slight increase in velocities at the upstream and downstream extremities of the dredged area. .

The modelling indicates that the area of increased velocities would remain localised to within 1 kilometre upstream and downstream of the dredging site with expected localised increases in peak flood velocity. Tidal velocities have increased slightly through Pelican Bay especially during the peak flood tidal velocity.

The EIS concludes the proposal would only have a slight impact within the dredge footprint and its immediate environment. The increase in the tidal velocities is relatively small and generally less than 0.1m/s. The modelling showed there would be a minimal impact on the tidal hydraulics of the river and there would be insignificant effects on estuary flushing and the associated health of the aquatic ecosystems and no adverse impact on navigation through the proposed dredge area.

Fluvial hydraulics

Modelling of the impact of the proposed dredge area on flood levels and velocities was under taken for a 20 year event. The modelling shows that peak fluvial velocities are affected both upstream and downstream of the dredge area. The impact upstream extends for a distance of approximately 4 km with a maximum increase in peak flood velocities of 0.02m/s (1.5% increase). Downstream the modelling indicates there is an increase in peak flow velocities around Pelican Point and at the entrance of Pelican Bay of up to 0.1 m/s. This represents a change of 9% in the main river channel and 60% at the entrance to Pelican Bay.

The model predicted the maximum peak water level would decrease by up to 20mm upstream of the dredge extent and 40mm downstream. Within Pelican Bay the water level would decrease by approximately 20mm. The EIS considers that the flood level and velocity impacts are relatively minor, except adjacent to the riverbank at the entrance to Pelican Bay. This issue is discussed in more detail under bank erosion, below.

Sediment transport, erosion and accretion

Based on sediment analysis of the material in the proposed dredge area, the sediment is from a fluvial environment. Consequently the main sedimentary process that would infill the proposed dredge area is fluvial dominated rather than coastal processes. The source of the sediment would be from the catchment and would be transported primarily during flood events.

The impact of the proposal on fluvial sediment transport was assessed under a 20 year event at a control point approximately 1 km downstream of the proposed dredge area. The modelling shows that the proposal would increase the amount of sediment transported at the control location by approximately 4%. The EIS considers the proposed dredging would have a relatively minimal impact on the amount of sediment being transported and is unlikely to significantly impact on the infill rates of the dredge hole created by dredging carried out in 1998 (downstream of the proposed dredge area).

The modelling in the EIS describes that in time the dredge hole will fill with fluvial sediments, primarily by fluvial sedimentation as a result of flood events. The Applicant acknowledges that the time frame under which the infilling process will occur is difficult to accurately predict, but is likely to be in the order of decades.

Bank erosion

The EIS notes that bank erosion is prevalent along the lower reaches of the Manning River. The primary erosion mechanisms are endemic meandering processes (for erosion on the outside of bends) combined with wave erosion at the surface (wind generated or boat wash). Wave based erosion has been exacerbated by the removal of riparian vegetation. A recent assessment of bank erosion in the vicinity of the proposed dredge hole indicates a riverbank recession rate of up to 0.5m/year.

The modelling undertaken indicated that during a flood event there would be localised increase in velocities near the riverbank downstream of the proposed dredge area near the entrance to Pelican Bay, up to 0.05 m/s or an increase of about 60%. The Applicant considers the proposal is not likely to significantly exacerbate bank erosion at the waters edge or on the underwater

slopes, which would affect the stability of the riverbank. However, monitoring of the riverbank upstream and downstream of the proposed dredge area would be carried out for erosion caused by the proposed dredging. The monitoring would be similar to that carried out for the previously dredged area immediately upstream.

Issues raised in submissions

One submission raised concern about changing the natural waterflow of the mouth of the Manning River and the buildup of land in Harrington Waters and resultant impact on flood levels on Pelican Point.

One submission objected to the impact of dredging on beaches within the mouth of the river, faster water flow dislodging ribbon weed and removal of soft sediment and replacement with bare rock does not provide habitat for fish and crustaceans.

