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Ms Rita Qasabian Studio Internationale 8-16 Soudan Lane PADDINGTON NSW 2021 Our ref: MP 06 0034

Your ref:

File: 9041821-4

Dear Ms Qasabian.

RE: MP 06_0034 - 76 and 84 Greenwell Point Road, Greenwell Point and Goodnight Island off Orama Crescent, Orient Point (respectively), Proposed Mixed Use Development

I refer to the proposed development at Greenwell Point Road and Goodnight Island and the Department's previous correspondence dated 5 September 2008 and 4 November 2008. This correspondence represents a consolidated response to the outstanding issues with the project and includes issues raised in previous correspondence and following an on-site meeting on Wednesday 3 December 2008.

The Department has several concerns with the project which need to be addressed in the form of a Preferred Project Report pursuant to s75H(6)(b) and (c) of the Environmental Planning and Assessment Act 1979 prior to determination. This report is to outline the proposed changes to the project to minimise its environmental impact as outlined below. A consolidated set of revised plans incorporating the required changes are also to be provided.

The key issues are as follows and are discussed in detail in Annexure A:

- Bulk and scale
- Impacts on the 'Bangalay Sand Forest' Endangered Ecological Community
- Impacts on the Wetlands and surrounding areas
- Car parking
- Flooding and Evacuation
- Water and Wastewater (Goodnight Island)
- Foreshore building line at No 84 Greenwell Point Road
- Dwelling in 7(a) zone on Goodnight Island
- Aboriginal cultural heritage
- Climate change and sea level rise
- Acid sulphate soils
- Helipad
- Construction management
- Landscaping
- Punt and Jetties and consent from Oyster Lessee
- Fire safety
- Underbore
- Boardwalks and Bird hide
- Visual analysis

A revised Statement of Commitments ("SOC") should also be provided which updates the original SOC where relevant and provides certainty in relation to undertakings and timing.

If you have any further enquires in relation to this matter, please contact Kim Johnston on (02) 9228 6489 or via email to kim.johnston@planning.nsw.gov.au

Yours sincerely,

Heather Warton

Director

Coastal Assessments

17/12/08



ANNEXURE A - ISSUES

1. Bulk, Scale and density

There are concerns with the bulk, scale and density of the proposal at all three project locations, which are outlined below. The proposal in its current form adversely impacts on the visual amenity of the location.

76 Greenwell Point Road

While it is acknowledged that this building has been modified throughout the assessment of this project, there is continued concern regarding its bulk and scale, particularly when viewed from the Crookhaven River and Jervis Street.

In particular, the bulk and scale of the southern end of the western elevation of this building is out of character with the streetscape, in particular where both car parking levels protrude above ground. It is noted that the urban design advice prepared by *Architectural Projects* submitted with the project nominated three storeys (11 metres) as being an appropriate height. It is considered that this height would be consistent with the NSW Coastal Design Guidelines and SEPP 71.

The provision of car parking has resulted in an inappropriately tall and bulky building form along Jervis Street. Since Jervis Street consists of one to two storey dwellings which step down the hill well within the existing tree canopy, the effective five storey height of the proposed building overwhelms the scale of its context when viewed from the street or the river.

In relation to the layout of the proposed retail area on the ground floor, the incorporation of a retail arcade is problematic as it undermines the potential for mixed use development to enliven the street. The arcade is also quite narrow at only 3 metres and the design does not incorporate natural light.

