



Australian Government
Australian Fisheries Management Authority

Gillnet Dolphin Mitigation Strategy

Minimising dolphin interactions with gillnets in the Southern and Eastern Scalefish and Shark Fishery

September 2019

Contents

Contents.....	2
Tables.....	2
1 Introduction	3
2 Background	3
3 Objectives	4
4 Rules for all gillnet fishers.....	5
4.1 Protected species reporting.....	5
4.2 Dolphin Interaction Evaluation Report	5
4.3 Failure to report.....	5
4.4 Dolphin Mitigation Plan.....	5
4.5 Performance criteria and management responses.....	6
5 Monitoring and data collection.....	12
6 Review and performance of the Strategy	12
7 Definitions.....	13
8 References	13
Appendix A: Best Practice Mitigation (to be updated as more information becomes available)	15
Appendix B: Dolphin Interaction Evaluation Report template	17
Appendix C: Dolphin Mitigation Plan template and approval procedure.....	20
Appendix D: Conservation status of dolphin species in southern Australian waters.....	21
Appendix E: Map of South Australian Dolphin Zone	22
Appendix F: Dolphin Strategy Management Consequences flow chart	23

Tables

Table 1: Needs and actions to pursue the objectives of the Strategy.	5
Table 2: Criteria that apply to all gillnet fishers for each dolphin interaction within a review period.	7
Table 3: Best practice mitigation measures (dependent on individual circumstances) for reducing dolphin interactions with gillnets recommended by industry through the Dolphin Mitigation Sub-Committee.	15

1 Introduction

The Australian Fisheries Management Authority's (AFMA) overarching objective with respect to bycatch is to minimise fishing related impacts on bycatch species, including protected species, in a manner consistent with the principles of ecologically sustainable development. Further, commercial fisheries should not be detrimental to the survival or conservation status of any taxon and fishers are required to take all reasonable steps to ensure that protected species are not killed or injured.

In 2016, the AFMA Commission approved the following bycatch management principles for Commonwealth fisheries:

- Management responses are proportionate to the conservation status of affected species and Ecological Risk Assessment results;
- Consistency with Government policy and legislative objectives (including to 'avoid' and 'minimise') and existing national protected species management strategies such as Threat Abatement Plans and National Plans of Action is achieved;
- Incentives should encourage industry-led solutions to minimise bycatch of protected species utilising an individual accountability approach;
- Cumulative impact of Commonwealth fisheries on protected species is accounted for when making management decisions on mitigation; and
- There is appropriate and where possible, consistent monitoring and reporting arrangements across fisheries.

This Dolphin Mitigation Strategy (the Strategy) has been developed to be consistent with the AFMA Commission principles and aims to minimise dolphin interactions with gillnets in the Southern and Eastern Scalefish and Shark Fishery (SESSF) by adopting an individual responsibility approach to create incentives for fishers to innovate and adopt best practices.

This Strategy implements a management response for any dolphin interaction. For any subsequent interactions, a series of escalating management responses are applied to individual fishers culminating in closures for fishers who are unable to minimise their interactions.

2 Background

In response to a sharp increase in reports of dolphin interactions by gillnet fishers in waters off South Australia, AFMA closed an area of the Gillnet Hook and Trap Sector of the SESSF in September 2011. The closed area included waters known as the Coorong, to the east of Kangaroo Island where most of the dolphin interactions had occurred (the Coorong Zone). The closure significantly impacted shark fishing operators based in key ports such as Robe and Port Adelaide as well as a number of smaller ports including Victor Harbour, Cape Jervis and Southend. The closure resulted in a reduction of

approximately 80 per cent of the total South Australian catch compared to the years preceding the closure.

Such broad scale closures can unduly impact fishers who have avoided interactions and do not provide incentives for individuals to develop their own strategies to minimise dolphin interactions. Recognising this, the first stage of the Strategy came into effect in 2014 permitting fishing with gillnets in the Coorong Zone when operating in accordance with the Strategy. The second stage replaced the measures in the Coorong Zone and applied new measures for gillnet fishing across the entire SESSF.

The latest iteration of the strategy recognises the high rate of interactions that have been observed off South Australia and establishes a move-on for a declared South Australian (SA) Dolphin Zone. Following 18 months of operation it also makes refinements to a number of management responses to:

- preference the use of e-monitoring over observers and boat inspections for assessing gear configuration or modifications; and
- avoid unfairly penalising operators who fish at low effort levels, or those who have a low level of interactions.

This Strategy requires fishers to take responsibility for dolphin interactions and provides incentive for fishers to adopt best practices and innovate to minimise dolphin interactions.