The Department of Primary Industries (Fisheries) raised concern about the impacts of dredging on changes to the tidal prisms and the flow-on impacts of increased drawdown of groundwater from drains increasing acid water discharge, and the stability of shorelines. The DPI requested that these concerns be addressed in conditions of consent.

The Department's position

The Department's initial assessment of the proposal raised concerns that the proposed dredge sediments were marine sands rather than fluvial sands and the consequent impact on coastal erosion near the entrance of the Manning River. The Applicant was requested to provide additional information on the modelling undertaken to assess the impact of the proposed dredge area on river processes and bed and bank stability, and the cumulative impact of the previously dredged areas (upstream and downstream of the site). Additional modelling was undertaken on sediment fluxes of the river under various tidal situations and a re-assessment of the expected rate of infill of the proposed dredge hole.

To address the Department's concerns about the transport of sediments, the Applicant modelled the river bed at various locations upstream and downstream of the proposed and previously dredged areas, based on a pre-extraction river profile. In total, seven cross sections was established to calculate sediment flux during a flood tide (mean spring tide). The model results indicated that the proposal would increase the sediment transported at a location downstream of the dredged area (Line 1) by about 4000-6000 kg per tidal cycle (or a 2% increase). The modelling also indicated that the majority of the sediment transported across Line 1 would be deposited in the area immediately upstream. At Line 2 (upstream of the 1990s dredge area) the predicted sediment transport rate is about 2% of the rate passing Line 1 (about 1000 kg per tidal cycle). The proposal is expected to increase the sediment flux by about 30 to 40 kg per cycle (4% increase) at Line 2. The model indicates that marine sand influences beyond Line 2 are very small. Sediment transport further upstream is considered to be insignificant from a marine environment perspective.

The modelling indicated that the dredge area near the entrance to the Harrington Back Channel is expected to be infilled within 8 to 25 years with the source of the material being marine sand from the lower reaches of the river. Infilling of the previous and proposed dredge areas is expected to occur within a period of approximately 200 to 800 years, with sediment of fluvial origins (99%). The fluvial sediments are sourced from the upstream catchment.

The Department is satisfied that the additional modelling has shown that the proposal has minimal impact on sediment transport and the additional dredging will not adversely affect the beaches adjacent to the river entrances in the short to medium term. The erosion of beaches

will continue to occur from natural coastal processes and the proposal is unlikely to exacerbate this. Marine sands will continue to be deposited in the lower reaches of the river and is not a significant feature of the proposed dredge area.

The Applicant has stated that monitoring of the recently completed dredge area (upstream of the proposal) has shown that river bed dredging has not affected river turbidity, acidity and river bed and bank erosion. A hydrographic survey of the dredge area and riverbanks and bed was conducted following a near bank-full flood in August 2004. The survey indicated there was minimal infilling of the dredge area and the banks were not destabilised or undermined. The Department is satisfied that the proposal has minimal impacts on the flood behaviour of the Manning River.

The Applicant states that the provision of a regular hydrological survey of the riverbed in the dredge area, as required for the previously dredged area, would provide a mechanism to monitor bed and bank erosion and sediment accretion. The approval for the previously dredged area required the Applicant to submit a hydrological survey of the dredge area for a period of ten years following the completion of dredging. Similar monitoring requirements for the proposal would assist in assessing the cumulative impacts and verifying the predictions made by the modelling of the river processes.

The Department is of the opinion that the proposal to extend the dredging of the river downstream of the previously dredge area has minimal environmental impacts on the river processes and hydrodynamics. A rigorous monitoring and reporting program is recommended to ensure that the impacts of the proposal are as predicted. The Department recommends, should the Minister approve the proposal, a requirement for the Applicant to develop and implement a monitoring program, the establishment of an Independent Expert Panel to monitor dredging and post-dredging reporting requirements, and the lodgement of a bank guarantee to the Department of Lands to undertake any monitoring and/or remedial work.

