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11 August 2025

Ms Tas Larnach
Committee Secretary
The Senate Environment and Communications References Committee
PO 6100
Parliament House
Canberra ACT 2600

By Email: ec.sen@aph.gov.au

Dear Committee Chair Senator Hanson-Young,

Re: Inquiry into Algal Blooms in South Australia – Kangaroo Island Council Submission.

Kangaroo Island Council is pleased to forward to the Environment and Communications References Committee a submission in relation to the review of the Senate referred inquiry into Algal Blooms in South Australia.

The current algal bloom continues to have a devastating impact upon Kangaroo Island since inception of its major impact in March this year. Over 70% of our coastal area has been and continues to be impacted and our key marine and tourism industries are being devastated.

It is critical that all levels of Government undertake research and support the communities and industries most greatly impacted.

There is still a lot to learn in relation to the algal bloom and scientific leadership and action is critical.

If further information would assist, I would be more than happy to provide it to the Committee and can be contacted via email

Yours Sincerely,

Michael Pengilly
Mayor
Kangaroo Island Council



KANGAROO ISLAND COUNCIL SENATE INQUIRY SUBMISSION – ALGAL BLOOMS IN SOUTH AUSTRALIA



Kangaroo Island Council
Submission to Senate Environment and
Communications References Committee.
Inquiry into Algal Blooms
in South Australia.

August 2025



KANGAROO ISLAND COUNCIL SENATE INQUIRY SUBMISSION – ALGAL BLOOMS IN SOUTH AUSTRALIA

The Kangaroo Island Council (KIC) is the local government authority responsible for Kangaroo Island, South Australia's third-largest island, located approximately 112 km southwest of Adelaide. Covering over 4,400 square kilometres, Kangaroo Island is internationally recognised for its unique biodiversity, pristine landscapes, and rich marine and terrestrial ecosystems. The Island supports a resident population of approximately 4,700, with significant seasonal visitation, particularly focused upon marine-based tourism, recreation and fishing.

KIC is committed to protecting the Island's ecological integrity while supporting the Island community and tourism through sustainable economic and social outcomes. The current and potentially future devastating and long-lasting algal blooms in South Australian waters poses risks to marine ecosystems, primary industries, tourism, and community wellbeing. This submission addresses the Terms of Reference of the Senate Environment and Communications Committee.

Kangaroo Island Council urges the Committee to consider the Island's unique environmental, economic, cultural, and social context in its inquiry. Effective management of algal blooms requires an integrated approach, combining science, regulation, and community engagement, to protect South Australia's marine ecosystems and the livelihoods and recreations that depend on them.

Kangaroo Island's 540 kilometres of coastline has been significantly impacted by the ongoing algal bloom, with approximately 70 percent of the coastline affected by the outbreak which continues, having started in March 2025.

The impact of the bloom is being felt across the whole community but particularly by critical employers and industries on Island. Kangaroo Island Oysters and the Island's pioneering blue economy abalone farm Yumbah, The Australian Aquaculture Company have lost critical export produce, seed and spat stock. These business are key employers, provide unique specialist product and will take years to recover.

It is critical to our community that the immediate and possible long term environmental, economic and social impacts of lengthy and possibly recurring algal blooms around Kangaroo Island and the State are scientifically understood and addressed. For Kangaroo Island this includes the broader implications for our community and its national and international tourism significance.



KANGAROO ISLAND COUNCIL SENATE INQUIRY SUBMISSION – ALGAL BLOOMS IN SOUTH AUSTRALIA

Long-Term Environmental and Economic Impacts of Current and possible Recurring Algal Blooms

Recurring and prolonged algal blooms pose a serious long-term threat to Kangaroo Island's marine ecosystems, local economy, and community wellbeing. The potential consequences extend far beyond the immediate and devastating effect of the current bloom event.

Environmental Impacts

- **Biodiversity Loss:** Repeated algal blooms can lead to hypoxic conditions, causing mortality in sensitive species such as fish, shellfish, seagrass, and other key marine organisms. This threatens the ecological balance and reduces the resilience of local marine ecosystems.
- **Habitat Degradation:** Ongoing blooms can degrade seagrass beds and reef habitats that are critical for sustaining fish populations, supporting shellfish industries, and maintaining biodiversity.
- **Endangered Species:** Kangaroo Island is home to numerous endangered and endemic species such as Australian Sea Lions, Little Penguins and Leafy Sea Dragons. Long-term algal blooms increase the risk of local extinctions and disrupt conservation efforts, undermining the Island's globally recognised ecological value.

Economic Impacts

Economic Impacts on Kangaroo Island Industries and Tourism

Algal blooms pose significant risks to Kangaroo Island's commercial fishing, aquaculture, and tourism industries, which are central to the Island's economy. Our industries are currently pivoting where possible to remain open, adaptable and viable and whilst Council is not able to provide figures on the impact of the current algal bloom at this time, it is clear that all of our industries are suffering from and feeling the effects and impact of the bloom.

