Comments on the DEH Fisheries Risk Assessment (FRA) for the South East marine region

The risk assessment for the small pelagic fishery does not adequately address broad ecological impacts or impacts on cetaceans (dolphins and porpoises). The amendments** to midwater trawl impacts on dolphins and porpoises have not, and can not, be justified. The risk assessment is based on inadequate information and can not be expected to be a useful way of assessing broad ecological impacts or impacts on cetaceans given the current level of knowledge.

1. Broad Ecological Impacts

The Fisheries Risk Assessment (FRA) does not adequately assess the current impact or potential future impact of this fishery on the broader pelagic ecosystem off the coast of southern Australia. An assessment of the impact of this fishery on the broad ecosystem, particularly the pelagic ecosystem, should be a fundamental aim of the FRA process.

Given the likely importance of small pelagic species to this ecosystem, the risk of a collapse in this fishery is likely to have a major and unacceptable impact on the ecosystem, with consequences for other fish stocks, cetaceans and seabirds.

Dr Dirk Welsford from the Tasmanian Aquaculture and Fisheries Institute (TAFI) recently gave a presentation of research as part of the TAFI research overview (25 May 2005). Recent analysis indicates that fishing for jack mackerel off the east coast of Tasmania led to changes in stock structure, and indicates that the declining catch of this species could have been related to the fishery. This gives further cause for concern that an expansion of this fishery could lead to unacceptable impacts on the ecosystem off southern Australia.

It is difficult to see how any significant expansion in this fishery can be permitted until a fishery independent stock assessment is introduced and an thorough appraisal of the ecological impacts this fishery are carried out.

The best way forward is to follow the South Australian pilchard fishery model and develop egg sampling/spawning biomass estimate techniques to give an indication of stock size. It may then be possible to base TACs/TCLs on scientific data rather than guesswork, and take into account the expected large annual variability in target small pelagic species.

2. Impacts on Cetaceans (Dolphins and Porpoises)

The assessment of impacts on dolphins and porpoises are not appropriate given the current level of information. There does not appear to have been sufficient observer coverage in the purse seine sector to make any assessment of the impact of the small pelagic fishery on these animals. Even if this data were available, the current level of information on the populations

and ecology of the small cetaceans that live off southern Australia would make it unlikely that a reliable estimate of impacts could be made.

Observer coverage is better for midwater trawl, but recent dolphin kills may indicate that the optimistic expectation, that interactions between this fishery and dolphins would be inconsequential, may have been unrealistic.

The amendments** to midwater trawl impacts on dolphins and porpoises have not, and can not, be justified. The current rate of interactions may be having an unacceptable impact on local dolphin populations, particularly if inshore bottlenose dolphins, *Tursiops truncatus*, are being killed.

There remains uncertainty about the species of dolphins that have been killed by this fishery over the last eight months. Given the absence of this information, it is not unreasonable to assume the worst case. Kills of relatively low numbers of bottlenose dolphins from the local inshore population along the east coast of Tasmania can be expected to have a big impact on these animals.

This impact on the dolphin population could be viewed differently if the dolphins were, for example, common dolphins, *Delphinus delphis*. However the number of dolphin deaths is unacceptable as far as animal welfare is concerned.

The only justification for allowing this fishery to continue operating are the efforts currently being undertaken to avoid future dolphin kills and the expectation that these will be effective.

3. Risk Assessment
The "semi-quantitative scoring system" used to assess fishery impacts in the consequence categories for risk analysis appears to be based on many assumptions. In the case of broad ecological impacts and impacts with cetaceans such as dolphins these assumption have not been adequately justified. Given the lack of information on trophic and other ecological relationships between small pelagic species and other parts of their ecosystem, and the lack of information about dolphin population dynamics in this region, it is unlikely that any reasonable assessment can be made at present.

** **AMENDMENT (from AFMA E-mail Sent:** Thursday, May 26, 2005 4:37 PM **Subject:** Comment needed_DEH Fisheries Risk Assessment**)**
The following correction, marked in bold below, has been made to the report:
Method: Midwater trawl
Conservation value: Dolphins and porpoises
Consequence rating: Range from 1-2 (previously recorded as 2)
Likelihood rating: Range from 3-4 (previously recorded as 4)
Overall risk rating: Acceptable - tolerable (previously recorded as tolerable).

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