5.3 Water Quality Impacts

The Applicant describes that the water quality of the Manning River at the proposed dredge site location is considered to be relatively good, given its proximity to the ocean entrance and the frequency of tidal flushing. The EIS identifies a number of potential impacts from the dredging operation as follows:

- Turbidity associated with dredging – the EIS describes that material to be removed is characterised as fine to coarse sands with some shell and fines (silts or clays). Disturbance of this material could result in resuspension of fines which would locally increase turbidity around the dredge head. Water quality results of the previously dredged upstream site did not result in significant generation of turbidity as a result of the dredging operations. As the proposed dredge site contains less fines than the previous site, it is unlikely that turbidity would be a greater issue.
- Oil and petrol spillage – the EIS notes that there is the potential for oil, chemical and petrol spillage when fuel and oil are transferred from the shoreline to the work boat and from the work boat to the dredge.
- Turbidity due to discharge pipeline – the Applicant advises that should the discharge pipeline rupture it is possible that dredge slurry could be released into the river.
- Pollution due to suspended solids and low pH in return waters – due to the nature of the material being removed, it is possible that the return waters from filling areas will contain low pH resulting from acid sulfate soils, or high levels of turbidity due to the presence of significant fines in the material.

The Applicant proposes a number of measures in the EIS to mitigate the impacts of the dredging operation on water quality. It is proposed to use in-situ water probes within the river around the proposed dredge area to monitor water quality and determine impacts associated with dredging activities. The probes would be deployed upstream and downstream of the proposed dredge area, within Pelican Bay (the main oyster farming area), nearby seagrass beds and at an upstream control point.

Other measures include the use of turbidity curtains around the active dredge head, bunding provided at all fittings on the fuel barge and on the dredge so that any spillage of fuel can be isolated before entry into the river, and the continuous monitoring of equipment and the discharge pipeline. Should leakage be detected, the EIS describes that pumping will cease, while the pipeline is cleared and the damage is repaired.

Acid sulfate soils

The Applicant undertook an assessment of acid sulfate soils within the proposed dredge area. The results of the assessment indicated an absence of acid sulfate soils within the riverbed sediments, however the results indicate the presence of potential acid sulfate soils (PASS). Testing of the sediments from the previously dredged area has shown that elevated PASS conditions are associated with the fines within the sediments (silts/clays). The dredging process will result in the segregation and accumulation of fines within sediment basins, facilitating their treatment.

The EIS concluded that due to the sporadic distribution of PASS within the proposed extraction area, that all materials to be dredged should be considered to contain PASS, unless otherwise confirmed by monitoring carried out during dredging. The Applicant proposes to carry out dredging activities in accordance with an Acid Sulfate Soil Management Plan.

Issues raised in submissions

The submission from the Manning Delta Landholders Protection Committee raised concern at the release of acid sulfate soils from dredging and filling of land with river sediments.

The Department of Primary Industries (Fisheries) raised concern about the impacts of dredging on water quality and turbidity on nearby oyster leases, release of acid from acid sulfate soils and potential impacts on seagrass beds from turbidity or erosion of the cut batter. The DPI requested that these concerns be addressed in conditions of consent.

The Department of Environment and Conservation has issued its General Terms of Approval for the proposal, which include performance and monitoring requirements, for water quality (dredge and discharge waters) and pollutants.

The Department's position

The Department is satisfied that an appropriate assessment has been undertaken by the Applicant in regards to the potential impact on water quality, both in relation to the impacts of the river water quality and impacts from discharge of the return waters.

The conditions of consent, should the Minister approve the DA, provide for a comprehensive water quality monitoring program for both river water quality and discharge waters in line with the commitments in the EIS and recommendations from the DEC. The recommended conditions also require the preparation of a Water Management Plan which will outline methods for managing water quality impacts and will provide contingency measures should mitigation measures prove ineffective in preventing impacts on water quality.

In order to ensure that any ASS or PASS soils are adequately identified and managed, the Department has included in the recommended conditions of consent a requirement that the Applicant prepare an ASSMP. The Plan shall be prepared in accordance with the Acid Sulfate Soils Assessment Guidelines. It is considered that this plan will adequately present strategies and procedures for the management of potential acid sulfate soils during the dredging process.

