Department of Primary Industries

OUT23/6823

Minutes

Meeting	Mulloway Harvest Strategy Working Group		
Meeting Number(s)	9	Dates	15th and 16th of May 2023
Location	Sydney	Time	10:00 – 17:00 09:00 – 13:00
Members	Independent Members: 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 Fisheries Scientist, Harvest Strategies), Ashley Fowler (DPI Fisheries Scientist, Harvest Strategies), Josh Cansdell (DPI, Executive Officer), Nick Giles (DPI, Fisheries Manager, Harvest Strategies), Shane McGrath (DPI Fisheries Manager), Blake Fallon (DPI Fisheries Management Officer)		
Apologies	Stephan Schnierer, David Rae, Sevaly Sen (16 May), Heath Folpp (16 May)		

Agenda Item	**Issue**	**Notes & Actions**
1.	Welcome and Introduction	1.1 Acknowledgment of Country 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 and observers. 1.3 Confirmation of Agenda The meeting agenda was accepted by the working group. 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 progress of the draft NSW Spanner Crab Harvest Strategy and the Line and Trap Harvest Strategy Working Group's 1st meeting which commenced the process for developing harvest strategies for Snapper and Kingfish, with the second meeting planned for late May 2023. 1.6 The Minutes of the 7th meeting were adopted with minor revision. 1.7 The Minutes of the previous (8th) meeting were adopted.
2.	Updates for ongoing business items	DPI provided an update on ongoing business items, including the Business Efficiency Program (BEP), progress on improving commercial and recreational data, planned Mulloway stocking activities, additional research proposals (including application for FRDC funding) and projects on bycatch reduction devices (BRDs) in trawl fisheries. **Discussion** Members queried the timeframes for submission of catch records and this data becoming available for assessment, and discussed its efficacy for assessing the performance of the harvest strategy. Members revisited previous meeting discussions about trials of recreational catch reporting in other jurisdictions and advantages gained for future management. Discussion led to the benefits of real-time reporting arrangements in place in the commercial sector, and its effectiveness in supporting effective compliance and data integrity, with likely similar benefits if implemented in the recreational sector. Members discussed benefits of the compliance operation 'Mulloway Assist' and supported an extension to the program past the current expiry (30 June 2023) to facilitate continued enhanced education and enforcement of fishing regulations applying to Mulloway. **Action** 1. DPI to update the Working Group on timeframes between catch reporting and data analysis.

3.	Correspondence – Mulloway Recruitment	The Deputy Director General (DDG), DPI fisheries wrote to the Mulloway Harvest Strategy Working Group and Fishing Advisory Councils seeking Working Group recommendations to enhance protection of recently observed recruitment of juvenile Mulloway across NSW. The Working Group considered options to enhance protection, including recommendations from the Recreational Fishing NSW Advisory Council. **Discussion** The Working Group discussed the correspondence received from the DDG and acknowledged that protection of recruitment to the fishery is of high priority. With appreciation of the benefits of immediate action, it was noted that the apparent influx of recruitment to NSW rivers and inshore ocean areas gives an observational rather than evidence-based assessment of potential fishery health. The presence of juvenile (and also larger Mulloway) may arise from recruitment, changes in location or behaviour, or some combination of these, potentially influenced by environmental conditions. To improve certainty, it will be important to quantify anecdotal observations to help determine whether observations match scientific evidence used to determine the presence or status of the current stock. It was acknowledged that improved precision and accuracy will come with better data, which does not negate the likely benefits of acting to protect the evident recruitment in current circumstances. This protection is likely to significantly contribute to reaching rebuilding sooner, including making the stock more robust to changes in environmental conditions during the rebuilding phase anticipated under the harvest strategy. Members then explored options for all sectors that could, initially within current management arrangements, help protect juvenile Mulloway and the current and future health of the stock. Discussion also highlighted that many fishers, particularly in the commercial sector, are pro-actively avoiding juvenile Mulloway. Social licence is recognised as an important issue, and fishers can operate more efficiently by avoiding non-target catch. A range of measures including focused education on the current status of the stock and advice on responsible fishing practices for all fishers, continuation of operation Mulloway