Commercial Fishing, Oyster, and Abalone Industries

- Local commercial fisheries, including line fishers and shellfish operators are implementing closures or reduced access to fishing grounds during bloom events.
- The oyster and abalone industries are particularly vulnerable, as blooms can lead to shellfish mortality, product contamination, and market restrictions.
- Even temporary closures create financial stress for operators, disrupt supply chains, and may damage long-term business relationships at both national and international levels.
- Kangaroo Island's Abalone industry has been particularly hard hit and continues to suffer devastating stock losses which will impact the blue economy and this industry for years to come.



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Tourism Industry Impacts

- Kangaroo Island's reputation as a pristine and unique natural destination may be compromised. Recurring water quality issues and degraded marine environments may deter international and domestic visitors, impacting businesses such as marine wildlife tours, accommodation, and hospitality.
- The Algal bloom is adversely affecting the visitor experience, particularly for marine-based tourism businesses such as Ocean Safari's, dolphin watching tours, and other wildlife experiences. Reduced water quality and the risk of marine wildlife mortality undermine the appeal of these offerings.
- Council is hearing, anecdotally that international and national tourists are cancelling or deferring visits during bloom events, leading to revenue loss for accommodation providers, restaurants, transport operators, and tour businesses.
- Our community relies heavily on the peak summer tourist trade to sustain it. The impact of low and lost annual tourism income has far reaching impacts through all Island families and the community as a whole.

Business Nervousness and Seasonal Considerations

- Algal blooms, particularly when coinciding with peak summer tourism over the Christmas and New Year period, creates heightened business uncertainty. Operators face sustainability difficulties, not limited to planning staffing, stock, and marketing activities.
- Long-term predictions suggesting that algal blooms may persist or recur frequently, are creating ongoing uncertainty for Island businesses, potentially affecting investment, employment, and community resilience.
- The cumulative economic impact is amplified as operators must balance immediate losses with longer-term concerns over environmental health, market confidence, and reputational risk.
- Lengthy blooms can result in repeated closures of commercial fishing grounds, shellfish beds, and abalone farms, causing chronic income losses, reduced investment, and long-term instability in these industries. Business instability and closures have lasting implications and impacts on micro economies such as ours.
- Long-term environmental degradation undermines confidence for both existing operators and potential investors. Employment in tourism, aquaculture, and fisheries could decline, affecting the Island's economic resilience.

Social and Community Impacts

Kangaroo Island's residents have a deep connection to the Island's unique and diverse natural environment. The current algal bloom is creating significant mental and emotional stress for the local community, arising from both the immediate and ongoing impacts on the marine ecosystem.

The wellbeing of the Kangaroo Island community is inextricably linked to the health of its marine and coastal ecosystems. Protecting these environments is not only critical for economic sustainability but also for preserving the mental, emotional, and cultural health of Island residents.



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- **Loss of Recreational Activity:** Residents are unable to participate in normal marine-based activities such as fishing, swimming and diving and the impact of marine debris on our shores is taking a significant mental toll on community members, disrupting daily life and community coastal daily traditions such as daily dog walking.
- **Emotional Distress Over Environmental Damage:** The devastation caused to marine animals, including fish, shellfish, and other wildlife, contributes to widespread concern and grief among residents who value and rely on the Island's pristine natural environment.
- **Community Nervousness:** Uncertainty over the duration and recurrence of algal blooms exacerbates stress for both residents and business operators.
- **Long-term Psychological Impacts:** Ongoing concerns about ecosystem health, biodiversity loss, and the potential decline of industries connected to the marine environment may lead to chronic anxiety and diminished community wellbeing.
- **Mental and Emotional Wellbeing:** The local community, which has a strong cultural and recreational connection to the marine environment, may experience chronic stress, grief, and anxiety as environmental degradation continues.
- **Cultural and Lifestyle Impacts:** Restrictions and hesitation to undertake normal recreational fishing, swimming, boating, and other marine activities reduce quality of life and disrupt daily community traditions and social cohesion.

Global and National Significance

- Kangaroo Island is recognised internationally for its unique landscapes, biodiversity, and marine ecosystems. Algal blooms threaten this status as a world-class conservation and tourism destination. Long-term environmental damage could diminish the Island's international appeal and recognition, impacting both its reputation and the sustainability of its local economy.



