Great Lakes COUNCIL

Breese Parade Forster
PO Box 450 Forster NSW 2428

phone 02 6591 7222
fax 02 6591 7200
email council@greatlakes.nsw.gov.au

Mr Chris Ritchie
Manager - Industry
Mining and Industry Projects
Department of Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

R: 2547257
MP-SSI-5118
WB:EH
Contact: Wayne Burgess
Telephone: (02) 6591 7292

7 December 2012

Dear Sir

RE: MARINE FINFISH CAGE TRIALS (SSI 5118)
EXHIBITION OF ENVIRONMENTAL IMPACT STATEMENT

I refer to your letter dated 22 October 2012 regarding the above matter.

I advise that the matter was reported to Councils Development Control Unit at its meeting held on 6 December 2012 whereby it was resolved that the information be noted and that the Department of Planning and Infrastructure be advised that Council raises no objection to the proposal.

For your information, a copy of the Council report is attached.

Please contact me on 02-6591 7292 should you have any further enquiries.

Yours faithfully

Wayne Burgess.

WAYNE BURGESS
Manager - Development Assessments
Planning & Environmental Services

Subject: **PES - Application for Marine Aquaculture**

Index: **State Significant Infrastructure - MP-SSI-5118**
Author: **Manager Development Assessments - Wayne Burgess**
DCU Meeting: **6 December 2012**

DETAILS:

Date Received:	23 October 2012
Applicant:	NSW Department of Primary Industries
Owner:	Crown Lands (Port Stephens Great Lakes Marine Park)

SUMMARY OF REPORT:

The NSW Department of Primary Industries is proposing a 20 hectare aquaculture research lease in Providence Bay, situated approximately 4km from Hawks Nest.

The research aims to identify marine finfish species which may be suitable for sustainable commercial seafood production.

An Environmental Impact Statement (EIS) addressing the proposal is on public exhibition.

Relevant issues raised in the EIS are addressed in the report.

SUMMARY OF RECOMMENDATION:

That the information be noted and that the Department be advised that Council raises no objection to the proposal.

FINANCIAL/RESOURCE IMPLICATIONS:

Nil.

POLICY IMPLICATIONS:

Nil.

LEGAL IMPLICATIONS:

Nil.

LIST OF ANNEXURES:

A: Location of the existing Aquaculture Lease and Proposed Research Lease in Providence Bay.

LIST OF ATTACHMENTS:

Nil.

PROPOSAL:

Advice has been received from the NSW Department of Planning and Infrastructure (DoPI) that the Department of Primary Industries (DPI) proposes to develop a 20 hectare Research Lease approximately 4 km off Hawks Nest in Providence Bay, NSW for a period of five years. Floating sea cages anchored to the seafloor would be used to research marine finfish aquaculture. The research will allow the NSW Government to extend its successful marine hatchery research at Port Stephens Fisheries Institute to an offshore sea cage trial. The research will assist to validate the commercial potential of a number of marine finfish species, trial the latest production technologies in the coastal waters of NSW and conduct environmental monitoring. The principal objective of the proposed Research Lease is to contribute to the development of sustainable marine aquaculture in NSW.

The location, the structural design of the proposed sea cages, the cultured species, the research objectives and a preliminary draft of the Environmental Management Plan are outlined in the Environmental Impact Statement (EIS) accompanying the application but will be finalised subject to development approval. Potential locations for staging the construction of the sea cages and facilities associated with the operation of the Research Lease (e.g. moorings and wharfs) have been identified but will also be finalised post-approval.

Under the *State Environmental Planning Policy* (State and Regional Development 2011) the proposal is classified as State Significant Infrastructure and requires approval from Minister for Planning and Infrastructure.

The EIS will be on public exhibition until 29 November 2012.

A copy of a plan showing the location of the existing Aquaculture Lease and proposed Research Lease in Providence bay is contained in Annexure 'A'.

The existing 30 hectare Aquaculture Lease is located approximately 500 m from the site proposed for the Research Lease in Providence Bay. The commercial fish farm is currently not operating and the infrastructure has been removed from the lease site.

