

*Shoalhaven Crookhaven Rivers
Shellfish Quality Assurance Program*
[REDACTED] *Greenwell Point, NSW 2540*

Co-ordinator:

Anthony Munn
[REDACTED]

Secretary/Treasurer:

Angela Riepsamen
[REDACTED]
[REDACTED]

RE: West Culburra Mixed Use Subdivision

Dear Sir/Madam,

The amended plan is an improvement on the previous IPC refused application, however the latest plans/reports and mitigation measures stating that there will be no and even beneficial impact on the water quality and therefore oyster aquaculture are unrealistic. NSW State Government Reports from 2003 Healthy Rivers Commission, *Review of the Relationship between Healthy Oysters and Healthy Rivers* highlighted increasing threats to growing healthy oysters in NSW from the continued growth in coastal populations.

The Integrated Water Cycle Management Strategy Report, Appendix 15, significantly down-plays the impact of the development. The data presented on oyster harvest zone closures misrepresents the harvest closure periods due to sewage spills and demonstrates a lack of understanding of the NSW Safefood requirements. Sewage spills compulsory closes harvest zones for 21 days, whereas rainfall closures usually only shut for 2-3 days. For example 3 rainfall closures will close the harvest areas for 6 days, 3 sewerage spills will close the harvest areas for a minimum 63 days. Farmers have actively lobbied Council for continual improvement to the aged sewage infrastructure at Culburra and we are concerned that adding additional houses will result in additional 21 day harvest closures. The risk assessments overlook the closures stating the harvesting will only be impacted for 1 day giving the

rating of “No detectable or material environmental impact”, this is clearly wrong and does not assess the commercial impact on farms. Ongoing problems lead to permanent downgrading or total closures of harvest areas. Some farmers derive all income from this one zone which would be directly impacted if mitigation measures fail. Smaller farmers will not survive in the short term. Should mitigation measures fail continually, there is a risk of chronic oyster stress, disease, mortality, stunted and stalled growth rates. Section 3.1.6.3 Surface water attributes Ecoli level in the forest to wildlife. There is a rising sewer line that runs through the forest. What evidence is presented that this Ecoli is from wildlife or an issue with the sewer line that needs further investigating by council? How has this assumption effected the water modelling report?

Statements in the Revised Concept Plan Aq Ecol Impact Report page 84 shows some lack of understanding and does not assess the commercial impact on oyster farms. The report states that nutrient and silt loads may be beneficial to oyster aquaculture. It is common scientific knowledge that increases above the natural levels of nutrient and silt impact negatively on oysters. The current silt and nutrient loads stirred up after adverse weather are enough for oyster health. Oyster eggs and larvae are particularly sensitive to silt. Silt clogs sensitive feeding apparatus in larvae and can lead to infestations of mudworm. (white 2001). Farmers have observed for years the reduced health, increased mortalities and reduced growth during periods of turbid water. This river is a high catch area which farmers depend on for single seed oyster production. The river contains many oyster reefs both natural and man-made which are essential for future crops. Should the mitigation measures fail, what would the sediment and pollution load be in the estuary? Will this impact on oysters and oyster larvae?

Too much nutrient can cause toxic algal outbreaks closing harvest zones for months until the algae has cleared. Testing for toxic algae during a bloom can cost \$1000s per week in monitoring alone, not including \$10000s in lost sales per week and the cost of carrying oyster stock on the lease for an additional season requires additional infrastructure and staff to work and manage additional stock, and at times even dumping stock when sales are not possible. Monitoring of oysters on peg roots alone is questionable as the growth and shape of oyster on peg roots is unknown. There is also no proposed monitoring of commercial oysters. Growth rates and shell shapes of commercially grown oysters is well known and there is 2 years of background data collected by DPI recently

on growth and mortality rates. How will this development, assess the impact on mortality and growth rates of commercially grown oysters?

A new residential area adjacent to an existing sewage treatment plant is questionable. This has caused issues for other councils where odour control has needed to be retrofitted at the expensive of rate payers. This is relevant to the oyster farmers because if Shoalhaven Water has to expend significant amounts of money on the Sewage Treatment Plant post development, there will be less money available for planned improvements to the sewerage system to mitigate water quality impacts of existing land use.

The development does not outline what storm event the mitigation measures will fail at. Culburra, like any coastal town experiences short sharp storm events which create freshwater runoff. Personally, we have found water tanks are not adequate mitigation measures as they fail to collect water unless they are maintained weekly and after each storm event. The developer is selling this development on “reinvigorating Culburra” which is mostly made up of holidays houses. In reality this development will be sold to similar holiday purchases. Owners of holiday houses are not available to regularly maintain water tanks or reuse water on gardens, so in reality the water may flow straight from hard stand into the mitigation measures whereas rain currently seeps into the soil. Will failures of water tanks on houses cause a failure in mitigation measures and if so, how much fresh water will flow into the river? Additional fresh water into harvest areas will prolong the closure period for harvesting and causes stress and mortality of the oysters.

