Department of Primary Industries

NSW Lobster Industry Working Group meeting 1 May 2018 - Outcomes

OUT18/8398

Agenda Item	Summary and Outcome
1. Welcome, apologies and introductory remarks	Meeting start 08:30am Attendance: Noel Gogerly (Industry), Lee Monin (Industry), Daniel Stewart (Industry), Scott Westley (Industry), Peter Offner (Industry), Oly Wady (Recreational), Fiona McKinnon (DPI Chair) Nicholas Giles (DPI Commercial Management), Geoff Liggins (DPI Science & Research), Joseph Wright (DPI Compliance). Observers: Mark Horne
2. Confirmation of final minutes of the previous meeting	**Summary** The NSW Lobster Industry Working Group members confirmed the final draft minutes from the Lobster Industry Working Group meeting held on 16 May 2017 as being a true and accurate record of the meeting. Members noted the previous agenda item Validation process – Options to enhance integrity is awaiting a final report. A summary report is attached (Attachment A)
3. Lobster Industry Working Group membership update	**Summary** The Lobster Industry Working Group was established in 2012. The Terms of Reference (ToR) underwent a three yearly review and were finalized in April 2016. Two fisher member positions and the Recreational, Aboriginal and Conservation positions underwent re-nomination and members were appointed in June 2016. No nomination was received for the Conservation member position and this remains vacant. The Aboriginal member notified resignation in April 2018. Region 2, 4 and 5 member appointments are proposed to be extended to June 2019 to allow current members who have worked out of session on harvest strategy principles to take their expertise to a proposed September harvest strategy workshop and subsequent development of a strategy. **Outcome** Members agreed in principle to extension, appointment to be progressed out of session.

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4. Update on the Total Allowable Catch Setting and Review Committee (TAC Committee) program for 2017/18	**Summary** A public call for submissions on the 2018/19 TACC was advertised on 28 March 2018, and a further letter sent to all Lobster Fishery Shareholders notifying of the advertisement and the dates for the Industry and TAC meetings. The Lobster Total Allowable Commercial Catch (TACC) meeting was held on the 2nd of May 2018. All members of the Working Group and a number of additional lobster shareholders attended the meeting. Overview presentations of the information submitted from the Department's Management, Science & Research, and Compliance Units were provided for the TAC Committees deliberations on the 2018/19 TACC. The Department and industry members provided additional information in response to queries from the TAC Committee. **Outcome** For information. A TAC determination will be made by the Committee for the 2018/19 fishing period.
5. Lobster fishery action plan	**Summary** The Department and industry discussed a 2018/19 action plan to pursue: • developing a harvest strategy for the fishery, including agreed management principles and targets, • finalising online reporting structure and implementation, • cost recovery for these programs. **Outcome** The working group supported in principle: • developing a harvest strategy for 2019, • finalising an action plan to identify key priorities and process, • holding a working group workshop focused on developing a harvest strategy and finalising online reporting structure for mid-to late September 2018. with comments: • industry and the Department should contribute equally to costs, • the Department to provide further advice on options to develop a harvest strategy, including associated costs,

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	• industry will seek additional advice towards engaging an independent expert to assist identifying and presenting industry views. The working group considered that industry should not contribute to further development costs of the online reporting system, as the view of industry is that the current online reporting design does not satisfy the level of information and integrity of the logbook system. The Department and working group agreed to additional out of session discussion to finalise elements of the action plan, including cost recovery principles. Advice elements to be progressed and discussed within 6 weeks.
6. Management charges for the 2017/18 financial year	**Summary** A draft budget was supplied to industry members for comment, including a proposed Management Charge of $58.98 per share. The proposed management charge is an increase of $1.89 per share from the previous year, attributable to CPI increase and redetermination of savings, carryover, and FRDC contribution components. **Outcome** The draft budget and proposed management charge was supported by the Working Group, with industry comments that: • overhead and oncost components are considered unreasonable, and • cost recovery under the management charge is considered inequitable with cost recovery arrangements for other NSW commercial fisheries. DPI noted that on costs and overheads are subject to Government policy to provide for costs associated with staffing, and that MFAC is developing a wider Cost Recovery Policy. The management charge is currently being finalised and invoices will be provided with normal payment terms.
7. Tags for the 2018/19 fishing period	**Summary** A total of 235,000 tags were ordered for the 2017/18 fishing period TACC of 160 tons. 2018/19 tags will be white with laser engraved black text and a red NSW waratah. The cost of tags is recovered from industry, and forms a component of the management charge. The department minimises the cost (number of tags ordered) as much as possible, however relies on industry to assist by only requesting tags they