Accordingly, refinement of the design is required to include the following:-

- The building mass should be reduced for the portion of the building south of the main entry.
 The maximum acceptable height for this part of the building is four storeys consisting of one
 level of car park and three levels of habitable space with a setback upper level. Achieving the
 necessary height reduction in building mass may require a reduction in the number of rooms
 so that the amount of car parking can be reduced;
- The upper setback level should be of lightweight construction with a high degree of transparency. The use of a lightweight somewhat pitched roof, as recommended in the Urban Design Analysis conducted by Architectural Projects, would more effectively harmonise with the character of the town:
- The building design needs to take into account the adjoining property's privacy and amenity in relation to sunlight;
- The building should have a maximum of one storey of exposed car park wall at the southern end and the wall should be vegetated to soften its impact on the context;
- In order to activate the riverfront garden and limit the extent of the masonry car park wall on the southern elevation, the swimming pool should be retained;
- Access to the west facing retail tenancies along Jervis Street would be better located on the
 outside of the building along the Jervis Street elevation. The strip currently reserved for a
 garden could be widened to at least 3.2m to allow for circulation, allowing access to the retail

- shopfronts and providing a level connection between Greenwell Point Road and the hotel entry. These modifications would also improve security by ensuring separation between retail access and hotel reception (see Figure 1 below).
- The proposed retail shopfronts (Retail 1 and Retail 4) along the northern elevation should have their primary entries from Greenwell Point Road to take advantage of the northerly aspect which may incorporate outdoor seating areas to contribute to the local streetscape (ensure plans, elevations and view analysis are consistent);
- The vertically bisected articulation of these elevations effectively integrates the new building
 with Greenwell Point's village-scale streetscape. This articulation should be maintained by
 locating the shopfront entries in the centre of the elevation; and
- The proposed development has the potential to impact upon views from the public and private domain. An analysis showing the impact on the views from the dwellings on the opposite side of Jervis Street is required.

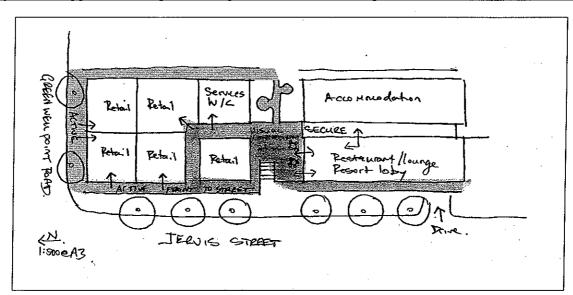


Figure 1: Suggested changes to the ground level of Building at No 76 Greenwell Point Road.

No 84 Greenwell Point Road

Since the proposed built form on this site is of a more modest scale and has only one street frontage, its impact on the local context is reduced. The entries to the proposed retail tenancies should be from Greenwell Point Road only and should take advantage of the northerly aspect which may incorporate outdoor seating areas to contribute to the local streetscape (ensure plans, elevations and view analysis are consistent). The bulk of this building is broken up from the river by the proposed manager's residence and boatshed, however, the permissibility of the rebuilt manager's residence is further discussed below.

Goodnight Island

Generally, the density of development proposed for the island is greater than would be expected in a rural context. The number of cabins and the need for separation between them means that they cover a large portion of the site and potentially interfere with existing vegetation at the outer limit of their extent. Reducing the number of cabins would allow a more comfortable separation between the existing trees and the cabins (this is further discussed in the ecological issues). Generally the amount of accommodation on the island may have to be reduced in response to the limited amount

of car parking available in the two land-based buildings (car parking is further discussed separately). These issues highlight the need to reduce the density of development on the Island.

The design philosophy for the development of the Island was to retain the visual prominence of the grassy knoll and a green fringe around the waters edge. While the Department concurs with this philosophy, it does not believe the design achieves this outcome. There are concerns with the main complex and villa as outlined below.

Main Complex Building

The Visual Impact Analysis demonstrates the potential for this building length to be broken up by vegetation in the foreground and by passageways through the building. The building needs to be read as a series of pavilions and unless significant vegetation is retained and passageways are generous, then the form will appear massively over scaled.

It is acknowledged that when circulating about the island, the rigidity of the proposed building will benefit the viewer's experience. The viewer has the potential to experience the building from different angles, to see different things as the view angle alters and the line of the building does not. However, when one is stationary the long rectilinear structure may appear unsympathetic to the natural character of the island and its topography. The roof appears to assist in breaking up the length of the building, however, further articulation is needed to break up the visual appearance when on higher ground.

