

Table 1. This table provides an overview of how AFMA will assess the performance of the Small Pelagic Fishery and Gillnet Dolphin Mitigation strategies against the overarching objective to minimise interactions between these fisheries and dolphins. Recognising that minimising interactions will be a continuous, iterative process as fishers innovate and learn, short, intermediate and longer term outcomes have been identified along with associated indicators, reference points and performance measures to measure performance against those outcomes, and consequently the overarching objective. The assumptions associated with pursuing each of the outcomes is also presented. The performance measures to date, that is, how the fisheries are currently tracking in relation to the targets, are presented in Table 2 (short term outcome performance measures) and Table 3 (intermediate outcome performance measures) below.

		Short term outcome	Intermediate Outcome	Long term outcome
Description		Improve information on the nature of interactions between dolphins and fishing gear, particularly what species are interacted with	(1) provide incentives for individual operators to minimise interactions and implement and develop mitigation measures best suited to their circumstances and location (2) identify options and best practice mitigation measures to support fishers in minimising dolphin interactions	The dolphin strategies are effective in reducing the number of interactions in the Gillnet and Small Pelagic fisheries.
Indicator		Dolphin Mitigation Plans in place, monitoring, mandatory reporting, incident reports, species ID under the dolphin strategy	Management responses, mitigation	Number of interactions
Reference Points	Target	Targets for each indicator are met (see Table 2 for specific targets)	Management responses are complied with (and are effective in changing fishers behaviour); 100% uptake of best practice mitigation/approaches	Reduction in interactions from individual fishers
	Limit	Current level of data collection regarding interactions is maintained	Fishers are working towards improving mitigation and management responses are being refined under the strategy	Interactions do not increase as a result of the strategy
Performance Measure		The performance of the Dolphin Strategy for each fishery against each of the target reference points (Table 2)	The performance of the Dolphin Strategy for each fishery against each of the target reference points for the first 18 month period of implementation is outlined in Table 3	Determining if there is a declining trend in dolphin interactions will only be measureable through time, particularly given that the base line level of interactions has only been established since the strategy has been implemented in the gillnet fishery and with consistent fishing in the SPF.
Assumptions/Risks		Fishers will provide accurate information that is useful in understanding any trends in dolphin interactions.	Mitigation measures can be further developed from what is currently implemented in the fishery. Management responses provide the right incentive.	Dolphin interactions will reduce with effective mitigation and management responses and that other factors outside of AFMA/fishers control, do not increase interactions. For example, an impact of climate change could result in increased dolphin populations or change species distribution and therefore interactions, despite the best mitigation, could still increase. This outcome also assumes that interactions will continue to be reduced to 0 when this level is unlikely to be achievable (unless the fisheries are closed).

Table 2: Performance measure (i.e. performance against targets) for short term outcomes in the Small Pelagic and Gillnet fisheries Dolphin Mitigation strategies 18 months from their implementation in May 2017.

Indicator	Fishery	Target	Performance measure
Dolphin Mitigation Plan	SPF	All boats have DMP in place by the due date, prior to fishing.	Achieved
Monitoring	SPF	100 per cent of electronic monitoring footage is reviewed for dolphin interactions.	Achieved
Mandatory reporting	SPF	Zero instances of non-reporting dolphin interactions	Achieved - No unreported interactions were identified in the review of electronic monitoring footage. All interactions had been reported in logbooks.
Incident reports	SPF	100% completion of Dolphin Interaction Evaluation Form within 48 hours of landing	Achieved - A total of 7 interactions occurred over two fishing events and an evaluation form was received for both instances.
Species ID (logbook, Observer, EM)	SPF	No discrepancies between data sets	Achieved – There was one instance of a discrepancy between logbook and observer data regarding species identification. However the species identification was subsequently corrected in the logbook data.
Dolphin Mitigation Plan	Gillnet	All boats have DMP in place by the due date, prior to fishing.	Achieved
Monitoring	Gillnet	100 per cent of electronic monitoring footage in Australian sea lion zones and 10 per cent for the remaining area of the gillnet fishery reviewed.	Achieved. 100 per cent of fishing activity in the ASL zones (west of 139 degrees) was reviewed for protected species interactions. 1,106 of 11,005 total shots were reviewed across the remaining area of the fishery.
Mandatory reporting	Gillnet	Zero instances of non-reporting dolphin interactions	Partially achieved - Two unreported interactions were identified in the review of electronic monitoring footage.
Incident reports	Gillnet	100 per cent completion of Dolphin Interaction Evaluation Form within 48 hours of landing	Partially achieved - There were several instances of non-compliance with this requirement. All were referred to the Operations Branch after management and licensing follow up.
Species ID (logbook, Observer, EM)	Gillnet	No discrepancies between data sets	Partially achieved - One instance where electronic monitoring was unable to determine species ID whereas the logbook had species recorded.