		Assist, and investigating enhancing observer coverage and bycatch reduction programs was discussed and agreed. The Working Group agreed to provide a package of recommendations that would consider the protection of juvenile Mulloway through an immediate communication and education package, shorter term investments, as well as a pathway to the completion of the harvest strategy. This would also recognise the longer-term support measures in development to support operation of the harvest strategy over time. **Action** 2. The Chair to provide a Working Group response and recommendations to the DDG, DPI Fisheries.
4.	Guest Speaker - CommFish Representative	As a request by members of the Working Group at the previous meeting, the Chair wrote to the Commercial Fishing NSW Advisory Council to invite a commercial fishing representative as a guest speaker to discuss bycatch mitigation in trawl fisheries. Members noted the discussion would be scheduled for the following meeting. Members also noted a similar invitation (as per previous meeting) will be sent to the Recreational Fishing Advisory Council to discuss education, bycatch issues and mitigation in the recreational fishery in the same session. **Discussion** 3. The working noted the invitations and attendance at the following meeting.
5	Review of fishery data	DPI presented reported catch information including spatial and temporal distribution in the Estuary General, Ocean Trap and Line and Ocean Hauling fisheries. **Discussion** The working group discussed the spatial and seasonal distribution of catches, noting the Estuary General and Ocean Trap and Line fisheries take the highest portions of commercial catch (historically approximately 71% and 20% of commercial catch respectively), and seasonal trends are evident including a peak over the winter months. Discussion recognised that Mulloway are taken in multi-species fisheries, but are a specialised species generally taken through targeted fishing. This was attributed to a range of reasons including changes in fishing behaviour dependent on changes to net setting periods, weather conditions

		favourable to fishing in ocean waters, and availability of other key species. Price is influenced by market demand, with marketing decisions often made around supply and potential price. This may influence whether consignments are made to Sydney Fish Market or regional buyers, as can potential freight costs from areas including northern NSW. Spreading catch more evenly through the year may improve average price, however the peak catch period also coincides with lesser availability of other target species e.g. mud crabs. The Chair requested DPI present details of tagging data used for the most recent tagging study to better identify the movement of Mulloway state-wide in NSW. Members queried fish tagging work done in the past (1988 to 2017) including the number of fish tagged, percent of recapture, size and method of tagging. Members also discussed the potential for future tagging analysis to be completed. It was noted that tagging work is continuing. Members discussed the process of NSW DPI stock assessments and the relation to the Status of Australian Fish Stocks Reports. Discussions regarding the limitations or biases in the current data (predominantly based on estuary general meshing, but also including data from other commercial fisheries and methods) and its representativity to inform current analyses. These issues have been presented in reports on stock status and fishery performance and are key issues driving improvements to data programs to improve precision and accuracy of stock analyses and tracking of changes to stock health over time. **Action** 4. DPI provide an update to the Working Group on investigations into the value of current tagging data.
6., 8., 9.	Discussion – Decision rules and developing draft	Members continued review and development of the draft harvest strategy, with discussions continuing to refine concepts for decision (or harvest control) rules. Decision rules are management actions (e.g., actions to increase or decrease harvest) that are clearly linked to the strategy's objectives, indicators and reference points. The developing draft harvest strategy aims to integrate the outcomes of all the discussions that the working group has had to date, focussing on achieving the rebuilding stage of the harvest strategy as well as the longer-term management of the Mulloway stock. The harvest strategy will also specify

