

# Minutes

## Line & Trap Harvest Strategy Working Group meeting 5

### Details

**Location:** Surry Hills, NSW 2010

**Date:** 27-28 February 2024

**Chairperson:** Ian Cartwright

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. Aaron Puckeridge, Executive Officer
13. Rowan Chick, DPI Observer
14. Ashley Fowler, DPI Observer
15. Chad Lunow, QLD DAF Observer

### 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

### Apologies

Brad Gibson (day one)  
Ian Puckeridge (day one)

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### This Meeting:

No.	Issue	Action
1	Acknowledgement of country and introduction	The Chair opened the meeting with an Acknowledgment of Country, paying respect to the traditional owners of the land on which the Line & Trap Harvest Strategy Working Group (the Working Group) was meeting and paying respect to Elders past, present, and emerging.
2	Action items review	The Executive Officer (EO) updated the Working Group on the progress of the ongoing action items:  3.3 NSW DPI are to schedule a Management Strategy Evaluation (MSE) discussion agenda item at a future Working Group meeting  An MSE agenda item will be better placed once assessment methods and operational objectives have been defined. This action item will remain open until then.

4.1 During the Working Group's lifespan (before 12 February 2026), the Working Group is to create a document to brief the NSW DPI executive on fishery level management options for the broader Line & Trap fishery

As discussed at meeting 4, the Working Group is deferring consideration of the fishery level harvest strategy until the Snapper (*Chrysophrys auratus*) and Yellowtail Kingfish (*Seriola lalandi*) harvest strategies are further developed.

4.2 NSW DPI are to prepare a summary of commercial OTLF catches by gear type, and market value for the last 10 years to provide an overview of wider relationships associated with managing commercial catches of Snapper or Kingfish

4.3 NSW DPI are to prepare a summary of recreational species caught alongside Snapper and Kingfish over the last 10 years to provide an overview of wider relationships associated with managing recreational catches of Snapper or Kingfish

NSW DPI prepared a data request paper as part of the meeting 5 briefing package. Content in this paper related to Action items 4.2, 4.3, 4.5, 4.6, 4.8 and 4.9.

4.4 NSW DPI are to update the draft harvest strategies based on recommendations by the Working Group

The harvest strategies have been updated from the meeting 4 recommendations. The Working Group reviewed these further in Agenda item 11.

4.5 NSW DPI are to analyse and present information on how different fishing businesses rely on Snapper catches

4.6 NSW DPI are to provide the Working Group with information around allocation processes

4.7 NSW DPI are to prepare an analysis of various management options for the Snapper and Kingfish harvest strategies

Information on various management options was provided in papers in the meeting 5 briefing package. Further information was also presented in Agenda items 4 and 5.

4.8 NSW DPI are to provide further analyses around modifying recreational harvest controls

4.9 NSW DPI are to analyse and present information on the relationship between Kingfish daily catch and days fished per season, to inform the efficacy of effort controls

4.10 The Chair is to write to the NSW DPI Deputy Director General (DDG), confirming support to continue holding in-person meetings with hybrid attendance

The Chair drafted and sent a letter to the DDG on 22/11/2023. The DDG supported the proposed approach and NSW DPI organised meeting 5 to be held in-person.

**3** Data requests

NSW DPI noted that they had completed data analyses to address the range of Action items raised in meeting 4. These were provided in a paper in the briefing package, with a presentation of key information by NSW DPI. Data analysed included commercial Ocean Trap and Line Fishery (OTLF) logbooks, Sydney Fish Market sales, OTLF shareholdings, NSW Recreational Fishing Surveys and NSW Charter Fishery logbooks.

**Discussion**

The Working Group discussed the assessment of Snapper and Kingfish catches by fishing business and the trends present:

- There is no correlation between the number of OTLF Line West or Demersal Fish Trap shares held and Snapper and Kingfish catch levels
- The OTLF is a multi-species fishery and different fishers target and rely on Snapper and Kingfish to varying degrees. Furthermore, some OTLF shareholders do not actively catch Snapper and Kingfish at present

**4** Introduction to decision rules

NSW DPI introduced the agenda item and presented background information on decision rules, with examples of how decision rules may be incorporated into the Snapper and Kingfish harvest strategies.

