Department of Primary Industries

OUT22/12404

Minutes

Meeting	Mulloway Harvest Strategy Working Group		
Meeting Number(s)	5	Dates	25th and 26th July 2022
Location	Sydney and online via Microsoft Teams meeting	Time	09:00 – 17:00 09:00 – 14:30
Members	Independents: James Findlay (Chair), Sevaly Sen (Economist), Bob Kearney (Scientist) Aboriginal fishing representative: Stephan Schnierer Commercial fishers: Johnny Alessi, Stephen Reed, Troy Billin Recreational fishers: David Rae, Paul Lennon, Mark Corbin DPI Fisheries Manager: Heath Folpp DPI Fisheries Scientist: Julian Hughes		
Observers	Rowan Chick (DPI), Ashley Fowler (DPI), Natalie Dowling (CSIRO, FishPath Facilitator), Josh Cansdell (DPI, Executive Officer), Nick Giles (DPI, Fisheries Manager, Harvest Strategies), Lee Burdett-Symons (DPI Compliance), Simon Clark (DPI guest).		
Apologies	Nil		

Agenda Item	**Issue**	**Notes & Actions**
1.	Welcome and Introduction	1.1 Acknowledgment of county The Chair opened by acknowledging Traditional Custodians and paying respects to Elders past, present and emerging. 1.2 Apologies and Recognition of Observers The Chair welcomed all working group members, observers and meeting guests. 1.3 Confirmation of Agenda The meeting agenda was accepted without modification. 1.4 Declaration of pecuniary interests

		Updates to the register of pecuniary interests were confirmed. 1.5 Progress of other NSW fisheries harvest strategies DPI provided an update on the Trawl Whiting and Lobster harvest strategies and confirmed that both had been completed. It was noted that the lobster bag limit was scheduled to increase from 1 August following management actions undertaken to recover the formerly depleted stock and increase stock biomass over time. A draft Harvest Strategy is also being developed by the Spanner Crab Harvest Strategy Working Group. 1.6 Minutes of the previous meeting The previous meeting minutes were adopted following confirmation that all comments had been resolved.
2.	Compliance data update	DPI Fisheries Compliance provided an overview of fisheries compliance and compliance in the Mulloway fishery. A focused Mulloway compliance program commenced on 1 July 2022 as a recommended support measure to enhance compliance and education in the Mulloway fishery. Over the past 10 years, approximately 300 information reports have been received identified as relating to Mulloway offences (mostly minor in nature), with reports providing a valuable source of information for scheduling compliance activity and targeting illegal fishing. **Discussion** Members discussed compliance aspects, noting the importance of high compliance in the fishery, and recognising the significant investment and value of the focused compliance campaign in supporting the fishery. The working group discussed a range of matters, including submission of commercial catch records given significant discussions around data, noting the importance of timely submission to inform stock assessments and ongoing monitoring of fishery performance. It was recognised that improvements could be made to enhance available information, including recognition of potential benefits of moving to real time reporting of catch and effort data.

3.	Limiting incidental mortality	DPI provided an update for ongoing work on bycatch reduction and further developing bycatch reduction devices (BRDs) in NSW trawl fisheries. The NSW Estuary Prawn Trawl fishery operates in three NSW rivers (Clarence, Hawkesbury and Hunter) and the Ocean Prawn Trawl fishery operates in inshore and offshore ocean waters. Use of BRDs has been mandatory in NSW trawl fisheries since 1999, with significant investments made to further develop and enhance trawl and BRD technology over time. Programs are currently underway to enhance performance and adoption of BRD's, including the development and trial of new designs. Both BRDs and changes to gear configuration have significantly reduced incidental catch over time. Additional measures are also in place to reduce risks associated with incidental catch, including ongoing spatial and temporal closures and flood closures routinely implemented following flooding events. The number of trawlers operating has also declined over time following changes to access including commencement of share management, as well as autonomous adjustment within the commercial industry. **Discussion** The group discussed potential issues associated with the capture of juvenile Mulloway in the trawl fishery. Mulloway are susceptible to incidental catch due to being similar in size and having similar life habits to other targeted trawl species (i.e. prawns), with risk likely to be associated with spatial distribution and abundance driven by environmental conditions (e.g. recruitment patterns, flood events). Incidental mortality should be considered in the context of its impact on sufficiently supporting the rebuilding and long-term sustainability of the Mulloway stock, noting that this may be controlled through separate measures. It was recognised that the trawl sector is committed to minimising risk to non-target species including Mulloway, with a range of mandatory and voluntary management measures in place to reduce risk and ensure the prawn trawling industry is operating sustainably. Prawns hold high social and cultural value for Australians, and many fishing co-operatives and retailers rely on the income from prawn sales as they are a staple seafood for many consumers.

		Whilst BRDs and gear configurations are designed to minimise incidental capture of non-target species and have effectively reduced incidental catch, DPI and industry are trialling further improvements to BRD designs. Preliminary reports have been promising, with extension work also being undertaken. DPI also noted that a bycatch observer program has been completed for the ocean trawl fishery, and is currently in the planning process for the estuary trawl fishery. Following recent flood events, spatial trawl closures have been implemented and DPI and industry are paying close attention to Mulloway distribution to assist in reducing the mortality of juvenile Mulloway, in addition to arrangements that more broadly reduce risk.
4.	Mulloway history and management changes	DPI presented a timeline on key management changes that relate to Mulloway since 1902. **Discussion** The group discussed the history of management changes, noting that a range of changes have been implemented that have both directly and indirectly provided additional protection to Mulloway. In particular, minimum weight/size limits commenced in the early 1900's, with a range of other measures that have directly (e.g. bag limits) or indirectly (e.g. limiting commercial access, spatial restrictions) influenced catch or fishing effort. A Mulloway recovery program was implemented in 2013 (and revised in 2018), introducing further restrictions to support recovery, however measurable improvements are yet to be detected. Breeding and stocking programs have also been developed to support additional recruitment to the fishery. Members requested additional information be provided to identify further management changes relevant to cultural and recreational fishing, and to review management changes in context of historical catch. **Actions** 1. DPI to revise the timeline to include additional cultural and recreational management changes. 2. DPI to produce a graph that overlays key management changes with historical changes in catch.