5.4 Impacts on Aquatic Flora and Fauna

The EIS describes that the aquatic ecology of the lower Manning River in the vicinity of the proposed dredging includes plant communities such as seagrass beds along the river shallows, macro-algae on hard structures in the river, mangrove stands and salt marsh communities along the intertidal fringes of the river. Animal communities include the macro-invertebrates, fish, marine mammals and aquatic birds.

The main ecological units are intertidal wetlands; other emergent vegetation including small isolated clumps of reeds, and shallow shoaling areas with and without seagrass cover. The only hard substratum habitat in the locality is associated with oyster racks and jetties.

The fringing wetlands comprise either large mangrove wetland complexes or simple fringing patches of individual mangroves. Field survey of the SEPP 14 wetlands in the vicinity of the dredge area comprised 4 main wetland areas. These are:

- Wetland 547 – north of the river and east of the proposed dredging area;
- Wetland 448 – within Harrington Inlet and downstream of wetland 547;
- Wetland 552 – within Pelican Bay; and
- Wetlands 550 and 549 – extensions of the pelican bay wetland and are located within the mouth of Pelican Bay.

The Manning River estuary is the third largest water area on the North Coast and supports about 0.33km^2 of seagrass. Eelgrass (Zostera capricornia) commonly occurs on the mudflats and shallows along the shores of the Manning River below Taree and in the Harrington Inlet. Paddle weed (Halophila ovalis) occurs as sparse patches in shallow waters along the river edges and in Harrington Inlet. Seagrass mapping and ground truthing surveys were undertaken in the vicinity of the proposed dredge area. Only eelgrass was located adjacent to the proposed dredge area, and occurred in either wide beds on shoals off-shore from the large wetland complexes or as thin strips along the river bank. Seagrass bed evenness and distribution was generally uniform along both sides of the river and assessed as medium to dense cover and in good to excellent condition.

The Applicant identified 28 species of wading and marine birds which may utilise the water and shorelines and are considered to have the potential to be affected by the proposal as they utilise waterways, mudflats, sand bars and shorelines. Identified impacts are related to disturbance of individuals due to noise from the dredge itself and service boat and visible activity within the dredge area. The EIS considers these impacts to be limited due to the absence of mudflats and shoals within the dredge area. The Applicant advises that no foraging areas will be lost as a consequence of the dredging nor will they be alienated during operations. The Applicant undertook and provided details of the eight part tests applied for these species and determined that the proposal is not likely to have a significant impact on any threatened species or its habitat.

The Applicant also identified 5 species listed under the *Environment Protection and Biodiversity Conservation Act, 1999* within the study area. These species are the White Bellied Sea Eagle, Crested Tern, Little tern, Whimbrel and Cattle Egret. The Applicant concludes that the proposed

development will not result in any significant impact on any threatened species and provides appropriate justification.

Threatened aquatic species have been added to the *Fisheries Management Act 1994* and a number of marine and estuarine shark and fish species are listed as vulnerable species. These are the Grey Nurse Shark, Great White Shark and the Black Rock Cod. The EIS has concluded that the two shark species would occur in off-shore areas off the coast from the Manning River entrance. They would not occur in the river or Back Channel. As there would be no significant impact on marine habitats and water quality outside the Harrington Inlet, the EIS concludes there would be no impact on the two shark species.

The Black Rock Cod is a coastal and estuarine rocky reef species. The EIS concludes that the Manning River entrance training walls and the inner side of the northern training wall between the river and Harrington Inlet could provide Black Rock Cod habitat. Potential suitable habitat is located more than 2km downstream of the proposed dredge area and the Black Cod would only be placed at risk from smothering of its shelter habitat by sand or silt from the dredged area. Based on the observations from the lack of smothering of the training walls from previously dredged areas close to the river entrance and the dredged area immediately upstream, the EIS concludes the proposal is unlikely to impact on the habitat of the Black Rock Cod.