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	reasonable expect to be used. **Outcome** Noted and supported by the Working Group.
8. Administrative sanction review	**Summary** A new Penalty Demerit System is being developed and is anticipated to be implemented by the end of 2018. Further information will be provided as development progresses. **Outcome** Noted and discussed.
9. Reporting of quota and share trading price	**Summary** Average quota and share trading prices are key economic indicators used to track changes in the lobster fishery over time. Reporting of price is not compulsory, however is strongly encouraged by the Department and the TAC Committee to support the TAC assessment process and track changes in fishery values over time. In the 2017/18 fishing period, approximately 70% of share trades and 25% of quota trades included price information. DPI noted it had contacted recent share trades not reporting price to request price information. **Outcome** Noted by the Working Group. The Working Group supported the importance of reporting price information for share and quota trades. Members to discuss and encourage fishers in their region to report price.
10. Shareholder letter submission to Working Group	**Summary** A shareholder has submitted a second letter to the Working Group for consideration of issues or proposals raised. **Outcome** The submission and associated issues were discussed at length. Working group members noted that the letter submission was very lengthy and complex. The working group expressed disappointment that the shareholder had not accepted

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	invitation to attend the meeting to discuss issues and proposals raised. DPI agreed to assist stakeholder members provide their views on issues raised in the submission by providing a key summary for working group response. A response will be provided out of session.
11. Advent Energy Seismic survey proposal update	**Summary** Asset Energy Pty Ltd holds a petroleum exploration permit for waters of the offshore Sydney Basin (PEP11). The Commonwealth regulator, NOPSEMA, approved a 2D seismic survey for Commonwealth waters south-east of Newcastle in January 2018. Asset Energy conducted targeted consultation as part of the approval process, during which NSW DPI provided submissions on commercial fishing and research on potential impacts of seismic surveys, and other stakeholders including commercial fishers provided submissions on potential impacts. The survey was conducted over three days from 16 April 2018. **Outcome** Update provided for information.
12. Retaining lobsters taken in demersal fish traps	**Summary** The working group has raised a proposal to allow lobsters taken by lobster endorsement holders when they are using fish traps to be retained under their lobster quota. DPI provided update on legal issues surrounding the interaction of authority under respective endorsements. Dpi will assess the proposal for wider consultation through the CommFish regulation review process. **Outcome** Update provided and discussed.
13. Vessel Monitoring	**Summary** Industry has raised potential use of Vessel Monitoring Systems (VMS) for the Lobster Fishery to promote voluntary compliance and assist compliance investigations.

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	DPI provided indicative information on new low cost VMS units and service charges being trialled for use in Queensland commercial fisheries. **Outcome** The working group considered indicative unit cost starting at approximately $200 and associated service costs of approximately $30-$70 per month (unit/supplier dependent) reasonable. The working group expressed interest in trialling two VMS units for assessment. DPI agreed to provide out of session advice on potential trial.
14. Export approval renewal	**Summary** Assessment (for the purpose of export approval and impacts on protected marine species) of the lobster fishery against the *Environment Protection and Biodiversity Conservation Act 1999* is complete. The lobster fishery has been placed on the LENS - list of specimens exempt from the export controls of the EPBC Act for the maximum 10 year period, expiring 31 March 2028 **Outcome** Update provided for information
15. Research progress update	**Summary** Update and discussion on key research projects was given by Dr Geoff Liggins. **Outcome** Noted and discussed by Working Group. A summary of key research projects is attached.
16. Other business	Working Group members raised additional issues as other business: • The working group requested advice on the commercial fishery cost recovery process and when inequality in fees between the lobster fishery and other commercial fisheries will be addressed. **Outcome** The Department is developing draft cost recovery principles in consultation with the Ministerial Fisheries Advisory Council,