Decision rules are pre-agreed actions in a harvest strategy that provide a framework for adjusting the intensity of fishing activity or catch. Decision rules are applied periodically (most commonly on availability of a stock assessment or preceding a defined fishing or monitoring period) to ensure the objectives of the harvest strategy will be met. The decision rules could take several broad designs which are used in Australian harvest strategies:

- Proportional change harvest control rules – where the decision rules make modifications to total harvest in proportion to changes in the level of the primary indicator, this can be visualised as a linear relationship (straight-line) plotted against a biomass indicator, and the harvest rate

- Hierarchical decision-making framework – where multiple indicators are used to modify harvest, this is often visualised with a decision tree
- Hockey stick harvest control rule – where decision rules make modifications to total harvest in proportion to the level of the primary indicator, but stepped changes at certain reference points alter the strength of management responses, making catch allowances more or less precautionary. This is often visualised with a linear relationship (straight-line) plotted against a biomass indicator and the harvest rate, but with at least one point of inflection, where the harvest rate change compared to the biomass indicator increases or decreases

NSW DPI is assessing developing integrated stock assessment models for Snapper and Kingfish; therefore, decision rules will likely be based around assessment-derived biomass estimates as a primary indicator, with secondary indicators potentially providing finer context to the decision rules. Given this situation, a hockey stick harvest control rule directly linked to biomass estimates may be best suited for these harvest strategies. If a hockey stick harvest control rule is used in the Snapper and Kingfish harvest strategies, there are additional decisions that must be made regarding its form and application:

- Either the exploitation rate could decrease linearly from the target reference point to the limit reference point (and vice versa for increase), or the exploitation rate could reduce at a trigger point slightly below the target reference point (e.g., 35%) to allow for natural fluctuations in biomass and finer adjustment when the indicator is above the trigger
- Either small amounts of incidental catch could be allowed below the limit reference point, or zero catch arrangements could be introduced at the limit reference point, noting that some harvest strategies such as the [NSW Lobster Fishery Harvest Strategy](#) allow limited harvest below the common limit reference point of 20% biomass

### Discussion

Other NSW harvest strategies with integrated assessment models typically use hockey stick harvest control rules, such as in the [NSW Lobster Fishery Harvest Strategy](#). This is because there is a high level of confidence in the outputs from the model-based stock assessment informing estimates of biomass, supporting fine-scale changes to the harvest rate. It is anticipated that the development of the NSW Snapper assessment will support a similar harvest

control rule system but the system used for Kingfish may require further consideration since the stock assessment is expected to be less data rich and have less certainty than the Snapper assessment.

Elements of hierarchical decision trees could be used for both species and depending on the specificity of the operational objectives and assumed relationships between biomass and the likelihood of achieving these objectives, additional complementary harvest control rules, supported by secondary indicators may be incorporated into the harvest strategy framework.

The Working Group discussed how the exploitation rate should be manipulated and commercial fishing members noted that they prefer stability in management systems, and that some biomass fluctuation around the target reference point should be allowed. A trigger reference point could be established, and when biomass breaches the trigger reference point, more substantial corrective action could apply.

A species' life history can be a consideration when determining a trigger reference point. Short lived fast-growing species may have naturally large biomass fluctuations, while long lived slower-growing species may have more stable biomasses and biomass declines may indicate over exploitation. Trigger reference points should be sufficiently precautionary that they introduce management before substantial depletion occurs, while also allowing for natural biomass fluctuations. Snapper and Kingfish both reach sexual maturity within 3–8 years of age and grow to moderate ages, meaning that a mid-range trigger reference point is likely to be broadly suitable. The Working Group proposed 35% as a starting point for the trigger reference point, although the appropriateness of this should be tested through MSE.

Harvest strategies typically use a limit reference point of 20% as a proxy for the level at which recruitment is compromised and the stock can no longer replenish itself within acceptable timeframes or at all. In some scenarios, a limit reference point, or zero catch limit, may be set below the 20% proxy if there is a strong understanding that the life-history and population characteristics of the species can support recruitment at lower biomass levels. The balance of continued fishing against potential stock collapse is a key element to consider, including that stock recovery from critically low levels can be both uncertain and take long periods.

