

NSW Lobster Harvest Strategy Working Group

3rd Meeting - 6 September 2021 – Held online

Chair's Summary

1. Welcome and Introduction

I was pleased to welcome members to the meeting, which was held online due to the current travel restrictions. The main tasks were to review results from Management Strategy Evaluation (MSE) modelling and review the draft Harvest Strategy updated by DPI based on the comments from the last meeting.

DPI advised that the NSW Fisheries Harvest Strategy Policy & Guidelines have been revised following public consultation and are anticipated to be shortly available. DPI has confirmed that the current draft is consistent with the policy and guidelines.

DPI presented the flowchart and timeline for development of the harvest strategy as outlined at the last meeting. While this meeting happened later than planned due to the travel restrictions and efforts to continue face to face, the draft harvest strategy is at a more advanced stage than originally planned. Following sign-off by the Harvest Strategy Working Group (HSWG) of the revised draft from this meeting, the next step will be its submission to CommFish for review (and agreed amendments, if required) followed by public consultation. Feedback from public consultation will come to the HSWG and a final draft will be developed by the HSWG for submission to CommFish for final review and recommendation to the Minister for adoption. DPI were asked to confirm the various steps and dates as far as possible and provide an updated flowchart (Attachment A).

2. Management Strategy Evaluation

The HSWG considered outcomes of the initial Management Strategy Evaluation (MSE), undertaken to assess the performance of the draft harvest strategy under a range of scenarios. As an assessment model is available for this fishery, the MSE analysis was able to look at projected changes in key indicators, including stock levels under various decision rules, over an extensive time period.

The most recent stock assessment estimates spawning biomass (Bsp) to be very close to the target reference point (TRP) identified in the draft strategy that would support the stock producing an Optimum Sustainable Yield (OSY). The TRP is the equilibrium spawning biomass associated with the equilibrium exploitable biomass (Bexp, or that portion of the stock available to harvest) that aims to optimise economic yield based on the proxy $B_{exp_{OSY}} = 1.2 * B_{exp_{MSY}}$. In other words, maintaining a conservative stock level higher than that associated with maximum sustainable yield, or MSY. A yield (or TAC for all harvest sectors) of approximately 213 tonnes is associated with this target, which is only 5.5t less than the yield at MSY. While the OSY is likely to change over time in response to recruitment and other factors, the larger stock size (than $B_{exp_{MSY}}$) and appropriate decision rules should achieve the objective of keeping the stock around the proposed target, which will provide benefits to all stakeholders by maintaining a higher abundance and fishing efficiency. The MSE is being used to test the ability of decision rules to achieve this key objective.

Various factors have been examined, such as recruitment variation, implementation error (where catch is more/less than Total Allowable Catch (TAC)), change-limiting rules and frequency of TAC determinations. The use of alternative model and decision rules have also been explored.

A minimum threshold of 5t for changes in Total Allowable Commercial Catch (TACC) arising from the harvest strategy would result in less frequent changes to TAC and TACC. A large change-limiting rule (i.e. a cap) could also be introduced either as a percentage change (e.g. changes of no more than 20% of the TAC), or as tonnage (e.g. 20t). The HSWG agreed to recommend TACC decision meta-rules at 5t as a minimum to trigger change and 20t as a maximum, noting further evaluation should be undertaken before the strategy is finalised. These rules should promote stability in harvest changes over time.

There are many scenarios that have been explored using MSE and the work so far shows that resilience of the stock under the draft decision rules is strong, recognising the strength of the fishery and the assessment. The current decision rules are considered to be very reasonable for a first version of the harvest strategy. Some additional MSE testing will be done to further confirm this understanding, such as further examining the effects of recruitment and harvest variability on biomass and indicator performance, and performance of recovery of the stock when biomass is depleted below target and limit reference points. Given testing already undertaken, any adjustments are likely to be minor (if required at all) and can be considered in later stages of the strategy development process.

