Appendix I

Consideration of Provisions of SEPP 62 – Sustainable Aquaculture from Statement of Environmental Effects (Planit Consulting & Australian Fresh, 2004)

9.2.9 State Environmental Planning Policy No. 62 - Sustainable Aquaculture

State Environmental Planning Policy No. 62 is the principal environmental planning instrument controlling development for the purposes of aquaculture in NSW.

Pursuant to Clause 6(1), this policy prevails in the event of any inconsistency with another environmental planning instrument, inclusive of the Tweed Local Environmental Plan 2000. In this regard, the proposed water supply works to be carried out within the 6(a) Open Space zone are not prohibited by virtue of the exclusion of open space zonings from the specific prohibited areas identified within Clause 7 of Part 2 of the Policy.

Clause 7: Pond Based and Tank based Aquaculture Permissible with Consent

Clause 7 of the policy provides that;

"A person may carry out tank based aquaculture with development consent if in the opinion of the consent authority it complies with the site location and operational requirements set out in Schedule 1 for the development (the minimum performance criteria)."

The minimum performance criteria for permissible development contained in Schedule 1 are reproduced in attached Table 1 together with comments thereon. In brief the proposal satisfies the minimum performance criteria.

Clause 10: Consent Authority to Take Aquaculture Industry Development Plan in to Consideration

Clause 10 of the policy requires the consent authority, in determining a development application, to take into account relevant provisions of any aquaculture industry development plan. The North Coast Sustainable Aquaculture Strategy (August 2000) includes an aquaculture industry development plan comprising sections on:

- Business planning
- Species selection
- Site selection
- Planning and design
- Operating the farm

Site selection and planning and design considerations are particularly relevant to this investigation. The principle issues that arise from these considerations include:

Water Supply

The need for a potable water supply for processing and employees: Water supply is proposed to be obtained from roof water runoff, treated and stored on site to provide an adequate supply.

Flooding

Sites that are flood prone should be avoided. If unavoidable, then a detailed risk assessment should be undertaken: The site is to be filled so that it is protected from the adopted design flood level of 3.3 metres AHD plus 400 mm. A detailed Flood Impact Study is attached for consideration.

Native Title Issues

The NSW North Coast Sustainable Aquaculture Strategy indicates, "*most vacant crown land on the north coast is under one claim or more*".

A license from Tweed Shire Council and the Department of Lands for a pipeline over road reserves to the beach and the beach reserve has avoided the need to resolve any potential native title claims.

Heritage Issues

The proposed site is not affected by heritage listings on the NSW Heritage Office data base or under Tweed Local Environmental Plan 2000 or the North Coast Regional Environmental Plan 1988

Amenity Issues

The Strategy identifies a preferred location where no residences are within 400 m of ponds or pumps or 200m of tanks. There are no apparent dwellings within these buffer distances.

Agricultural Land Issues

The preferred location is where no aerial pesticide spraying occurs within 1 km of the site. There are a number of cane fields to the north and west of the site where spraying

of herbicides and pesticides may occur within 1 km of the subject land. Advice from local growers and the only local aerial spraying contractor confirms that aerial pesticide spraying is not undertaken within 1 km of the site.

Native Vegetation

Section 2.2 of the Planning and Design Guidelines provides for a preferred design which does not disturb native vegetation or habitat. The Tweed Vegetation Management Plan (1999) indicates that the majority of the site is substantially cleared of vegetation. Accordingly the construction of the proposed aquaculture facility will not have a significant impact upon native vegetation.

Coastal Crown Lands and Road Reserve

This has implications for any development within the crown road reserve, however it is considered that suitable underground pipelines as proposed will have negligible impacts on Public Access along the road reserves and to Coastal Crown Lands. Minor disruptions will occur during construction and laying of the pipeline, however these will be short term in duration and have little impact over the life of the project.

CLAUSES 12 AND 13

These clauses provide that a "*project profile analysis*" in relation to the site location and operational attributes of the development is to be completed to determine the level of risk.

