

# Minutes

## Line & Trap Harvest Strategy Working Group meeting 3

### Details

**Location:** Surry Hills, NSW 2010

**Date:** 11–12 September 2023

**Chairperson:** Ian Cartwright

### Attendees

1. Tony Smith, Independent Scientist
2. Sevaly Sen, Independent Economist
3. Brad Gibson, Recreational Fishing Member
4. Ian Puckeridge, Recreational Fishing Member
5. James Norris, Recreational Fishing Member
6. Daniel Stewart, Commercial Fishing Member
7. Mitchell Sanders, Commercial Fishing Member
8. Stephen McGuire, Commercial Fishing Member
9. John Stewart, DPI Fisheries Scientist Member
10. Darren Hale, DPI Fisheries Manager Member
11. Nicholas Giles, DPI Fisheries Harvest Strategy Manager Member
12. Chad Lunow, QLD DAF Observer
13. Aaron Puckeridge, Executive Officer
14. Rowan Chick, DPI Observer
15. Ashley Fowler, DPI Observer
16. Julian Hughes, DPI Guest Presenter (Agenda item 4)
17. Matt Taylor, DPI Guest Presenter (Agenda item 4)
18. Natalie Dowling, CSIRO FishPath facilitator (Day one)

### This Meeting:

No.	Issue	Action
1	Acknowledgement of country and introduction	<p>The Chair opened the meeting with an Acknowledgment of Country, paying respect to the traditional owners of the land on which the Line &amp; Trap Harvest Strategy Working Group (the Working Group) was meeting and paying respect to Elders past, present, and emerging.</p> <p>The Chair thanked NSW DPI for arranging to hold the meeting in-person and will formally thank the Department through a letter to the Deputy Director General Fisheries (DDG). The Chair will also raise potential for hybrid meeting arrangements for future Working Group meetings to enhance collaboration and reduce travel time and costs.</p> <p><b>Action items</b></p> <p>3.1 The Chair is to write to the DDG regarding meeting arrangements</p>
2	Action items review	<p>The Executive Officer (EO) updated the Working Group on the progress of the ongoing action items:</p> <p>1.3 The Chair will write to the Aboriginal Fishing Advisory Council (AFAC), indicating strong support from the Working Group for further engagement and guidance regarding Aboriginal cultural</p>

fishing interests, including the opportunity for participation of an AFAC nominee

The letter was sent to AFAC as a part of a correspondence package from the NSW DPI Aboriginal Fisheries Management Team. To support future engagement, the Working Group will raise any specific issues around Aboriginal cultural fishing to AFAC and send Working Group Chair's Summaries to AFAC for noting after each meeting.

2.1 An agenda item on NSW recreational catch data is to be scheduled for the third Working Group meeting

NSW DPI Recreational Fisheries Research staff attended to present during Agenda item 4.

2.2 NSW DPI is to discuss with Queensland Department of Agriculture and Fisheries (QLD DAF) the capacity of completing Management Strategy Evaluation (MSE) on behalf of the Working Group. NSW DPI will also explore any other viable options for completing MSE

NSW DPI has been discussing MSE with QLD DAF scientists. QLD DAF can assist with MSE for the NSW Snapper harvest strategy, but an amended Snapper stock assessment is being developed and scheduled to be completed in November 2024. MSE modelling would be completed using the amended stock assessment. This action item will remain open as the Working Group considers MSE options for the developing Snapper (*Chrysophrys auratus*) and Yellowtail Kingfish (*Seriola lalandi*) harvest strategies. The Working Group also noted that they may need to discuss alternative options for MSE and that an agenda item on this should be scheduled for a future Working Group meeting.

2.3 NSW DPI are to schedule a fishery level harvest strategy discussion in the meeting 3 agenda

A fishery level harvest strategy discussion agenda item was scheduled for Agenda item 7.

2.4 NSW DPI are to draft fishery definitions and scopes for the Snapper and Kingfish harvest strategies and provide them to the Working Group for consideration at meeting 3

2.5 NSW DPI are to draft goals and objectives for the Snapper and Kingfish harvest strategies and provide them to the Working Group for consideration prior to meeting 3

Working drafts of the Snapper and Yellowtail Kingfish harvest strategies were provided in the Working Group's briefing package prior to the meeting. This contained draft fishery definitions, scopes, goals, and objectives for the Working Group to consider.

2.6 The Chair is to update the Working Group on Tasmanian rock lobster reporting systems for the recreational sector at meeting 3

The Chair provided the Working Group with an overview of Department of Natural Resources and Environment Tasmania's initiatives regarding mandatory reporting of Southern Rock Lobster (*Jasus edwardsii*) catches for recreational fishers. A catch

reporting app was trialled in the 2021/22 and 2022/23 rock lobster seasons and mandatory rock lobster reporting is commencing from 2 December 2023. Monitoring and management arrangements such as this could allow for a total catch allocation for the recreational sector to be set and managed.