On balance, therefore, it is considered the length of this building at over 200 metres is excessive.

Accordingly, refinement of the design is required to include the following:-

- The upturned curve of the roof at the reception area while providing a visual cue to visitors, also provides a highly visible soffit which exacerbates the bulk of the main complex when viewed from the water. Further refinement of this roof form is required;
- The proposed intensity of use in the main complex, which is urban in character, should be reduced to better embody the rural character of the site. A reduction in the building's program should be considered. The sleeping quarters should be reduced in scale and/or the outermost rooms shifted in plan or articulated differently to reduce the impact of the building length; and
- Further larger scale montages and an animation series may assist and should be provided in further design development.

Villa Building

The location and size of the villa building threatens to undermine the design's expressed intention to preserve views of the knoll from both the mainland and when on the island given the roof of this building rises above the level of the knoll. The visual impact of the building is excessive, particularly given that it only provides five bedrooms as accommodation.

There is currently a hierarchy between the cabins, which are lightweight private buildings sited in wooded parts of the site, and the communal areas (e.g. library, restaurant) which consist of a more grounded materials palette and are generally located in cleared parts of the site. The villa building undermines this by employing a similar architectural expression to the main complex and therefore there is a conflict between the architectural expression and size of the villa building and its private function. The location of the villa, being a private building, within the cleared knoll, is also contrary to the use of this area, which is intended to be a central space used by all guests.

Accordingly, refinement of the design and location is required to include the following:-

- The scale of the villa should be reduced or broken up to relate to the scale and expression of the cabins; and
- The villa should be relocated to a more private part of the site, preferably within an expansion of the revegetated part of the site.

2. Impacts on the Bangalay Sand Forest EEC

Goodnight Island contains the 'Bangalay Sand Forest Endangered Ecological Community' ("the ECC") which occurs around the slopes of the island, with the exception of the north-western corner of the island which is cleared (Figure 5 of the Ecological Assessment). The EEC on this site has suffered from poor management over a long period with a substantial portion of the forest/woodland having been cleared and an active program of slashing the undergrowth having persisted for a distance of up to at least 30 metres into the forest edge.

Though the undergrowth is heavily infested with lantana and other weeds, the remnants of the natural substratum is still apparent and could be readily reinstated. The degraded nature of the EEC should not be used as reason for continuing or further diminishing its value.

Due to the extensive loss of trees on the island to date, no additional trees should be removed. The loss of approximately 65 trees for building envelopes and 44 trees that may be affected by root damage or changes to the soil profile, some of which have a dbh of greater than 40cm, represents a significant impact on an already degraded EEC. This impact is considered to be unacceptable and therefore significant changes to the density and layout of the development on the Goodnight Island is required.

Furthermore, the Conservation and Bushland Management Plan provided in Part B of the Ecological Assessment is inadequate as it does not provide the necessary information to guide restoration of the EEC.

Accordingly, there are several changes required to the proposal including:-

- Removal of all structures from within the EEC including the pool, accommodation structures and service pavilions. In particular, removal of Pavilions B-2, B-3, B-4, B-5, B-6 and B-7 is required;
- Relocation of Pavilions A-7, A-8 and A-9 to an area outside the EEC:
- Removal of the Dwelling from the southern side of the island (discussed in detail separately);
- A Habitat and Vegetation Management Plan which outlines the restoration of the natural attributes of the EEC, particularly within the cleared area within the eastern portion of the island as denoted in Figure 5 of the Ecological Assessment, is required. This will require a plan of management to clear the weeds and replant native species with careful consideration of the potential animal and reptile species and their habitat to be restored (particularly mammals which may have inhabited the island previously). This Plan is to be prepared in consultation with the Department of Environment and Climate Change ("DECC") in relation to the delineation of the edge of the forest EEC, given its substantial modification. This Plan may be provided now or a summary of what is to be provided and an undertaking that such a plan will be provided in the Statement of Commitments, is required.