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	the Commercial Fishing NSW Advisory Council, the Aboriginal Fishing Advisory Council and the Recreational Fishing NSW Advisory Council. Once developed, and the business adjustment program is completed, the principles will support wider attributable cost recovery across the commercial sector. Introduction of partial cost recovery in the lobster and abalone fisheries has provided equity in management charge contributions between shareholders according to the proportion of the TAC allocated to each shareholder. • South coast hookah permit The working group discussed recent renewal of the south coast hookah permit. The recreational member raised objection to the permit on the basis that recreational fishers cannot use hookah or scuba to harvest lobsters. A fisher member raised concerns regarding product quality. **Outcome** The Department noted the quota management structure for the commercial sector, and that the use of hookah will not contribute to increased harvest in the commercial sector. Product quality issues are not known however will be monitored. • Trawling inshore Forster waters A fisher member raised concerns regarding fishing effort of a large trawl vessel working inshore waters adjacent to Forster. **Outcome** The Department noted concerns, and confirmed that the trawl harvest is subject to the same management controls and limitations as any other trawler.
1. Meeting Close	The Department thanked all participants for attending the meeting and closed the meeting at 17:00pm.

Department of Primary Industries

Attachment A

Summary - Validation process - Options to enhance integrity

Background

Compliance have held concerns around the increased risk that occurs through the 2 hour validation period afforded to commercial lobster fishers following the landing of lobsters.

There is a continued belief that the 2 hour period allowed for validation of weight increases the risk of misreporting of commercially landed ERL weights, noting that tagging requirements support monitoring and reporting integrity, and provision of the validation period as opposed to validation at the point of landing.

What has been done and findings

Compliance (SOIG) has undertaken an operation focusing on the accuracy of commercial fishers declared validated weights. The operation focused on inspections of validated weights post the 2hr required reporting time.

The investigation found that weights of lobster may exhibit small positive or negative changes, dependent on time, storage and environmental conditions, and processing or cooking methods.

Quality lobster inspections, including following the landing and marketing process are recognised to be resource intensive. During the operation, some weight discrepancies were found and actioned that did not relate to expected weight changes due to time or conditions.

Is formal analysis required?

Further formal analysis is not recommended to be required. The investigation provided baseline information on potential weight changes, and this information has been incorporated into Compliance procedures for Officers conducting quota investigations.

The investigation confirmed the value of focused compliance operations and auditing to monitor quota integrity and encourage compliance with quota arrangements and requirements.

Conclusion

Whilst the validation period increases risk of quota evasion to some extent, additional controls including tagging and reporting requirements mitigate much of this risk. Provision of effective compliance services is recognised to be important and valuable to supporting integrity of quota arrangements and promoting equity and industry viability.

Compliance supports and recognises the additional integrity of requiring weights to be validated and reported at the point of landing. In addition, Compliance supports additional resourcing to increase auditing and post-harvest monitoring services and capability.

Attachment B

NSW Lobster Fishery Research Program Update Summary

(Industry Working Group meeting, May, 2018)

Monitoring, research & assessment

Catch and catch rates

The commercial TAC of 160 t TACC was effectively fully caught in 2016-17 with a total of 155 t taken. Although landed catch wads 5 t short of the TAC, a small shortfall is not unusual given the chalenges of trading quota at the tail-end of the season. Catch is again on-track to approach the 2017-18 TACC of 160 t. The TACC has essentially been caught (> 95% taken) in each of the last 13 years or 14 years if we include the current year. This means that the TACC has effectively been limiting catch – an important factor contributing to ongoing growth of the lobster population. Catch rates (CPUE derived from logbook data) have increased substantially since the mid-1990s, albeit with some short-term decreases along the way. Catch per unit effort (CPUE) during 2016-17, based on reported catch and effort through the commercial logbook, increased again representing the greatest observed during the 48-year time-series. CPUE for the incomplete current season (2017-18) is similar to the level achieved last year.