2.7 NSW DPI is to schedule a recreational fishing management agenda item in meeting 3

A discussion on recreational management was scheduled for Agenda item 9.

The EO noted that the minutes from meeting 2 were circulated for comment and updated accordingly, and a final draft was provided in the briefing package for endorsement. The Working Group endorsed this version of the minutes to be published.

### **Action items**

3.2 The EO is to provide each meeting's Chair's Summary to AFAC for noting

3.3 NSW DPI are to schedule an MSE discussion agenda item at a future Working Group meeting

### **3 FishPath questionnaire update**

NSW DPI provided a revision of the FishPath background and the Working Group's current progress through the tool (as summarised in the Meeting 2 Minutes).

Following direction from the Working Group in meeting 2, NSW DPI revisited the questionnaires completed for the commercial fishing sector's harvest of Snapper (questionnaire one) and Kingfish (questionnaire 2), and used the notes recorded for the recreational sector to complete questionnaires for the recreational harvest of Snapper (questionnaire 3) and Kingfish (questionnaire 4) out of session. NSW DPI presented influential questions to the Working Group, to confirm all responses and incorporated the Working Group's comments into the respective FishPath responses.

NSW DPI presented the shortlisted data collection and management options that had been produced for commercial (1-2) and recreational (3-4) questionnaires. The Working Group acknowledged the broad range of options identified, although noted it is not yet clear what combination of options are most suitable. The Working Group requested NSW DPI tabulate the options, including comments on the feasibility and efficacy of each out of session and present these outputs to the Working Group at meeting 4, so the Working Group can consider them for the harvest strategies.

The assessment component of the questionnaires will be revisited as the Working Group refines the operational objectives with further consideration of available indicators.

### **Discussion**

The Working Group discussed the relationship between operational objectives and indicators. In addition to the primary stock indicators (e.g., whole of stock biomass), additional indicators will be considered to potentially measure additional operational

objectives. For example, where the stock assessment is run for a single stock over multiple jurisdictions like the east coast Snapper stock, NSW specific indicators such as regional Catch Per Unit Effort (CPUE), could be used to examine the performance of the NSW stock component. Independent members reiterated the importance of having a simple relationship between indicators, as multiple indicators can provide conflicting messages making management decisions difficult. Operational objectives and indicators are closely linked, so developing both may be an iterative process.

The Working Group discussed the range of data collection programs that could contribute to the harvest strategies' monitoring components:

- The NSW commercial Fisheries Monitoring Program and Recreational Fisheries Monitoring Program (RFMP) have a range of key data streams which will support the harvest strategy
- It may be useful for the Working Group to consider compliance data. This could give an understanding of how cooperative all stakeholders may be to participate in voluntary data collection programs
- Discussions have focussed on NSW data collection, but the harvest strategies may need to consider external data sources
- Collecting genetic samples could be considered to support Close-Kin Mark Recapture (CKMR) assessments
- Understanding recruitment for Snapper may be important, particularly with growing risks from climate change and recruitment surveys could be a research recommendation of the Snapper harvest strategy. Trap CPUE may also be a good recruitment indicator, noting that a large portion of the trap catch are recent recruits to the legal sized stock

#### Action items

3.4 NSW DPI are to consider the FishPath results and develop a list of viable data collection and management options with comments on their feasibility and efficacy for consideration of the Working Group

#### 4 NSW Recreational Fisheries Monitoring Program

NSW DPI introduced the agenda item and provided background on the NSW DPI Recreational Research Team and statistics around recreational fishing in NSW.

#### NSW Recreational Fishing Surveys

The first *National Recreational and Indigenous Fishing Survey* was completed in 2000–01 (Henry & Lyle 2003). Subsequent Recreational Fishing Research Surveys have been completed on a state level with NSW completing surveys in 2013/14 (including the Australian Capital Territory), and biennially since 2017/18 using an internationally recognised telephone diary method.

The telephone diary survey is completed in 3 phases with a screening survey first identifying one or 3 year fishing fee receipt

holders willing to participate, then a diary survey capturing fishing event information, followed by a final follow up survey.

