

Minutes

Meeting	Mulloway Harvest Strategy Working Group		
Meeting Number(s)	4	Dates	6 th and 7 th June 2022
Location	Sydney and online via Microsoft Teams Meeting	Time	10:30 – 17:00 08:30 – 13:00
Members	<p>Independents: James Findlay (Chair), Sevaly Sen (Economist), Bob Kearney (Scientist)</p> <p>Aboriginal fishing representative: Stephan Schnierer</p> <p>Commercial fishers: Johnny Alessi, Stephen Reed, Troy Billin</p> <p>Recreational fishers: David Rae, Paul Lennon, Mark Corbin</p> <p>DPI Fisheries Manager: Heath Folpp</p> <p>DPI Fisheries Scientist: Julian Hughes</p>		
Observers	<p>Rowan Chick (DPI), Ashley Fowler (DPI), Natalie Dowling (CSIRO, FishPath Facilitator), Josh Cansdell (DPI, Executive Officer), Nick Giles (DPI, Fisheries Manager Harvest Strategies), Ian Knuckey (FishWell Consulting)</p>		
Apologies	Nil		

Agenda Item	Issue	Notes & Actions
1.	Welcome and Introduction	<p>1.1 Acknowledgment of county</p> <p>The Chair opened by acknowledging Traditional Custodians and paying respects to Elders past, present and emerging.</p> <p>1.2 Apologies and Recognition of Observers</p> <p>The Chair welcomed all Working Group members and meeting guest Natalie Dowling, Rowan Chick and Ashley Fowler, including DPI Executive Officers Josh Cansdell and Nicholas Giles.</p> <p>1.3 Confirmation of Agenda</p> <p>The meeting agenda was accepted without modification</p>

		<p>1.4 Declaration of pecuniary interests</p> <p>Updates to the register of pecuniary interests were provided.</p> <p>1.5 Progress of other NSW fisheries harvest strategies</p> <p>DPI provided an update on development of other NSW harvest strategies.</p> <p>1.6 Minutes of the previous meeting</p> <p>The previous meeting minutes were adopted following confirmation that all comments had been resolved.</p>
2.	Introduction to Aboriginal Harvest Strategy Framework	<p>Guest speaker Ian Knuckey and the Aboriginal fishing representative presented a briefing on work underway to develop a harvest strategy framework for Aboriginal cultural fishing in NSW.</p> <p>The new framework is being developed in consultation with the Aboriginal Fishing Advisory Council to support improved engagement, recognition and integration of cultural fishing interests into NSW harvest strategies.</p> <p>Discussion</p> <p>The presentation provided an overview of the project currently underway. Members recognised the importance of integrating all interests into the harvest strategy and welcomed ongoing engagement regarding the project through the Working Groups Aboriginal fishing representative who is also part of the project.</p> <p>Members engaged in an informative discussion on the perspective of cultural fishing in the context of cultural values, cultural practice and fisheries management in managing fisheries resources. During discussions, members recognised the principle of suitable and sustainable biomass levels supporting interests of all harvest sectors, including broader objectives such as supporting ecological function and values. It was recognised that cultural fishing is an important way for Aboriginal fishers and communities to connect to country, and cultural fishing is about this as well as community gathering, passing on cultural knowledge and the social aspects that bind the community together.</p> <p>As the cultural framework and Mulloway harvest strategy are being developed concurrently, there is opportunity to recognise and integrate progress and developing outcomes from each project.</p>
3.	Draft timeline and agendas	A draft schedule and Agenda were provided to map out the complete process and topics required for developing the

		<p>draft harvest strategy for potential submission to the Minister before the end of 2022.</p> <p>Discussion:</p> <p>Members acknowledged and agreed with the timeline, noting that this will assist to work through each strategy element in a structured process, and that focus will be on developing a considered and effective harvest strategy.</p>
4.	FishPath Outputs	<p>Dr Natalie Dowling (CSIRO) and DPI representatives presented an overview of shortlisted FishPath options for data monitoring, assessment and management measures. The presentation included supporting information and discussion to assist in refining options for use in the harvest strategy, using the FishPath process and online tool to support the decision-making process, including the rationale for shortlisting and/or caveats associated with each potential option.</p> <p>Discussion</p> <p>Members reviewed and engaged in discussion regarding shortlisted options, noting further refinement will benefit from identifying existing measures or any future measures that could be incorporated into the harvest strategy.</p> <p>Noting that a key step to inform the developing strategy will be to identify objectives suitable for the stock and harvest sectors, it was recognised that drafting objectives will help to refine suitable indicators and reference points from the shortlist of options. In addition, a range of management options will be available to support improved recovery of the Mulloway stock, which may be a combination of existing, refined or new dynamic, semi-static and/or static measures.</p> <p>Given the substantial level of complexity to FishPath options and determining an appropriate package for the harvest strategy, members recognised value in continuing to refine options in conjunction with developing harvest strategy objectives as a complementary package.</p> <p>Action:</p> <ol style="list-style-type: none"> 1. DPI and Dr Dowling continue to refine FishPath options and the shortlist for incorporation into the draft harvest strategy concurrent with developing objectives.
5.	Support Measures	<p>The Chair continued discussion on potential support measures to support rebuilding of the Mulloway stock and operation of the harvest strategy, with support measures falling into four main areas.</p>