3. Impacts on the SEPP 14 wetland and surrounding waters

A wetland listed under State Environmental Planning Policy No 14 - Coastal Wetlands ("SEPP 14")

occurs around Goodnight Island. The proposal is likely to result in impacts on this wetland surrounding the island and water quality, habitat values, intertidal habitats and seagrass areas. The use of a large area of the Island for sewage treatment will potentially place more pressure on other areas of the island. The mapping of the wetland in SEPP 14 has been acknowledged as inaccurate and needs to be updated for the assessment of this project.

The proposal also includes the filling of three water bodies contained within the SEPP 14 wetland, of which there is no assessment of impact. Insufficient information is provided about these water bodies and their interaction with the estuary and the surrounding wetland to determine the potential impact of filling them.

Accordingly, the following information is required:-

- The impacts of the proposal should be addressed in a Habitat and Vegetation Management Plan ("HVMP") controlling use of the various sensitive areas of the island (this can be combined with the EEC plan). The HVMP shall, as a minimum, include the following:-
 - Site rehabilitation that demonstrates protection of any remnant local native riparian vegetation, rehabilitation of any riparian zones, long term management of riparian zones;
 - Bangalay Sand Forest EEC, rehabilitation and management;
 - Retention of Hollow Bearing trees;
 - Maintenance/ Rehabilitation of the frog pond;
 - Weed management;
 - Water quality/ oyster management;
 - Sea grass habitat management:
 - SEPP 14 Wetlands and riparian areas; and,
 - On site effluent disposal.
- Further assessment regarding the impacts of filling the water bodies is required, having regard to Clause 7(2) of SEPP 14;
- Accurate mapping of SEPP 14 wetland (File format ArcGIS compatible shape file); and
- An assessment of the construction impacts and measures to minimise these impacts in relation to transporting materials to and from Goodnight Island during the construction of facilities on the island.

4. Car Parking

The proposed developments at No 76 and 84 Greenwell Point Road do not provide adequate parking for the proposal. An assessment of the proposal indicates several non compliances with Council's Car Parking Code Development Control Plan 18 ("DCP 18"). Furthermore, the justifications provided in the Martens report for a reduction in on-site parking are not supported. In particular, that all staff will walk to work, and will live in Greenwell Point; that all boats will have four aboard, and that all visitors associated with the private boats moored at the island will not have originally first driven to the mainland site are not supported.

The Department's assessment of car parking requirements against DCP 18, were based upon a number of different accommodation types as described in DCP 18. The accommodation in the pavilion is considered to be a motel, the Villa is considered a guest house and the individual units, are classified as holiday cabins.

Accordingly, the following amendments and further information is required:

- Provision of on-site car parking at 76 and 84 Greenwell Point Road in accordance with the requirements of DCP 18. If adequate car parking cannot be provided than adequate justification for a reduction of car parking must be provided (which are not based on the unsupported earlier justification).
- Calculations are required which show the required number of car parking spaces for each site and where the car parking is provided (i.e. 76 or 84 Greenwell Point Road);
- Redesign of the car parking layout within each building to be consistent with AS2890.1, particularly aisle widths; and
- Demonstrate that all loading/unloading, maintenance and waste servicing of the developments can be undertaken on site in accordance with the requirements of DCP18. Turning paths must be shown illustrating that all vehicles can enter and exit the sites in a forward direction and can undertake safe efficient servicing on site in accordance with standards. On-street loading zones in Jervis Street are unacceptable.

5. Flooding and Evacuation

The sites at No 76 and 84 Greenwell Point Road are affected by flooding and accordingly, the proposed buildings at this site must be designed, constructed and occupied in accordance with the relevant flooding guidelines.