The Applicant proposes to design the extraction footprint to limit the impact of the proposal on aquatic and fringing flora and fauna. In order to ensure that the proposal will not result in any significant loss of existing wetland area or any fish habitat or seagrass bed, the dredging will be confined to an extraction area which leaves a 50 metre buffer zone between the upper edge of the dredging batter and adjacent seagrass beds.

Issues raised in submissions

The Department did not receive any submissions raising concerns about impacts on flora and fauna species and/or habitats.

The Department's position

The Department has reviewed the assessment provided in the EIS and is satisfied that the Applicant's assessment of flora and fauna is adequate. The conclusions drawn by the Applicant following the Eight Part tests for threatened species are supported by the Department.

In order to ensure that impacts are minimised, the Applicant will be required, should the Minister approve the DA, to prepare a flora and fauna management plan, in consultation with the Department of Environment and Conservation. The Plan would be prepared by an appropriately qualified and/or experienced ecologist. The ecologist would be responsible for providing advice to minimise potential impacts upon threatened and protected fauna species that may utilise the site and to provide expert advice on the management of these species.

6. SECTION 79C CONSIDERATION

Section 79C of the Act sets out the matters that a consent authority must take into consideration when it determines a development application. The Department has assessed the DA against these matters (see Appendix B) and is satisfied that:

- The proposal is consistent with the provisions of the relevant environmental planning instruments;
- The potential impacts can either be mitigated or managed; and

- The issues raised in submissions can be managed or mitigated by the proposed conditions.

The Department is satisfied that the merits of the proposed development warrant approval subject to the recommended conditions of consent.

7. CONCLUSION

The Department concludes that the proposal to undertake dredging of riverbed material has minimal impacts on the Manning River and its environment. The proposed extraction activities can be effectively managed through the recommended consent conditions and the monitoring requirements following the cessation of dredging. The proposal is consistent with State and regional planning objectives. The overall public benefit from the development of adjacent flood-prone land for residential development generates social and economic benefits for the local and regional community with minimal long-term impacts on river processes.

8. RECOMMENDED INSTRUMENT OF CONSENT

Should the Minister determine to approve the development application, the Department recommends that a number of conditions be included with the aim of controlling, monitoring and managing the future environmental performance of the proposed development. The recommended conditions include General Terms of Approval from the DEC and were prepared with consideration of the issues raised in submissions from the various agencies, and the public. The Department's recommended conditions are documented in Schedule 2 of the recommended instrument of consent (tagged "C").

The Applicant is satisfied with the draft instrument of consent and the scope and intent of the conditions. The Department considers that the recommended instrument of consent would mitigate the environmental impacts of the proposal to an appropriate and acceptable level should approval be granted.

9. RECOMMENDATION

It is recommended that the Minister:

i. Consider the findings and recommendations contained in this report; and

ii. Approve the proposed development under section 80 of the *Environmental Planning and Assessment Act 1979.*

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A/Senior EPO

Gordon Kirkby
Acting Director
Major Development Assessment

CONSIDERATION UNDER SECTION 79C

Section 79C requires that the consent authority, when determining a development application, takes into consideration the following matters:

The provisions of:

(i) any environmental planning instrument;

In relation to the proposed development, the following environmental planning instruments apply.

- *State Environmental Planning Policy No. 14 – Coastal Wetlands;*
- *State Environmental Planning Policy No. 33 – Hazardous and Offensive Development;*
- *State Environmental Planning Policy No. 44 – Koala Habitat Protection*
- *State Environmental Planning Policy No. 71 – Coastal Protection;*
- *Hunter Regional Environmental Plan; and*
- *Greater Taree Local Environmental Plan 1995.*

Consideration of the provisions of these instruments, in the context of the proposed development is outlined in section 3.4 and in Appendix B of this report. The Department is satisfied that all relevant planning issues have been addressed and considered in the determination of the development application. The Department concludes that the proposal is consistent with the aims, objectives and provisions of all the applicable environmental planning instruments.

(ii) any draft environmental planning instrument that is or has been placed on public exhibition and details of which have been notified to the consent authority;

No draft environmental planning instrument applies to the proposed development.

(iii) any development control plan;

No development control plan applies to the proposed development.