		<p>Discussion</p> <p><i>Improving data</i></p> <p>Improving data to support ongoing assessments of current stock health and appropriate management response was reiterated through discussions to be a critical issue for the stock and operation of the harvest strategy.</p> <p>Discussions are underway with RFNSW regarding options to collect additional recreational catch data through the FishSmart App, with a preference for use of virtual tags and mandatory reporting of catch and lengths to support data integrity.</p> <p>Discussions are commencing with CommFish NSW regarding options to improve commercial data collection, focused on options to collect length and mesh size information in addition to current mandatory reporting of catch and effort, and potential to consider options for a commercial tagging program.</p> <p>DPI research is also developing a broad program of work and seeking funding to support data collection and monitoring options to improve future assessments, potentially including projects regarding stock structure, gear selectivity, discarding, genetic/otolith programs and enhanced spatial/population modelling.</p> <p><i>Increasing compliance</i></p> <p>A targeted Mulloway compliance operation is being developed to enhance focus and assessment of compliance within the Mulloway fishery, noting that this has also been subject to recent routine focus. Discussion is also underway with RFNSW regarding potential for fin clipping of recreational catch to improve compliance and reduce risk of black-marketing.</p> <p><i>Reducing mortality</i></p> <p>DPI and industry have continued parallel programs to monitor and minimise incidental Mulloway catch in trawl fisheries and further develop effectiveness of mandatory Bycatch Reduction Devices (BRD's). Members also noted the invitation for a trawl representative to attend a HSWG meeting.</p> <p>The Chair proposed the Working Group approach CommFish NSW to commence discussions around potential to limit the use of larger (>7¼ inch) Estuary General meshing nets to improve protection of larger Mulloway.</p>
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<p>6.</p>	<p>Introduction and discussion on Harvest Strategy Objectives</p>	<p>The Chair opened discussion on objectives for the Mulloway harvest strategy with the question: What does a good or bad fishery look like for each fishing sector?</p> <p>Discussion</p> <p><i>A 'good' fishery</i></p> <p>The recreational perspective held a shared view that catching Mulloway was a lot easier years ago. Peak catches for Mulloway were viewed to be around the 70's and 80's, and it was recognised that high catches (by all sectors) likely contributed to stock decline, as well as the unknown influence of environmental impacts. Abundance is considered to be low in comparison to historic experience (particularly over the previous 5 years), with fish harder to locate and catch even for experienced fishers, and especially so for larger fish. Mulloway were considered significantly less abundant than other common species such as bream and flathead, which can generally be targeted with success. A good fishery was considered to have been present approximately 20 years ago, with a good fishery consisting of a high enough biomass/abundance that Mulloway could be caught regularly when targeted, with regular ability to catch larger fish (~10 kg or 1 m in length).</p> <p>The commercial perspective shared a view that Mulloway were able to be caught where fishers understood their behaviour and the seasonal or current environmental trends, and particularly the influence of wet or dry weather patterns. Representatives agreed improved consistency of catch would be better, though increased catch or supply would likely impact price per kilogram. Ability to consistently supply was</p>