The project profile analysis is then used to determine the category of development as follows:

Class 1 – Non designated development – Low level risk;
Class 2 – Non designated development – Medium level risk;
Class 3 – Designated development.

The relevant class of development is determined as follows;

Class 1 – If all the risk levels in relation to each attribute are level 1,
Class 2 – If all the risk levels in relation to each attribute are level 2 or levels 1 and 2,
Class 3 – If any risk level in relation to an attribute is level 3.

The NSW North Coast Sustainable Aquaculture Strategy (August 2000) contains criteria to be considered in a project profile analysis. The relevant criteria are addressed in the following table.

tier 1 – site evaluation for tanks

SITE EVALUATION CRITERIA FOR TANKS	TIER 1 LEVEL OF ASSESSMENT FOR TANKS		
	LEVEL 1	LEVEL 2	LEVEL 3
1. Water Supply Based on DLWC information			
(a) Saline – if dependent on estuarine – tidal amplitude	Ocean intake, therefore tidal amplitude >> than 300mm		
(b) Fresh – water availability	Not applicable – no fresh water aquaculture		

SITE EVALUATION CRITERIA FOR TANKS	TIER 1 LEVEL OF ASSESSMENT FOR TANKS		
	LEVEL 1	LEVEL 2	LEVEL 3
2. Acid Sulfate Soils			
If site <2m AHD; ASS Risk profile based on ASS Risk maps	Ap2	Wa2	
3. Heritage Issues			
(a) Heritage sites based on LEP or REP maps and State Heritage Inventory	No listed sites under Tweed Local Environmental Plan or North Coast Regional Environmental Plan 1988.		
(b) Aboriginal Heritage based on NPWS Aboriginal Sites Register	Highly disturbed site, NPWS register to be searched.		
4.Conservation Issues			
(a) NPWS protected areas, RAMSAR Wetlands, Critical habitat, Aquatic Reserves and Marine Parks (except "General Zone")	Not located in or adjacent these areas and no potential to disturb these areas		
(b) SEPP 14, SEPP 26, Marine Parks ("General Zone") World Heritage Areas	Not located in or adjacent these areas and no potential to disturb these areas		
5. Stock Species			
Note: Species that are inconsistent with translocation policy are not permissible	*Thenus spp.* is indigenous to NSW and is consistent with translocation policy		
6. Site Accessibility			
Vehicle and electricity accessible based on LEP maps and power suppliers information	Existing access and services or access and services can be readily provided		

tier 2 – site evaluation for tanks

SITE EVALUATION CRITERIA FOR TANKS	Tier 2 level of assessment for tanks		
	LEVEL 1	LEVEL 2	LEVEL 3
7. Water Supply			
(a) Water quality risks from nearby land uses	Not applicable		
(b) Potable water for processing or other purposes	Project will utilise roof shed rain water from storage pond treated to potable quality		
8. Water Supply			

SITE EVALUATION CRITERIA FOR TANKS	Tier 2 level of assessment for tanks		
	LEVEL 1	LEVEL 2	LEVEL 3
Access From Rivers or Estuaries			
(a) Estuarine - pump station site		Project requires intake pipelines (into ocean beach) and pump station	
(b) Estuarine - estuary circulation	N/A		
(c) Freshwater - pump station site	N/A		
(d) Freshwater - Environmental flows	N/A		
9. Soils			
For freshwater tank culture: Area to irrigate for agriculture, plantation, horticulture or landscaping if:	Not applicable - Saline water - marine culture with no land disposal of waste water		
(a) no trade waste agreement for disposal of discharge water; or	N/A		
(b) no non-irrigation reuse scheme, e.g. hydroponics	N/A		
10. Hydrology Issues			
(a) Catchment Stormwater Drainage	Project will have provisions to manage across site flows not likely to affect surrounding area		
(b) Flood liability for non-indigenous species to the catchment (except high security species, e.g. barramundi which must be located >PMF	N/A *Thenus spp.* are indigenous		
(c) For fresh water tanks: Drinking water supply protection	Project is not located in a drinking water catchment		
11. Ecology			
(a) Type of existing vegetation on the actual development site	Predominately cleared, some cultivation		
(b) Likely disturbance of native vegetation communities		Pipeline access may require disturbance of native vegetation if it is present	
(c) Likely occurrence	No threatened		

