



SOUTH EAST FOREST RESCUE

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South East Forest Rescue support improved conservation outcomes in both the Solitary Islands and Jervis Bay marine parks.

We would state however that after spending nearly a million dollars on research, to arrive at the decision that there will be no new marine parks in the next five years, given what is now current scientific knowledge on the effects of climate change on marine life, seems dispositive to the overall strategy of protection. Reefs and marine ecosystems around the world are exposed to the effects of thermal phenomena such as global warming, El Niño and localized thermal pollutants.¹

Perhaps your department has been misled by the vocal but small group of fishers who oppose marine parks on the south coast. Be aware that the amount of people who support conservation, particularly in a climate change context, on the south coast far outweigh the fisher vote.

We would also state that marine parks being managed solely by an authority with conservation as its major objective, and not jointly managed by a fisheries authority, is an objective that we would support. Otherwise the government risks being seen both domestically and internationally as creating a conflict of interest.

There are special and unique features about this region which includes the continental shelf and slopes, and the water which, because of its different depths, creates an enormous amount of biological diversity. Marine parks should be established to help conserve marine biodiversity and maintain marine ecosystem processes.

We would also state that one factor that has not been taken into account is the connectivity between the forests and the sea. Currently every catchment bar Nadgee on the south coast is being logged heavily. Forestry machinery compacts soil, preventing absorption of rainwater. When it rains the run-off carries a lot more sediment into streams. Movement of this machinery and other vehicles along forest roads raises a large volume of dust (30 -90 tonnes per year for every hectare of unsealed road, compared to 0.3 tonnes for unsealed roads in undisturbed forests). Erosion is the largest contributor to turbid water in Australia.

A study of the Eurobodalla catchments in NSW showed that approximately 905 tonnes of sediment were transported through the river in one four-day storm. This is compared with thirteen tonnes for the previous six-month period.² Significant sediment loads have also been identified as coming from the 50,000 kilometres of unsealed roads within state forests and reserves.³ Suspended sediment loads in inland waters caused by gully erosion and degraded flow paths, can have significant impacts such as

¹ Forchhammer M C, Pots E, Kozlov M V, Hughes L, 'Climatic Signatures in Ecology' (2000) 15 *Trends in Ecology and Evolution* 286.

² Drewry J J, Newham L T H, Greene R S B, Jakeman A J and Croke B F W, 'An Approach to Assess and Manage Nutrient Loads in Coastal Catchments of the Eurobodalla Region, NSW, Australia' (2005) MODSIM 2005 International Congress on Modelling and Simulation, pp. 2658-2664.

³ Drewry J J, Newham L T H, and Greene R S B, 'An Index-Based Modelling Approach to Evaluate Nutrient Loss Risk at Catchment-Scales' (2008) Integrated Catchment Assessment and Management Centre, The Australian National University, Canberra

< http://www.mssanz.org.au/modsim07/papers/43_s47/AnIndex-Baseds47_Drewry_.pdf >

siltation of river channels, infilling of wetlands, reduced light penetration inhibiting photosynthesis, and loss of habitat and spawning sites for gravel-bed dependent fish.⁴

Activities at the ocean/land interface impact significantly on the marine environment. Habitats and biological communities in the South-east Marine Region are affected primarily by native forest logging.⁵ Water quality is degraded in many areas by high nutrient and sediment loads, heavy metals, chemical pollutants, faecal bacteria and organic wastes, and periodically does not comply with guidelines for protection of aquatic ecosystems.

The largest impacts have been caused by elevated nutrient levels and sedimentation, and include widespread loss of seagrass beds and eutrophication of coastal waters. Parallel losses in invertebrates and fish have been linked to declines in coastal fisheries, while algal blooms include toxic species that have contaminated shellfish and pose human health threats. Saltmarsh and mangroves have also suffered incremental declines in coverage due to habitat loss and smothering, further reducing nursery areas for coastal fish.

SEFR state that conservation and protection of marine life must also include a moratoria on native forest logging to be effective.

Solitary Islands:

The draft zoning plan is a significant improvement on the current level of protection the park provides. However, the changes do not go far enough. Specifically, we propose:

- further increases in sanctuary zoning.
- going ahead with the proposed removal of trawling from the park.

Northern sanctuary zone

SEFR propose that this sanctuary zone be extended to include from the coast to the outer edge of the marine park and link with the Diggers Camp sanctuary zones. The expanded sanctuary zone will increase the representation of a range of communities from beaches to shallow and deep reefs and provide connectivity between sanctuaries.

Diggers Camp sanctuary zone

SEFR support the expansion of this sanctuary zone as proposed in the zoning review to include the rock platform and associated lagoonal habitat at Diggers Camp. The area supports a unique combination of ecological values including special fish assemblages, mangroves on an exposed rocky shore and high mollusc diversity.

