

PROPOSAL TO LIST PRAWN KILLER (PRK) ON THE SIXTH SCHEDULE OF THE FISHERIES ACT 1996 – INITIAL POSITION PAPER

Executive Summary

- 1 The Ministry of Fisheries (MFish) received a request from the fishing industry to list prawn killer *Ibacus alticrenatus* (PRK) on the Sixth Schedule of the Fisheries Act 1996 (the Act) to enable their return to the water following capture.
- 2 Section 72 of the Act prohibits quota management system (QMS) species being returned to the water following capture unless the stock is listed in the Sixth Schedule and the commercial fisher complies with the requirements set out in that Schedule. Industry has requested that prawn killer stocks be included on the Sixth Schedule to provide additional operational flexibility so that they can choose whether to land prawn killer and balance catches with annual catch entitlement (ACE), or return prawn killer likely to survive to the water.
- 3 In response to this request MFish proposes two options for consideration. Option 1 is to retain the status quo where commercial fishers are required to land and report all prawn killer caught. Option 2 is to list prawn killer on the Sixth Schedule of the Fisheries Act 1996 to enable commercial fishers to return prawn killer to the water if they are likely to survive and are reported.
- 4 Limited information is available regarding the status of prawn killer stocks or on their survivability when returned to the sea. Prawn killer were introduced into the QMS in October 2007. While there have been expressions of interest for a target fishery in previous years it has yet to be developed to its full extent. Currently there is a limited market for prawn killer and catch reports suggest that past and recent catches were taken mostly as bycatch of targeted scampi trawling.
- 5 Through this consultation process, MFish requests more information regarding the survivability of prawn killer to assess whether they should be added to the Sixth Schedule. Stakeholders are also invited to provide information on the likely benefits that the proposed increase in operational flexibility may provide to the industry, and any other information or views in relation to either management option.

Regulatory Impact Analysis Requirements

- 6 A Regulatory Impact statement was required for this Initial Position Paper and it has been reviewed internally by the Ministry of Fisheries.
- 7 For more information on the Regulatory Impact Analysis Requirements with reference to an Initial Position Paper, please refer to the Ministry of Economic Development website www.med.govt.nz.

The Issue

- 8 Prawn killer entered the QMS on 1 October 2007, with catch limits set for all stocks to constrain use to previously recorded levels of catch. One rationale for introducing prawn killer into the QMS was the improved information that could be obtained through the requirement for commercial fishers to land and report catch. This is particularly important in the case of prawn killer as there is currently no information on the abundance, yield, or stock status for any prawn killer stock.
- 9 The issue of whether prawn killer may be suitable for inclusion on the Sixth Schedule of the Act was raised during consultation leading to the decision to introduce prawn killer stocks into the QMS. The possibility of considering the listing of prawn killer stocks on the Sixth Schedule was acknowledged by MFish as an issue for the future.
- 10 Industry has recently raised this issue again and requests that prawn killer be added to the stocks listed on the Sixth Schedule to enable commercial fishers to choose whether to land prawn killer, which they advise is currently of limited commercial value, or to return it to the water if it is likely to survive.
- 11 As prawn killer has only just entered the QMS and limited information on prawn killer and its survivability is available, MFish requires more information in order to consider changing management controls from the status quo. MFish invites stakeholders to submit information related to the following management options.

Summary of Options

Option 1 – Status Quo

- 12 Commercial fishers are not permitted to return prawn killer to the water. Fishers must land and report all prawn killer taken, and balance the catch with ACE or pay the deemed value. The deemed value is currently set at \$0.20 per kilogram.
- 13 MFish noted in the QMS consultation process of 2007 that it considered Sixth Schedule listing as something that could be considered in the future for prawn killer and currently maintains this position. However, MFish supports the status quo at this time as prawn killer was only recently introduced to the QMS, information on prawn killer stocks and their survivability is currently limited, and a target fishery for prawn killer has yet to be developed.

Option 2 – Inclusion of Prawn Killer on the Sixth Schedule

- 14 List prawn killer on the Sixth Schedule of the Act to enable commercial fishers to legally return prawn killer to the water if they are likely to survive and are reported.