(iv) any matters prescribed by the regulations that apply to the land to which the development application relates;

Clause 92 of the *Environmental Planning and Assessment Regulation 2000* requires the following matters to be taken into consideration by a consent authority in determining an application:

- ***The Government Coastal Policy (where relevant);***
  The Department concludes that the proposal is consistent with the aims and objectives of the Coastal Policy.
- ***In the case of a DA for the demolition of a building, the provisions of Australian Standard AS 2601-1991: The demolition of structures, as in force 1 July 1993;***
  The proposal does not include demolition.

(v) the likely impacts of that development, including environmental impacts on the natural and built environments, and social and economic impacts in the locality;

Section 5 considers the environmental impacts of the proposed development in detail. The Department is satisfied that all environmental impacts can be appropriately managed and mitigated through the recommended conditions.

(vi) the suitability of the site for the development;

The proposal is consistent with land use objectives; the potential impacts of the proposal can be effectively managed and a number of alternatives have been considered yet rejected. The Department concludes on the basis of this assessment that the site is suitable for the proposal.

(vii) any submissions made in accordance with this Act or the regulations;

The Department received a submission from the Department of Primary Industries (Fisheries) which do not object to the proposal. Three submissions were received from the public, of which one raised objection to the proposal and two raised issues for further consideration. The DEC also submitted a request for additional information, and provided the Department with General Terms of Approval. The matters raised in these submissions are described in section 4, and have been given due consideration, as described in section 5 of this report. The Department is satisfied that all of the issues raised in submissions have been satisfactorily addressed as part of the assessment process, or via conditions in the recommended instrument of consent.

(viii) the public interest.

It is considered that the proposal is consistent with State and regional planning objectives relating to environmental management, sustainable economic development and employment generation. The Department therefore considers that the proposal is in the public interest and all environmental, economic and social issues have been addressed in the assessment of the proposal.

APPENDIX B

PROVISIONS OF ENVIRONMENTAL PLANNING INSTRUMENTS

State Environmental Planning Policy No. 71 – Coastal Protection

Clause 2 - Aims of Policy

(1) This Policy aims:

(a) to protect and manage the natural, cultural, recreational and economic attributes of the New South Wales coast, and
(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
(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
(d) to protect and preserve Aboriginal cultural heritage, and Aboriginal places, values, customs, beliefs and traditional knowledge, and
(e) to ensure that the visual amenity of the coast is protected, and
(f) to protect and preserve beach environments and beach amenity, and
(g) to protect and preserve native coastal vegetation, and
(h) to protect and preserve the marine environment of New South Wales, and
(i) to protect and preserve rock platforms, and
(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
(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
(l) to encourage a strategic approach to coastal management.

Clause 8 – Matters for Consideration

The matters for consideration are the following:

(a) the aims of this Policy set out in clause 2,
(b) existing public access to and along the coastal foreshore for pedestrians or 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,
(c) opportunities to provide new public access to and along the coastal foreshore for pedestrians or persons with a disability,
(d) the suitability of development given its type, location and design and its relationship with the surrounding area,
(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,
(f) the scenic qualities of the New South Wales coast, and means to protect and improve these qualities,
(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,
(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) existing wildlife corridors and the impact of development on these corridors,
(j) the likely impact of coastal processes and coastal hazards on development and any likely impacts of development on coastal processes and coastal hazards,

(k) measures to reduce the potential for conflict between land-based and water-based coastal activities,
(l) measures to protect the cultural places, values, customs, beliefs and traditional knowledge of Aboriginals,
(m) likely impacts of development on the water quality of coastal waterbodies,
(n) the conservation and preservation of items of heritage, archaeological or historic significance,
(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,
(p) only in cases in which a development application in relation to proposed development is determined:
    (i) the cumulative impacts of the proposed development on the environment, and
    (ii) measures to ensure that water and energy usage by the proposed development is efficient.