		<p>viewed to be important to maintain both markets and price. It was noted that good would be better than now, but fishers may not need more catch if profitability did not increase. It was also noted that a higher biomass would increase availability as well as resilience of the stock, which may be important considering potential environmental impacts (e.g. habitat degradation).</p> <p>The Aboriginal perspective noted likely strong parallels for a good fishery between cultural, commercial and recreational fishing, recognising that the opinion of what looks good or bad for Mulloway regarding Aboriginal cultural fishing may vary between communities along the NSW coast. Cultural fishing is maintained with reasonable or higher abundance and access to catch Mulloway. Population levels of Mulloway need to be at levels to maximise resilience, ongoing sustainability and access/availability, and it is also important for communities to be able to purchase fish where they cannot catch it themselves.</p> <p>The member expressed that Aboriginal people have a connection to Mulloway that is more than just 'catching a feed', noting that cultural knowledge and management of fishing is integrated with connection to country, with knowledge important to protect, continue and share. A management plan should not intervene with cultural fishing, it should allow cultural fishers to be connected to country and allow Aboriginal people to be able to provide fish to their community, and allow management by communities at the local level.</p> <p>A scientific perspective was also shared that recognised a common management target for spawning biomass equivalent or above that supporting Maximum Sustainable Yield (MSY), with MSY often equating to a biomass at or around 40% (B_{40}) of unfished biomass (B_0). Other common targets equivalent to Maximum Economic Yield (MEY, around 48% of unfished biomass (B_{48})), or higher could also be chosen dependent on management objectives.</p> <p><i>A 'bad' fishery</i></p> <p>Members shared the opinion that the existing level of stock biomass is 'bad' (i.e. spawning potential ratio (SPR) derived from the stock assessment of ~10-27% as a proxy for biomass, with reasonable probability that the stock is below 20% of unfished biomass), and it was highly undesirable for the biomass of the stock to decline any further.</p> <p>Whilst the current stock assessment is recognised to be appropriate in terms of classifying the stock as depleted</p>
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	<p>based on available data, the importance of improved data to assess stock health with a higher degree of certainty was revisited, including to improve the accuracy of current and future biomass estimates, to detect changes or trends in stock health, and to inform the harvest strategy and effectiveness of management measures.</p> <p>Members recognised the benefit of identifying a point where targeted fishing should cease (i.e. a moratorium or similar), noting that discard mortality would continue and that some form of data collection/monitoring process should be developed/made available to measure stock performance if not available through fishery monitoring.</p> <p>Environmental impacts (e.g. habitat degradation and water pollution) were also raised as issues of concern for the current and future health of the stock, acknowledging that these require further assessment and there is therefore uncertainty regarding the relative impact of fishing or non-fishing impacts to the current depletion.</p> <p><i>Developing harvest strategy objectives</i></p> <p>Following discussion on views for the current and future fishery, DPI provided a brief description of key harvest strategy elements related to forming the harvest strategy objectives and other key elements required under the Harvest Strategy Policy.</p> <p>The primary requirements of a harvest strategy are to specify fishery objectives, performance indicators against which those objectives are assessed, and pre-determined decision rules to establish management actions necessary to meet those objectives. The harvest strategy must also establish target and a limit reference points for those performance indicators (commonly, current level of biomass compared to unfished biomass), noting the NSW Harvest Strategy Policy and Guidelines specify:</p> <ul style="list-style-type: none"> • A default target reference point of maximum sustainable yield (i.e. 40% of unfished biomass - B_{40}) or higher, • A default limit reference point of 20% biomass (i.e. 20% of unfished biomass - B_{20}), • Strong management action required to increase biomass to greater than the limit reference point if assessed to be below this point. <p>Concern was raised over the consequence if the harvest strategy was not successful in meeting its objectives to support the Mulloway stock. It was noted that the harvest strategy should consider what to do if stock biomass</p>
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		<p>continues to decline, including determining a point at which fishing should cease entirely. The harvest strategy will determine objectives for the fishery and the mechanisms to achieve those, and if the harvest strategy fails to support the fishery, additional actions may be required.</p> <p>The Chair requested all members review the NSW Harvest Strategy Policy and Guidelines before the next meeting, and for DPI to begin to frame draft objectives for consideration at the next meeting.</p> <p><i>Data and indicators</i></p> <p>Following on from discussion on objectives and associated data, a brief discussion was held on potential indicators that could be used to monitor stock health and, together with reference points, be incorporated into the harvest strategy, to inform application of the decision rules.</p> <p>The current stock assessment incorporates a number of assessment methods. Principle among them is Spawning Potential Ratio (SPR) analysis, with this measure being used as a proxy for spawning biomass, however a number of other indicators are also available. The harvest strategy may incorporate a multi-indicator approach, and also identify future data (e.g. as proposed through support measures) for incorporation as and when available. The Working Group agreed to DPI providing further recommendations on appropriate indicators at the next meeting.</p> <p>Actions:</p> <ol style="list-style-type: none"> 4. DPI to draft initial objectives based on discussions for consideration as part of a developing draft harvest strategy at the next meeting 5. Members revisit the NSW Harvest Strategy Policy and Guidelines before the next meeting 6. DPI to provide advice and recommendations for appropriate indicators at the next meeting
<p>7.</p>	<p>Next steps for Mulloy Harvest Strategy</p>	<p>The next meeting is proposed to continue development of objectives, indicators and reference points for the harvest strategy.</p>

Next meeting proposed for Sydney 25th and 26th July 2022