3 Objectives

This Strategy aims to minimise dolphin interactions with gillnets in the SESSF by adopting an individual responsibility approach to create incentives for fishers to innovate and adopt best practices. Under the individual responsibility approach, fishers are responsible for their actions to minimise interactions and stay within defined performance criteria.

This is consistent with the pursuit of AFMA's objectives to ensure that the exploitation of fisheries resources is sustainable with regard to target and non-target species as well as the broader marine environment, and to maximise the net economic returns to the Australian community from the management of Australian fisheries.

This Strategy implements a framework to minimise dolphin interactions by:

- improving information on the nature of interactions between dolphins and fishing gear, particularly what species are interacted with
- providing incentives for individual operators to minimise dolphin interactions and implement and develop mitigation measures best suited to their circumstances and location
- identifying options and best practice mitigation measures to support fishers in minimising dolphin interactions

Table 1: Needs and actions to pursue the objectives of the Strategy.

Needs	Actions
Accurate data on dolphin interactions and support for fishers to adopt best practice mitigation.	<ul style="list-style-type: none"> • All fishers to complete a Dolphin Interaction Evaluation Report for any dolphin interaction. • AFMA to provide for submission of Evaluation Reports through electronic logbooks.
Greater accountability and stronger incentives for individual fishers to minimise dolphin interactions.	<ul style="list-style-type: none"> • Individual fishers are responsible for actions to minimise interactions. • Management response for any dolphin interaction. • Escalating management response culminating in closures for those operators who are unable to minimise interactions.

4 Rules for all gillnet fishers

4.1 Protected species reporting

All protected species interactions must be reported under AFMA’s legislation and the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). A Listed Marine and Threatened Species form in the daily fishing logbook (paper or electronic) must be completed for all protected species interactions, including dolphins. AFMA has distributed a dolphin identification guide to assist operators to record interactions to a species level.

4.2 Dolphin Interaction Evaluation Report

In addition to completing a Listed Marine and Threatened Species form in the daily fishing logbook, a Dolphin Interaction Evaluation Report must be completed and sent to AFMA within 48 hours of landing. This report contains more specific detail about the circumstances of the interaction and allows AFMA to evaluate any factors that may have contributed to the interaction. A Dolphin Interaction Evaluation Report template is at Appendix B.

4.3 Failure to report

Where an operator fails to report a dolphin interaction, potential penalties may apply under the *Fisheries Management Act 1991* or the EPBC Act. In addition, to ensure that this Strategy is supported by accurate information, AFMA may require 100 per cent monitoring (observer or 100 per cent electronic monitoring review) for protected species interactions, charged on a fee-for-service basis.

4.4 Dolphin Mitigation Plan

All gillnet vessels are required to have an AFMA approved Dolphin Mitigation Plan that outlines what actions are being taken by the fisher to minimise dolphin interactions on that particular vessel (see Appendix C). Given that this Strategy is based on an individual responsibility approach, AFMA does not prescribe specific mitigation measures that must

be included in the Dolphin Mitigation Plan. AFMA will only approve a Dolphin Mitigation Plan where it is satisfied the plan details actions to minimise interactions being taken in the following areas:

- fishing practices (e.g. how you are setting relative to tide)
- gear setup (e.g. any changes or modifications to gear from previous seasons)
- mitigation devices (e.g. any mitigation or modifications)

Dolphin Mitigation Plans must be updated by an operator if there are any changes to actions being taken to minimise dolphin interactions. The updated version must be approved by AFMA before implementation and recommencing fishing. AFMA may review electronic monitoring footage of any dolphin interactions to ensure that operators are operating in accordance with their Dolphin Mitigation Plan and may require increased monitoring (observer or electronic monitoring) to confirm appropriate mitigation strategies are being used by the operator.

4.5 Performance criteria and management responses

This Strategy adopts the Maximum Interaction Rate as its key performance criteria. The current Maximum Interaction Rate of one dolphin per 210 000 metres¹ of gillnet set has been applied since 2014. In the absence of comprehensive information about dolphin populations, the rate was adopted as a more precautionary rate than the one dolphin in 126 000 metres caught over 12 months to September 2011 that led to the closure of the Coorong Zone. The Maximum Interaction Rate will be reviewed at regular intervals as outlined in section six and may be adjusted to reflect additional data on interactions and improved information about dolphin population sizes.

The performance criteria and management responses are set out in Table 2 and ensure that a fisher cannot continue fishing unchecked if they have an ongoing interaction problem. For each criterion there is an associated management response that escalates to the point where an individual fisher cannot continue fishing with gillnets in the fishery.

¹ Equivalent to 50 gillnet sets of 4200 metres.

Table 2: Criteria that apply to all gillnet fishers for each dolphin interaction within a review period.