KANGAROO ISLAND COUNCIL SENATE INQUIRY SUBMISSION – ALGAL BLOOMS IN SOUTH AUSTRALIA

Kangaroo Island Council notes in terms of the Inquiry Terms of Reference:

a. Contributing Environmental, Land Management, or Water Quality Factors

- Continued scientific research, monitoring and regulation of nutrient runoff from agriculture, wastewater discharge, and urban stormwater contributes to algal bloom events, is required.
- Focus on and support for community adaptability to climate variability, including rising sea surface temperatures and altered rainfall patterns, which may contribute to and exacerbate bloom frequency and severity.
- Funding for improved land management and marine practices that do not mitigate soil erosion or nutrient runoff increase the risk of blooms.

b. Ecological, Economic, Cultural, and Social Impacts

i. Tourism, Commercial, and Recreational Fishing Industries

- Support for commercial fisheries, including oyster, shellfish, and abalone operators, facing temporary closures and reduced productivity, access, impacting income and supply chains.
- The oyster and abalone industries are highly vulnerable, with blooms causing shellfish mortality, contamination risks, and market restrictions.
- Tourism businesses, particularly marine-based operators such as ocean safari's and dolphin-watching tours, experience revenue loss when water quality and wildlife health are compromised.
- Both international and domestic visitors may cancel or defer travel, affecting accommodation, hospitality, and associated service sectors.

ii. Regional and Coastal Communities

- Residents experience restricted access to marine areas, disrupting recreational fishing, boating, swimming, and other daily marine and beach activities.
- Business operators face uncertainty and stress, particularly leading into peak summer and Christmas periods, due to bloom/s which may recur and threaten income stability.

iii. Marine Biodiversity and Ecosystem Health

- Hypoxic conditions from algal blooms can lead to mortality in fish, shellfish, and other key marine species.
- Recurring blooms reduce ecosystem resilience, degrade habitats, and threaten endangered and endemic species unique to Kangaroo Island.

c. Cultural and Economic Impacts on Indigenous Communities

- Loss of access to fishing areas disrupts community practices and food security for communities.
- Economic participation in commercial fishing or tourism is also affected, with financial and longer term economic retraction consequences.

d. Coordination of State and Federal Government Responses

- Effective coordination is required between state agencies, federal departments, local councils, and industry stakeholders.
- Timely scientific advice and engagement with industry is essential to support mitigation, recovery, and future preparedness.



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e. Current Support and Recovery Arrangements

i. Financial Support

- Assistance for affected fisheries, aquaculture, tourism and community business operators is critical to maintain economic stability during and post bloom events.

ii. Community Resilience Services

- Local support programs, including information dissemination, mental health support, and engagement activities, help strengthen community resilience.

iii. Research, Monitoring, and Restoration Efforts

- Research into nutrient management, bloom prediction, and ecosystem recovery is needed to inform long-term strategies.

f. Adequacy of Long-Term Monitoring, Forecasting, and Prevention Strategies

- Existing monitoring and scientific programs require expansion around Kangaroo Island to improve early-warning and predictive capabilities.
- Increased funding and institutional support for marine science and environmental data collection are essential to prevent and manage blooms and to provide accurate marine impact information.

g. Related Matters:

Long-Term Environmental Impacts

- Recurring algal blooms threaten biodiversity, reduce ecosystem resilience, and degrade habitats critical for fish, shellfish, and other marine life.
- Endangered and endemic species are at increased risk, compromising conservation efforts and international recognition of Kangaroo Island's unique ecosystems.

Long-Term Economic Impacts

- Chronic closures of commercial fisheries, aquaculture, and tourism operations threaten investment, employment, and economic sustainability.
- Repeated environmental concerns and degradation may reduce international tourism appeal, affecting businesses reliant on the Island's reputation for pristine natural environments.

Social and Community Impacts

- Residents experience mental and emotional stress due to concerns over participating in normal recreational activities and concern for marine and coastal environmental devastation.
- Anxiety over the recurrence and duration of blooms creates ongoing nervousness for both residents and business operators.
- The community's connection to the marine environment is disrupted, with potential long-term impacts on lifestyle and wellbeing.



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Council Would Welcome:

1. Establishment of a coordinated, nation-wide monitoring and early-warning system focused on vulnerable regions, including Kangaroo Island.
2. Increased funding for research into nutrient management, ecosystem resilience, and climate-driven drivers of algal blooms.
3. Develop contingency and recovery plans in partnership with local councils, impacted communities, fisheries, aquaculture, and tourism operators.
4. Promote cross-sector collaboration to implement sustainable land and water management practices that reduce nutrient inflows.
5. Provide financial support, community resilience services, and communications programs to help businesses and residents adapt to ongoing and future algal bloom risks.

In summary

The long-term presence of algal blooms is not just an environmental issue; it is an economic, social, and cultural challenge. Protecting Kangaroo Island's unique marine and coastal ecosystems is essential to ensure the continued prosperity of its communities, industries, and international standing.

Proactive monitoring, nutrient management, and coordinated response strategies are critical to mitigating these long-term risks and safeguarding the Island's future.

Kangaroo Island Council urges the Committee to recognise the unique environmental, economic, cultural, and social context of the Island in its inquiry.

Effective management of algal blooms requires an integrated approach combining science, regulation, and community engagement to protect marine ecosystems, safeguard livelihoods, and maintain the Island's status as a globally significant natural environment.

Mayor Michael Pengilly
Kangaroo Island Council