REPORT:

Relevant issues raised in the EIS are as follows:

Land based Infrastructure.

No new land based infrastructure (i.e. roads, boat ramps, wharfs, jetties and waste facilities) are required as the existing land based facilities are adequate, including:

- Port of Newcastle
- Port Stephens Fisheries Institute
- Nelson Bay Commercial Fisherman's Co-operative wharf
- Port Stephens mooring facilities.

None of these facilities are situated in the Great Lakes Council area.

Noise Levels.

The operation of the Research Lease will cause a slight increase in noise levels in Providence Bay due to the movements of the service vessels, on board equipment and incidental noise from personnel. However, as the service vessels will be similar to existing recreational and commercial vessels, the noise generated is not considered to be uncharacteristic of the area. Other types of machinery that may be used during the operational stage include hand held welders, mobile cranes, hand tools and small power tools, blowers and winches.

Surrounding communities are not expected to be significantly impacted by the noise associated with the operation of the Research Lease as it is located a considerable distance away from residential areas (e.g. the nearest residential area of Hawks Nest is 4 km southwest) and there will not be a significant increase in vessel movements (i.e. one to three trips per day). The hours of operation for vessel movements and maintenance activities will predominately be restricted to daylight hours. Night operations will only occur in response to emergency incidents, such as after severe weather or reports of suspicious activities.

The distance of the Research Lease from the nearest residential area, the normal daytime operation hours, the sea state, wind conditions and existing background noise will ensure the attenuation of any noise generated by service vessels and associated operational and maintenance activities.

Visual Impacts.

The installation of aquaculture infrastructure alters views from passing vessels and potentially adjacent land areas.

The aquaculture infrastructure will consist of up to eight floating double collared circular sea cages with a diameter of 18m or 40 m. Additional piping will be secured about 1-2 m above the water's surface to form a railing supported by stanchions, which will be used to secure the culture nets and the bird exclusion nets. The anchoring and bridle system will largely not be visible from the surface except for some lengths of polypropylene rope and small mooring buoys. The four navigation buoys, including flashing lights, will be secured at the corners of the lease, which are likely to be visible from Hawks Nest at night.

A number of design features will be utilised to minimise the visibility of the sea cage infrastructure, including the use of dark coloured materials (e.g. black stanchions), minimising and streamlining surface infrastructure, maximising subsurface infrastructure and maintaining a low profile and small scale design.

The location proposed for the Research Lease is approximately 4 km from Hawks Nest which is the nearest residential area. The township is predominantly screened from view of the Research Lease by coastal sand dunes along the beach front. The major land based vantage points in the region with high visitor numbers from which persons may be able to view the sea cage infrastructure is the Hawks Nest Surf Lifesaving Club. Some elevated locations in the Tea Gardens hinterland could offer a long distance view of the Research Lease during calm sea state conditions.

Hawks Nest Surf Lifesaving Club and car park is positioned approximately 4 km southwest of the Research Lease at a slightly elevated position. The sea cage infrastructure, navigation lights (at night) and service vessels are likely to be visible in the distance from this vantage point during calm and clear weather conditions. As Providence Bay is predominately a high energy environment with high wave height, it is expected that the sea cages may be difficult to see for much of the trial period.

Water Quality, Nutrients and Sedimentation.

There are no known seagrass beds, geomorphological formations (i.e. rocky reefs or bomboras) or any other substantial flora or fauna associations in the area proposed for the Research Lease except for phytoplankton in the water column.

The impacts of fish faeces and uneaten feed on water quality and sediments were perceived to be the most important issues for the industry.

As the Research Lease will trial a range of feeds and stocking densities over the five year research period, which have not yet been confirmed, it is difficult to provide estimates for the amount of nutrients which will be discharged into the marine environment.

The risk of the Research Lease having a significant impact on marine habitats in Providence Bay and the wider region is thought to be 'low' when considered in context the high energy environment of Providence Bay, the small scale and short-term operation of the Research Lease, the Water Quality and Benthic Environment Monitoring Program and the implementation of a range of daily operational and maintenance procedures that minimise dissolved and particulate waste inputs.