There was further discussion of recreational and Aboriginal harvest, recognising that catch estimates are uncertain and that catches in these sectors (and model estimates) could change over time. The effect of changes in bag and possession limits on recreational catches requires further investigation, as this is unlikely to be a direct relationship – i.e. if the recreational bag limit is increased by 50% it is very uncertain that the recreational catch would increase by 50%. Alternative approaches to licensing recreational lobster harvest were discussed, including the possibility of a lobster-specific fee that could be used to fund improved harvest estimates. The HSWG considered that such options are worth considering but are outside the scope of the harvest strategy.

The MSE work was well received, with members finding it very useful to be able to explore the use of different strategies and management options. Using MSE to demonstrate that management arrangements will result in long-term sustainability builds confidence that the fishery is, and will continue to be, well managed for the benefit of all stakeholders.

3. Review of Draft Lobster Harvest Strategy

The HSWG worked through the draft harvest strategy document section by section.

The purpose of the harvest strategy in providing guidance to the Total Allowable Fishing Committee (TAFC) for setting of commercial TACCs, and broad strategies for harvest changes in non-commercial sectors, was confirmed. As the TAFC holds a statutory responsibility for determining TACCs in each commercial lobster fishing period, the strategy will guide these decisions in all but exceptional circumstances, and also provide an improved approach for determining changes to harvest in other sectors.

The Ecologically Sustainable Development (ESD) context was reviewed, noting that an existing Environmental Impact Statement (EIS) has been completed and a new Ecological Risk Assessment (ERA) is being developed. Such work is important contextual information for harvest strategy development, and it was recognised that, should impacts be identified that are considered to generate an undesirable level of risk, these may be managed through review of the harvest strategy or using external mechanisms as appropriate.

There was discussion on whether to include mention of a target harvest fraction under the objectives or leave harvest fraction as the tool through which the objectives are pursued. It was agreed to recognise this concept in the objectives and to ensure that it is clearly defined in the draft strategy. There was also strong support for the objective to optimise rather than maximise yield.

The strategy is based around biomass levels determined from the fishery assessment and model as the primary indicator. All harvest strategy objectives now have key indicators mapped, noting that in this fishery there are a number of additional secondary indicators available which provide an important cross-check for fishery performance.

The benefit for the harvest strategy to link to recreational catch controls (bag and possession limits) was agreed in principle, and the working group is aware of interest in potential changes to recreational bag limits. The working group also recognised the value in consulting the Aboriginal Fishing Advisory Council around potential changes to cultural fishing.

The proposed text for Monitoring and Assessment, including performance criteria and acceptable risk, was accepted.

Under the proposed Decision Rules, a spawning biomass greater than target will result in greater harvest and/or a higher fraction of biomass to be harvested, and vice versa. Greater harvest will induce reduction of biomass to the target level, and reduced harvest will induce an increase in biomass to the target level.

In addition to a target reference point, the draft strategy provides a trigger reference point, a limit reference point and a zero-catch reference point. Noting that continuous corrective action is applied as biomass increases or decreases, the decision rules at or below these points provide increasing corrective action. A Rebuilding Strategy would be implemented at the limit reference point, which would likely include different decision rules to the current harvest strategy. It is very sensible to have agreed principles for rebuilding established, even though they are not likely to be needed.

Breakout rules were discussed as a sensible approach whereby the TAFC could set a TACC different to that identified by the harvest strategy, noting that this would only apply to exceptional circumstances and should be clearly and strongly justified.

Finally, the timeline for review of the harvest strategy was discussed. A formal review after 5 years is suggested, but in reality there would be continuous monitoring of the stock and fishery through the annual assessment and TACC setting process. As confidence in the strategy approach increases, this frequency could be extended in subsequent versions of the strategy.

In closing, this group has provided exceptional engagement and taken a collaborative and cooperative approach to developing the harvest strategy to its current stage. The draft strategy document recognises the need to deliver management decisions that will continue to maintain the lobster fishery in its well managed and healthy state for the benefit of all stakeholders.

Attachment A – Indicative process timeline