Table 3: Performance measure (i.e. performance against targets) for intermediate outcomes in the Small Pelagic and Gillnet fisheries Dolphin Mitigation strategies 18 months from implementation in May 2017.

Indicator	Fishery	Target	Performance Measure
Management response and mitigation	SPF	After each interaction, operator to review current mitigation and make any necessary repairs to mitigation devices.	Compliant - After the first fishing event where four dolphins were caught, the vessel ceased night fishing. The second fishing event where three dolphins were caught was the result of gear malfunction, however, the number of pingers was increased from four to eight.
Management response and mitigation	SPF	If interaction cap or interaction rate is triggered, operator to cease fishing and return to port and AFMA review of Dolphin Mitigation Plan prior to recommencement of fishing after relevant trigger breached.	Compliant - Occurred on 2 occasions (interaction cap triggered once and interaction rate triggered once). Fishing did not recommence until the revised mitigation plan was approved by AFMA.
Management response	SPF	Exclusion from relevant area (Eastern or Western) for 6 months after relevant trigger breached (either interaction cap is exceeded for a second consecutive review period or where 6 or more dolphins are caught in combination with the interaction rate having been exceeded in either of the previous two review periods).	N/A this management response has not been triggered during the first 18 months of the strategy and no further interactions have occurred over the subsequent six months of fishing.
Management response	Gillnet	If interaction trigger is reached, cease fishing and return to port.	Compliant - The first interaction trigger (three interactions across three different shots) was met nine times, triggering return to port provisions. The second interaction trigger (six or more interactions) was met two times triggering return to port provisions. In each instance AFMA reviewed the interactions and no vessel recommenced fishing prior to AFMA approval as per the strategy.
		If interaction rate is triggered, cease fishing and return to port.	Compliant – <ul style="list-style-type: none"> • Five vessels exceeded the interaction rate in the first review period (11 May to 31 October 2017). • Three vessels exceeded the interaction rate in the second review period (1 November 2017 to 30 April 2018).

			<ul style="list-style-type: none"> Six vessels exceeded the interaction rate in the third review period (1 May to 31 October 2018). <p>Of these, one vessel exceeded the interaction rate across all three review periods and as such the concession holder has been excluded from fishing with gillnets for six months. One vessel exceeded the interaction rate across two consecutive review periods, and as such was required to carry an observer on the first trip recommencing fishing.</p> <p>In each instance AFMA reviewed the interactions and no vessel recommenced fishing prior to AFMA approval as per the strategy.</p>
Management response and mitigation	Gillnet	AFMA undertake a review of the vessel/EM footage to assist operators with updating of their dolphin mitigation plan after relevant trigger breached	Compliant - A review of the vessel and/or EM footage was undertaken in all instances following a vessel exceeding the interaction rate in a review period.
Management response and mitigation	Gillnet	AFMA observer or bycatch officer to be carried on the next fishing trip	Compliant - Triggered twice after the second review period and once after the third review period. An observer was deployed for one vessel. A direction to carry an observer has been provided to the other offending vessel but they have not fished since.
Management response	Gillnet	Operator excluded from the fishery for six months if the interaction rate is exceeded for three consecutive review periods	Compliant – one operator excluded from fishing with gillnets for six months having exceeded the interaction rate for three consecutive review periods.