All these impacts are in addition to an already stressed river system due to existing land use. Upstream we have worked with Council and land owners to remove cattle grazing from the mangroves. We have met with NSW Marine Estate regarding funding to reduce the water quality impacts of flood gates. We have also attended separate hearings regarding residential development in the catchment. We have been informed that this is the beginning of development and there is a planning proposal to continue the urban spread from this location all along the Crookhaven river towards Nowra. While this amended project has been reduced in size, where is the guarantee that the land won't be developed at later date. Over-population along rivers kills rivers.

There is no monitoring planned after rain. The first flush sampling is important to ensure that measures are working, and not increasing level of sediment, bacteria, nutrients and chemicals into the river. There

needs to be commitment and funding to monitor now and until after the whole estate is completed up until the development is shown to have a neutral or beneficial impact. Currently Oyster farmers undertake regular testing after rain. High results trigger a retest until the results are acceptable. We then help find the source of the pollution and work with governments and council to rectify the problems. We find it unacceptable that we should have to pay the bills for additional testing that will result from a new development. Farmers spend around \$90,000 per year on testing and this figure does not include the economic impact of river closures on oyster sales.

The healthy rivers commission found in its Inquiry reports, the costs of maintaining required standards of river health in the face of new development (whether in industrial, urban, agricultural or other forms) should be explicitly recognised and 'internalised' in the cost of the proposed development. Requirements upon new developments, including ongoing maintenance and monitoring and the use of bonds, must be clearly specified using enforceable mechanisms. This principle is generally applicable in all areas, but its application would be of particular importance in areas identified for oyster production, at either the state or regional level. Oyster farmers are required to put bond money in trust for cleanup for cases where businesses collapse, this was a direct result of the oyster mortalities of Hawksbury and Georges river after development. We believe that the development should be liable for bonds for oyster farm lease as per the healthy rivers commission found. I don't see how it is equitable that businesses that have been operating for over 30 years, some for 5 generations be potentially forced off the water by urban development and also lose bond money. Should the development be approved a bond for rectifying environmental damage and compensation for farmers should be included as an outcome.

If this court finds that urban development at this location is acceptable, please set the bar to the highest standard and incorporate feedback loops to identify failures early and rectify problems, whether it be engineering or anthropogenic. These costs to be borne by the developer not the existing rate payer /tax payers. Farmers spend a great amount of time and recourses on lobbying for river and water quality improvements. We cannot afford additional time and money to make sure this development undertakes all these commitments. To reduce the burden on farmers and the community, we believe that an independent local based Shoalhaven Crookhaven river conservation Environmental Management Systems officer, paid for by the developer,

but located within Council or the Marine Estate department be appointed. This experienced EMS position holder will ensure that this development fulfills commitments and works with river stakeholders improve water quality through the Crookhaven and Shoalhaven for the life of the project.

Our oyster industry is growing, and there is room for growth, Australia's Oyster Coast has invested millions into the oyster industry on the south coast and the demographic of the local industry has changed with the majority of farmers now in their 30-s 40s years of age with younger farmers now taking over farms. We urge you to consider impacts not only on the oyster industry currently, but the oyster aquaculture industry that will hopefully exist in the future within the existing priority oyster aquaculture areas. Oyster farming is generational and often provides jobs for younger family members. In 7 – 10 years time, when this development will be realised, children of current farmers may be looking to enter the industry. The developer should be providing long term guarantees that if mitigation measures are failing work will cease on the development until these are rectified and it is proven that new mitigation measures will produce neutral or beneficial impacts on water quality. NSW Gov reports found that there is great potential for the expansion of the present, diminutive export market in oysters by promoting Australia's "clean green" image. The market in Asia for quality products is enormous, however can be shut down with one shipment of contaminated oysters.

NSW government has legislated to protect priority aquaculture areas and is even currently offering government loans for aquaculture. This industry is important to the people of NSW so we ask that you maintain the rejection of this project as it is presented or place the most stringent measures in place at the cost of the developer to protect the river and aquaculture for the life of the project. This development is being pushed by the business people of Culburra who seek to make the most money from the development. Please don't ignore the proven science steeped in history that urban development impacts on rivers, oysters, and oyster industries and leaves a burden on communities to pay for failed mitigation measures.

Regards
Angela Riepsamen