Discarding of legal lobsters has been significant during each of the last 3 years. During 2016-17, 7,776 lobsters (approx. 7 t) were released at sea. Approximately 5,000 lobsters have been returned to the water during the current 2017-18 season. Such discarding has occurred when deep-water fishers filled their quotas before lifting all their traps during their final soak. These discards are accounted for in the calculations of CPUE that ar eused in the stock assessment.

Indicators of future recruitment to the fishery

Catches of pueruli (lobster post-larvae) from the annual survey during 2017-18 were greater than the 23 year average at Coffs Harbour, Tuncurry and Sydney and slightly below the long-term average at Ulladulla. The abundance of pueruli at Tuncurry were outstanding with the catch being more than twice the previous maximum annual catch. Although we have seen huge year-to-year variability in annual settlements of pueruli over the past 23 years, there has been a significant trend of increasing abundance across the 2 decades. Preparation is well advanced for the 2018-19 surveys.

Records of the approximate number of sub-legal sized lobsters caught and returned to the water (as reported in logbooks) provide a useful forecast of the abundance of legal (> 104 mm CL) the following year. Catch rates of sub-legals from the shallow-water fishery in 2017-

18 suggest another year of good recruitment of 104^{+} mm CL lobsters in the shallows in early 2018-19 with associated good rates of catch.

Fishery-independent survey of spawning stock

This survey is biennial (every 2nd year), so the survey done between September and December in 2016 was our most recent look at the spawning stock. There was no survey in 2017. Remember that the catch rates of mature females (> 167 mm CL) and berried females during the 2016 survey were similar to those achieved 2 years prior in 2014 and represented the greatest abundances observed during the 21 year history of the survey. These catch rates and the catch rates of lobsters greater than the maximum legal length (> 180 mm CL) were 3 to 4 times greater than those observed during the first 3 years of the survey (1998 to 2000). This provided solid evidence of the rebuilding of the spawning stock of Eastern Rock Lobster and is consistent with the increases in spawning biomass estimated from the computer-based model of the population and fishery.

Preparations for the next survey during September – December this year (2018) are well advanced. As usual, the survey will be done at 2 sites at each of 4 locations (Tuncurry, Crowdy Head, Coffs Harbour, Iluka) with 13 x 1-week soaks of 4 traps at each site.

Modelling the population and fishery

The length-structured computer-based model of the lobster population and fishery was updated with recent data and used to: (i) provide estimates of various components of biomass over the history of the fishery ; (ii) forecast likely changes in biomass during the next 6 years and (iii) in the longer term (many decades into the future); for alternatives levels of annual catch. This is an important part of the annual stock assessment and provides a basis for the TAC committee to set a TACC for the following year, bearing in mind the consequences for the lobster population in fishery in the future. Multiple model scenarios were considered for the current assessment, each making different assumptions about levels of historical catch and trends in recent recruitment. Under all scenarios, there has been a spectacular improvement in the total, exploitable and spawning components of biomass since the major management changes to the fishery in the mid-1990s. Of great importance, each scenario of the model estimated the current spawning biomass to be greater than 25% of the virgin (pre-exploitation) level. Note that the fishery management strategy treats a depletion of 25% of virgin spawning biomass as a limit reference point for the stock. In other words, this is a level that we want to stay well above – because at some point below this level, recruitment may decline markedly.