SITE EVALUATION CRITERIA FOR TANKS	Tier 2 level of assessment for tanks		
	LEVEL 1	LEVEL 2	LEVEL 3
of threatened species, populations or ecological communities or their habitats	species, populations or ecological communities or their habitats known or likely to occur – 8 Part Test Report not required		
(d) Likely impact on aquatic habitats and mangroves	No likely disturbance or impact		
12. Aboriginal Heritage			
(a) Location of Aboriginal Sites	Because of the characteristics of the land no aboriginal sites are likely to occur. An Archaeological Study has been undertaken demonstrating that the site is not an aboriginal site.		
(b) Consultation with Aboriginal community (Call NPWS for appropriate contacts)	The local aboriginal community has been consulted.		
(c) Likely impact on Aboriginal heritage	No impact on Aboriginal sites or places of significance to Aboriginal community is likely. The local aboriginal community have been consulted and it is concluded the proposal will not impact on aboriginal items of heritage.		
13 Adjacent Land Use To Tank Culture			
(a) Potential for Conflict with Neighbours	Neighbouring land zoned for compatible purposes e.g. agriculture or industrial development		
(b) Potential Visual Impact	Project predominately housed in building < 7.2 metres in height	Site overlooked by dwellings on Cudgen ridgeline & visible from Motorway overpass. Process	

SITE EVALUATION CRITERIA FOR TANKS	Tier 2 level of assessment for tanks		
	LEVEL 1	LEVEL 2	LEVEL 3
		building 11 metres in height.	
(c) Proximity to Residences	In rural zone with no residences within 200 m of buildings or pumps.		

tier 3 – operational evaluation criteria for tanks

OPERATONAL CRITERIA FOR TANK CULTURE	Tier 3 level of assessment		
	LEVEL 1	LEVEL 2	LEVEL 3
14. Health Management			
(a) Arrangements for the timely identification and treatment of diseases	Project has trained on-site staff (microbiologists, crustacean physiologist) with appropriate facilities		
(b) Clean in Place (CIP)	Project designed with biologically separate systems which can be independently disinfected and dried		
15. Food and Feeding Management			
(a) Feed storage to prevent odour emissions or vermin problems	Feed for project is in frozen storage in enclosed building		
(b) Feeding system	In this project leftover feed is removed from raceways and the quantity leftover is used to adjust the amount fed at the next scheduled feed		
16. Water Monitoring			
(a) Capacity Level (1) DO, temperature & pH	All raceway systems are sampled at least every day for temperature, DO, pH, salinity		
(b) Capacity Level (2) Water analysis eg N,P, Alkalinity/acidity, NFR, BOD	In house facilities for water sampling of raceway systems and wastewater system for nutrients, NFR, BOD etc.		
17. Tank and Raceway Water Management			
(a) Water Supply	Project proposes an ocean intake with twin pipelines and pumping station rated at approx. 200% of maximum daily flow plus eight day storage reserve		