5.	Introduction to harvest strategy objectives	The Chair reopened the discussion from the previous meeting on what a 'good fishery' and a 'bad fishery' look like, with a focus on informing potential objectives for a Mulloway harvest strategy. The Chair then welcomed a DPI presentation on objectives to guide the working group discussion. The DPI presentation provided an overview of existing management objectives, including from regulation and existing Fishery Management Strategies, noting that harvest strategy objectives should be compatible with existing objectives. The harvest strategy can contain strategic objectives and must contain specific and measurable operational objectives that link with decision rules that will support rebuilding stock biomass. The objectives can also identify longer term targets following the rebuilding phase. DPI also provided a presentation on potential recreational objectives being developed through a FRDC research project currently underway, and noted the project previously discussed to develop a harvest strategy framework for cultural fishing. **Discussion** Members discussed potential objectives in context of biomass levels that would support a good fishery, which will be important to help frame the harvest strategy objectives. It was recognised that actions will be undertaken to improve ability to monitor stock health and changes (i.e. increase certainty), and that available evidence indicates significant scope to improve stock biomass to rebuild and reach a harvest strategy target. Different views were expressed during discussion on potential objective biomass levels, which can be further discussed as objectives are developed and refined. Discussion supported a two-step approach for operational objectives, with an initial position of rebuilding to an interim target (e.g. proxy for 30-40% biomass) and then a longer term target (e.g. proxy for 40-60% biomass), and maintaining a limit reference point for operation of the strategy to the future (e.g. proxy for 20% biomass).
6.	Introduction to fishery indicators and reference points	DPI provided a presentation on indicators and reference points and their role in operation of the harvest strategy. Both primary and secondary indicators can be used, with

		primary indicators linked to decision rules for monitoring fishery performance and management actions to be undertaken in accordance with performance against the strategy objectives. Secondary indicators can also be used as an indicator of fishery performance, and potentially as part of an indicator package to improve certainty given available information for the Mulloway harvest strategy. Reference points (or levels) must also be chosen for indicators where they are used in objectives or linked to decision rules, such as defining a reference point for desirable or undesirable biomass levels (or a suitable proxy) as outlined in the objectives discussion.
7.	Harvest Strategy discussion:	Members continued discussion of key harvest strategy elements: *Indicators* DPI presented information on potential indicators that are currently available, while also noting that data will be improved over time. Members discussed indicator options that could provide an effective derivation of biomass estimates, noting the benefits of monitoring an indicator package to address limitations of existing sources (such as CPUE limitations in isolation of further effort (e.g. mesh size and targeted fishing) and catch/length data). Noting the benefits of cost effective and pragmatic monitoring, the initial package includes: • Catch-at-length modelling (commercial (all sector) and recreational data, with age-length key to be updated) • Catch-only modelling (commercial and recreational data) • Standardised CPUE (commercial Ocean Trap and Line fishery data) Noting commitments for collection of additional data, the harvest strategy is also envisaged to identify future data sources for incorporation into monitoring programs. In particular, collection of additional catch (e.g. no. individuals, length and catch weight) and effort (e.g. mesh size, targeted fishing effort) would significantly improve assessment certainty and operation of the harvest strategy over time, potentially focusing on key fishers involved in each sector. Several avenues are also being explored to further develop scientific assessments. In addition, incorporation of economic data

		(e.g. price) could be useful once initial biological objectives are achieved, with benefit to incorporating data collection under improved reporting programs. The working group supported benefits of fishers reporting catch more readily and with high accuracy, and it was suggested to keep the reporting methods simple. Members noted work is currently being undertaken to support additional data collection through the existing FishSmart, Fisher Mobile and Fisher Assist systems, and data collection could also commence under initial voluntary programs such as a dedicated Mulloway logbook or other means. *Reference points* Members continued discussion of the two-step approach to harvest strategy targets, with a lower rebuilding (or interim) target reference point at a level the harvest strategy should reach as a rebuilding target. This would be at a point where the fishery had been sufficiently rebuilt from the currently depleted stock status. The longer-term target reference point could then be pursued once the rebuilding target was achieved. The Chair noted that the initial rebuilding should specify the measure of biomass and a specific timeframe for achieving it as required by the Harvest Strategy Policy, and time to the upper target should also be considered, potentially through assessment of decision rule performance. A limit reference point must also be considered, being a point where serious corrective action could again be required should biomass initially rebuild and then decline in the future. Members also discussed the value of identifying a trigger reference point, which could identify an intermediate point for actions between the target and limit reference points. Noting some difference in individual views expressed regarding potential target, trigger and limit reference points, the Chair noted similarities when considering probability in assessing biomass in relation to reference points, and also that the harvest strategy should seek a balance between sector aspirations and opportunities available at different biomass levels. These concepts will be further discussed through the developing strategy.
8.	Next steps for Mulloway Harvest Strategy	The next meeting is proposed to continue the development of objectives, indicators and reference points for the harvest strategy.

The next meeting is proposed for mid-September, TBC.