Great White Sharks.

The Port Stephens region is one of two primary residency regions for juvenile and subadult Great White Sharks on the east coast of Australia – the other being Corner Inlet of eastern Victoria.

Acoustic monitoring data indicates that juvenile sharks are resident to the nursery area for extended periods ranging from weeks to months between September and February but the highest numbers of sharks have been detected from November to January. Interactions with Great White Sharks need to be considered due to their density, seasonal migration and movement patterns in Providence Bay.

The Research Lease is a small scale short-term operation with a total area of 20 hectares (i.e. 370m x 530m). There is approximately 3.5 km of unobstructed waters to the west of the Research Lease in which the sharks can safety navigate through and 2.5 km to the south of the Research Lease and north of Cabbage Tree Island. The obstruction caused by the sea cages is considered unlikely to have a significant impact on the migratory pathways of Great White Sharks in Providence Bay given that extensive areas of similar habitat are available in the direct and wider study area.

To ensure that the Research Lease does not have a significant impact on shark local and migratory movements in proximity to the Research Lease, the occurrence, timing, behaviour and/or duration of occupation will be monitored at the Research Lease, nearby localities and suitable reference locations using a range of sampling methods such as visual census techniques, passive and active acoustic tracking studies and recording incidental sightings and behaviours.

The operation of the Research Lease has raised concerns about the risk of increased numbers of sharks visiting Providence Bay, potential behavioural changes and the associated impact on the safety of other waterway users, notably SCUBA divers, swimmers and Research Lease staff.

Concerns have also been raised that the fish in the sea cages may act as attractants and alter localised shark movements. In particular, there are concerns that the sea cages will increase the duration that sharks occupy the area proposed for the Research Lease and therefore increase the risk of capture in the anti-predator nets and/or incidental hooking.

Furthermore, it is likely that sharks will initially be inquisitive about the captive fish in the sea cages but if no rewards are provided (i.e. injured fish or mortalities), and sufficient barriers are installed, sharks are expected to lose interest as observed on other sea cage farms.

Additional mitigation measures proposed for the Research Lease include anti-predator nets and regular human activity in the Research Lease which may help to deter sharks.

Seals.

Fur seals are known to cause damage to marine culture gear and can be very aggressive in their attempts to prey on caged fish.

The Australian fur seal and the New Zealand fur seal are commonly recorded in the Port Stephens region but there are also occasional sightings of leopard seals. Providence Bay, notably Cabbage Tree Island located 2 km south, is has become a haul-out site for an increasing number of non-breeding seals using the site annually.

The periodic feeding of farm fish and the likely congregation of wild fish stock around the sea cages in response to these feeding events may attract seals into the vicinity of the Research Lease and could potentially modify their feeding behaviour and their interactions with humans.

Improving anti-predator nets is an area of ongoing innovation and research for the aquaculture industries.

The most effective mitigation against negative seal interactions with marine finfish farms have proven to be appropriate net design, appropriate feeding regimes, constant vigilance, gear maintenance and site placement.

CONCLUSION:

The proposed site for the Research Lease is in close proximity to the Port Stephens Fisheries Institute which has suitable fish rearing and land based infrastructure. The proposed site also has suitable characteristics for caged based aquaculture and there is a history of finfish farming in the area and the harbour of Nelson Bay enables necessary logistical support to be provided.

The Department of Planning and Infrastructure has invited Council to make a submission on the proposal by 29 November 2012. In view of the difficulty in meeting the timeline, the Department will accept Council's submission following the DCU meeting.

The proposal was assessed by Council staff whereby no objection is raised with the proposal.

RECOMMENDATION:

DIRECTOR PLANNING & ENVIRONMENTAL SERVICES
It is recommended that the information be noted and that the Department of Planning and Infrastructure be advised that Council raises no objection to the proposal.

ANNEXURES:

A: Location of the existing Aquaculture Lease and proposed Research Lease in Providence Bay.