OPERATONAL CRITERIA FOR TANK CULTURE	Tier 3 level of assessment		
	LEVEL 1	LEVEL 2	LEVEL 3
(b) Water quality management and recycle system	Recycle system with mechanical and biofiltration and/or chemical treatment, or better		
(c) Storage capacity of recycling ponds	Project is based on recirculation technology. There are no recycling ponds as in the prawn farming context but the holding pond prior to discharge has a volume >> 2 times the volume of the largest raceway		
18. Tank and raceway discharge water management			
(a) Saline tank and raceway culture (b) Water quality management and recycle system	Recycle system with mechanical and biofiltration and chemical treatment, or better	Mechanical filtering <1000 microns.	
19. Organic Waste Management (eg dead fish, processing waste and other waste)			
(a) Temporary storage of organic waste prior to disposal (eg. dead fish, processing waste and other putrescible waste)	Project proposes daily disposal of organic waste		
(b) Disposal of organic waste	Disposal at an approved off-site recycling or landfill facility		
20. Planning and Building Issues			
(a) Buildings or structures set back from nearest road boundary	> 5 metres		
(b) Building height excluding any parapet	< 7.2 metres	Process building 11 metres in height.	
(c) Landscaping with trees and shrubs on each street frontage or surrounding buildings(except in industrial sites where space is a limiting factor)	Min 3 metres in width		
(d) Driveways with regards to access, widths and turning circle	Comply with R.T.A. standards		
(e) Truck loading and unloading space on site	Queuing or waiting not required on public roads		
(f) Compliance with Building Code of Australia	Meet the deemed to satisfy provisions		

OPERATONAL CRITERIA FOR TANK CULTURE	Tier 3 level of assessment		
	LEVEL 1	LEVEL 2	LEVEL 3
(g) If unsewered site, on-site human sewerage system	Complies with the approval requirements of the Local Govt. Act		

In summary, the proposal can be defined as Class 2 under clause 13(2) (i.e. all risk levels in relation to each attribute are level 2 or levels 1 and 2). It follows pursuant to clause 14(f) of the instrument, that if the proposal can properly be categorized as Class 2, then it would not be classified, as designated development and therefore an Environmental Impact Statement would not be required. (Schedule 3 of the Environmental Planning and Assessment Regulations, 2000 provides that development for the purposes of aquaculture is not designated if State Environmental Planning Policy No.62 – Sustainable Aquaculture applies.)

CLAUSE 15 - ADVERTISED DEVELOPMENT

The proposal is identified as advertised development for the purposes of the EPA Act 1979.

Schedule 1 Pond Based and tank based aquaculture

Part 2 Minimum Performance Criteria for Permissible Development

Clause 2 – Zoning under Environmental Planning Instrument

The proposed tank based aquaculture farm is located within an area zoned for rural purposes. The proposal complies with the requirements of clause 2.

Clause 4 – Elevation AHD for tank based aquaculture

The proposal will be sited on land which is to be filled and bunded to an average RL of 3.7 metres AHD. Complies with the requirements of Clause 4.

Clause 5 – Landform Exclusion Zones

The proposal is not sited on Acid Sulphate Soils identified as EsO, EcO, EuO, or Em on the ASS Risk Maps published by the DLWC.

Clause 6 - Flood Liability

The proposed site is to be protected from the design flood level plus 400 mm adopted by Tweed Shire Council (3.3 metres AHD + 400 mm). The site is to be filled and a bund wall to a height of 3.7 m AHD constructed around the aquaculture farm.

Clause 7 – Conservation Exclusion Zones

The proposed site of the aquaculture farm is not located on land or water identified as a national park, marine park or aquatic reserve, or on vacant Crown land.

Clause 8 - Species Selection

The species proposed to be harvested, *Thenus orientalis* and *Thenus indicus* are identified as suitable species for aquaculture purposes.

Clause 11 - Saline Discharges

The emergency holding pond has the capacity to hold treated seawater for a minimum of 24 hours prior to discharge to the tidal realm of the Tweed River, if required. The proposal is consistent with the provisions of clause 11.

Clause 12 - Outlets from Ponds

Raceway outlets are to be screened to ensure Bay Lobster do not escape into the Tweed River

Conclusion

It is considered the proposal is consistent with the provisions of SEPP 62 for Tank Based aquaculture. For further details in relation to how the proposal satisfies the performance criteria please refer to the engineering and design plans as attached.

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