In the case of Snapper and Kingfish (and most fish stocks around the world), it is understood that these stocks would be unlikely to support reliable natural recruitment levels below 20% of unfished

biomass, so stopping targeted catch and strongly limiting any incidental catch beyond the limit reference point is sensible. Furthermore, with the eastern Kingfish stock being harvested across multiple jurisdictions, there may be a limit to what catch reductions in NSW can achieve (noting that NSW takes most of the eastern catch), and cross-jurisdiction communication and management reciprocation will be important for Kingfish management.

The Working Group also noted that breaching the limit reference point is not desirable, and when breached, the NSW Fisheries Harvest Strategy Policy requires serious corrective action and development of a stock rebuilding strategy. Building in an additional rebuilding reference point between the trigger and limit may be sensible to provide a safeguard against declining biomass, which could take the form of additional management and a review of the harvest strategy. The Working Group suggested a rebuilding reference point of 25% be included in both the Snapper and Kingfish harvest strategies, with actions at this point to be developed. The appropriateness of this reference point will also be examined with MSE, as ideally strong management changes would be introduced before biomass becomes volatile, and at high risk of breaching the limit.

### **Assessment discussion**

The Working Group briefly discussed the developing stock assessments for Snapper and Kingfish.

- Kingfish catches are primarily based on juvenile fish, while Snapper catches are based on adults, so the primary indicators for each harvest strategy could include different measures of biomass (i.e., spawning biomass for Snapper, and total biomass for Kingfish)
- Since Snapper catches are based on the adult population, juvenile indicators would be useful to give some forecasting to the future fishable stock. Juvenile recruitment surveys are currently completed in QLD, and there may be interest in seeking Fisheries Research and Development Corporation (FRDC) funding to support a cross jurisdictional, east coast Snapper recruitment survey. Discard data from fishers could also provide an insight into sub-adult fish around 25–30 cm in length, which may be harvestable in a year
- Incorporating additional indicators for Kingfish into the harvest control rules may be important, as Kingfish are generally less

data rich than Snapper, and the stock assessment is likely to have greater uncertainty

- The harvest strategies may provide formal guidance for assessment uncertainty. This could be in the form of discount factors, or varying the biomass levels where harvest control rules are applied

#### **Action items**

5.1 NSW DPI are to examine the appropriateness of the Snapper and Kingfish reference points through MSE

## **5 Assessment of management options**

NSW DPI introduced the agenda item and noted that extending from the introduction to decision rules agenda item, there are a range of points relating to management options associated with decision rules to consider. These points include:

- Whether the harvest strategies should address cross-sectoral allocation, and whether there is a recreational and commercial allocation
- The form and application of the commercial and recreational harvest control rules
- The range of specific management arrangements which will apply

#### **Cross-sectoral allocation**

The Working Group has previously discussed proportions of Snapper and Kingfish catch as 'catch shares' to the recreational and commercial fishing sectors, as this would promote equitable distribution of the resource and joint ownership for both sectors. Reiterating this sentiment, the Working Group agreed that some form of resource sharing between the sectors would be valuable. The Working Group discussed how this may be achieved in the Snapper and Kingfish harvest strategies:

- Other Australian jurisdictions have estimated commercial and recreational catch levels, and allocated catches based on current levels
- How stringently allocations are managed against will be determined by other components of the harvest strategy, and whether both sectors can be managed to a defined limit (e.g., each sector getting a proportion of a TAC) or if each sector is broadly monitored against their allocation to ensure they do not begin to take a greater share at the cost of the other sector

#### **Form and application of commercial harvest controls**



The harvest strategies will include management arrangements linked to the decision rules, which control commercial harvest of Snapper and Kingfish to an appropriate level to allow for the stocks to be maintained around the target reference points. The Working Group has been presented with the comprehensive range of options initially outlined and shortlisted through the FishPath process (meeting 3 and 4), with each option further commented on to provide NSW specific responses to their efficacy and feasibility, but the Working Group now must begin to design options for the harvest strategies:

- In previous meetings, commercial fishing members have noted that if a Total Allowable Catch (TAC) was implemented, a TAC with an Individual Transferable Quota (ITQ) would be preferred. It is unlikely that an ITQ could be established under the harvest strategy process, and noting there will be different views on ITQs, this would likely need additional consultation and a separate body of work after the harvest strategies are developed
- For Snapper, a framework of tiered catch limits may be the least disruptive option for commercial fishers
- The NSW component of the eastern Snapper stock is believed to be building with current levels of fishing mortality and may continue to do so. Given this, the NSW Snapper Harvest Strategy may seek to maintain a close to status-quo management approach for commercial Snapper fishing under higher biomass levels. If biomass was to drop, arrangements such as tiered catch limits could be implemented to adjust catch levels as needed to drive biomass back towards the target level
- The NSW Snapper Harvest Strategy would need to clearly define what management controls would be active at each level of measured stock performance and particularly, where on that continuum more precautionary controls would begin and how they would change in response to the assessment of primary indicators
- The Working Group noted that 50% of unfished biomass is currently proposed as the target reference point for the NSW Snapper Harvest Strategy. If a status-quo approach was taken, the Working Group would need to examine the expected rate that the Snapper stock is building, and whether it would be expected to hit the target reference point (currently 50%) in a reasonable timeframe. It was also noted that NSW harvest strategies typically have a 5-year lifespan before being



reviewed. If at the 5-year review, the stock was deemed to not be building towards the target at a suitable rate, additional management support could be considered

- Effort controls have not been excluded as an option yet, although have a range of issues associated with them that may be best to avoid
- There is potential latent 'Snapper effort' in the OTLF which could theoretically lead to an increase in fishing effort and Snapper catch, but the current costs of commercial trap fishing are likely disincentivising new entrants to the fishery. If additional management arrangements were introduced in a low biomass scenario, there would be an even lower incentive to enter the fishery, further reducing the risk of latent effort having a negative effect on Snapper biomass. Furthermore, the OTLF is a broad and multi-species fishery containing diverse business operations, such that effort controls are likely to be less feasible than more direct catch controls
- While the broad NSW component of the eastern Snapper stock is building, signals of stock health are not as positive throughout the entire state. Some regional monitoring and management may be needed to guide the stock towards the target throughout all of NSW
- The Working Group supported the hybrid management approach, with status-quo management at high and increasing biomass levels, and arrangements such as tiered catch limits at lower biomass levels, noting the appropriateness of this would continue to be examined against the stock assessment, MSE and regional stock signals

### **Form and application of the recreational harvest controls**

As discussed in previous meetings, joint stewardship and equal contributions across recreational and commercial fishing sectors are important to support robustness of the resources and to promote cross-sectoral cooperation. This was considered in the discussion around recreational management in Agenda items 9 and 10.

### **Discussion**

The Working Group discussed the public consultation process for the harvest strategies, and how broader public input may affect the harvest strategy management arrangements:

- Once the Working Group has completed the draft harvest strategies, they will be provided to the Commercial Fishing

NSW Advisory Council (CommFish), Recreational Fishing NSW Advisory Council (RFNSW) and Aboriginal Fishing Advisory Council (AFAC) for review, before they are released on the NSW DPI website for public consultation. Here, any interested members of the public can comment on the draft harvest strategies

- Once the public consultation period has ended, the Working Group will meet again to discuss the feedback, and any final changes which may be needed in the harvest strategies
- An important aspect of this process will be accurately conveying the Working Group's exploration of various options and how it arrived at the final draft of the harvest strategies. The meeting minutes form a key component describing the consideration and development process for these harvest strategies, and will be available for consideration by interested parties

**6** Snapper commercial decision rules discussion

As discussed in Agenda item 5, the Working Group currently considers that the NSW Snapper Harvest Strategy could include status-quo management for commercial fishing at high biomass levels, subject to further evaluation. However, the Working Group will need to consider management arrangements if the fishery dynamics change, or if the Snapper biomass begins to decline. The Working Group noted that if stocks were low, any management changes would cause some level of disruption to the fishery, but the Working Group can aim to design a management system that minimises adverse impacts, while keeping fishing mortality to suitable levels. Catch limits had been proposed as a potential management measure that could be introduced to control Snapper harvest if needed:

- A caveat of catch limits is that they will have a larger impact on higher catch fishers
- Commercial fishing members noted that a daily limit could be problematic if poor weather meant that traps could not be retrieved. When the traps were eventually retrieved weekly catch and income would be reduced to the level of the daily limit. A weekly limit could help account for the variability of ocean conditions, noting effective compliance is an important consideration
- There are a range of ways that the tiered catch limits could be applied, and if daily or weekly limits were used, they could be combined with an annual limit. For example, a homogenous daily limit could be used throughout an entire season, or a daily

limit could be introduced when a certain percentage of an annual catch limit has been taken

- Trap numbers or days fished could also be used as an input control, although this would likely have a larger effect on multi species catch than a Snapper specific limit and is currently not a preferred option

Noting previous discussions around TACs and ITQs (meetings 3 and 4), the Working Group revisited discussion on an ITQ system to manage commercial Snapper catches:

- The primary objective of an ITQ system is to allocate quota (catch) to individual fishers, delivering security of access to Snapper and supporting certainty and flexibility in when and how catch may be taken
- The perceived risk with an ITQ system is that the basis of any allocation of new quota shares is uncertain, with this commonly involving expert advice from an Independent Allocation Panel who considers relevant information
- If a TAC with ITQ was introduced for Snapper, equally precise recreational arrangements would be needed, otherwise the value of commercial quota shares could be undermined
- Given the uncertainty around quota for Snapper it is questionable as an appropriate option to be included in the first iteration of the NSW Snapper Harvest Strategy. However, if other management arrangements were not operating efficiently, they may be considered in the future. Anticipated allocation processes could cause industry behaviour changes, although there are ways to account for this

The Working Group has several commercial harvest controls to choose from, with tiered catch limits currently being perceived as the most viable option to commercial Snapper fishers. It would be useful for NSW DPI to present further data to inform the Working Group's discussions at meeting 6 around catch limits and other harvest controls.

The Working Group discussed the status-quo management response, and how the harvest strategy may respond to negative biomass signals:

- Stock assessments often trigger a harvest strategy response, but these may only be repeated periodically e.g., ranging from a 1-5 year cycle

- The harvest strategy may seek to monitor other indices annually or biennially, to offer a faster response if needed
- Considerations such as this would likely be covered in the harvest strategy's meta rules, which have not yet been discussed by the Working Group

**Action items**

5.2 NSW DPI are to provide an analysis of how various harvest controls may achieve harvest reductions of Snapper and Kingfish catches

**7** Day one summary Noting that the full recreational fishing membership was present for day 2, the Chair provided an overview of the day one discussion, highlighting the Working Group's discussion around the broad application of the harvest control rules, and the discussion around the management of commercial Snapper fishing, and how status quo management may be most appropriate given current stock building patterns.

**8** Yellowtail Kingfish commercial decision rules discussion The Working Group noted that they had discussed general commercial management, and commercial Snapper fishing in-depth, and moved to how Kingfish may need to be managed under the developing harvest strategy. The Working Group discussed broad principles that should be considered for the management of commercial Kingfish fishing under the harvest strategy:

In the current SAFS assessment, Kingfish are assessed as 'sustainable' although are estimated to have a lower stock status than Snapper and may require greater assistance to rebuild to target levels. Noting this, the status-quo management arrangement being considered for Snapper is unlikely to be suitable for Kingfish in the stock's current state, and the harvest strategy may need to establish an initial stock building phase, subject to further consideration of management options and potential timelines to progress biomass towards an agreed target level

- Kingfish have huge ranges and there are complex fishing dynamics to account for, with NSW commercial and recreational fishers travelling to target favourable fishing locations, as well as cross-jurisdictional catches of the eastern stock
- Kingfish, having more simple and targeted fishing methods than Snapper, may make them better suited to catch limits. If a catch

limit was reached, Kingfish could likely be avoided, or safely released, as they are understood to have high release survival

- When Kingfish are commercially targeted, they are often in offshore locations with high travel costs, but large catches can be taken. A low daily limit could make targeting Kingfish less viable for some operators. Despite this, different targets and fishing methods can also be incorporated on a given day to supplement Kingfish catch to support Kingfish stock viability which is one of the Working Group's primary objectives. Other options, such as catch limits applying to longer periods (e.g., weekly), or other management approaches could also be considered

The Working Group further discussed an ITQ TAC as an option for managing commercial Kingfish catches:

- Like the conversations around Snapper, the allocation process carries uncertainty and perceived risks, and ITQs will be favoured by some fishers and not others. It would be useful to gain further information from the NSW DPI executive regarding its position on additional ITQs in NSW and the preferred process for determining if, how and when an ITQ may be delivered
- Noting that implementing an ITQ would likely require consultation and processes outside of the harvest strategy, it may take time before an ITQ could be implemented and an interim approach would be needed regardless
- The commercial fishers on this Working Group are primarily based in the northern half of NSW and recognised that advice from other fishers specialised in Kingfish would be beneficial. It may be useful for the Working Group to seek the perspectives of south coast fishers who target Kingfish
- The harvest strategy would need to adequately address recreational and cross-jurisdictional catch, otherwise the value of a potential ITQ system for the commercial sector could be undermined
- Commercial fishers have been of the perspective that after the Business Adjustment Program (BAP), there may be opposition to establishing any new ITQs. While there is justification considering ITQs as a management option, there are also other options, and any final recommendation would need to be carefully communicated to the fishing industry and public

The Working Group discussed the other management options that could be used in the harvest strategy. Arrangements such as

seasonal closures or maximum size limits remain as options for commercial fishers as discussed in meeting 4.

#### **Action items**

5.3 The Chair is to write to the NSW DPI executive, providing an overview of the Working Group's current perspectives on Snapper and Kingfish management, and whether ITQs are a viable option to consider further

5.4 NSW DPI is to provide the Working Group with a summary of the issues associated with each management option discussed at meeting 5

5.5 NSW DPI are to invite a south coast OTLF fisher who targets Kingfish to provide their perspectives on Kingfish management at meeting 6

#### **9 Snapper recreational decision rules discussion**

The Chair introduced the agenda item, noting that the recreational sector would need to be managed in complement to the commercial sector. The Working Group noted that current recreational data collection has some issues affecting fine-scale monitoring or management changes, however there are developing options to increase feasibility. The Working Group explored this issue further:

- Incorporating NSW DPI's development of real-time reporting technology into the Snapper and Kingfish harvest strategies could assist in bridging this gap
- The Working Group discussed voluntary reporting of catches as an option, although concluded that this is not scientifically defensible, and would not be useful to support robust management
- Recreational fishing members did not provide unanimous support for mandatory reporting of catches, although members recognised the benefits
- All stakeholders want high quality stock assessments and management. To achieve this, accurate fishing mortality information is needed

The Working Group discussed the recreational harvest controls that could be included in the NSW Snapper Harvest Strategy:

- As noted in the commercial management discussion, the NSW component of the eastern Snapper stock is believed to be building under current fishing pressure, and status-quo management may be appropriate. However, existing

recreational limits are not taken in most fishing events, and catch could significantly increase under existing limits

- Some fishers consider that the recreational Snapper bag limit may be too high (currently 10 fish per person). Given the level of uncertainty in recreational catch estimates, reducing the bag limit could be a sensible risk reduction measure
- The Working Group's recreational fishing members unanimously recommended that the Snapper bag limit be reduced from 10 to 5, and a soft slot limit introduced with one fish over 70 cm allowed, in line with the changes RFNSW previously proposed. This could provide a starting point for assessing a management framework designed to adjust catch through these or other measures
- The Working Group noted that these changes are unlikely to have a large effect on recreational catches (based on recreational survey data) but are a sensible risk reduction measure nonetheless

**10** Yellowtail Kingfish recreational decision rules discussion

The Chair introduced the agenda item, noting many of the principles discussed for Snapper, such as those surrounding data collection also apply to Kingfish. The Working Group members proceeded to discuss recreational harvest controls which could be included in the developing NSW Yellowtail Kingfish Harvest Strategy:

- Like Snapper, the Working Group's recreational fishing members recommended reducing the Kingfish bag limit from 5 to 2 and introducing a soft slot limit with one Kingfish allowed over 100 cm as a static harvest control in the harvest strategy. Again, while this may not have a large effect on recreational Kingfish harvest, it could be an appropriate risk reduction measure and provide a starting point for further consideration
- While an integrated stock assessment and MSE may provide quantitative guidance around harvest reductions that are required, it is likely that a reduced bag limit and soft slot limit may not be sufficient to support building the eastern Kingfish stock, and additional controls may need to be considered
- Other options such as seasonal closures or boat limits may need to be considered subject to further assessment of the effectiveness of structured bag and size limit changes