The surveys provide valuable data on many aspects of recreational fishing, which can inform the performance of harvest strategy objectives. The survey does have some limitations that are important to be cognisant of:

- Variance around total harvest estimates depends on how much data are collected for each stock in the survey, so rarely caught or specialist species may have larger error ranges
- The survey's sample population is one or 3 year NSW Recreational Fishing Licence holders and their households. It does not include people who are exempt from paying the recreational fishing fee and people who pay short term recreational fishing fees, unless they reside in the same household as a survey participant

To develop more comprehensive recreational fishing data streams and to account for some of the survey limitations, NSW DPI has proposed adaptations to improve the Recreational Fishing Research Survey and will be seeking funding to implement these. This includes digital enhancements to improve survey efficiency and data accessibility, and development of an on-site survey component to complement information gathered from the telephone-diary survey. On-site surveys would be expected to commence in the 2025/26 survey period.

### **NSW Recreational Fisheries Monitoring Program**

In addition to the recreational fishing surveys, the RFMP collects a range of data to monitor recreational fishing in NSW. Some key components of this are the [Charter Fishery Monitoring program](#) and the scheduled on-site survey program, which is subject to ongoing funding. NSW DPI is also investigating options to support a digital near time tagging system for Mulloway (*Argyrosomus japonicus*) and Eastern Rock Lobster (*Sagmariasus verreauxi*) for recreational fishers to support management arrangements.

### **Discussion**

The Working Group noted the value of the presentations and explored the issue of specialist species having low coverage in the recreational fishing surveys. Small groups of specialist recreational fishers may account for large portions of the Snapper and Kingfish catches, contributing to greater uncertainty of total harvest estimates. Despite this, trends in Snapper and Kingfish recreational survey catch estimates can match those in commercial catches, supporting the perspective that the survey estimates are informing on recreational harvest through time.

The Working Group discussed how current and developing RFMP data can be used in the Snapper and Kingfish harvest strategies. Enhancements to the RFMP will not be incorporated until after the harvest strategies are expected to be enacted but may provide future value to these strategies. The harvest strategies therefore should account for current data availability, noting the harvest strategies may incorporate richer recreational data over time.

<p>5 Snapper and Kingfish data discussion – reference points, indicators, and monitoring</p>	<p>The Working Group noted that once the FishPath outputs are finalised, they will be tasked with developing the key data components of the Snapper and Kingfish harvest strategies. NSW DPI introduced the key data components and their relationship to operational objectives and management.</p> <p>Fishery indicators are data used to measure the performance of harvest strategy operational objectives, with performance often defined as the level of the performance indicator against a reference point. The importance of indicators is often hierarchical and NSW harvest strategies typically have a single primary indicator and supporting secondary indicators to inform performance of each operational objective. Primary indicators are used as a measure of performance of operational objectives, often including a measure of biomass or fishing mortality used to measure stock health. Secondary indicators can support the primary indicators or measure strategic objectives. Secondary indicators could include data such as measurements of regional stock variability or changes to fish lengths.</p> <p>Reference points are pre-defined levels of the indicators, often used to identify changes in stock health or fishery performance with respect to the operational objectives. When an indicator reaches some reference points (e.g., the limit reference point) predetermined management actions or decision rules are applied. Typically, a harvest strategy will contain a target (where we want the stock to be), trigger (where stronger management action or review may be considered) and limit reference points (where we do not want the stock to be).</p> <p><b>Discussion</b></p> <p>The Working Group discussed possible reference points for the Snapper and Kingfish harvest strategies. Having a high target reference point has a range of benefits (such as increased abundance and fishing efficiency) but lower fishing mortality is generally required to achieve higher biomass levels.</p> <p>Common methods to select target reference points include assessing the maximum sustainable or economic yield, or reflecting on a period where fish stocks or fishing were considered ‘good’ and using a proxy for this biomass level as the target. Members briefly discussed their perspectives on historical biomass levels and noted that for Snapper, periods including the 1970’s, 1980’s and 2009–12 could be considered ‘good’. This is also variable, depending on fisher specific experiences. The Working Group will need to consider this further, although agreed that stock health could generally be improved for both Snapper and Kingfish to enhance fishing opportunities.</p> <p>The Working Group also discussed limit reference points, with the commonly used 20% of unfished biomass as likely to be most appropriate for both Snapper and Kingfish.</p>
<p>6 Commercial fisheries management</p>	<p>The Working Group briefly discussed potential commercial management measures, noting that options will be further considered through those identified as part of the FishPath</p>

process. Introducing a new quota regime for Snapper and Kingfish was noted by the commercial members to be the least preferred option for the commercial sector as many small OTLF fishing businesses faced financial strain during the 2019 Commercial Fisheries Business Adjustment Program.