Performance criteria (triggers)	Fisher and management response
<p>Any dolphin interaction</p> <ul style="list-style-type: none"> • <i>Any dolphin interactions in a single gear set.</i> 	<ul style="list-style-type: none"> • The operator must submit a Listed Marine and Threatened Species form in the daily fishing logbook. • The operator must complete a Dolphin Interaction Evaluation Report and submit it to AFMA via email to GHAT@afma.gov.au within 48 hours of landing at the end of the trip. • The operator must post the e-monitoring data drive to AFMA within 48 hours of returning to port.
<p>Additional dolphin interactions</p> <ul style="list-style-type: none"> • <i>Three or more dolphin interactions across three or more gillnet sets in a single Review Period.</i> 	<ul style="list-style-type: none"> • The operator must immediately cease fishing with gillnets and return to port until authorised by AFMA to recommence fishing with gillnets. • An AFMA or AFMA- approved reviewer must review interaction factors including reviewing electronic monitoring footage from the boat and make recommendations on any potential changes to gear or fishing practices. This review may require the operator to resubmit their Dolphin Mitigation Plan for approval by AFMA.
<p>Maximum dolphin interactions in a review period</p> <ul style="list-style-type: none"> • <i>Six or more dolphin interactions where the Maximum Interaction Rate has not been exceeded in either of the previous two review periods.</i> 	<ul style="list-style-type: none"> • The operator must immediately cease fishing with gillnets and return to port until authorised by AFMA to recommence fishing with gillnets. • An AFMA or an AFMA- approved reviewer must review interaction factors including reviewing electronic monitoring footage from the boat and make recommendations on any potential changes to gear or fishing practices. This review may require the

Performance criteria (triggers)	Fisher and management response
	<p>operator to resubmit their Dolphin Mitigation Plan for approval by AFMA.</p> <ul style="list-style-type: none"> For any subsequent dolphin interaction within the same review period, the operator must cease fishing and return to port until authorised by AFMA to recommence fishing with gillnets.
<p>Maximum dolphin interactions across multiple review periods</p> <ul style="list-style-type: none"> <i>Six or more dolphin interactions during a single review period where the Operator has exceeded the Maximum Interaction Rate in either of the previous two review periods.</i> 	<ul style="list-style-type: none"> The operator ceases fishing immediately and is excluded from fishing using gillnets in the fishery for six months. AFMA or AFMA- approved reviewer must review interaction factors including reviewing electronic monitoring footage from the boat and make recommendations on any potential changes to gear or fishing practices. This review will require the operator to resubmit their Dolphin Mitigation Plan for approval by AFMA. Electronic monitoring footage from the first subsequent fishing trip must be reviewed by AFMA or an AFMA- approved reviewer to observe the implementation of the Dolphin Mitigation Plan; OR AFMA may direct the operator to carry an AFMA observer (fee-for-service) on the first subsequent fishing trip to observe the implementation of the Dolphin Mitigation Plan.

Table 3: Criteria that apply to all gillnet fishers exceeding the Maximum Interaction Rate at the completion of a review period

Performance criteria (triggers)	Fisher and management response
<p><i>At the end of a Single Review Period:</i></p> <ul style="list-style-type: none"> • <i>the operator has had three or more dolphin interactions; and</i> • <i>the interaction rate exceeds the Maximum Interaction Rate.</i> 	<ul style="list-style-type: none"> • An AFMA or an AFMA- approved reviewer must review interaction factors including reviewing electronic monitoring footage from the boat and may make recommendations on any potential changes to gear or fishing practices. This review may require the operator to resubmit their Dolphin Mitigation Plan for approval by AFMA. • If changes to the Mitigation Plan are recommended, the plan must be submitted for approval by AFMA within the first 20 business days of the subsequent review period.
<p><i>At the end of a Single Review Period:</i></p> <ul style="list-style-type: none"> • <i>the operator has had three or more dolphin interactions in the SA Dolphin Zone; and</i> • <i>the interaction rate exceeds the Maximum Interaction Rate.</i> 	<ul style="list-style-type: none"> • The operator ceases fishing immediately and is excluded from fishing with gillnets in the SA Dolphin Zone for six months. • To continue fishing with gillnets outside of the SA Dolphin Zone, an AFMA or an AFMA- approved reviewer must review interaction factors including reviewing electronic monitoring footage from the boat and may make recommendations on any potential changes to gear or fishing practices. This review may require the operator to resubmit their Dolphin Mitigation Plan for approval by AFMA. • If changes to the Dolphin Mitigation Plan are recommended, the plan must be submitted and approved by AFMA within the first 20 business days of the subsequent review period.

