



Commonwealth of Australia

Statement of reasons for granting an exemption under section 158 of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*

I, Josh Frydenberg, Minister for the Environment and Energy, provide these reasons for my decision under section 158 of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* (**EPBC Act**), to grant an exemption for the State of New South Wales, and those acting on behalf of the State of New South Wales, from the application of sections 18, 18A, 20, 20A, 23 and 24A of Part 3 and Parts 7 through to 9 of Chapter 4 of the EPBC Act, in relation to the following action:

The New South Wales North Coast Shark Meshing Trial (the trial) undertaken in accordance with the *Management Plan for the NSW North Coast Shark Meshing Trial* (14 November 2016).

Legislation

Section 158 of the EPBC Act provides:

158 Exemptions from Part 3 and this Chapter

- (1) A person proposing to take a controlled action, or the designated proponent of an action, may apply in writing to the Minister for an exemption from a specified provision of Part 3 or of this Chapter.
- (2) The Minister must decide within 20 business days of receiving the application whether or not to grant the exemption.
- (3) The Minister may, by written notice, exempt a specified person from the application of a specified provision of Part 3 or of this Chapter in relation to a specified action.
- (4) The Minister may do so only if he or she is satisfied that it is in the national interest that the provision not apply in relation to the person or the action.
- (5) In determining the national interest, the Minister may consider Australia's defence or security or a national emergency. This does not limit the matters the Minister may consider.
- (6) A provision specified in the notice does not apply in relation to the specified person or action on or after the day specified in the notice. The Minister must not specify a day earlier than the day the notice is made.

- (7) Within 10 business days after making the notice, the Minister must:
 - (a) publish a copy of the notice and his or her reasons for granting the exemption in accordance with the regulations; and
 - (b) give a copy of the notice to the person specified in the notice.

Background

1. Following initial discussions between the Commonwealth and the New South Wales (NSW) Government, my Department received a letter from the NSW Department of Primary Industries (DPI) on 14 October 2016, advising of their intention to apply for a national interest exemption to conduct a shark meshing trial on the NSW north coast.
2. On 10 November 2016, I received an application from the NSW Government Minister for Primary Industries and Minister for Lands and Water, the Hon Niall Blair MLC, seeking an exemption under section 158 of the EPBC Act in relation to the NSW North Coast Shark Meshing Trial (**the trial**).
3. On 14 November 2016, the NSW DPI provided a revised management plan containing the final operational details for the net trial.
4. The trial will complement the NSW Government's \$16 million Shark Management Strategy, and the ongoing Shark Meshing (Bather Protection) Program from Newcastle to Wollongong.
5. The NSW Government Shark Management Strategy is a \$16 million program of integrated measures designed to mitigate the risk of shark interactions for beachgoers. The strategy includes detection measures such as aerial surveillance from helicopters and drones, trials of new technologies such as Clever Buoys, shark tagging and tracking and enhancement of the popular Shark Smart app.
6. The action must be undertaken in accordance with the *Management Plan for the NSW North Coast Shark Meshing Trial* dated 14 November 2016 (**management plan**). A summary of the action is as follows:
 - a. The trial is expected to commence on 17 November 2016 and will not exceed 12 months. Mesh nets will only be in operation in the water for up to six months during this period. This six month period may not necessarily be run as an uninterrupted sequence, but could be divided into blocks of deployment.
 - b. The trial will be conducted at coastal beaches and other tidal waters in the Ballina Shire and Richmond Valley Councils Local Government Areas (LGAs), commencing with five beaches identified by the community (Evans Head, Lighthouse, Shelly, Sharpes and Lennox main beaches). Another five nets may be deployed as and when required to reduce the risk from unprovoked shark interactions within these LGAs. The use of up to 10 nets is authorised under the trial.
 - c. The nets are passive fishing devices designed to entangle large sharks and reduce the numbers of dangerous sharks aggregating near the netted beach to minimise the likelihood of shark interactions with humans. Shark nets are installed near a beach, according to prevailing conditions, generally parallel to the beach. They do not create an enclosed area, or provide a barrier between beachgoers and sharks.