		the duration of the rebuilding phase and how often the harvest strategy should be periodically reviewed (e.g. every 5 years). Rebuilding the stock above the current level of biomass will require management arrangements that reduce fishing mortality and protect the stock, allowing biomass to rebuild to an agreed percentage of the otherwise unfished biomass (i.e. virgin biomass or B0). Once stock biomass has increased to the agreed level, the harvest strategy is envisioned to transition from decision rules supporting rebuilding, to decision rules designed to meet the longer-term operational objective to maintain biomass around a target reference point. In addition, the harvest strategy will need to identify specific management actions to be taken to ensure stock biomass will not decline to or below the agreed limit reference point. **Discussion** The Chair prompted members to reflect on the progress of the draft harvest strategy, with members confirming agreement for the stock biomass reference points for the rebuilding stage of the harvest strategy and the respective timeframes to achieve them. The importance of accurate data was again emphasised to support operation of the harvest strategy with high certainty. Members discussed the concept of ecological sustainability, recognising it to be an imprecise measure as sustainability can have many levels. Harvest strategies often seek to maintain stocks above levels that are solely sustainable, and focus on target levels that will support agreed objectives and outcomes for stakeholders and the community. Concern was raised for setting a limit reference point in circumstances where there is reasonable uncertainty around outputs from analyses indicating the stock is currently below this limit reference level. Discussion clarified that the harvest strategy would consider rebuilding in the first instance, with measures included in the rebuilding phase of the harvest strategy to ensure estimates of stock biomass are increasing, and within a timeframe to reach the rebuilding target. Once the rebuilding target is achieved, the operational phase of the harvest strategy will include the long-term limit reference point (B20). Members discussed a range of potential biomass targets and various compromises between the commonly used harvest strategy targets of Maximum Sustainable Yield (MSY) and

		Maximum Economic Yield (MEY), and how variations in target values will individually affect each fishing sector. It was recognised that the final target is likely to be a compromise between the potential aspirations of each sector. It was also recognised that data will build in the first years of operation of the harvest strategy, improving certainty around estimates of current biomass in relation to reference levels. Members worked through the proposed decision rule framework, noting aspects requiring further discussion and/or development. A range of elements of the developing draft were agreed, including the rebuilding target and limit reference points, and additional revisions through the draft were identified for incorporation by DPI following the meeting. **Action** 5. DPI to revise and update the developing draft for the next meeting.
7.	Options for managing rebuilding	The harvest strategy aims to adjust the amount of catch that can be taken (harvest) to ensure that the objective to rebuild stock biomass is effective. Whilst the amount of catch that can be taken under harvest strategies can be a function of available biomass (and is yet to be determined for this harvest strategy), it will be important to provide arrangements providing certainty to stakeholders during the rebuilding phase. **Discussion** The Working Group discussed the shared responsibility for all fishing sectors to avoid levels of catch that have not demonstrably supported stock rebuilding, with equity recognised as a key principle. Members recognised that it may take several years for proposed new data streams to become effective sources to incorporate into formal assessments. However, they will support improved analyses of stock performance and status. Members recognised benefits to having a stable period with consistent catch levels, providing certainty to stakeholders whilst available analyses identify rebuilding of stock biomass in line with rebuilding targets and other management arrangements. The process for determining appropriate catch levels (or limits) will be important, as the level of catch that will achieve rebuilding within reasonable timeframes may be lower than

		current catch levels. Monitoring and response to ensure catch remains within any limits will also be important. Discussions continued on potential process for determining appropriate catch limits, again recognising benefits if independent expertise could be part of the process. DPI confirmed that investigations into available options are continuing. If a catch limit is in place, members recognised the potential for a 'race to fish', which could be managed if this was complemented by input controls to help spread harvest across a longer time period, and which may also help to reduce price impacts. Members further considered whether options to reduce a race to fish were required to potentially slow catch rates or pause targeted fishing as catch increased over a fishing season.
10.	Next steps for Mulloway Harvest Strategy	The next meeting is proposed to continue development of decision rules for the harvest strategy.

The next meeting is proposed for the 6th and 7th of July 2023.