The population of Eastern Rock lobsters has undergone a spectacular recovery over the past decade. Based on evidence from the population model and the survey components of our research and monitoring program, increased biomass in the spawning stock and increased

recruitment have resulted increased abundance of lobsters in the exploitable size range (104-180 mm CL). This has provided the opportunity for the TACC to be safely increased to the current 160 t, the greatest TACC that has been set for our fishery (since the introductions of TACCs two decades ago!

Tagging study to understand movement of lobsters along the NSW coast

Toward the end of the 2015-16 fishing year, several fishing businesses were returning to the water lobsters that they captured on the mid- and outer-shelf that were surplus to their quotas. Two such businesses (one in the Jervis Bay region and one on the Central coast) allowed us to place individually-numbered research tags in lobsters before returning them to the water. Approximately 2,000 tagged lobsters were returned to these mid- and outer-shelf depths in early 2016. We took the same opportunity in early 2017 when we tagged another 1,000 lobsters in mid-shelf waters off Narooma. In September 2017, we expanded the range of depths and sizes of lobsters in the study be tagging approximately 500 sun-legal-length lobsters in the shallows adjacent to the Ryal national Park between Sydney and Wollongong. Subsequent recaptures of these lobsters is providing information about the movement of these animals along the NSW coast.

Formal analyses of recapture data will not be useful for another year or two but already we have had had multiple recaptures of lobsters on the north coast of NSW – lobsters that were originally tagged off the south coast. Information about this experiment and details concerning how to report recaptures of these lobsters has been circulated to all shareholders and to local fisheries offices along the NSW coast.

Genetics project (collaborative project with La Trobe university)

The overarching aim of this project is to utilise molecular techniques to examine the population structure, larval dispersal and connectivity of Eastern Rock Lobster. PhD student, Laura Woodings, is studying the genetics of samples of lobster tissue obtained from multiple locations on the NSW coast and smaller sample sizes from Tasmania and New Zealand to answer several key questions. This project is due to finish at the end of 2018. Results so far: (i) confirm that there are no significant spatial differences in the genetics of lobsters and pueruli from different locations and depths along the NSW and that our assumption of a single unit stock is valid; (ii) show no significant difference between the genetics of Eastern Rock Lobsters in Tasmania and those in NSW, suggesting that the Easterns found in Tasmania result from the transport of phyllosoma (lobster larvae) from the NSW spawning stock as far south as Tasmania when oceanographic conditions (features of the East Australia Current) permit; and (iii) minimal genetic variation between Easterns found in New Zealand (referred to as Packhorse lobster over there) and NSW suggests the possibility that recruitment in New Zealand may result from spawning stocks in both New Zealand and NSW!

Oceanography project (collaborative project with University of New South Wales)

This project, titled *"A unique integrated approach to predicting fisheries recruitment"* involves physical oceanographers from the University of New South Wales (led by Dr Moninya Roughan), NSW DPI, and Prof. Andrew Jeffs from Auckland University and commenced in 2016. It involves developing models that combine physical oceanography (ocean currents, etc.) and biology (lobster biology and behaviour) in order to understand the processes that determine location to location and year to year differences in puerulus recruitment to the NSW coast. Why is there such year to year variability in puerulus settlement along the NSW coast? Do year to year differences in the direction and strength of ocean currents (the east Australia current and associated eddies) explain the patterns of puerulus settlement we have observed during the last 2 decades? Do differences in these currents and eddies explain why there is an occasional recruitment of Eastern Rock Lobsters in Tasmania? Do these oceanographic models predict that any larvae are transported from the NSW coast across the Tasman Sea to New Zealand in some years? A series of models of varying complexity are being developed to address these questions and determine the importance of ocean currents, food availability for phyllosoma (and therefore the energy stores phyllosoma can accumulate) and the subsequent capacity for pueruli to survive their swim toward the coast to settle in the shallows (and on our puerulus collectors!).

Development of these models is well underway with model-predicted patterns of puerulus settlement being similar to the patterns observed from our survey over the past 2 decades. This is a very positive result from this work. We expect to have a substantial body of results from this project by the end of the year (2018).