



Leafy Seadragon washed up on Aldinga Beach South Australia, July 2025. JULIE BURGHER

SUBMISSION TO

Public inquiry into the algal blooms in South Australia

Victorian National Parks Association

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Public inquiry into the algal blooms in South Australia

About The Victorian National Parks Association (VNPA)

The Victorian National Parks Association (VNPA) is an effective and influential nature conservation organisation. We work with local communities, scientists and government to advocate for evidence-based policy to safeguard wildlife, habitat and protected areas.

We inspire connections with nature through citizen science, activities, action and education for all Victorians. We've led the creation, oversight and defence of Victoria's natural estate for over 70 years.

Given Victoria's proximity to South Australia and the interconnected nature of our waters, there is a clear need for a coordinated national approach — particularly with the risk of the algal bloom spreading to vulnerable areas such as Port Phillip Bay and Western Port in Victoria.

Contributing factors

Australia is witnessing one of the worst marine disasters in living memory: a catastrophic harmful algal bloom stretching across 500 kilometres of South Australia's coastal waters, devastating marine life, and threatening some of our most iconic and economically important ecosystems.ⁱ

The Biodiversity Council in its report *Key actions needed to respond to South Australia's catastrophic toxic algal bloom* acknowledges this crisis is largely driven by human activity. While natural ocean processes play a part, CSIRO and other scientists have long warned of the likelihood of such a marine heatwave — and the urgent need to prepare for its consequences.

The algal bloom is believed to be driven by a combination of factors: the marine heatwave which has increased ocean temperatures, nutrient-polluted freshwater discharges from the Murray River floodwaters, and extended calm ocean conditions which reduces the dispersal of the alga.

We use this inquiry to question if this devastation could have been avoided if better management of the contributing factors such as nutrient pollution management.

Given this is one of the worst marine disasters in Australia's history it should be met with the level of proportionate response at both the state and national levels.

Devastation on marine diversity and ecosystems

This is one of the worst marine disasters in Australia's history. More than 450 marine species have been observed washed up across South Australian coastlines, and the devastation has been witnessed to benthic habitats which are now barren. Over 27,000 records of marine life mortalities have been observed on iNaturalist by citizen scientists alone according to the Great Southern Reef Foundation (and counting).

The species affected include mass die offs of sharks, fish, seadragons, cuttlefish, seaweeds, seagrasses, and invertebrates. Nationally listed threatened species and communities including the endangered Australian sealion, the vulnerable white shark and the endangered giant kelp community.

The scale of this disaster is unprecedented, with ecosystem-wide impacts that extend far beyond what we can currently grasp. It is critical that this emergency is recognised at a national level, with urgent action taken to understand and respond. Doing so will not only address the immediate impacts but also help us better prepare for and respond to future events, which scientists predict are likely to occur.

Response recommendations

Without urgent and decisive action, catastrophic algal blooms will become more frequent in Australia's coastal waters, threatening not only marine biodiversity but also livelihoods, industries, and communities.

We urge the Federal government to declare this disaster as a national emergency. We also acknowledge and support the 7 recommendations from the Biodiversity Council's Report referenced above, as stated below:

Australian federal and state governments should commit to seven actions, needed to respond to this event and to prepare for an increasingly dangerous and unstable future.

1. **Investigate and fast track emergency interventions** for species at risk, including the giant cuttlefish aggregation occurring near Whyalla right now.

2. **Immediately invest a minimum of \$10 million to start research to understand the impact of this bloom** on biodiversity and species populations, identify species in need of emergency intervention, and track how species, ecosystems, fisheries, industries and communities respond and recover, to inform plans for what to do when the next bloom hits.
3. **Accelerate Australia's decarbonisation efforts and become a global leader in climate action.** Minimising ocean warming is the most important step in preventing harmful algal blooms not just in South Australia but also along other Australian coastlines.
4. **Reduce nutrient and dissolved carbon pollution.** Undertake dissolved carbon and nutrient balance studies of the relative importance of upwelling and terrestrial nutrient sources such as the Murray River and Adelaide metropolitan coastline to identify key human-influenced sources and address them.
5. **Restore and protect marine ecosystems** - particularly kelp, mangroves, seagrass and shellfish reefs - that naturally draw down nutrients and support biodiversity to help it bounce back after blooms.
6. **Establish a long-term monitoring program** for the Great Southern Reef, modelled on the \$40 million, 10-year Great Barrier Reef's Reef Integrated Monitoring and Reporting Program (RIMReP).
7. **Establish mechanisms to plan for and respond to catastrophic natural disasters.** More toxic algal blooms, marine heatwaves, floods and bushfires will occur. We need to be ready to respond to these events, with effective plans that outline key actions, responsibilities and funding sources.

We've also identified additional actions for other states, including Victoria. These include **establishing early detection monitoring in high-risk areas** such as Port Phillip Bay and Western Port Bay to track any potential spread of the harmful algal bloom, and **drafting an emergency response plan** to ensure preparedness should it reach Victorian waters.

Thank you for the opportunity to comment on this important inquiry. If you wish to follow up, please contact me at the details below.

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ⁱ Key actions needed to respond to South Australia's catastrophic toxic algal bloom, 2025. Biodiversity Council.