Majority of the recreational catch is believed to be based upon individuals just above the legal-size limit (65 cm). Increasing the size limit could be another way to manage recreational harvest. A



complexity of this is that commercial fishers wish to retain access to 65 cm fish as this is the market preference. An option could be having different recreational and commercial size limits. While this could be perceived as inequitable, equity in access requires the full suite of management changes in each sector to be considered. Commercial fishing members noted that options such as a maximum size limit for the commercial sector could be considered as an option if recreational catches were managed through a higher minimum size limit, with the different size limit approaches providing a consistent outcome in managing catch levels. The justification for the differences being that small Kingfish are valuable for commercial fishers (market preference) and large Kingfish are valuable to recreational fishers

- Once real time reporting becomes an option, other catch restrictions may also become an option

The Working Group noted that some form of annual catch control may be considered for commercial Kingfish fishing. If finite limits are established through the harvest strategy, it is important to consider how management of the recreational sector could be incorporated:

- As an interim arrangement, it may be sensible to establish a set of management changes at each of the reference points, to control catch to the target level
- Stock assessments may provide an insight into exploitable biomass and any harvest reductions which may be needed to lower fishing mortality to the required level. Once this is available, the combination and magnitude of required recreational management changes may be clearer
- Management changes should be precautionary, so that any uncertainty in recreational harvest would not impede building biomass towards the target level

**11** Review of developing harvest strategy drafts

The EO presented the current drafts of the Snapper and Yellowtail Kingfish harvest strategies, and the Working Group provided comments and edits based on the meeting’s discussion. The Working Group noted that other harvest strategy working groups likely spend large amounts of time dealing with similar wording issues, and it would be efficient for NSW DPI to develop standard approaches to broad harvest strategy issues.

The Working Group also noted that the harvest strategy objectives refer to Aboriginal cultural fishing, but cultural fishing has not yet been discussed regarding the operation of the decision rules. It was proposed that in the current draft of the harvest strategies that any

total catch defined in the Harvest Strategies deduct any estimate of Aboriginal cultural harvest. The Working Group does not propose to develop management changes for Aboriginal cultural harvest of Snapper and Kingfish in this draft but may recommend consultation as needed. As per previous direction, AFAC will be engaged throughout the harvest strategy development process, provided summaries of the harvest strategies' development, and invited to provide updates to the strategies. The Working Group also recommends providing drafts of the harvest strategies to AFAC for comment prior to them being released for public consultation.

### Next Meeting:

The sixth meeting of the Working Group will be held on 11–12 June 2024.

Table 1. Ongoing action items at the close of meeting 5.

Meeting	Item	Action item	Status
3	3	NSW DPI are to schedule an MSE discussion agenda item at a future Working Group meeting	In progress - MSE for Kingfish and Snapper will be best discussed after operational objectives and indicators have been defined for the Snapper and Kingfish harvest strategies. NSW DPI are developing stock assessments for both Snapper and Kingfish. Consider leaving this action item open until the stock assessments are in a more final state
4	1	During the Working Group's lifespan (before 12 February 2026), the Working Group is to create a document to brief the NSW DPI executive on fishery level management options for the broader Line & Trap fishery	Item to be addressed later in the Working Group's lifespan
5	1	NSW DPI are to examine the appropriateness of the Snapper and Kingfish reference points through MSE	Item to be addressed later in the Working Group's lifespan

5	2	NSW DPI are to provide an analysis of how various harvest controls may achieve harvest reductions of Snapper and Kingfish catches	This is due to be completed in preparation for meeting 6
5	3	The Chair is to write to the NSW DPI executive, providing an overview of the Working Group's current perspectives on Snapper and Kingfish management, and whether ITQs are a viable option to consider further	This is due to be sent to the NSW DPI executive prior to meeting 6
5	4	NSW DPI is to provide the Working Group with a summary of the issues associated with each management option discussed at meeting 5	This is due to be completed in preparation for meeting 6
5	5	NSW DPI are to invite a south coast OTLF fisher who targets Kingfish to provide their perspectives on Kingfish management at meeting 6	This is due to be completed in preparation for meeting 6