

# PAU 4 MANAGEMENT BY MEATWEIGHT - FINAL ADVICE PAPER

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## Executive Summary

- 1 The management and reporting of commercial paua catches is based on greenweight (whole paua) weight. This advice paper recommends that you alter management of the PAU 4 (Chatham Island) paua fishery from greenweight to meatweight.
- 2 MFish released an Initial Position Paper (IPP), on 6 March 2009, outlining a Paumac 4 Industry Association request to manage the fishery using meatweight. To action this request would require changes to reporting regulations and the PAU 4 Section 18 notice.
- 3 Managing by meatweight would improve the productivity and sustainability of the fishery by removing incentives to over-fish those parts of PAU 4 with high meat-weight recovery. Some incentives that have driven illegal fishery practices, such as shell chipping and delayed landing of paua, will be lessened, increasing compliance with reporting requirements, and the quality of paua from the fishery.
- 4 Discussions with the paua industry and the MFish Shellfish Working Group suggest that the paua greenweight to meatweight conversion factor of 2.50 (equivalent to 40% meatweight recovery) already specified in a Conversion Factors Notice is an appropriate basis for translating greenweight to meatweight.
- 5 Industry has a strong preference for Option 2: Management by Meatweight (all settings and reporting for the PAU 4 fishery would be in meatweight rather than green-weight) as this would provide greater transparency for divers and processors. It would also avoid a step in the reporting process that requires the conversion of meatweight back to greenweight which reduces associated opportunities for improper reporting.
- 6 MFish's preference is for Option 3: Retaining greenweight settings but using the existing conversion factor, this option achieves the same management outcome as Option 2, in that the fishery is managed under meatweight, but it would be simpler to implement under the existing reporting regime. In addition, it avoids the complication of PAU 4 being reported differently from all other parts of the country, which would compromise analysis of paua data for compliance purposes. This option would maintain MFish's ability to trace product throughout the supply chain. The conversion factor of 2.50, suggested by industry and the Shell Fish Working Group, would also be adopted under this option.

## The Issue

- 7 Paua in some parts of PAU 4 are characterised by extreme fouling by encrusting organisms. Fouling can comprise up to 15% of the total greenweight of paua in these areas and meat recovery rates can vary from 32%, for heavily encrusted paua, to 45% for paua with clean shells.
- 8 As a result, PAU 4 fishers fish in ways that, while maximising the meatweight return to the quota holder in the short term, work against the long-term productivity, sustainability, and efficient utilisation of PAU 4. For example, fishers:
- Fish only those areas without fouled shells
  - Do not land paua the same day as caught. Paua will be left on vehicles to allow maximum drain time
  - Manually chip excessive fouling off the shell.
- 9 All of these activities reduce the amount of greenweight paua reported from the fishery and, therefore, increase the meatweight return to ACE and quota holders. However, they also reduce the quality of paua being produced and result in over- fishing of areas with non-encrusted shells.
- 10 Management by meatweight would remove any incentive to alter or manipulate the greenweight, as the reported weight would be derived from the meatweight alone.
- 11 By retaining the status quo, there is the risk that the practices around maximising meatweight return could negatively influence the sustainability and efficient utilisation of this particular stock.

## Summary of Options

### *Initial Proposals*

- 12 The IPP proposed the following options:
- a) *Option one - Status Quo* (no action): The status quo option would mean the fishery continues to be managed on a greenweight basis with the TACC for the fishery still at 326.543 tonnes. No changes to management settings would be required under the status quo option.
  - b) *Option two - Management by Meatweight*: Under Option 2, all settings and reporting for the PAU 4 fishery would be in meatweight rather than greenweight<sup>1</sup>. Therefore, under this option, a meatweight TAC, TACC and non-commercial allowances would need to be set for PAU 4. Decisions on these issues would be made as part of the MFish sustainability round later this year, if this option proceeded. This option would require amendment to:

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<sup>1</sup> Under Option 2 fishers would estimate their catch in meatweight on paua catch effort landing returns. The licensed fish receiver, once the product is processed, would report back meatweight on a tax invoice to the fisher and complete the monthly harvest return in meatweight.

- (i) Section 18 notice for PAU 4 to specify the fishery would be managed on the basis of meatweight, rather than greenweight (as currently),
- (ii) Fisheries (Reporting) Regulations 2001 to require PAU 4 returns to be reported by meatweight<sup>2</sup>.

c) *Option three: Use of a Conversion Factor*

13 MFish and Pauamac4 have also discussed the option of retaining greenweight settings for the fishery, but using the existing conversion factor specified in the Conversion Factors Notice to report greenweight catch based on the meatweight measured by the licensed fish receiver (LFR). This option would require the following:

- (i) Amend the Fisheries (Reporting) Regulations 2001 to specify the use of the conversion factor specified in the Fisheries (Conversion Factors) Notice 2005 to estimate greenweight from meatweight.

14 Under Option 3, all fisher-related reporting would remain in greenweight. A conversion factor would be applied to the meatweight to produce reported green weight.