Performance criteria (triggers)	Fisher and management response
<p><i>The operator exceeds the Maximum Interaction Rate for a second consecutive review period.</i></p>	<ul style="list-style-type: none"> • An AFMA or an AFMA- approved reviewer must review interaction factors including reviewing electronic monitoring footage from the boat and may make recommendations on any potential changes to gear or fishing practices. • A revised Dolphin Mitigation Plan must be submitted and approved by AFMA within the first 20 business days of the subsequent review period. • Electronic monitoring footage from the first subsequent fishing trip must be reviewed by AFMA or an AFMA- approved reviewer to observe the implementation of the Dolphin Mitigation Plan; OR • AFMA may direct the operator to carry an AFMA observer (fee-for-service) on the first subsequent fishing trip to observe the implementation of the Dolphin Mitigation Plan.
<p>The operator exceeds the Maximum Interaction Rate for a third consecutive review period.</p>	<ul style="list-style-type: none"> • The operator is excluded from fishing using gillnets in the fishery for the next six month review period. • An AFMA or an AFMA- approved reviewer must review interaction factors including reviewing electronic monitoring footage from the boat and may make recommendations on any potential changes to gear or fishing practices. • A revised Dolphin Mitigation Plan must be submitted and approved by AFMA within the first 20 business days of the subsequent review period. • Electronic monitoring footage from the first subsequent fishing trip must be

Performance criteria (triggers)	Fisher and management response
	<p>reviewed by AFMA or an AFMA-approved reviewer to observe the implementation of the Dolphin Mitigation Plan; OR</p> <ul style="list-style-type: none"> • AFMA may direct the operator to carry an AFMA observer (fee-for-service) on the first subsequent fishing trip to observe the implementation of the Dolphin Mitigation Plan.
<p>Review period following exclusion</p> <ul style="list-style-type: none"> • <i>At the end of the Review Period immediately following a period where the operator was excluded from fishing using gillnets in the fishery, the Operator:</i> <ul style="list-style-type: none"> ○ <i>exceeds the Maximum Interaction Rate, or</i> ○ <i>has six or more dolphin interactions within the review period.</i> 	<ul style="list-style-type: none"> • The operator is excluded from fishing using gillnets in the fishery for 12 months. • An AFMA or an AFMA-approved reviewer must review interaction factors including reviewing electronic monitoring footage from the boat and may make recommendations on any potential changes to gear or fishing practices. • A revised Dolphin Mitigation Plan must be submitted and approved by AFMA within the first 20 business days of the subsequent review period. • Electronic monitoring footage from the first subsequent fishing trip must be reviewed by AFMA or an AFMA-approved reviewer to observe the implementation of the Dolphin Mitigation Plan; OR • AFMA may direct the operator to carry an AFMA observer (fee-for-service) on the first subsequent fishing trip to observe the implementation of the Dolphin Mitigation Plan.

5 Monitoring and data collection

The success of the Strategy relies on accurate reporting of dolphin interactions to ensure that the management responses described in the Strategy continue to be effective at minimising dolphin interactions in gillnets. To measure this, AFMA collects the following information:

- the quantity and nature of dolphin interactions (including species identification)
- spatial and temporal information on dolphin interactions
- effectiveness of mitigation strategies (gear type & behavioural adaptation).

This information is primarily collected through logbook reporting by fishers (verified through electronic monitoring) as well as through Dolphin Interaction Evaluation Reports submitted to AFMA by industry following any dolphin interaction.

All full time² gillnet vessels in the SESSF are required to have electronic monitoring systems installed. Electronic monitoring ensures that AFMA and scientists have an accurate record of the majority of catch and effort in a fishery. This is achieved through independent verification of logbook data, including reporting protected species interactions.

A minimum of 10 per cent of all gillnet fishing activity recorded by electronic monitoring is currently independently reviewed across the fishery to verify reporting of interactions with protected species. AFMA may increase the review of electronic monitoring footage for an operator, or require the carriage of an AFMA observer (fee-for-service), if there is an increase in reported dolphin interactions, or concerns about non-reporting of dolphin interactions, to ensure that they are operating in accordance with their Dolphin Mitigation Plan.

6 Review and performance of the Strategy

Performance of individual fishers is monitored against the performance criteria set out in this Strategy.

AFMA will review the Strategy's performance against its objectives every second fishing season, with advice from the Commonwealth Marine Mammal Working Group. This Strategy is intended to be adaptive and integrate improved information as needed on:

- any trends identified in Dolphin Interaction Evaluation Reports
- dolphin conservation status and population abundance (see Appendix D)
- the cumulative impact of interactions on dolphin populations
- the effectiveness of management measures in mitigating interactions.

² Currently this means operators who fish more than 49 days per fishing season, but this may change to ensure that a minimum of 90 per cent of gillnet fishing effort is covered by electronic monitoring.