- d. The trial will use bottom-set synthetic filament mesh nets 150m in length, with 60cm mesh size and 4m or 6m in depth, set in a generally parallel direction off the coastal beach or other tidal waters, anchored in 7-10m depth of water (not more than 12m depth) with a weighted bottom line (leadline) and a floated top line (floatline). The nets are identified by surface floats. The position and method of setting nets under the trial, and associated procedures (net inspections) is subject to the direction of the NSW DPI Shark Scientist.
 - e. The trial nets are to be fitted with acoustic warning devices (dolphin pingers and whale alarms) to deter non-target marine fauna, and other technology devices (e.g. SMART alert systems, GPS, data loggers, acoustic listening devices) to alert the contractors to the capture of fauna within the nets to minimise environmental impacts.
7. The NSW Government is undertaking the shark net trial due to the urgent and imminent threat from shark interactions to human life. In support of the application, the NSW Government has pointed to the spate of recent shark attacks and the impact the attacks are having on the confidence of people to undertake water based activities and the resultant impact on business.
 8. Sharks that are being targeted by nets in the trial are White Sharks (*Carcharodon carcharias*), listed as vulnerable and migratory under the EPBC Act, Tiger Sharks (*Galeocerdo cuvier*), Bull Sharks (*Carcharhinus leucas*) and other potentially dangerous sharks (that may include species that are listed as threatened or migratory under the EPBC Act).
 9. Other species that may potentially be caught by the nets include dolphins, marine turtles, whales, bony fish, rays, birds, seals, dugongs and other sharks, including grey nurse sharks. These species may include those that are listed as threatened or migratory under the EPBC Act, such as the Grey Nurse Shark (east coast population), which is listed as critically endangered.

Public consultation on the trial

10. The exemption application outlined that the NSW Government has sought the views of the community to inform the trial. Community consultation was undertaken during 28 October 2016 to 6 November 2016. Over 5,400 people responded to an online survey and over 1,000 people visited information stands within the trial area during this two week period. A further 601 people on the North Coast were randomly surveyed via telephone during this period. I noted the summary of the results as follows:
 - a. The telephone survey of 601 Ballina Shire Council and Evans Head residents showed there was strong support for the trial, with 54 per cent feeling the trial would be positive for the community against 12 per cent feeling the trial would be negative. The remaining respondents were either neutral or unsure. Among local surfers support was even stronger, with 63 per cent feeling the trials would be positive against just 9 per cent seeing them as negative.
 - b. The online survey results were sharply divided between: (a) those living in the Ballina Shire and Richmond Valley Council areas and (b) respondents from all other areas. For those living in the vicinity of the proposed trial, 45 per cent felt the trial would be positive for the community against 26 per cent seeing the trial

as negative. Surfers in these Council areas were strongest in their support (62 per cent positive, 23 per cent negative).

Evidence

11. The evidence or other material on which my findings were based was a brief from my Department dated 15 November 2016. That brief attached the application from the New South Wales Government, the draft order, the Management Plan, facts sheets on the trial and Shark Management Strategy, an extract of EPBC Act s 158 legislation, and the Shark Meshing (Bather Protection) Program 2014-15 Annual Performance Report.

Findings

Unprovoked shark interactions on the NSW North Coast

12. The application I received on 10 November 2016 from the NSW Government Minister for Primary Industries and Minister for Lands and Water, the Hon Niall Blair MLC (the application) pointed to the urgent and imminent threat from shark interactions to human life in the trial area, citing the following statistics:
 - a. Since 1 January 2014, there have been 41 interactions with sharks in NSW waters. Of these, 27 were unprovoked, with three resulting in fatalities (one surfer, two ocean swimmers), most of which occurred in February 2015 in Ballina on the NSW North Coast. Of the remaining 24 unprovoked interactions, six resulted in serious injuries, 11 in minor injuries and seven with no injuries.
 - b. White Sharks were identified as, or likely to have been, responsible for 14 of the 27 unprovoked interactions, including the three fatalities and four of the serious injuries. Bull sharks were responsible for the other two serious injuries. Of those 27 unprovoked shark interactions, 14 occurred on the Far North Coast, five in the Mid North Coast, two in the Hunter, one each in the Central Coast, Sydney, and Illawarra and three on the South Coast.
 - c. Three of the most recent minor injuries to surfers from White Sharks occurred in less than one month on the North Coast (26 September 2016 at Lighthouse Beach, 12 October at Sharpes Beach, Ballina and 24 October 2016 at Suffolk Park, near Byron Bay). In total, 13 unprovoked interactions have occurred on the NSW North Coast since 1 January 2015, all on surfers. Of these, eight involved White Sharks and two involved Bull Sharks. Records of shark interactions are kept by the NSW Department of Primary Industry records, the Australian Shark Attack Files and the Global Shark Attack Files.
13. On the basis of the statistics provided in the application, I concluded that there was a material risk to humans from interactions with sharks in the North Coast of NSW.