The proposal to reduce sanctuary protection at the southern end of Minnie Water Back Beach will accommodate local opportunities for beach fishing. However, I do not support the removal of sanctuary zones once they are established. For sanctuary zones to be effective they need to be areas permanently protected from extractive use as many of the changes that occur once fishing is removed may not become evident for several decades. SEFR state this proposal sets a dangerous precedent for sanctuary windbacks which weaken conservation outcomes.

Jones Beach and Jones Point sanctuary zone

⁴ See Monitoring and Evaluation Trials, New South Wales Region, Southern Catchment, Phase 1 Report, (2004) National Land & Water Resources Audit, < <http://lwa.gov.au/files/products/national-land-and-water-resources-audit/er050846/er050846.pdf> > and also NSW Diffuse Source Water Strategy, DECC 2009/085, ISBN 978174122 961 5 < <http://www.environment.nsw.gov.au/resources/water/09085dswp.pdf> >.

⁵ Edgar GJ, Barrett N S, and Graddon D J, 'A Classification of Tasmanian Estuaries and Assessment of Their Conservation Significance Using Ecological and Physical Attributes, Population and Land Use' (1999) Tasmanian Aquaculture and Fisheries Institute, University of Tasmania, Technical Report No 2.

SEFR support the proposed changes to Jones Point sanctuary zone to straighten boundaries. No additional changes should be accepted that reduce the protection of this area of high invertebrate richness.

Central sanctuary zone

SEFR support expansion of the Central sanctuary zone as proposed in the zoning review together with the addition of the areas shown in the map below to include poorly represented coastline, inshore rocky reefs adjacent to North Rocks Nature Reserve and recently mapped deep reef systems. As far as possible straight line zone boundaries should be established with the exception of the area to the south of North Solitary Island which hugs the state water boundary.

North Solitary Island sanctuary zone

The grey nurse shark aggregation site is not within the current sanctuary zone, nor adequately protected by the additional zoning measures presented in the draft rezoning plan.

A 1500 m radius sanctuary zone should be included around the island as part of protection for the grey nurse shark. This will also protect the waters on the western side and northern end of North Solitary Island which have the highest fish diversity, the highest coral diversity and the highest anemone density in the marine park.

North West Rock sanctuary zone

A 1500 m sanctuary zone should be included around the island as part of protection for the Grey Nurse Shark. This sanctuary zone would also protect the Fish Soup site adjacent to North West Rock which contains a unique aggregation of tropical and temperate predatory fishes.

Flat Top Point sanctuary zone

SEFR support the proposed changes to the protection of Flat Top Point as it has the highest intertidal diversity of any rocky shore in the Marine Park. The subtidal reef fish assemblage has high levels of endemism and may be a valuable fish nursery susceptible to direct fishing pressure. Proposals to remove the sanctuary zone from Flat Top Point must be rejected and the sanctuary zone should be considered for expansion to increase effectiveness

Southern sanctuary zone

This zone should be expanded to the state boundary to include South Solitary Island and its surrounding reefs and include deeper habitats. Any proposals to reduce the proposed sanctuary zones around South Solitary Islands should be strongly resisted as should proposals to increase fishing and access to Bare Bluff.

Split Solitary Island sanctuary zone

The proposed expansion is supported but is not adequate. The Split Solitary Island sanctuary zone should be expanded to a 1500m radius sanctuary zone to protect grey nurse shark habitat.

Bare Bluff habitat protection zone

Bare Bluff should be retained as sanctuary zone and pressure to further reduce protection of this area rejected.

Arrawarra Headland special purpose zone – proposed changes

Arrawarra Headland special purpose zone is strongly supported as being only one of two recognised and protected cultural sites and must not be reduced.

Other Considerations

*Protection of critically endangered species (grey nurse shark and alga *Neriea lophocladia*)*

The proposed measures to protect the grey nurse shark are considered totally inadequate and all grey nurse aggregation sites should be included in sanctuary zones with a minimum of 1500m radius from the sites. These sites should include South Solitary Island, North Solitary Island, North West Solitary Island, South West Solitary Island and Split Solitary Island. Under no circumstances should leadline fishing or trolling with bait be allowed within the grey nurse shark zones.

Activities (including a proposal for the relocation of Coffs Harbour entrance on the northern side of Muttonbird Island) that threaten the critically endangered brown alga *Neriea lophocladia* should be prohibited by the application of an appropriate zoning.