### **Final Proposals**

15 MFish recommends that you agree to implement the MFish preferred *Option three: Use of a Conversion Factor*. This option requires that you agree to the following:

- (i) Amend the Fisheries (Reporting) Regulations 2001 to specify the use of the conversion factor specified in the Fisheries (Conversion Factors) Notice 2005 to estimate greenweight from meatweight

### **Consultation**

16 MFish released the IPP on this proposal on 6 March 2009 and it was placed on the MFish website.

17 All PAU4 quota holders were mailed hard copies of the paper.

18 Ongoing consultation and discussion with the Pauamac 4 Industry Association Incorporated (Pauamac 4) has also occurred throughout the formulation of the options presented in the IPP and this FAP.

### **Submissions Received**

19 Submissions regarding this proposal were received from:

- Pauamac 4 Industry Association Incorporated (Pauamac 4)
- Puaa Industry Council Limited (PIC)

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<sup>2</sup> Regulation 36(3) of the Fisheries (Reporting) Regulations 2001 requires all weights of fish (except scallops and Foveaux Strait dredge oysters) to be recorded in greenweight.

- Seafood Industry Council (SeaFIC)
- Te Ohu Kai Moana Trustee Ltd (Te Ohu)

## **MFish Discussion**

- 20 All submitters (Pauamac 4, PIC, SeaFIC, and Te Ohu) support the industry request for Option 2 management by meatweight. In their submissions, they detail the industry preference for the use of a single meatweight reporting currency. They acknowledge that both Options 2 and 3 will achieve management by meatweight. But they prefer direct reporting in meatweight. They endorse the use of the existing conversion factor of 2.50.
- 21 The use of the existing conversion factor (2.50) has been discussed at the MFish Shellfish Working Group and this was considered an appropriate basis to convert greenweight to meatweight.
- 22 The submission from Paumac 4 discusses the improvements to reporting behaviour that can be achieved through industry-supported harvesting and processing specifications. It also discusses and acknowledges the problems associated with the LFR returns and believes this is a minor technical issue and does not outweigh the benefits of Option 2.
- 23 MFish prefers Option 3 as it fits within the existing reporting and recordkeeping framework. The analysis of reporting and recordkeeping is an important compliance tool that is maintained under this option, which still achieves the benefits of meatweight management.
- 24 During further discussions with industry during the drafting of this FAP, it was agreed that Option 3 should be progressed if it will ease the implementation of meatweight reporting within the Chatham Islands, as this remains the primary objective of all parties.

## **Rationale for Management Options**

- 25 The primary rationale for introducing management by meatweight is to improve sustainable utilisation of the paua resource at the Chatham Islands. The major aim of the change is to improve utilisation opportunities while constraining catches to a sustainable level. The PAU 4 fishery has changed over the years with undesirable practices developing, such as draining of paua and chipping of shells to manipulate greenweight.
- 26 The change to meatweight would encourage catch spreading and remove these incentives to manipulate greenweight.
- 27 Retaining the *status quo* would retain the present management settings for PAU 4.
- 28 Option 3 would be simpler to implement under the existing reporting regime. In addition, it avoids the complication of PAU 4 being reported differently from all other parts of the country, which would compromise analysis of paua data for compliance purposes.

- 29 Under options 2 and 3 changes to management of the fishery would be introduced on 1 October 2009.

## **Assessment of Management Options**

### ***Option 1 – Status Quo***

#### ***Impact***

- 30 Under this option, there is no change to current management settings. Improved management of the fishery would depend on the success of the voluntary measures being implemented by the PAU 4 industry, or on increased compliance effort and education to reduce undesirable fishery practices to manipulate green weight, such as shell chipping and delayed landing of paua.

#### ***Costs***

- 31 Retaining the status quo means the incentives to over-fish those parts of PAU 4 with high meatweight recovery would remain. Continued depletion of these areas could risk localised collapse of paua populations and reduce the productivity and long-term sustainability of PAU 4. This risk is not quantified, but there is anecdotal concern from fishers about heavy fishing pressure in these areas.
- 32 Similarly, the incentives driving illegal practices to manipulate greenweight would remain. In the long-run, these practices could lower the quality of paua produced in PAU 4. The reduced quality has a direct effect in lowering the value that is obtained from this fishery.
- 33 The paua fishery is a vitally important economic resource for the Chatham Island economy, with income derived from processing and diving as well as returns to quota holders. A reduction in the value of the PAU 4 resource would impact on the Chatham Island economy.

#### ***Benefits***

- 34 Retaining the status quo means recent compliance operations to improve reporting of greenweight would have time to have an effect. The main focus of these operations has been the relationship of greenweight to meatweight and the alleged inflation of recovery rates by licensed fish receivers (LFRs). Current misreporting practices are known to MFish, therefore, compliance activity can target these practices.