Rationale for Management Options

- 15 Section 72 of the Act prohibits QMS species being returned to the water following capture unless the stock is listed in the Sixth Schedule and the

commercial fisher complies with the requirements set out in that Schedule. The requirement to land and report catch promotes the effective utilisation of fisheries resources to ensure that wastage of aquatic life taken through fishing is minimised.

- 16 Schedule Six of the Act allows commercial fishers to return particular stocks to the water in some circumstances. Aquatic life from most stocks listed on the Sixth Schedule may be returned to the water only if they are likely to survive¹.
- 17 The Sixth Schedule often provides commercial fishers the opportunity to maximise the efficiency of their operations or the value of their catch by returning some aquatic life to the water, provided that only live aquatic life likely to survive are returned and aquatic life that are dead or unlikely to survive are landed and reported.
- 18 Prawn killer has historically been taken as bycatch in the scampi fishery, but interest to develop a target fishery has previously been expressed to MFish. A modest market exists for the same species and for similar species in Australia. The potential growth of a target fishery was considered in the recent decision to introduce prawn killer to the QMS.
- 19 There are no stock assessments for any prawn killer stock and no estimates of biomass, stock status or sustainable yield. Catch limits have been set on the basis of previously reported commercial landings. Little information on the species is available but prawn killer are reported to occur around the North and South Islands of New Zealand in relatively deep water from depths of about 80 to 300 metres. There is little information on the survivability of prawn killer once taken from these depths, which is of particular importance to this proposal. However, many other crustaceans have appeared to withstand the effects of being brought to the surface and then returned to the sea provided the release is soon after removal and the exposure to excessive sunlight is avoided.
- 20 Stakeholders are invited to present information regarding the likely survival rate of prawn killer or, if such information is not available, submit robust proposals to collect relevant data for survival rate estimation.
- 21 Industry has requested the addition of prawn killer stocks to the Sixth Schedule to give commercial fishers the flexibility of being able to return prawn killer likely to survive to the water. Stakeholders are also invited to submit information on the costs to industry of maintaining the requirement that all commercial catch of prawn killer stocks be landed and reported.

Assessment of Management Options

- 20 MFish presents the following options for consideration. MFish reminds submitters that this Initial Position Paper is not final advice for the Minister but gives stakeholders the opportunity to comment and provide supplementary information relevant to the discussion presented here.

¹ Of the 21 stocks listed on the Sixth Schedule all except spiny dogfish may only be returned to the water if likely to survive.

Option 1 – Status Quo

Impact

- 21 Option 1 proposes to maintain the status quo, requiring commercial fishers to land and report all prawn killer taken and balance the catch with ACE or pay the deemed value. Previously reported commercial landings of prawn killer were considered in setting the initial catch limits when prawn killer entered the QMS on 1 October 2007.
- 22 As prawn killer have not been managed in the QMS for a full fishing year, no assessment can be made of current catches against the TACC. Given the rationale in setting the catch limits, landings are expected to fall within these limits as a target fishery has yet to be developed.
- 23 No information has been received to indicate that prawn killer that has been landed as bycatch from scampi trawl fisheries is likely to exceed the TACC. It is therefore unlikely that the status quo will constrain the harvest of prawn killer stocks at this time, however stock sustainability issues will need to be reconsidered should there be future growth in exploratory fishing and the development of a target fishery.

Costs

- 23 Given the recent introduction of prawn killer into the QMS there is limited information available on the costs that the requirement to land and report all prawn killer has placed on industry. It is therefore not possible to assess the costs incurred by industry in maintaining the status quo without further information. Stakeholders are invited to provide information related to these costs.
- 24 As there is currently a limited market for prawn killer, the status quo may create an incentive for commercial fishers to unlawfully dump prawn killer to avoid the requirement of balancing the catch with ACE or paying the deemed value.

Benefits

- 25 The requirement to land and report all QMS stocks encourages industry to develop a market for prawn killer as well as improving information and understanding of the fishery. This is consistent with a broader objective of reducing the volume of wastage that is generated by trawl fishing methods.
- 26 Maintaining the status quo will provide additional time to collect information in relation to uncertainties surrounding the status of prawn killer and its survivability, to assist management decisions.

Option 2 –Inclusion of Prawn Killer on the Sixth Schedule

Impact

- 27 Option 2 proposes to amend the Sixth Schedule to allow commercial fishers to legally return prawn killer to the water if the prawn killer are likely to survive

after release. Option 2 results in an unknown level of risk to the sustainability of prawn killer stocks.