AFMA, with advice from the CMMWG, will also continue to review the cumulative level of dolphin interactions across Commonwealth fisheries.

7 Definitions

Term	Definition
Dolphin	A marine mammal in the family Delphinidae.
Fishing Season	The 12 month fishing season as determined for the Southern and Eastern Scalefish and Shark Fishery commencing on 1 May and concluding on 30 April in the following year.
Fishing Trip	The time between leaving port and returning to port and unloading.
Gear Set	The act of deploying gillnet fishing equipment.
Industry association	Means either the Southern Shark Industry Alliance Incorporated or Sustainable Shark Fishing Association.
Interaction	Any physical contact between fishing gear or a vessel and a dolphin.
Marine Mammal Working Group	A group established by AFMA to provide advice on issues relating to marine mammals. It consists of scientists and representatives from State and Federal government departments, environmental groups and the fishing industry.
Maximum Interaction Rate	One dolphin interaction per 210 000 metres of gillnet set.
Operator	Means the Holder (as defined in the <i>Fisheries Management Act 1991</i>), or any person acting on behalf of the Holder, of a: <ul style="list-style-type: none"> a) Gillnet Boat Statutory Fishing Right; b) South Australian Coastal Waters Gillnet Permit; c) South Australian Coastal Waters Net and Hook Permit; and/or d) South Australian Coastal Waters Unknown Method Permit; e) Tasmanian Coastal Waters Gillnet Permit; f) Tasmanian Coastal Waters Net and Hook Permit; and/or g) Tasmanian Rock Lobster Permit.
Review Period	Either of the first six months or second six months of the Fishing Season in which the operator has fished using gillnets.
South Australian (SA) Dolphin Zone	The area of the South Australian Dolphin Zone is the part of the Australian Fishing Zone and coastal waters of the State of South Australia bounded by longitude of 136° 33' 55"E and the longitude of 140° 58'E.

8 References

Bannister, J.L., Kemper, C.M. and Warneke, R.M. (1996). *The Action Plan for Australian Cetaceans*. Australian Nature Conservation Agency: Canberra vii 242 pp.

Culik, B. M. 2004. *Review of Small Cetaceans. Distribution, Behaviour, Migration and Threats*. Compiled for CMS. Illustrations by Maurizio Wurtz, Artescienza. UNEP / CMS Secretariat, Bonn, Germany. 343 pages.

Mackay, A.I., Goldsworthy, S.D. and Harrison, S. South Australian Research and Development Institute (Aquatic Sciences) 2016. *Critical knowledge gaps: estimating potential maximum cumulative anthropogenic mortality limits of key marine mammal species to inform management*. Adelaide, 2016.

Ross, G.J.B 2006. *Review of the Conservation Status of Australia's Smaller Whales and Dolphins*. Department of Environment: Canberra 124 pp.

Appendix A: Best Practice Mitigation (to be updated as more information becomes available)

Dolphin mitigation strategies for gillnets in the GHAT remain largely untested though there is a considerable amount of literature from other fisheries and industry experiences that can provide fishers with information to aid in minimising dolphin interactions. The Marine Mammal Working Group dolphin mitigation sub-committee (sub-committee), consisting of industry representatives, mitigation experts and researchers, met during February 2014. The group put forward the best current knowledge of practices that may aid the reduction in dolphin mortalities and agreed that appropriate horizontal and vertical tension is key to minimising interactions (table 3). Appropriate horizontal and vertical tension provides the selectivity of the gillnet in that it allows small animals to pass through the mesh and larger animals are deflected off the net without becoming entangled.

Table 3: Best practice mitigation measures (dependent on individual circumstances) for reducing dolphin interactions with gillnets recommended by industry through the Dolphin Mitigation Sub-Committee.

Recommendation	Benefits
Use of anchors at both ends of the net	<ul style="list-style-type: none"> Increases horizontal tension Reduces gear movement Increases sink rate of net Reduces likelihood of net folding over Maintain selectivity characteristics of net mesh
Ensure sufficient: <ul style="list-style-type: none"> weight is applied to the lead line to hold net to bottom; and floatation is applied to the head line to increase vertical tension. 	<ul style="list-style-type: none"> Increases vertical tension Reduces gear movement Increases sink rate of net Reduces likelihood of net folding over Maintain selectivity characteristics of net mesh
Set with tide	<ul style="list-style-type: none"> Increases horizontal tension Reduces likelihood of gear twisting Maintain selectivity characteristics of net mesh
Maintain gear condition	<ul style="list-style-type: none"> Maintain selectivity characteristics of net mesh

While AFMA and the sub-committee cannot guarantee that any single or combination of mitigation recommendations will prevent all dolphin interactions it is expected that implementing the recommendations will reduce the risk of interactions.