National economic impacts

14. The application highlighted the community's ongoing concern for public safety at Australia's surf beaches and flow on impacts to the community and the broader Australian economy. I accepted and took into account the following economic impacts:
 - a. The threat of shark interactions is of national interest as the North Coast of NSW is a major national and international recreation and tourism destination, and a

gateway to the Gold Coast, Queensland and other regional locations. A primary driver of recreation and tourism in this region of Australia are iconic surf beaches, offering a range of on-water recreation, tourism and sporting opportunities (swimming, surfing, surf schools, kayaking, kite surfing) and on-water events including surfing, life saving and ocean swimming events, kite surfing competitions, amongst others.

- b. The NSW North Coast makes a significant contribution to the national economy attracting over 11 million visitors each year. More than 60 per cent of domestic visitors and 80 per cent of international visitors are holiday makers rather than visiting for business or relatives. International and domestic visitors to the North Coast spent \$3.7 billion in the year ending June 2016. The local tourism industry is also important to the local communities as it supports around one in three jobs in the region. The local community has raised concerns about the impact on the economy and tourism-related businesses since the 'spike' in shark attacks.
- c. The intense, almost weekly, media interest nationally and regionally on the North Coast shark interactions since early 2015 is testament to the community's ongoing concern for public safety at Australia's surf beaches and flow on impacts to the community and the economy.
- d. The major holiday and tourism season for this region from December through to April is fast approaching and urgent action is needed to address this threat to human life. The heightened public media on the most recent spate of shark events is likely to impact on Australia's reputation as an international tourism destination, with flow on impacts to the regional and national economy, including jobs and growth. Requiring NSW to comply with EPBC Act processes would likely prevent the deployment of the mesh nets until after the holiday and tourism season.
- e. The North Coast of NSW relies on the use and enjoyment of the region's beaches, with flow on impacts to residents and tourists to the trial area. The NSW Government has received reports of impacts of unprovoked shark interactions on the NSW economy including:
 - i. Commercial-in-confidence reports of reduction in wages (12 per cent) and sales (7 to 50 per cent) for 2015 and 2016 from retail surf outlets in the trial area, particularly for surf boards and associated wetsuits and surf gear (rash vests, board shorts). This has impacted on owners, workers and suppliers to the retail sales industry in the region.
 - ii. Reduction in membership numbers and financial contributions to Surf Life Saving Clubs. Ballina Lighthouse and Lismore Surf Life Saving Club report a drop in nipper registrations of 20 per cent in 2015/16, patrolling member renewals for over 18 year olds are down over 25 per cent and cadets (less than 18 years old) are down almost 40 per cent, with flow on impacts to the viability of the Club in the region. Training locations have been affected with limitations on surf training venues to closed water venues. Similar concerns are reported by the Lennox Head Surf Life Saving Club.

- iii. Planned on-water events have been cancelled including the annual Lennox Longboard Classic (Aug 2015 with over 100 registered), Half-tide Board Riders competitions, Evans Head ocean swim and Surf Life Saving nippers carnivals in the region with loss of revenue to the local region for associated expenses (e.g. accommodation and meals) as a result.
 - iv. Local on-water event organisers have also reported decreases in membership/attendance, and increased costs for public safety at events including additional aerial or beach surveillance, use of jet skis, drones, fuel, communications, planning etc. to address safety concerns.
15. Based on the economic information outlined in the application, I agreed that the North Coast of NSW is a major national and international recreation and tourism destination, and a gateway to the Gold Coast, Queensland. I considered that the loss of confidence in water-based activities has, and is likely to continue to, impact on tourism and other associated industries, with flow-on effects to the broader Australian economy. Therefore, I considered that the public safety of water activities in the North Coast of NSW is a matter of national interest.