As detailed in section 5 of this report the Department is satisfied that the proposed additional dredging has minimal impact on the hydrology and hydraulics of the Manning River upstream and downstream of the proposed dredge area. The modelling of the proposal has indicated the proposal has minor impact on tidal flows and flooding in the area, and is unlikely to increase the erosion of the bed and banks in the vicinity. The proposal will have minimal impact on coastal processes near the mouth of the river. The Department's recommended conditions will ensure that impacts can be managed and mitigated for the life of the consent.

Greater Taree Local Environmental Plan 1995

12 General rural zone objectives

The objectives which apply generally to all rural zones are:
(a) the efficient sustainable agricultural utilisation of rural land, particularly prime crop and pasture land,
(b) the conservation of prime crop and pasture land by ensuring that:
- it is not unnecessarily converted to non-agricultural purposes,
- any allotment created for intensive agriculture is potentially capable of sustaining it without detrimental effect on the environment of the locality, and
- development will not have a detrimental effect on agricultural operations in the locality,

(c) the protection or conservation of:
- soil stability by controlling development in accordance with land capability,
- forests of commercial value for timber production and trees and other vegetation in environmentally sensitive areas where the conservation of the vegetation is likely to reduce land degradation,
- land affected by acid sulphate soils by controlling development of that land likely to affect drainage or cause soil disturbance,
- valuable deposits of minerals and extractive materials by controlling the location of development to enable the efficient extraction of those deposits,
- water resources,
- environmental values of the land and visual amenity including landscape and scenic quality, rural character and tourism values,

(d) the protection of development from significant hazards particularly risks from bushfire or flooding so that development would not be likely to increase those hazards,
(e) the location of development in such a way as to avoid creation of road traffic hazards or ribbon development along roads, and
(f) the regulation of development so that it:

- upholds the principles specified in paragraph (c), and
- does not create unreasonable or uneconomic demands, or both, for the provision or extension of public amenities or services.

Zone No 1 (a) Rural General

Objectives of zone

The objectives are:
(a) the objectives specified in clause 12,
(b) the promotion of rural tourist facilities which are appropriate for and require a rural location for efficient operation,
(c) the promotion of industries which require special environmental conditions, such as a large site or remote location, in areas where services and access appropriate to the industry can be facilitated, and
(d) the enabling of development for purposes that are:
- appropriate in a rural location,
- appropriate for agriculturally productive lands used for grazing and cropping, and
- sympathetic with the environmental characteristics of the land.

54 Extractive industries and mines

(1) When determining an application for consent to carry out development for the purposes of an extractive industry or mine, the Council shall take into consideration measures proposed by the applicant:
(a) to reinstate that land,
(b) to remove waste material or refuse,
(c) to secure public safety in the surrounding area, and
(d) to protect the amenity of the locality.

The Department considers the proposal is consistent with the relevant provisions of the Greater Taree LEP. The environmental impacts have been considered in section 5 of this report and the proposal has minimal impacts on the ecology and hydrology of the Manning River. The department's recommended conditions will ensure that impacts can be managed and mitigated for the life of the consent.

Issues Raised in Submissions

Submitter	Support/ Object	Reasons
DEC	Not Stated	Issued general terms of approval
		Notes that the Industrial Noise Policy provides for negotiated agreements with affected residences in situations where the predicted noise levels cannot be met with mitigation measures implemented.
DPI (Fisheries)	Not Stated	Provides issues to be addressed in conditions of consent.
Private Submission	Not Stated	Raised concerns about changing the natural waterflow of the mouth of the Manning River and flooding impacts near Pelican Point.
Private Submission	Object	Dredging and resultant faster water flows will dislodge more ribbon weed which is an important fish habitat.
		Water flows are a white colour in the area that has been dredged. Natural architecture of the river bottom will be damaged. Removal; of soft mud and replacement with bare base does not provide habitat for prawns, mud crabs or fish.

		Dredging of the riverbed is exploitation of a public resource. River edges will erode to refill the volume dredged from the river.
Manning Delta Landholders Protection Committee	Not stated	Noted the presence of acid sulfate soils in the river bottom.
		Farmers work their land under strict acid sulfate controls. Large quantities of sand and soil have been pumped out of the river. Little consistency in Government and Department policies.