AFMA will facilitate a workshop in 2017 to build on the recommendations of the sub-committee, and put forward the best current knowledge of practices that may aid the

reduction in dolphin interactions. A best practice mitigation guide will be produced by AFMA and the Industry Associations following this meeting.

Appendix B: Dolphin Interaction Evaluation Report template

AFMA Dolphin Interaction Evaluation Report

V. 4.0

The reporting requirements for dolphin interactions are outlined in your fishing concession conditions and in the table of reporting requirements in the Management Arrangements booklet. If possible, please provide digital photographs to GHAT@afma.gov.au of the entanglement and of the animal for identification purposes.

Voyage departure date					
Voyage return date					
Name of vessel					
Home port					
Dolphin species name (refer ID guide)					
Number of animals caught					
How was dolphin caught (select one)	Meshed	Wrapped by headrope	Wrapped by footrope	Bagged in mesh	Fell out at bow roller.
Describe how dolphin was meshed e.g. tail, fin wrapped, location in mesh (upper, lower)					
Fate of animal and life status e.g. discarded, tagged and discarded,					
Photograph taken?	YES		NO		
Where was the dolphin caught in the fleet set?	Start of fleet	Middle of fleet	End of fleet		
Carcass condition	Clean, undamaged.		Lice damaged.		
Location of interaction	Latitude				
	Longitude				
Date & time of interaction					
Logbook number and page number	Logbook #:		Page #:		
Shot time	Start:		End:		
Haul time	Start:		End:		
Shot depth (m)					
Weather & sea conditions at time of set:					
Weather & sea conditions at time of haul:					
Average vessel setting course & speed at set:	Course:		Knots:		
Average vessel setting course & speed at haul:	Course:		Knots:		
Standard shot (if no describe problems / tangles etc)					

Shot direction	With tide	Into wind	Into swell	Across tide
Were dolphins observed before setting?	YES		NO	
Were dolphins observed during setting?	YES		NO	
Were dolphins observed during hauling?	YES		NO	
Any unusual events around interaction?				
Bands, tags or markings present?	YES		NO	

Description of fishing gear	Fleet length:				
	Overall mesh condition:	Poor	Average	Good	Excellent
	Mesh condition 50m either side of interaction location in net:	Poor	Average	Good	Excellent
	Hanging ratio (m net per 100m of headrope):				
	Mono ply diameter:				
	Footrope specification:	Weight g/m:		Diameter:	
	Method of anchoring net:	Anchor	Chain	Block	None
	Number of anchors, chain lengths or blocks used per fleet:	0	1	2	
	Approximate weight of each anchor, chain or block: (kg)			
	Mesh colour where interaction occurred:				
	Headrope construction:	Floatrope		Standard rope	
	Headrope diameter:				
	Number of floats used on headrope (if any) and spacing:				
	Float type and material:				

<p>Detail procedures, if any, the vessel has put in place to prevent any further interactions</p>	
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Were any acoustic dolphin mitigation devices fitted to the net or deployed before the dolphin interaction occurred and what was the distance from the dolphin to the device?

If yes, describe what gear you were deploying including manufacturers specification, setup (frequency range of device, number of devices, spacing along net used to ensure signal overlap from device etc.) and maintenance regime used to check device is working.

Draw a diagram of how your gear was set when the interaction occurred:

Additional Comments

Provide any additional comments that may be relevant and not recorded above.

Appendix C: Dolphin Mitigation Plan template and approval procedure

A template for a vessel specific Dolphin Mitigation Plan can be found on AFMA's website at www.afma.gov.au/portfolio-item/dolphins/dolphin-mitigation-plan-template.

Once AFMA has received a vessel specific Dolphin Mitigation Plan (a Plan) from an operator, AFMA will approve, or not approve, a Plan within five business days of receipt to GHAT@afma.gov.au.

Given that this Strategy is based on an individual responsibility approach, AFMA does not prescribe specific mitigation measures that must be included in the Dolphin Mitigation Plan. AFMA will only approve a Dolphin Mitigation Plan where it is satisfied the plan details actions to minimise interactions being taken in the following areas:

- fishing practices (e.g. how you are setting relative to tide)
- gear setup (e.g. any changes or modifications to gear from previous seasons)
- mitigation devices (e.g. any mitigation or modifications)

AFMA will notify an operator and provide feedback if a Plan is not approved. It is then the operator's responsibility to review and revise the Plan and resubmit to AFMA for approval.

The concession holder must ensure that any modification to mitigation procedures is documented and reported to AFMA at GHAT@afma.gov.au for reassessment and consideration for approval prior to use. In considering changes to a Plan, AFMA may increase monitoring requirements to review any changes to mitigation measures.