Research objectives

16. I noted that the management plan outlined three research outcomes for the trial:
- a. A comparison of mesh nets with SMART drum lines in terms of their effectiveness at catching White, Tiger, Bull or other potentially dangerous sharks while minimising the impacts on fauna.
 - b. The testing of new devices and/or procedures which might deter whales or dolphins from approaching or becoming entangled in the nets, and also of new devices which might alert researchers in real time when something large is caught in the nets.
 - c. Monitoring the level of community acceptance of the local community to the presence and operation of the nets during the trial.
17. I considered that the research outcomes of the proposed trial are an important benefit, which will be in the national interest in helping to design future shark mitigation strategies at various locations across Australia.
18. I also found that the monitoring of the trial could provide better information to assess the likely impacts on matters of national environmental significance of future proposed shark mitigation activities.

Evidence that nets are effective in protecting people

19. The fact sheet on the North Coast shark net trials stated that currently shark nets are deployed at 51 of NSW most popular beaches between Newcastle and Wollongong, from September to April each year. Since the program began in 1937, there has been only one shark-related fatality at a netted beach.
20. The North Coast shark net trials – Frequently Ask Questions (FAQ) stated that the frequency of shark interactions with people dropped considerably after nets were installed around Sydney and in Queensland - compared to what it had been previously, noting that

mesh netting programs do not prevent all shark interactions because they are not full-beach barriers.

21. The FAQ stated that shark nets are passive fishing nets designed to catch large sharks by entangling them; to reduce the numbers of dangerous sharks aggregating near the netted beach; and above all, to reduce the likelihood of shark interactions. They do not create an enclosed area, or provide a barrier between beachgoers and sharks.
22. I noted that there is differing public opinion on the use of shark nets in protection humans from shark interactions as there is some uncertainty about their effectiveness.
23. The Queensland Department of Agriculture and Fisheries (DAF) indicate that they maintain regular contact with the Natal Sharks Board in South Africa and New South Wales Fisheries, regarding their active shark control measures, and regularly meet with members of the public, scientists and inventors to discuss ideas for minimising shark attacks on Queensland beaches and reducing the non-target capture of marine life. Despite these collaborations and discussions, there has not been any significant development in new shark-proofing technologies, and DAF concludes that traditional capture methods using nets (and drumlines) remain the most effective measures to reduce the risk of shark attack.
24. I did consider that one of the trial's research outcomes will be the comparison of mesh nets with SMART drum lines in terms of their effectiveness at catching potentially dangerous sharks while minimising the impacts on fauna.
25. While I noted some uncertainty in relation to the effectiveness of shark nets in protecting humans from shark interactions, I balanced this with the trial research outcomes, the level of risk to humans from shark interactions on the North Coast of NSW, and the associated economic impacts to the Australian economy from the loss in confidence of water-based activities.

Potential impacts on matters of national environmental significance

26. The application stated that while shark meshing is not listed as a Key Threatening Process under the EPBC Act, the NSW Government recognises that the proposed trial will impact on some threatened species and migratory species, including White Sharks. While the impact on White Sharks (and other by-catch) is difficult to quantify it is expected that one of the outcomes of the trial will be data to better inform impacts from implementation of shark mitigation technologies.
27. I noted that the key risks to threatened species and migratory species is the potential to be caught, injured or drowned in the shark nets. Appendix 1 of the Management Plan identifies an indicative list of marine fauna that could occur in the area of the trial, and an indication of their known interaction with shark control fishing gear in NSW and Queensland. I noted that the some of the species that may be caught by the nets (which include dolphins, marine turtles, whales, bony fish, rays, birds, seals, dugongs and other sharks) may be listed as threatened or migratory under the EPBC Act. This includes the Grey Nurse Shark (east coast population), which is listed as critically endangered.
28. I considered the by-catch statistics for the NSW Shark Meshing (Bather Protection) Program 2014-15, which comprises some 51 netted beaches. In 2014-15, a total of 10

White Sharks were caught and killed by the existing NSW shark meshing program. This is similar to the average number of White Sharks captured per annum reported by Reid, Robbins, and Peddemors in their 2011 research paper¹. A total of 106 other marine fauna individuals were captured and killed in the program in 2014-15.