### ***Option 2 – Management by Meatweight***

#### ***Impact***

- 35 Introduction of management by meatweight to the fishery would mean a change to reporting of catch. As this option does not change the requirement<sup>3</sup> that shellfish remain unshucked until landed, fishers would need to estimate meatweight in order to fill in paua catch effort landing returns (PCELRs). This may cause some confusion in the initial stages of implementation as fishers

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<sup>3</sup> Regulation 33(1) of the Fisheries (Commercial Fishing) Regulations 2001

would have to estimate catch in meatweight. This will require monitoring in the early stages. Pauamac 4 would need to be proactive in ensuring a smooth transition.

- 36 Further confusion would be generated where LFR forms contain paua from multiple QMAs. On the LFR form, paua is only identified through client number of the permit holder who landed the paua i.e. there is no information on the area the paua was taken from. Paua landed from PAU 4 would be in meatweight, while paua landed from another QMA would be reported in green weight.
- 37 The MFish Shellfish Working Group has considered the impact of changing to meatweight reporting on the stock assessment model for PAU 4. The group considers this proposed change would have no effect on stock assessments for PAU 4.

### **Costs**

- 38 Introducing the new reporting framework would involve some cost. Complex changes are required, including to reporting regulations, the PAU 4 s18 Notice, the TAC and TACC. MFish estimate 200-300 hours of analyst work to implement this option.
- 39 MFish's ability to trace product throughout the supply chain and to conduct discrepancy analysis would be hampered by the introduction of this option. There would be some difficulties in incorporating a unique regional reporting system within an existing national reporting framework.
- 40 MFish staff would be involved in a workshop to outline the framework and in increased education and compliance on the new framework over the first year of operation. There would also be some initial cost associated with implementation of any changes and ongoing monitoring.
- 41 If practices such as draining or bleeding of shucked paua meat were to increase, then this issue would need to be managed by industry through introduction of contractual processing specification discussed in other management controls (see following section).
- 42 Targeted compliance monitoring may be required initially to ensure that the meatweight weighing and reporting is occurring consistently across all LFRs.
- 43 The additional monitoring required on meatweight should balance against the compliance focus on shell chipping and delayed landing that should disappear under this option.

### **Benefits**

- 44 This option would improve the productivity and sustainability of the fishery by removing incentives to over-fish those parts of PAU 4 with high meatweight recovery. Similarly, Pauamac 4 believes that incentives that have driven illegal fishery practices, such as shell chipping and delayed landing of paua, will be lessened, and that there would be increasing compliance with reporting

requirements and the quality of paua from the fishery. However, MFish believes that improvements to reporting behaviour are hypothetical at this stage, and a shift to meatweight could, in fact, have negative compliance implications based on the potential for confusion and difficulties associated with traceability and analysis.

### ***Option 3 — Use of Conversion factor***

#### ***Impact***

- 45 Impacts under this option are similar to Option 2. Fishers must change their reporting for the fishery, however, in this case by using the existing conversion factor to convert meatweight, recorded by the LFR, to greenweight for the purposes of filling in their PCELR and monthly harvest returns.
- 46 Discussions with industry have suggested this option creates additional complexity during the processing chain and is likely to be misunderstood or misinterpreted by some fishers and processors.
- 47 This option allows the reporting structures to remain the same as far as greenweight being utilised in the PCELR and the LFRR forms. This option is more consistent with MFish reporting requirements.

#### ***Costs***

- 48 Under this option, a TAC would not need to be set, nor the TACC altered. Fish reporting regulations would need to be amended which would require around 50 hours of analyst time. Other costs would be the similar to option 2. If, as suggested, this option is misunderstood or misinterpreted by fishers and processors, then additional compliance and education costs will be needed to resolve this.

#### ***Benefits***

- 49 This option achieves similar management results and benefits as Option 2.

### ***Other Management Controls***

- 50 As part of the process for converting greenweight to meatweight, Pauamac4 has committed to introducing contractual harvesting and processing specifications for the divers and LFRs that harvest and process paua on the Chatham Islands (see Appendix 2 ).
- 51 Harvest specifications would detail conditions around landing catch on the day it is caught and other handling procedures that would enhance the quality of the paua.
- 52 Processing procedures for shucking and weighing of the paua meat would be produced. These would include temperature parameters and specific times in the process so that meatweight is recorded and reported consistently across all LFRs involved in processing paua on the Chatham Islands.
- 53 Other initiatives that have been discussed include harvester contracts and management initiatives around improving the fisheries dependant data (these

include equipping divers with GPS data loggers to provide detailed fine scale reporting).

## **Other Management Issues**

- 54 A stock assessment is currently underway in PAU 4. This is the third in the present time series and should provide information on the sustainability of this fishery.
- 55 A proposal to introduce underwater breathing apparatus (UBA) to the PAU 4 fishery has also been discussed and Pauamac4 are keen to pursue this proposal in the future.
- 56 Future management initiatives for PAU 4 are likely to be discussed and formulated in the Chatham Island Inshore Fisheries Plan, which is in its initial stages. Pauamac4 is represented on the Fisheries Advisory Planning Group.