**7** Fishery level harvest strategy discussion

NSW DPI introduced the background to the fishery level harvest strategy. NSW harvest strategy working groups have focussed on creating harvest strategies for single species or close species groups which are relatively simple, but there are many broader drivers for fisheries management which are not addressed by single species harvest strategies, or which may be beyond their scope. A fishery level harvest may be an efficient option to support the following:

- Enabling the progressive development and integration of harvest strategies for key species and species groups into a cohesive harvest strategy framework
- The diversity of species in the OTLF which would benefit from best practice fisheries management under a harvest strategy
- Supporting simpler, focused species level harvest strategies by addressing broader issues in a fishery level harvest strategy
- Assisting third party sustainability accreditation from agencies such as the Marine Stewardship Council (MSC)

The application of any fishery level harvest strategy is flexible, and NSW DPI is seeking the expert perspectives of the Working Group members.

**Discussion**

The Working Group provided the following comments regarding the fishery level harvest strategy:

- Simplicity is key in effective harvest strategies and dividing the strategy into the OTLF's 2 key fishing methods, traps, and lines, may be a simple way to manage the fishery diversity
- An Ecological Risk Assessment (ERA) would be extremely valuable to provide context to the risks that a fishery level harvest strategy may address. The Working Group requested an update on NSW's ERA processes and key factors that will influence the ERA with respect to developing these harvest strategies
- Understanding the scope of the project '*Developing a Recreational Fishing Management Strategy for Recreational Fishing in NSW guided by an Environmental Assessment*' may be useful prior to the design of any fishery level harvest strategy and it would be useful for the Working Group to be updated on this project

**Action items:**

3.5 NSW DPI are to provide the Working Group with an update on the NSW ERA process and describe some key factors likely to

		<p>influence the ERA, with respect to the harvest strategies being developed</p> <p>3.6 NSW DPI are to provide the Working Group with an update on the project <i>'Developing a Recreational Fishing Management Strategy for Recreational Fishing in NSW guided by an Environmental Assessment'</i></p>
8	Review of developing harvest strategy drafts	<p>Current drafts of the Snapper and Kingfish harvest strategies were distributed to the Working Group in the meeting 3 briefing package. NSW DPI presented these draft harvest strategies and the Working Group proposed additional edits to be considered in the next iterations of the drafts.</p> <p><b>Action items</b></p> <p>3.7 NSW DPI are to update the harvest strategy drafts based on Working Group comments</p>
9	Recreational fisheries management	<p>NSW DPI introduced the agenda item and noting that recreational bag limits had been topics of interest, presented outputs from analyses on recreational harvest, where the effect of reducing the recreational bag limit of Snapper from 10 to 5 fish, and Kingfish from 5 to 2 fish was examined. For both species, the results indicated the bag limit reduction had a limited effect on total harvest. If recreational catch reductions were required, more substantial management changes would likely be needed. While relatively moderate changes to recreational bag limits may not cause a large harvest reduction, it may be an important risk reduction measure if fishing mortality increases. Since most Snapper and Kingfish are caught by boat-based anglers, combined boat limits for all onboard fishers may be an effective management measure.</p> <p>The Working Group also noted that Snapper and Kingfish near the legal-size limits comprise a large portion of the catch. Increasing the size limit may significantly reduce fishing mortality and build biomass.</p> <p><b>Discussion</b></p> <p>Due to market preferences, there is more appetite for size limit increases from the Working Group's recreational fishing members than there is from commercial fishing members. While it can cause cross sectoral conflict, Snapper and Kingfish may be candidates to have different recreational and commercial size limits, to service the objectives of the harvest strategies. In general, larger Snapper and Kingfish are considered more desirable for recreational fishers as this enhances the quality of the fishing experience. Although some commercial fishers take larger snapper, narrow entrances of demersal fish traps often exclude the capture of large Snapper.</p> <p>Recreational fishing members noted that there is growing interest in the recreational fishing community for Snapper and Kingfish management changes and a petition is circulating seeking support for recreational Kingfish management changes. Additionally, the <u>Recreational Fishing NSW Advisory Council (RFNSW)</u> has expressed concern for the resilience of Snapper and Kingfish with</p>



current recreational fishing levels. RFNSW discussed Snapper and Kingfish management at meeting 21 (17 August 2021) and recommended a range of changes. These recommendations were later revised, with RFNSW recommending that the Working Group's harvest strategy development and any associated management changes be prioritised.

**10 Other business and next meeting admin**

The Working Group acknowledged that while all meetings to date have been held in-person, the Working Group will operate with a balance of online and in-person meetings.

Recreational and commercial fishing members noted that their input is not needed for some technical agenda items and their time may be better used attending only applied agenda items and relevant technical items. Future meetings could see technical items held on day one with optional attendance from fishers, and applied items scheduled for day 2. This meeting format will be considered by NSW DPI prior to meeting 4.

---

**Next Meeting:**

The fourth meeting of the Working Group will be held on 13–14 November 2023.

---