Following an assessment by WMA Water consultants dated September 2008 on behalf of the Department, the following issues need to be addressed in the form of revised plans and/or additional information:-

- The proponent must demonstrate that there is no significant increase in the total population isolated at Greenwell Point during floods and thereby increasing the existing burden on the SES.
- The existing house at 84 Greenwell Point Road must have its habitable floor at or above the FPL.
- All basement car parks must be protected from inundation until at least the FPL and preferably to a higher level with an alternative access available should inundation occur.
- The proposed earthen bund at 84 Greenwell Point Road is an unacceptable form of flood protection as it can be relatively easily modified or eroded.
- The use of flood proof doors at 76 Greenwell Point Road is not failsafe. For a new development the risk of inundation must be "designed out" and not rely upon implementation of measures during an actual flood.
- Any evacuation strategy (from basement car parks or from Greenwell Point itself) cannot be relied upon as a damage minimisation strategy due to the lack of adequate warning time.
- The use of an evacuation plan or flood awareness program is supported however these measures cannot be relied upon to reduce the level of flood risk or flood damages.
- The proponent needs to demonstrate how a proposed boat access area at Greenwell Point and at Orient Point, for use in flood evacuation, can be achieved on land outside its ownership.
- The proponent needs to demonstrate that the proposed boat access from Goodnight Island during a flood can be relied upon. An alternative is to develop a strategy that relies upon not evacuating from the island during a flood.
- The proponent needs to provide further details regarding the definition of high hazard flood areas and the appropriateness of the proposed development in flood liable areas.
- The proponent has not considered the possible impacts of climate change on flood levels and the resulting impacts on the development (discussed separately below). In the absence of other information from the proponent it is recommended that the FPL be raised by 0.6m to take account of a 0.91m sea level rise and a 10% rainfall increase due to climate change. This recommendation can be modified if further details on the possible impacts of climate change are provided.

6. Water and Waste Water - Goodnight Island

a) Wastewater

A review of the 'Concept Water Cycle Management Strategy' prepared by Martens Consulting Engineers dated April 2008 was undertaken by Whitehead & Associates Environmental Consultants ("W&A") on behalf of the Department in relation to the proposed on site effluent treatment system.

This assessment provided the following review:-

- The wastewater generation rate of 14.2 KL per day for the island has not been determined in accordance with best practise methods.
- The Martens (2008a) Strategy did not make allowances for staff, day visitors, pool use and pool backwashing contributing to water consumption and wastewater production.
- W&A have calculated that the predicted daily effluent loads are more likely to be in the order
 of 22.7KL/day in accordance with the AS/NZS1547:2000 Onsite domestic wastewater
 management and the NSW Health Septic Tank and Collection Well Accreditation Guidelines
 (2001).
- Based on the W&A daily load designs the proposed effluent irrigation area of 6,617m2 is significantly undersized, and an area of 24,562m2 would be required to dispose of the 22.7KL/day of treated effluent without wet weather storage and with subsurface irrigation at the design loading rates determined in the Martens (2008a) Strategy.
- Based on the W&A daily load designs the proposed 100KL wet weather storage is significantly undersized and would only support 4.4 days of treated effluent.
- W&A carried out a water balance using climatic data and the W&A predicted daily loads and determined that wet weather storage of 1,400KL is required for an irrigation area of 6,617m2.
 It might be possible to reduce the wet weather storage requirement by increasing the size of the irrigation area.
- Town water will be supplied to the island in case of water shortages.
- Wastewater Management and Emergency Response Plan are developed for the Wastewater Treatment Plant in respect to failure or accidental discharges to the waterway, taking into consideration the requirements of NSW Shellfish Program.
- W&A suggests that clarification on the term 'storage dams' listed in Martens (2007b) be sought from the proponent.
- W&A suggest that the term 'pump out' listed in Martens (2007b) be clarified to ensure that it
 does not refer to a discharge of the effluent to the waterway via a pump and seek clarification
 on how this procedure could be implemented on Goodnight Island.

This review found the following information to be outstanding and which needs to be addressed in the revised plans:-

- Provide clarification on effluent disposal area and wet weather storage size based on W&A amended hydraulic loading.
- Prepare an Operation and Maintenance Management Plan for the wastewater treatment plant and its disposal area.
- Prepare a Wastewater Management Emergency Response Plan in respect to failure or accidental discharges to the waterway, taking into consideration the requirements of NSW Shellfish Program.
- Clarify the term 'storage dams' listed in Martens (2007b).
- Clarify the term 'pump out' listed in Martens (2007b) and seek clarification on how this
 procedure could be implemented on Goodnight Island.

