PCU52849

MR. JAN GORONCY
46 CAMBAGE STREET
PINDIMAR NSW 2324

24 April 2014

Attention: Director, Industry, Key Sites and Social Projects
Development Assessment Systems & Approvals
Planning & Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Ms. Goward:

Application Name: Proposed Pindimar Abalone Farm
Application #: MP 10_0006

I object to the proposed Pindimar Abalone Farm.

Declaration re: political donations: I declare that I have not made any political donations in the previous two years.

I make this submission in an effort to prevent this proposal from becoming a reality due to the proponents' disregard for facts obvious to the scientific and aquaculture industry regarding:

1. Increased prevalence of disease and increased mortality rates as a result of Perkinsus disease.

2. Elevated water temperatures in excess of 20 °C and lack of water chilling equipment throughout the farm to control and maintain water temperatures below 20 °C.

   Port Stephens is not suited for land-based aquaculture activities due to water temperatures being in excess of 20 °C for seven months of the year.

   Data provided by the Australian Navy Meteorology and Oceanography (METOC) shows average water temperatures of 20.43°C. See attached article "Coastal Sea Surface Temperatures".

   No doubt with global warming and rising sea temperatures due to the El Nino effect, sea temperatures will increase to well above current values.

   The proposed venture will be heading for economic failure due to increased mortality rates. Who will pay for the restoration of the ecology when this business venture fails?

3. The oyster industry in Port Stephens is an important activity generating many dollars to the local economy.

   It is not out of the realm of possibility that the disease, Perkinsus, through a new strain, could wipe out this oyster industry. New Perkinsus species have been found in several oyster species in Southern China. Ref: Molecular Phylogenetics of Perkinsus SPP.: Species

Identifications and Determination of Host and Geographic Ranges, Author Kimberly S. Reece. (kreece@vims.edu) attached.

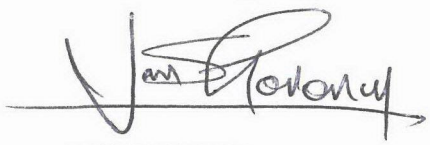
It has been reported that a large oyster mortality occurred in Port Stephens during 2013. One farmer reported losses in excess of 50% over a 3 month period. Department of Fisheries hasn't reported cause to the Port Stephens oyster growers.

4. Greater use of chemicals and pharmaceuticals (as a result of increased mortality) caused by elevated water temperatures, salinity and infection intensity, will necessitate greater use of these compounds. Water soluble chemicals and pharmaceuticals at greater levels than the proponent outlines in the Biosecurity and Disease Management Plan, some of these being formaldehyde, vaccines, antibiotics and the like, will be released into Port Stephens creating unknown environmental risk factors possibly effecting all plant and aquatic species, some of which are turtles and sea-horses.

   This ecological vandalism is not acceptable to the local community and the greater NSW community which regards Port Stephens as a pristine and important tourist destination, providing millions of dollars to the local economy.

My family and I do not expect that your Government will allow the industrialisation of Port Stephens.

Yours sincerely,



JAN GORONCY

O-080

MOLECULAR PHYLOGENETICS OF PERKINSUS SPP.: SPECIES IDENTIFICATIONS AND DETERMINATION OF HOST AND GEOGRAPHIC RANGES

Kimberly S. Reece*
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Perkinsus species are destructive parasites of commercially important molluscs around the world. Appropriate identification and discrimination of *Perkinsus* species has been problematic, as historically *Perkinsus* species descriptions have relied largely on differences in geographic and host range. Although slight variations in morphology have been observed among some species, it is difficult to discriminate among *Perkinsus* species based on morphological characters alone. Advanced DNA sequencing technology has facilitated a rapid increase in the molecular database for *Perkinsus* spp., and this molecular information is being used to recognize currently described species in new hosts and geographic locales, and for identification of new *Perkinsus* species. Even with molecular data, however, there can be problems recognizing species if an insufficient number of isolates from various host and geographic sources or DNA clone sequences are examined. DNA sequences from loci targeted for use in phylogenetic studies or for development of molecular diagnostics are needed from closely related taxa, and the intra- as well as inter-specific sequence variation needs to be examined and adequately characterized. Sequences from multiple clones from multiple isolates across a wide geographic and/or host range, if applicable, are necessary to be assured that species are adequately identified and discriminated. Molecular phylogenetic analyses based on DNA sequence information has brought into question some previous species designations and provided evidence for several new species, resulting in a better understanding of potential pathogen transports that have occurred with host species around the world and in possible disease impacts on various host species. Analyses based on sequences from the internal transcribed spacer (ITS) region, the LSU rRNA gene and actin genes support recent synonymizations of *P. atlanticus* with *P. olseni,* and of *P. andrewsi* with *P. chesapeaki.* In addition, molecular data have provided key supporting evidence for the recent descriptions of *P. mediterraneus* in Europe and *P. honshuensis* in Japan, as well as the identification of another new *Perkinsus* species found in several oyster species in southern China.

Coastal Sea Surface Temperatures

This application provides online access to sea surface temperature data for Australian coastal towns, cities and ports. Results are based on historical data and provide an estimate of average monthly temperatures.

Sea Surface Salinity data is also available for these towns.

Surface Temperature Search Tool

Choose Location

Adelaide
Albany
Aldinga Beach
Alyangula
Augusta
Aurukun
Bald Head
Ballina

Search by Position (BETA)

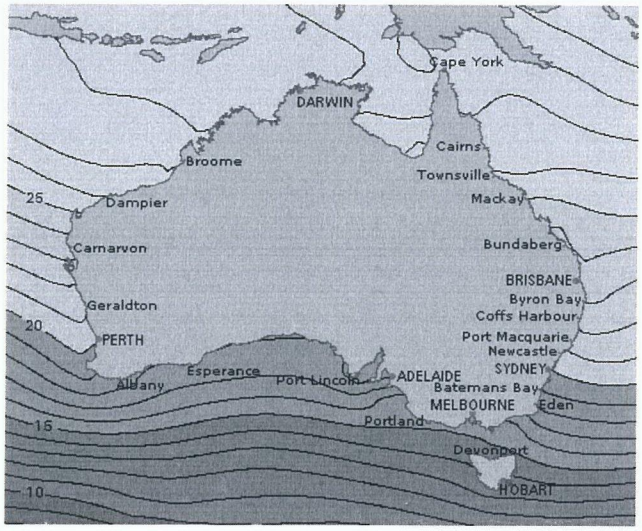
Latitude (e.g. -33.325)

Longitude (e.g. 151.482) Submit Query

Geographic Information
Location=Port Stephens State=NSW Latitude=32 44S Longitude=152 09E

Monthly Averages
Jan=22.2 Feb=22.7 Mar=22.9 Apr=21.8 May=20.7 Jun=19.7
Jul=18.5 Aug=18.0 Sep=18.5 Oct=19.0 Nov=20.2 Dec=21.0

Summary Statistics
Max=22.9 Min=18.0 Avg=20.43 Std Dev=1.72



Source of Data

The data is a prediction of sea surface temperature based on data within a 1 degree latitude and longitude radius of the coastal town, therefore it will vary from real time data. Note that local environmental factors are not taken into account. For example, currents heavily influence the sea temperature along the eastern and western coasts of Australia. The data displayed has been extracted from the Generalized Digital Environment Model database.