Appendix D: Conservation status of dolphin species in southern Australian waters

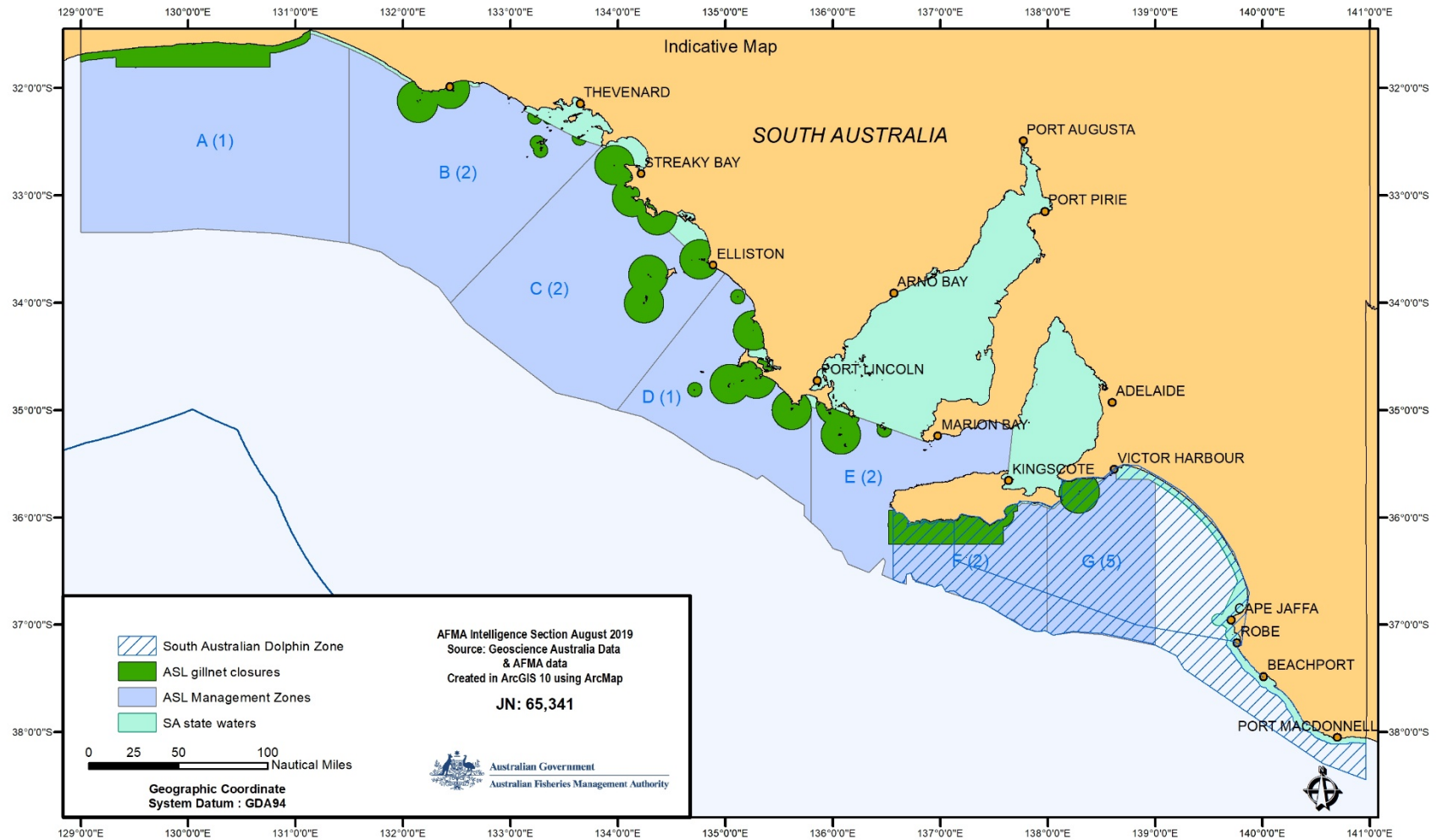
There is an acknowledged lack of data available on populations of dolphin species in southern Australia. There remains uncertainty about species distribution, population size, movement and species classification. There are 13 species of oceanic dolphins (species of the Cetacean family Delphinidae) that have been documented as occurring in the gillnet fishing areas of the SESSF.

AFMA commissioned a marine mammal expert to attempt to identify dolphin mortalities for vessels using e-monitoring systems in 2012. The analysis of recorded fishing footage found that 38 of the 40 dolphins identified were Common Dolphins (*Delphinus delphis*) and two were species from the genus *Tursiops* (Bottlenose dolphins) most likely to be *Tursiops truncatus*. While the overall population of these species of dolphins is likely to be not threatened, i.e. not at risk from fishing, it has not yet been determined if sub-populations of genetically distinct animals may be at risk from fishing gear.