- Provide details on the proposed pool filters and if backwashing is required an amended water and nutrient balance must be prepared to accommodate additional backwash water.
- Provide detailed treatment plant design and engineering details to achieve the desired effluent quality as detailed in Martens (2008a).

These matters need to be addressed to ensure the proposed on-site effluent system is capable of adequately catering for the development.

b) Connection via under bore for reticulated potable water

Clarification of the impacts associated with connecting the Island to reticulated potable water proposed by the under bore (as indicated on a site visit on 20 August 2008) is required. The input of an additional unknown quantity of water into the on-site effluent treatment system, will raise the potential daily load, and may reduce the likelihood of high water conservation values being implemented, as there would always be water available.

The use of the reticulated potable water supply should be limited to for emergency use only, being for structural fires/ kitchen fires and the like. The water shall not be used to top up pools, for toilet flushing, kitchen use etc. Documentation is required to acknowledge this.

The submission made by Shoalhaven Water with regard to the impact on Council's existing infrastructure also needs to be addressed. Written evidence that Shoalhaven Water is able to and willing to extend the supply of reticulated potable water to the Island shall be provided.

7. Foreshore Building Line (Manager's Residence at 84 Greenwell Point Road)

The works proposed to the existing cottage located upon the foreshore to create a managers residence at No 84 Greenwell Point Road are significant and it is considered that such works do not constitute alterations and additions. The scope of the works is such that they are characterised as a new building.

Accordingly, it is necessary for the new building to comply with the foreshore building setback of 15.24 metres from the mean high water mark and have floor levels which comply with flood planning levels. Revised plans reflecting the Manager's residence being located behind this foreshore building line are required.

8. Dwelling in 7(a) zone on Goodnight Island (caretaker's dwelling)

The proposed "dwelling" on Goodnight Island is for a Caretaker's Dwelling and is located in the 7(a) Environmental Protection 'A' (Ecology) zone. While a dwelling house is permissible with development consent pursuant to *Shoalhaven Local Environmental Plan 1985* (Cl 14(2)(b) and 15(2)(b)), a dwelling to be used as a caretaker's cottage associated with the tourist facility as currently proposed, is not permissible.

Accordingly, the caretaker's cottage should be deleted. A verbal undertaking was given at the onsite meeting on 3 December 2008 that this dwelling would be deleted. Confirmation that this dwelling is to be deleted is to be provided on the revised plans.

9. Aboriginal Cultural Heritage

Currently the project has not assessed Aboriginal cultural heritage satisfactorily.

Aboriginal cultural heritage must be assessed in accordance with the DECC guidelines, *Interim Community Consultation Requirements for Applicants*. Documentary evidence must be provided that demonstrates Community Consultation has been carried out in accordance with the Guidelines. A Heritage Impact Assessment report in accordance with the guidelines must also be provided.

10. Climate Change and Sea Level Rise

The impacts of climate change on the marine and terrestrial ecosystems affected by the proposal have not been considered. The location of the site renders the proposal susceptible to the impacts of rising sea levels as a result of climate change, however, these impacts and the impacts of rising sea levels on the EEC's which fringe the Island have not been addressed.

The DECC's Floodplain Risk Management Guideline, *Practical Consideration of Climate Change* (2007) and the CSIRO projections for sea level rise along the NSW Coast (refer references in Guideline document) provide a reference for consideration of this issue. Consultation with the Coastal Branch of the DECC (Mr Doug Lord for coastal erosion and Mr Duncan McLuckie for flooding) should be undertaken for this project. This assessment may need to include sensitivity analyses of various scenarios and must also be considered in the flooding analysis outlined above. Evidence that climate change has been factored into the design of built assets is to be provided in the revised plans and documentation.