- 28 Option 2 is problematic for compliance as MFish currently has no information to assess under what conditions, if any, prawn killer are likely to survive when returned to the water.
- 29 The likely to survive condition placed on the majority of fisheries included in the Sixth Schedule is difficult to enforce and it is possible that commercial fishers would choose to discard prawn killer, given the economic incentive, regardless of its likelihood of survival.
- 30 Further to this, Option 2 assumes commercial fishers can identify prawn killer that are likely to survive upon return to the water. MFish has no information to support the assertion that commercial fishers can effectively judge the likelihood of prawn killer survival and more information is requested from stakeholders on this issue in order to assess the risks to the fishery.

Costs

- 29 Option 2 may reduce the incentive for unlawful discard since Sixth Schedule inclusion would allow return to the water if prawn killer are likely to survive. However, there is still potentially an incentive and opportunity for commercial fishers to dump prawn killer if they are dead or unlikely to survive, such as those that are damaged and may be less marketable.
- 30 Listing aquatic life caught commonly as bycatch on the Sixth Schedule may reduce the incentive for commercial fishers to reduce and avoid bycatch and is inconsistent with the objective of sustainable utilisation of fishery resources.

Benefits

- 31 The addition of prawn killer to the Sixth Schedule may offer industry more flexibility and may enable more efficient vessel operations and utilisation of ACE.
- 32 MFish is unable to quantify the benefits to commercial fishers from adding prawn killer to the Sixth Schedule as prawn killer has only recently been introduced to the QMS and the costs for obtaining ACE to account for bycatch have yet to be determined. It is also unknown what proportion of catch would be likely to survive if returned and the cost and benefits that this could create for industry.

Statutory Considerations

- 33 The information principles of the Act require that decisions be based on the best available information, taking into account any uncertainty in that information, and applying caution when information is uncertain, unreliable or inadequate.
- 34 Limited information is available on prawn killer and its survivability and this was considered in the management options presented. MFish invites stakeholders to provide additional information on the survivability of prawn

killer or propose methods for collecting data to assist with the estimation of survival rates. A full assessment of the statutory considerations are provided in Appendix One.

APPENDIX ONE

Statutory Considerations

- 35 **Section 5 (a):** Decision-makers are required to act in a manner consistent with New Zealand's international obligations relating to fishing including the Law of the Sea and the Fish Stocks agreement as well as regional fishery management agreements.
- 36 MFish considers that both options are consistent with New Zealand's international obligations relating to fishing.
- 37 **Section 5 (b):** Decision-makers must also act in a manner consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.
- 38 MFish considers that both options are consistent with the provisions of the Treaty of Waitangi (Fisheries Claims) Settlement Act 1992.
- 39 **Section 8:** The status quo described as Option 1 in this paper was set in October 2007 with the objective of providing for utilisation of prawn killer fisheries while ensuring sustainability. The risks to sustainability under Option 2 are uncertain given the limited amount of information on the stock status and survivability of prawn killer.
- 40 **Section 9 (a) and (b):** It is unlikely that either of the management options proposed would materially affect associated or dependent species or the biological diversity of the aquatic environment.
- 41 **Section 9 (c):** It is unlikely that either of the management options proposed would affect relevant habitats of particular significance to fisheries management. Prawn killer are currently caught by trawl fishing and the methods and level of harvest will not change as a result of either option.
- 42 **Section 10:** Decision-makers are required to take account of the information principles which direct that decisions are based on the best available information, that any uncertainty in the information be considered and that caution is taken when information is uncertain or unreliable. The information principles also prescribe that an absence or lack of information should not be used as a reason for postponing or failing to take any measure to achieve the purpose of the Act.
- 43 There is little information available to support whether change from the status quo is required to achieve the purpose of the Act. There is also limited information on prawn killer and its survivability, as discussed. Stakeholders are invited to provide further information to better inform decision on whether to list prawn killer stocks in the Sixth Schedule of the Act.
- 44 **Section 11 (1) (a) and (b):** The effects of fishing on prawn killer were considered. The status quo, in which all prawn killer must be landed and balanced with ACE, has prompted industry to request that prawn killer be listed on the Sixth Schedule of the Act.