Phasing out trawling in the marine park

Prawn trawling is an indiscriminate and damaging fishing method that alters habitat and ecosystems from their 'natural' state and is not consistent with marine park protection. Phasing out of prawn trawling in the marine park must occur to meet the sustainability provisions of the Fishery Management Strategy for the Ocean Trawl Fishery (I&I, 2007). This will provide a more than adequate adjustment period of two years for implementation of this sustainability.

Arrawarra Creek – incorporate trapping closure

This measure is supported by SEFR for consistency with the habitat protection zoning for this small and highly accessible creek.

Park Beach and Station Creek Beach – incorporate ocean hauling closures

These closures are supported and should be incorporated into the zoning provisions of the marine park.

Station Creek Beach – incorporate closure to vehicles

Recent research suggests major damage to the life within the intertidal zone, from vehicle activity.

Improve arrangements for the protection of species

SEFR strongly support improved and simplified restrictions on recreational fishing to make the regulations easier to understand. The improvement in wobbegong protection is particularly supported but should be extended to all sharks and rays.

Improve the structure of the zoning plan

SEFR supports improving the zoning plan to simplify its interpretation. Multiple use marine parks, if properly managed, can protect our marine life whilst supporting more sustainable fishing activities and improving local economies. The proposed increase in habitat protected within sanctuary zones in the marine park is strongly supported. This will enable underrepresented habitat, and the marine life it supports, to be provided proper protection within the park.

However, the existing Draft Zoning Plan proposals still fail to address some important habitat areas within the park and require further improvements to adequately protect the marine environment and the marine life within the Solitary Islands Marine Park. A minimum of 33% of each habitat type found within the Solitary Islands Marine Park should be set aside in sanctuary zones. At present just 6.7% of NSW coastal waters is fully protected from fishing, a far cry from the International Union for Conservation of Nature recommended minimum 20% target. Improved sanctuary representation within the park will enable the marine waters of the NSW coast to better link to this target.

Jervis Bay:

The level of sanctuary protection was already higher in Jervis Bay but it is disappointing that the opportunity has not been taken to further improve sanctuary protection. Specifically, we propose:

- that no sanctuary zones be moved but rather expanded to improve representation of intermediate reef.
- that sanctuary protection be significantly increased across all habitats, including in areas important to grey nurse sharks.
- that shark fishing, including for wobbegongs, be removed from the park.

Drum and Drum Sticks sanctuary zone

SEFR support the straightening of the boundaries of the Drum and Drumsticks sanctuary zone. However, given this area is renowned for its grey nurse shark sightings, the sanctuary should be extended as shown to the left to include the area where the sharks are most commonly sighted. This extension would also include the high flora and fauna diversity wreck of the SS Wandra. This minor extension would provide further and much needed protection for grey nurse sharks that is largely absent outside marine parks.

Brooks Rock – Moes Rock sanctuary zone

SEFR welcome the excellent habitat mapping work that has identified the need to improve sanctuary representation of intermediate reef within the park. SEFR support the proposal to extend this sanctuary to the NE and acknowledge the importance of the rock fishing site at Cape St George. However, SEFR does not support the principle of moving sanctuaries once they are established. For the three Jervis Bay sanctuary zones to be effective they need to be areas permanently protected from extractive use as many of the changes that occur once fishing is removed may not become evident for several decades as the ecosystem reverts back to a more 'natural' state. In addition, the removal of sanctuary zones sets a dangerous precedent that may be repeated in the future and is likely to weaken conservation outcomes. Therefore, we strongly urge you to maintain the current sanctuary while extending it to Moes Rock.

Wreck Bay habitat protection zone

SEFR support this proposal that is consistent with removing trawling from the park.

Extend the designated anchoring area in Hare Bay

SEFR do not support this proposal. We state that we have no confidence that seagrass beds will be protected and it will not become a compliance problem.

SEFR supports the rationalising arrangements for commercial fishing by purse seining, the prohibition of commercial fishing by lift netting, the prohibition of commercial fishing by trawling, the prohibition of spearfishing and the use of motorised vessels, including personal watercraft, in Honeymoon Bay. Furthermore, we would suggest extending the Groper Coast sanctuary zone to include Honeymoon Bay.

Aquaculture within Jervis Bay in the zoning plan

While SEFR do not oppose low-impact aquaculture within the park, we are concerned at scale of aquaculture allowed in theory. The current 440 hectare allowance is likely to be largely at Collingwood Beach and is inappropriately large in scale. We suggest that the maximum area available to aquaculture be amended to 40 ha, involve only species native to Jervis Bay, with no added nutrients, and not encourage large-scale development of associated infrastructure. We also have grave concerns about the dependence-effect on other wild marine life surrounding aquaculture sites.

SEFR support the prohibition of the use of personal watercraft at Hyams Beach, and further the prohibition of the use of motorised vessels, including personal watercraft, in Carama Creek and Moona Moona Creek.