11. Acid Sulphate Soils (ASS)

The land at 76 and 84 Greenwell Point Road are mapped as being affected by Acid Sulfate Soils (within 1 metre of ground surface), however, these sites were not included in the ASS for the proposal.

A geotechnical investigation of these sites in accordance with *Acid Sulphate Soil Management Advisory Committee Guidelines* dated August 1998 and DECC's *Environmental Guideline Assessing and Managing Acid Sulfate Soil*, as prepared for Goodnight Island by Martens Consulting Engineers, is required.

In addition, further ASS assessment is required on Goodnight Island in relation to the under bore, bird hide, marina, relocation of the vehicle punt, any jetties on the southern side of the Island and other structures that may affect the ASS that have not been included in the geotechnical report prepared by Martens Consulting Engineers.

12. Helipad

Concern is raised with general helicopter access to Goodnight Island due to the impacts on migratory bird paths, impacts on other fauna, general noise impacts and potential conflicts with Defence flight paths. Helicopter access to the Island is supported for emergency purposes only. Accordingly, the proposed helipad is to be removed. Informal access for a helicopter can be accommodated on the site if required.

13. Construction Management

An assessment of the construction impacts and measures to minimise impacts upon oyster industry/ water quality during construction must be provided. In particular, potential impacts in relation to transportation of materials to and from Goodnight Island during construction work on the island is to be provided.

14. Landscaping

The ecological sensitivity of the environment has not been taken into consideration in the Landscaping Plan for the development. The landscaping plan indicates the plantings will involve several plants which are not endemic to the area and in some cases are considered to be environmental weeds.

All plans shall be amended to include vegetation that is endemic to the area and which do not include any weed species. Further, staking methods, pot sizes etc should also be provided. A tree plan should also be submitted for Goodnight Island, identifying all trees on site, including those to be retained and removed and this should also contain a species list.

15. Punt and Jetties and Consent from owner of Oyster Lease

Detailed scaled plans regarding the punt relocation including a discussion on the materials, impacts on sea grasses etc must be provided (design drawing similar to marina plan). In addition, confirmation as to whether there are any jetties proposed on the southern side of the Island. If so, detailed plans are to be provided in the revised plans.

The written consent of the lessee of OL84/068 and the Department of Primary Industries ("DPI") is required prior to the determination of the application. If this owners consent is not provided, an alternative means of access to the Island is required.

16. Fire Safety

The NSW Fire Brigade and the NSW Rural Fire Service should be consulted to identify how a fire within buildings on the Island would be extinguished in the event of an emergency, how access would be gained to the island in such a situation by any fire fighting vehicle/ persons, and water supply in an emergency.

17. Under bore

More detailed plans and information are required for the proposed under bore, including the following:-

- Locations of entry and exit points;
- · Proposed environmental protection measures to be used;
- An Acid Sulphate Soil Management Plan;
- Assessment of potential impacts on existing jetty on mainland (proximity of drilling to wharf, access restrictions during construction etc);
- Consent of any land owners on any affected land (in particular land at Orient Point) including licence holders for the jetty;
- Accurate dimensions and plans including depth, width and length;
- · Services to be provided in the under-bore; and
- Evidence of stakeholder consultation including boat and jetty users.

18. Boardwalks and bird hide

During the on-site meeting on 3 December 2008, there was an undertaking that the proposed boardwalks were to be removed from the proposal. Confirmation of the deletion of these boardwalks is to be provided on the revised plans for the proposal.

The revised plans shall also identify the location of the proposed bird hide, the design of which shall be in accordance with the *Park Facilities Manual* (DECC, December 2007), *Chapter Five: Tracks and related Structures*. The location of this structure shall take into account the potential disturbance on flora and fauna by humans, such as noise, and rubbish and lighting of such areas at night is not supported.

19. Visual analysis

The View Analysis sheets submitted with the EA, prepared by Studio Internationale, shall be amended to be represented at scale.