- 45 **Section 11 (1) (c) :** The effect of natural variability of prawn killer stocks on either management option is unknown.
- 46 **Section 11 (2) (a) and (b):** There are no provisions applicable to the coastal marine area known to exist in any policy statement or plan under the Resource Management Act 1991, or any management strategy or plan under the Conservation Act 1987 that are relevant to the management options proposed.

PROPOSAL TO LIST PRAWN KILLER (PRK) ON THE SIXTH SCHEDULE OF THE FISHERIES ACT 1996 – SUMMARY OF SUBMISSIONS

- 1 MFish received submissions on the proposal to list prawn killer on the Sixth Schedule of the Fisheries Act IPP from:
 - New Zealand Seafood Industry Council (SeaFIC);
 - Sanford Limited (Sanford);
 - Scampi Fishery Development Company Limited (SFDCL).

General Submissions

- 2 Support for the proposal to list prawn killer on the Sixth Schedule of the Fisheries Act was received from all submitters.

Survivability of Prawn Killer

- 3 SFDCL provided comment on the survivability of prawn killer from Ian Tuck, a crustacean biologist at NIWA who concluded from mark recapture studies in Australia on related *Ibacus* species that:

“Overall, it would appear that reasonable survival of returned animals might be expected assuming that the animals are in good condition following capture (no damage to the carapace), are held in water prior to release, are released relatively quickly, and can be returned to the seabed avoiding predation and excess stress in the water column”.

- 4 Ian Tuck identified a range of factors expected to reduce survival. These included:
 - Any punctures in the carapace;
 - Any crush damage to the carapace;
 - Delay in returning animal to seawater;
 - Delay in returning animal to sea;
 - Very long trawl tows;
 - Light damage to eyes;
 - Predation in the water column.
- 5 SFDCL has requested that Ian Tuck be involved in the preparation of a “Code of Practice” to assist fishers in assessing the likelihood of prawn killer survival. Sanford committed to undertake the “Code of Practice” proposed by SFDCL.

- 6 SFDCL stated that the likelihood of prawn killer survival would be determined by visually assessing factors such as time out of the water, physical condition and prawn killer liveliness.
- 7 SFDCL stated that fishers on scampi vessels are very experienced, have the ability to identify prawn killer likely to survive on release, and would retain all other catches unlikely to survive as required.
- 8 SFDCL provided comment from a recent observer trip report on the F/V Christmas Creek scampi vessel (trip report number 2602) which stated “On this trip the observer can confirm that PRK are brought up alive and remain alive for sometime up to (1-2 hours) once brought up on deck”.
- 9 SeaFIC suggested MFish could acquire more information on the survivability of prawn killer by requesting information from observers on scampi vessels, soliciting opinion from crustacean biologists and from information on related species harvested in Australia.

The Status Quo

- 10 SeaFIC contested MFish analysis that the current requirement to land prawn killer would encourage industry to find a market for prawn killer and stated that the market was solely reliant on demand.
- 11 SeaFIC stated that there are costs to industry from the requirement to transport, land and dispose of unwanted fish and that this has a direct negative economic impact on utilisation and reduces the ability of quota owners to provide for their well being and “maximise value”.
- 12 SeaFIC did not provide further information on the costs to industry of maintaining the status quo but questioned how MFish would analyse such information.

Likely Effects of Proposal for Industry

- 13 Sanford noted that the operational flexibility provided by Option 2 currently made it the most economic option for commercial fishers.

Information provided by MFish

- 14 SeaFIC questioned whether the information principles had been applied in the preparation of the IPP and stated that MFish could have supplied more information without unreasonable cost, effort or time.
- 15 SeaFIC suggested that the IPP process would be more meaningful had MFish first contacted industry to discuss shortfalls of information and methods to gather this information. SeaFIC stated that the information provided by MFish provided little information from which to prepare a balanced submission.
- 16 SeaFIC questioned whether statements that they perceived to apply generically to the Sixth Schedule should be included in the IPP and suggested that the

analysis should have been restricted to comments that relate specifically to prawn killer.

- 17 SeaFIC stated that the objective of the Regulatory Impact Statement should be based on the legislative basis of the proposed change being to allow for return to the sea.