SEFR supports the improved arrangements for the protection of species and the simplification of recreational fishing restrictions. We also support the proposed list of protected species within the park. However, all shark species (including wobbegongs) should be added to this list. There are ever growing and well documented concerns about declining shark populations and marine parks ought to be setting an example in terms of shark conservation. Wobbegongs, in particular are a 'no-take' recreational species and supposedly a bycatch allowance only commercial species. Removing the incentive to target wobbegongs and other sharks from the park would have clear conservation benefits. Continuing to allow wobbegongs to be retained sends out the wrong message about what are species of concern.

SEFR supports the decision to improve the structure of the zoning plan, however in addition to the sanctuary zone improvements detailed above, we propose the following new sanctuary zones:

Bowen Island

Extend the existing Bowen Island sanctuary zone to cover the northern aspect of the island to 'Middle Ground Reef'. This area's location means it supports a rich and diverse reef structure with sea whips, anemones, extensive sponge, algae and soft coral growth. This area is unique and no similar assemblage is found elsewhere in the park.

The Docks to Groper Coast

There should be linkage between The Docks and Groper Coast sanctuary zones. Grey Nurse Sharks regularly visit this area and at The Docks, sightings number up to twelve juvenile sharks at a given time throughout the shallow and intermediate reefs in this area. As you are aware juvenile female sharks have been identified as a high priority for protection. Therefore, this area is an obvious target for immediate sanctuary zone protection to protect this critically endangered species as well as other marine life in the area.

Beecroft Head to Blacks Cave Creek

SEFR support the proposal to create a sanctuary zone from Beecroft Head to the shoreline meeting Blacks Cave Creek. Important shallow and intermediate reef assemblages, including the exceptionally diverse 'Home Reef', are located in this area. Species diversity at this site includes wrasse, leatherjackets and damselfish, sponges, soft corals, molluscs, nudibranchs, tube worms and sea pens, making this reef an important area for protection. This shallow reef is also a well-known habitat for the southern rock lobster. Juvenile lobsters have regularly been sighted, which would indicate a rich habitat resource and nursery area.

Finally SEFR would state that while some fishers are genuine, many have made erroneous public statements about their methods of fishing and in whose interests they support. This misrepresentation is unethical.

RECOMMENDATIONS

- Sanctuary zones should be extended, not moved.
- NSW should be working towards a genuine Comprehensive, Adequate and Representative (CAR) network of marine protected areas. This involves a minimum of 20% of all NSW waters to be included in no-take areas. Clearly, despite a promising start, NSW is a long way from achieving a CAR network. This makes increasing sanctuary protection within existing parks essential.
- SEFR is encouraged by the excellent mapping work undertaken in Jervis Bay and encourage further research and the sharing of that research with the public to effectively counter the misleading and misinformed claims of ‘no science’ in marine parks.
- We note that the NSW government is set to undermine the Marine Parks Authority by supporting a proposal for a moratorium on new marine parks from a minority party that describes the excellent work undertaken by the MPA and independent researchers as ‘voodoo science’.
- SEFR support marine parks being managed solely by an authority with conservation as its major objective, and not jointly managed by a fisheries authority.

Prioritizing protection of fish, algal and plant species or habitat is not possible on an evolutionary scale of importance, but it is a necessity in dealing with modern anthropogenic disturbances. Habitat conservation should at least ensure the survival of most species within the habitat against direct human impact.

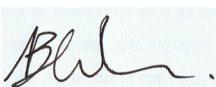
However, for naturally rare species or those that have become rare through, for example, habitat destruction or degradation, measures for their protection need to put in place. For all fish, algae and plant life, ex situ conservation is potentially the most critically important, but habitat protection of the wild populations should be the first recourse, and cv situ conservation should be used only as a last resort.⁶ We do not know which species could be successfully reintroduced to produce a balance in the wild, given the structural and microbial integrity that the algae provide and their crucial role in the functioning of ecosystems.

In all situations, but more importantly for species, critical habitat must be declared. Critical habitat is defined as that which is essential for the well-being, protection and continued sustainability of the species. Declaration of critical habitat affords the most immediate protection of the species. However, without declaring a moratorium on native forest logging, as an *a priori* step towards genuine protection of ecological systems both marine and terrestrial, declaring Marine Parks will only offer scant reward for the declining stocks of marine life across the globe.

Marine parks are a huge win for all sorts of stakeholders. We look forward to improved outcomes in both parks and look forward to hearing from you.

Kind Regards

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⁶ Brodie J, Andersen R A, Kawachi M, and Millar A J K, ‘Endangered Algal Species and How to Protect Them’ (2009) 48 *Phycologia* 5, pg 423.