29. The FAQ stated that the number of non-target species caught in the nets can vary considerably year to year and the Far North Coast waters are more biologically diverse than those of the temperate waters further south, with more abundant marine life. According to capture statistics for the Queensland Shark Control Program released by the Queensland Department of Agriculture and Fisheries (DAF), mesh nets on the Gold Coast, located to the north of the trial area, captured four White Sharks in 2015 and two in 2016 to date.
30. I noted that the proposed trial will have an upper limit of 10 nets in comparison to the 51 nets already in use as part of the Bathers Protection Program. I accepted both that there is likely to be an impact on White Sharks and other threatened and migratory species from the trial but also that any increase in the impact on White Sharks (and other by-catch) attributable to the trial is difficult to quantify at this time.
31. I noted uncertainties in relation to whether or not there is likely to be an impact on the environment from the disposal of carcasses in a Commonwealth Marine Area. I agreed that even if there were to be an impact, it would be of a localised and temporary kind. The disposal of the carcasses at sea is the most appropriate means available. I also noted that the NSW Government may retain listed species biological material generated through the trial for research purposes.

Mitigation and management measures

32. I took into account the measures in the management plan to minimise the impact of the shark management activities on fauna, in particular marine mammals, marine reptiles, marine birds and fish occurring in the area of the trial. The trial must be undertaken in accordance with the management plan:
- a. Nets must be fitted with acoustic warning devices (dolphin pingers and whale alarms) and other technology devices (e.g. SMART alert systems, GPS, data loggers, acoustic listening devices) to deter marine mammals.
 - b. Nets must be inspected no earlier than 4 hours and within 24 hours of the previous inspection, weather permitting.
 - c. The NSW DPI observers will use reasonable endeavours to ensure that contractors identify and release all live fauna as quickly as possible, where practical, with the least possible harm, and in accordance with any relevant national or State disentanglement guidelines, whilst adhering to work health and safety requirements.
 - d. DPI will continue research into methods of minimising by-catch of fauna.
 - e. NSW Government Office of Environment and Heritage (OEH) may make a request to DPI to delay or modify the setting of nets at specified beaches in the trial area where

¹ Reid D. D., Robbins W. D., and Peddemors V. M. (2011) Decadal trends in shark catches and effort from the New South Wales, Australia, Shark Meshing Program 1950-2010 *Marine and Freshwater Research*, 2011, 62, 676-693

OEH is of the opinion that the location and behaviour of marine mammals and /or marine reptiles places it at risk of entanglement.

- f. A Fauna Disentanglement Plan will be prepared and made publicly available on the DPI website within two months of the date of commencement of the Management Plan.
 - g. Nets must be deployed as a bottom-set synthetic net. No part of the net (other than that used for the purposes of marking the gear) shall be on the water surface.
 - h. Nets may be removed from beaches in the event of extreme weather conditions or as otherwise required following approval by the Shark Scientist.
33. I noted that the commitment to release live fauna from the nets, includes the release of sharks, as quickly as possible and where it is practical and safe to do so.
34. I considered that the mitigation measures had the potential to reduce impacts to EPBC Act protected matters arising from the trial.

Trial reporting and monitoring

35. I took into account the reporting and monitoring commitments outlined in the management plan.
36. I noted that data on catches of fauna will be recorded during every net inspection and reported by DPI at least monthly on the DPI website. The at least monthly reporting will summarise the date, net location and times when the nets were deployed per week and the date and times when the nets were inspected and include the total number of individuals and type of fauna species captured and their status at the time of the inspection. DPI will also prepare and publish on the DPI website, a final report that will summarise the outcomes of the trial in achieving its objectives, and to communicate the overall results and findings from the trial.
37. I noted that the research results may also be periodically reported and published in scientific journals.
38. I considered that the trial reporting was appropriate and could be used to help inform future design and assessments of shark mitigation proposals.

Timeliness of implementation and interaction with the EPBC Act

39. The warmer months of the year are the period when there is the greatest use of NSW waters by the public. In order to provide confidence to the public about the safety of water based activities additional shark mitigation measures are needed at the time of greatest use, which is over the major holiday and tourism season for the North Coast region, from December through to April. I considered that requiring the NSW Government to comply with the processes under the EPBC Act for referral for the action and potential assessment and approval would likely prevent the deployment of the mesh nets until after the peak period of use of the marine environment.

Reasons

40. In light of the matters discussed in paragraphs 12 – 39 above, I was satisfied that it was in the national interest that sections 18, 18A, 20, 20A, 23 and 24A of Part 3 and Parts 7-9 of

Chapter 4 of the EPBC Act not apply in relation to the NSW North Coast Shark Meshing Trial (as described above).

41. Accordingly, I decided to exempt the State of New South Wales, and those acting on behalf of the State of New South Wales, from the application of these provisions in relation to the trial.



Minister for the Environment and Energy

16 November 2016