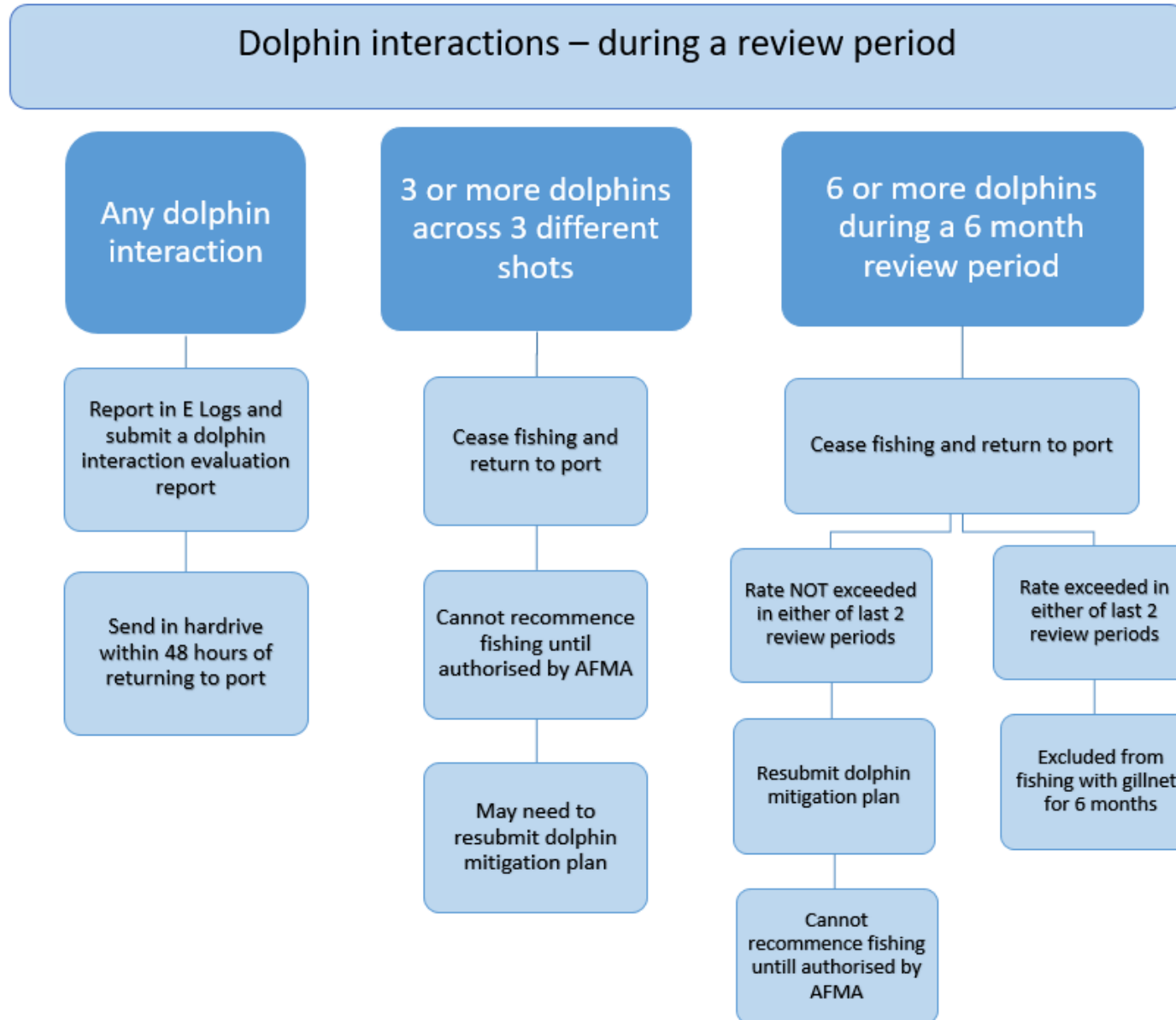
A two day workshop funded by the Fisheries Research and Development Corporation held in June 2015 provided a synthesis of currently available information and highlighted key data gaps with respect to the abundance, distribution and stock structure of key marine mammal species that occur in the area of the SESSF. This information was used in the development of the Strategy, and it is envisaged that the Strategy can be adaptive and integrate improved information on conservation status, population abundance, trends, interaction rates and the effectiveness of management measures in mitigating interactions.

Appendix E: Map of South Australian Dolphin Zone

Gillnet Closures for the Protection of Marine Mammals in South Australia



Appendix F: Dolphin Strategy Management Consequences flow chart



Interaction rate 1 dolphin interaction: 210,000 metres of net- measured at the end of the 6-month review period

